

# Section A

## The ISOTIS

### Virtual Learning Environment

THE CROSS-WP 3-4-5 THEORETICAL  
AND METHODOLOGICAL FRAMEWORK  
AND FEATURES OF THE VLE

# Section B

Multilingualism and global  
competence  
in ECEC & Primary School  
settings

This Report is organized in two sections:

**SECTION A** presents the cross-cutting frameworks and key-content transversal to the three intervention-study tasks (Task 3.4, 4.4, 5.4) related to the development, exploratory implementation and evaluation of the prototype of a Virtual Learning (and communication) Environment (here and on the VLE) in family, community and school settings

**SECTION B** presents the theoretical framework and the guiding principles specific of Task 4.4, the country report on the interventions carried out in the four countries involved (GR, CZ, IT, PT), the Pilot study conducted in the NL, final conclusions on the results and main recommendations for practice and policy.

# Section A

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EDITORS: Giulia Pastori, Andrea Mangiatordi, Valentina Pagani

# Section A, The ISOTIS Virtual Learning Environment

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OF THE VLE

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**Document Identifier**

D4.4 - SECTION A - The ISOTIS Virtual Learning Environment

**Version:** 1.0

**Date Due:** M28

**Submission date:** 30 September 2019

**Work Package:** WP4

**Lead Beneficiary:** UNIMIB

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### CHANGE LOG

Version	Date	Amended by	Changes
01	30 Sept. 2019		Initial version

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## EXECUTIVE SUMMARY

This section of the Technical Report D4.4 presents the cross-WP framework and key-content transversal to the three intervention-study tasks (task 3.4, 4.4, 5.4) related to the development, exploratory implementation and evaluation of the prototype of a Virtual Learning (and communication) Environment (here and on the VLE) in family, community and school settings.

The VLE was intended to support and enhance research interventions in several pre/school and community contexts. It encompassed three different Work Packages, each with its focus and target group (i.e. parents, children and teachers, as well as para/professionals and professionals in early childhood education, primary education, child and youth care, family support and social workers who are working with children and families).

The VLE was developed based on a common overarching conceptual framework, to contribute to a coherent and comprehensive support system for professionals, children and families from different systems perspectives and to encourage collaboration between sectors (e.g. early education and family support). This also allowed to develop synergies between the three Work Packages. Part of the VLE was designed and developed for all target groups, whereas other parts focused specifically on the particular stakeholder groups involved or on the specific objectives pursued in each VLE-related task. The VLE was designed to integrate various solutions to support communication and collaboration by providing multiple means of engagement, representation, action and expression, following the Universal Design for Learning principles. Besides the educational potential of the platform, its development allowed to shed light on potentials, shortcomings and possible problems that can be faced while developing technological solutions addressing linguistic superdiversity.

### Conceptual and methodological framework

Chapter 1 illustrates the main objectives, the research process and the theoretical framework shared by the ISOTIS VLE-related tasks. A prototype of a digital platform was developed, piloted and evaluated, providing Virtual Learning (and Communication) Environments for parents (D3.4), focusing on activities to support engagement with the multiple language and cultural resources present in the lives of families from diverse backgrounds); for teachers and classrooms (D4.4), focusing on curricular activities to support multilingual development in early childhood and primary education), and for (para)professionals in family support, care and education (D5.4), focusing on professional development.

The theoretical and methodological framework common to WP 3, 4 and 5, flexibly adapted and integrated within each WP and each site where interventions were carried out, relates to two intertwined *process* and *content levels*.

**At the process level**, within the core theoretical framework of the Bronfenbrenner's bio-ecological model, the study adopted a *positive socio-constructivist approach* focused on: a) a *strength-based approach*, including family cultural and linguistic resources in order to innovate the learning practices of children and professionals and to create rich learning experiences at home and at school; b) *promoting agency* and active participation of all subjects based on valuing their cultural backgrounds, resources and identities; c) *sustaining meaningful and rich communication* within the community with all the participants involved in the research and the learning process; d) *raising awareness and knowledge* (of multiple languages, cultures, human rights, discrimination mechanisms) and promoting skills (in multiple languages and in critical thinking and establishing shared understanding).

A *design-based methodological research approach* was applied (presented in Chapter 5), consistent with the idea of basing the intervention on scientific knowledge and theories while prioritizing the promotion of a close partnership and collaboration between the researchers and the research participants thanks to a co-designed and co-constructed process guided by the researchers.

**At a content level**, the main underlying framework that guided the work across the WPs was the **Global Competence** framework (UNESCO, 2013, 2015; OECD, 2018; European Council, 2014) a wide framework that encompasses several dimensions and pedagogical approaches such as Human Rights Education, Intercultural Competence and Intercultural Education, Multilingual Education, Critical Pedagogy and Social Justice Education, Education for Democracy and reflective and active teaching methods.

## The vle concept, structure, functions and interface.

**Chapter 2** presents the VLE concept, structure and functionalities and the criteria for the design of resources, content and the graphical and written language characteristic of the VLE interface. The concept, structure and main integrated functions of the platform were defined throughout a long collaborative research process, that resulted in the identification of three main features of the VLE:

- a) a **repository of resources**: the ISOTIS VLE aimed at providing users with a repository of resources – including theoretical insights and information, observation guidelines for action and activities, using multiple media (14 videos were produced by the ISOTIS team) and multiple communication channels. In general, The VLE intended to support stakeholder teaching and learning, by facilitating processes for sharing, reflection, documentation and communication. The structure of the VLE and its content reflected a methodological approach and an idea of education professionals that combines theoretical details of educational topics with contextualized observations and grounded reflections about educational practices. Road maps and action lines were drawn by and inferred from existent operational suggestions, as well as observing real

individual children and families and listening to their perspectives and experiences were the priority in order to design educational activities.

The resources were organized into seven main courses: Participation & Democratic Life; Promoting Multilingualism in The Classroom; Promoting Multilingualism in The Family; Promoting Second Language Learning; Promoting Intercultural Sensitivity; Social Justice & Human Rights; Family & School Partnership. A final section was specifically dedicated for professional development activities in connection to the listed topics (Professional Development Activities).

- b) A **social networking infrastructure**: embedded digital tools facilitated communication and exchange through pages that adopted typical social media layouts, featuring multilingual support and offering a shared collaborative workspace for professionals, children and parents, fostering the creation of 'communities of practice';
- c) A **space for designing and documenting**: a professional could store materials, applications they wanted to propose or collect the documentation related to the activities implemented (in a class, with a child, a group of children or parents ...)

A key feature of the VLE was the **multilingual accessibility of the VLE interface and content**, in many languages, included the ones spoken by the research participants, to mirror the kaleidoscopic, multilingual European society and to give value (in some cases only symbolic acknowledgment) to as many languages as possible: the VLE interface and Privacy policy information were made available in 32 languages, part benefiting from Moodle pack language translation, part provided by professional translators; almost all the 14 ISOTIS videos were translated into 30 languages; support for the Romani language was added as a new language pack during the project including three dialects (Romani Čhib, Romani Prekmurje, and Romani Romungro).

Language accessibility was also provided by the integration of embedded **digital tools to support multilingualism and accessibility** within the VLE platform. A character, a robot-bee named **Beeba**, acts as the linguistic and accessibility mediator in the VLE and is a structural part of the platform. She appears on all pages and provides essential services: selection of the interface language of the VLE, text-to-speech synthesis in multiple languages; a multi-layout virtual keyboard to facilitate writing in different alphabets; a translation system to support users in reading and writing (due to resource constraints, the free Google translate application was integrated into the Beeba-tool); and options for changing text size and colour scheme in order to maximize readability.

## Technical features, user journeys, profiles and accessibility, data management and privacy policy

**Chapter 3** presents the technical features of the VLE in detail, explaining how the various user roles were conceived, as well as the related permissions and functions. The platform was designed to be used by a highly varied groups of participants, with specific

features for teachers (i.e., the possibility to access/remix/reuse educational resources) and a strong focus towards horizontal interaction, by the means of a social networking infrastructure. The VLE integrated different kinds of tools that were specifically selected to support the needs of a multilingual user base, such as text-to-speech, automatic translation, virtual keyboards with different layouts.

The chapter includes a presentation of the design framework adopted and implemented, with a strong focus on accessibility. The main theory guiding the design process was Universal Design, which is geared towards the inclusion of differences since the beginning of a project. Functionalities were initially conceived on the basis of proto-personas, a lean User Experience Design methodology that encourages a user-centered approach. Qualitative user experience evaluations were also performed on the first prototype, adopting a task-based, think-aloud protocol. The data gathered during the pilot is presented, together with an explanation of how it was used in order to guide each design iteration.

In **chapter 4** we describe the VLE data management procedures, along with the Privacy Policy and Data Protection regulations, which were critical to the development of the pilot.

## The research methodology, the monitoring and evaluation system

The methodology adopted in the VLE interventions was the Design-Based Research methodology, *“a systematic but flexible methodology aimed to improve educational practices through iterative analysis, design, development, and implementation, based on collaboration among researchers and practitioners in real-world settings, and leading to contextually-sensitive design principles and theories”* (Wang & Hannafin, 2005:6). DBR was considered particularly suited to ISOTIS interventions, as it is aimed at understanding how, when, and why educational innovations work in practice, and based on researchers' and practitioners' collaboration to design and study interventions that solve practical problems in real, authentic contexts (Amiel & Reeves, 2008:34). Innovative and valuable characteristic of DBR was considered its balanced framework drawing on different research traditions, such as Ethnography, Action Research, Formative Evaluation, and Experimental Research.

**Chapter 5** details the methodological approach, the logic and the workflow of the interventions, that included a first phase of ethnographic exploration aimed to deeply understand the characteristics of the local contexts involved in the research and to establish a strong collaboration between researchers and practitioners, essential to the following steps of co-designing and implementing activities through iterative cycles, collecting observations and feedback from all the research participants (children, parents, and teachers) and providing formative evaluation through all the process of work.

**Chapter 6** illustrates the monitoring and evaluation system regarding the use of the platform and the related final cross-WPs results. In order to provide a coordinated overall evaluation of the VLE, a monitoring and evaluation system common to all the partners involved in the three WPs was proposed, integrating each WP and partner local initiative.

The monitoring and evaluation of the VLE was conducted in relation to three data sources, integrating quantitative and qualitative data collection and analysis: quantitative data collection and analysis drew on VLE data reporting and logs (in Moodle a built-in logging functionality for the tracking of almost every single user action automatically produce reports on a per-user or per-course basis.) and on usability and interest scales administered to users (System Usability Scale and the Net Promoter Score, <https://www.usability.gov/how-to-and-tools/methods/system-usability-scale.html>); **qualitative** data on user opinions were collected through focus group and individual interviews, using a semi-structured interview guideline.

The System Usability Scale and the Net Promoter Score questionnaire was administered to the practitioners who tested out the environment during sessions led by ISOTIS Researchers (N=16). The results falled at the 15th percentile, a sign of low acceptance among the professionals who were involved, especially related to the complexity of the system, while the most appreciated aspect of the platform was the well-integrated functionalities.

Overall, the qualitative evaluation seemed to suggest that participants attributed good potential to the VLE, such as the access to a bank of resources for practitioners to share and improve hands-on, in a grounded way, in the field; the possibility to create documentations of home or school activities – capturing linguistic and cultural elements, and to share them for further reflections; the chance to enhance family-school communication and collaboration, with more symmetrical relationships between parents and educators; the potential to manage and partly overcome some language barriers, by resorting to audio-visual presentation resources and available multilingual function; the motivating and engaging influence on students exerted by the digital platform, its positive impact on children’s participation, and the response it got from them; the possibility to expand the teaching and learning time outside the boundaries of school timetables, especially for disadvantaged students; the possibility to have an environment to build a learning community among children and professionals. The functions offered by Beeba, the linguistic accessibility graphic/animated mediator embedded in the VLE, were appreciated and used in order to translate, write and read texts aloud in different languages.

The VLE, therefore, offered interesting and valuable functions and content and was depicted as a high potential affordance for different groups of users, but its overall usability was far from optimal. It will be crucial to improve both its interface and its structure to make it more intuitive and straightforward. A second iteration of the platform is currently under development, new data collections based on these same scales will allow comparing future usability scores to measure improvement.



## Recommendations and lessons learned

The interventions highlighted some valuable lessons and allowed the research team to collect some recommendations for future work. The main points, common across the different users and contexts, highlighted how crucial is: - to provide applications smartphone compatible (specially to reach out parents), that could integrate with other advanced and well-known communication tools (i.e. WhatsApp), and in general requiring the lowest possible level of technical skills and equipment; - to make time for practitioners to learn about the system and practice working with it, as well as for understanding how to work with parents and children; - to consider how involving children to engage parents and teachers, considering their use of the VLE in the school context to develop engagement and digital competence (children demonstrated a very positive attitude towards ICTs and, to overcome possible teacher resistance towards ICTs, children can be drivers of change and play a bridge role, helping teachers and parents to approach and see the potential offered by new technologies); - to use multilingual, multimedia digital support for providing inclusive and multilingual learning and communication environments, for improving the communication and bi-directional exchange between family and school, and communication between teachers, children and parents.

# 1 The ISOTIS Virtual Learning Environment and interventions: objectives, research process and conceptual framework

## 1.1 Introduction

The ISOTIS project addresses challenges raised by the cultural and linguistic *super-diversity* (Vertovec, 2006) of our European society connected to sustained immigration from countries outside Europe, which is reflected in many European educational settings. The term *super-diversity* refers to the complex interplay of ethnicity, religion, language, traditions, cultural values and practices and Europe's education systems are in the centre of this super-diversity. While education, especially early childhood education, is acknowledged as a key driver of the economic and social integration of immigrants and their offspring (OECD/European Union, 2015), educational opportunities for children still strongly depend on family origin (Levels & Dronkers, 2008) and the success of children from immigrant and cultural minority groups at school is not only related to their attitudes, socio-economic status and prior education, but also to the quality and receptiveness of the education system (OECD, 2015).

Family support is equally needed to prevent educational disadvantage (see D3.1, 3.2), and super-diversity poses many challenges for the curriculum, pedagogy and teachers' competences in the ECEC services and schools, and the strategy and professional competences in community and centre-based family support services, programs and interventions.

The Isotis project aimed to address the need to tackle inequality and the problems arising from diversity in order to increase participation, integration and development of human potential.

“ISOTIS will do so by generating evidence-based, contextualized and concrete recommendations and tools for: (1) supporting disadvantaged families and communities in using their own social, cultural and linguistic resources to create safe and stimulating home environments for their children; (2) creating effective and inclusive curricula and pedagogies in early childhood education and care centres and primary schools; (3) professionalization of staff, centres and schools to improve quality and inclusiveness; (4) establishing inter-agency coordination of support services to children and families; and (5) developing national (state-level) policies to combat educational inequalities” (DoW, p. 4)

## 1.2 VLE-related tasks, objectives and research process

The first three wide aims above mentioned from the DoW were pursued mainly within WP3 (family support), WP4 (curriculum innovation) and WP5 (professional development), within which the research-based interventions, supported by the implementation of the VLE prototype, completed several research steps. Namely, the specific goals of the ISOTIS VLE-related tasks were to contribute to:

- a wider implementation of effective support for parents and families with different cultural and linguistic backgrounds (WP3);
- increasing and innovating inclusive and effective curricula and pedagogies in early childhood and primary education (WP4);
- competence building and professional development for key social agents, such as (pre)school teachers and other (para)professionals in extra-curricular programs (WP5).

In order to achieve these key goals, we followed several steps to generate knowledge and concrete recommendations. The works carried out was the following:

1. literature review, consultations with experts and inventories of promising approaches (for parent and family support, inclusive and effective intercultural curricula and pedagogies, and professional development; see D3.1, D3.2, D4.1, D4.2, D5.1 and D5.2);
2. in-depth case studies of the most promising approaches which aimed to identify effective characteristics in order to generate concrete recommendations for development and implementation (D3.3 and D4.3);
3. survey on (para)professionals' beliefs, attitudes, practices and needs concerning multiculturalism and multilingualism (D5.3);
4. interviews with parents on family home language environments, engagement with care and educational institutions and use of formal and informal support (D3.3, D4.3, in progress);
5. case studies on interagency work (D6.2).

This work contributed to the research for the design of the last innovative step in WPs 3, 4 and 5, namely designed-based interventions supported by a Virtual Learning (and Communication) Environment:

“ISOTIS will develop, implement and evaluate inter-linked prototype programmes for parents, classrooms and professional development using an innovative Virtual Learning Environment (VLE). The VLE is based on positive technology and uses the cultural and linguistic resources of all stakeholders to create new content. The VLE will stimulate interaction and collaboration among all stakeholders, and

create a common culture of learning, belongingness and inclusiveness.

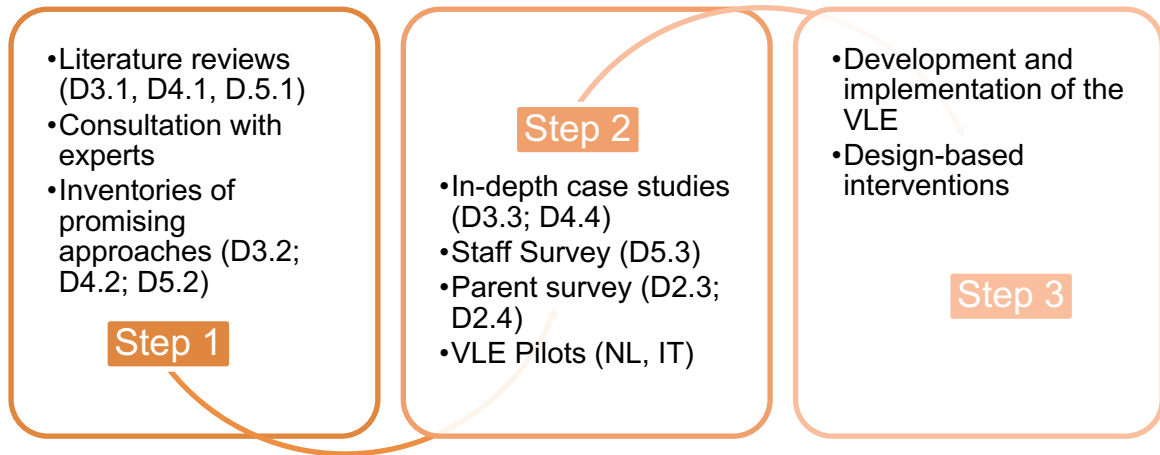
The VLE will be especially suited for working in linguistically diverse contexts building upon families' resources and supporting professionals to become competent in dealing with diversity. The VLE can be transferred for wider implementation." (p.19)

A prototype of a digital platform was developed, piloted and evaluated, providing Virtual Learning (and Communication) Environments

- for parents (D3.4), focusing on activities to support engagement with the multiple language and cultural resources present in the lives of families from diverse backgrounds),
- for teachers and classrooms (D4.4), focusing on curricular activities to support multilingual development in early childhood and primary education), and
- for (para)professionals in family support, care and education (D5.4), focusing on professional development.

To this end, several other pilots were conducted for a year before the VLE Implementation to learn about how to use digital tools in the ISOTIS communities. For instance, pilots in the Netherlands were carried out in early education and primary school settings to learn more about establishing educational partnerships with parents and using their cultural and language background as a resource in the (preschool) classroom; in Italy, groups of professionals and parents from the site where the intervention was implemented were consulted regarding the functionality and usability of features during the VLE design process. See overview graphic below.

Figure 1 - Overview of the process main steps

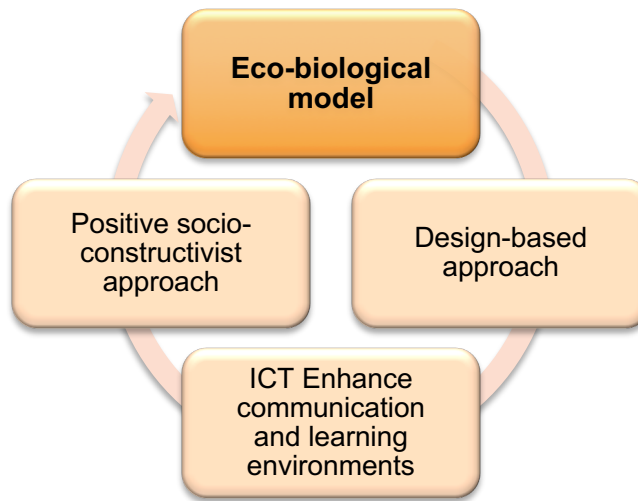


### 1.3 Theoretical and methodological framework

The theoretical and methodological framework common to WP 3, 4 and 5, flexibly adapted and integrated within each WP and each site where interventions were carried out, relates to two intertwined levels that we can define as *process* and *content levels*.

### 1.4 Framework: the process

**At the *process level***, within the general theoretical framework of the Bronfenbrenner's bio-ecological model (the conceptual core of ISOTIS), the study adopted a *positive socio-constructivist approach* focused on including family cultural and linguistic resources, promoting agency and active participation of all subjects, meaningful and rich communication within the community with all the participants involved in the research and the learning process, as well as the use of ICT (the VLE) to enhance communication and the learning process. At the research methodological level, a *design-based methodological research approach* was applied (see Chapter 5), consistent with the idea of basing the intervention on scientific knowledge and theories while prioritizing the promotion of a close partnership and collaboration between the researchers and the research participants thanks to a co-designed and co-constructed process guided by the researchers.

Figure 2 - *The Eco-Biological model*

#### 1.4.1 The bio-ecological framework in the VLE interventions

Following Bronfenbrenner's bio-ecological model (Bronfenbrenner & Ceci, 1994; Bronfenbrenner & Morris, 2006) which was the overarching framework of the ISOTIS project, social and educational inequalities were analysed at the micro, meso, exo, and macro systems levels, including on the individual and family level, the formal level (e.g. school), the informal level (other educational contexts and community organizations), as well as the interactions between them.

"Proximal processes in a person's microsystems are the drivers of development and, in each stage, the product of personal characteristics and the physical, social and symbolic factors present in the micro-systems. Proximal processes can be evaluated with respect to *quality*, *quantity* and *content* (Leseman & van den Boom, 1999). Quality refers to the degree in which a person can initiate, shape and control his or her interactions in the micro-system to match personal characteristics and skill level optimally, and is dependent on the safety, responsivity, and balance between novelty and manageability of the environment. Quantity refers to the frequency and duration of proximal processes, the coherence of proximal processes across microsystems, and the total time that is given to develop in particular area, and is dependent on the organization of a person's meso-systems. Content refers to the type of skills, knowledge, attitudes and other characteristics that a person develops through proximal processes. The content of proximal processes are especially dependent on *what* social agents and the wider meso- and macro-

systems present and organize to shape the proximal processes.”  
(DoW p.8)

“To understand educational inequalities and to identify starting points for preventing or reducing inequalities, the bio-ecological model provides several guidelines. First, proximal processes from birth on will relate to emerging developmental delays and educational disadvantages, and processes in the family and early childhood classroom are particularly important. Second, the effects on children’s development of policies and institutions at the meso- and macro-level are mediated by social agents, in particular parents, teachers and peers. Third, social agents are part of meso- and exo-systems. The time they have for interacting with the child and their motivation to do so, and their competences to provide particular content to support development and learning depend on these meso- and exo- systems. Particularly relevant is how well the meso- and exo-systems are coordinated and cohere in terms of quality and content. In this regard, major transitions in the life course (e.g., from home to preschool, from primary school to secondary school) are critical periods. Fourth, the ensemble of meso- and exo-systems, their effectiveness in providing the quality, quantity and content for optimal child development, is embedded in, and regulated by, policies and institutions, and related to wider cultural and economic changes in the macro-system.”

In accordance with this framework, the VLE interventions developed, implemented and evaluated in WP3, WP4 and WP5, focused specifically on the **system of relationships** among the social actors at our intervention sites (practitioners, children, parents, other local stakeholders), and worked:

- on the *proximal processes* in the immediate micro-system experienced by children, family and classrooms as key settings where the child’s development was influenced, either directly involving children (especially in WP4) and involving the main social agents, that is to say parents, teachers and other professionals working with parents, who mediated the *quality* and the *content* of the micro-system family and school,
- on the *interconnection*, at the meso-system level, between the social actors from different systems (especially teachers and parents), striving for coherence in children’s experiences in their wider **educational niche** and for constructive partnership and collaboration, tackling transition periods such as the transition from pre-primary to primary school (WP3);
- on the social and symbolic factors present in the micro-systems, by introducing selected experiences to work on global and intercultural competence and multilingualism within the family and school settings. The experiences were also co-designed with the professionals and were supported and enhanced by the

digital environment, the VLE, that was designed keeping in mind the symbolic impact of its interface and graphics (see Chapter 2, par.2.3.)

#### 1.4.2 A positive socio-constructivist approach

The ISOTIS interventions prioritized the promotion of **collaborative and co-constructive processes** between the social agents and **community bonds** in multilingual, multicultural and socially disadvantaged (pre)school and informal settings among the main actors (practitioners, parents and children). The promotion of **global intercultural competence** (see next paragraph) in individuals and communities aimed to better include (in family support programmes and in the curriculum) a pedagogy of ECEC and primary schools, families' cultural and linguistic resources, by:

- **Sustaining communication** and **collaboration** between stakeholders, encouraging and supporting networking between stakeholders
- **Promoting the agency** of all stakeholders based on valuing their cultural backgrounds, resources and identities
- **Using the resources available** in the form of diverse family languages and cultural backgrounds in order to innovate the learning practices of children and professionals and to create rich learning experiences
- **Raising awareness and knowledge** (of multiple languages, cultures, human rights, discrimination mechanisms) and promoting skills (in multiple languages and in critical thinking and establishing shared understanding).

##### *a. ICT enhanced communication and learning environments*

The process of participation fit in well with the open, positive nature of the technology designed specifically for the project.

In general, a *Virtual Learning Environment* (VLE) is a set of communication, teaching and learning tools designed to support and enhance communication and the learning experience by including the ICTs and Internet in educational settings and learning processes. A VLE usually promotes organizing participants into groups and giving them different roles (see Chapter 2) with different possibilities to access the resources and the tools, participate in activities, create or modify content and prepare settings (Becta, 2004; Buckingham, 2008).

In ISOTIS, the VLE can be described as a system of Web 2.0 communication, teaching and learning tools. It is characterized by a multiplicity of functions able to enhance the communicative and educational experience. It includes an organized collection of resources, experiences and tools, a modular structure rich in didactic and educational opportunities, where practitioners (teachers, other professionals and volunteers) had the



opportunity to explore and to utilize in their own practice with different users, like children, parents, or adult users (in the classroom or in different educational contexts). The VLE needed to be accessible to – and accessed by – education professionals, students and parents, so that they were able to participate in the experiences, make use of the resources offered, share their resources and collaborate in creating content.

The VLE provided a set of functions, sources and suggested activities, designed consistently with a socio-constructivist perspective (see Chap. 2), in order to:

- Providing a digital “enhancement” of educational and communication processes, and not a "digitization" of teaching and communicating. As such, it granted teachers and other professionals and volunteers, a set of digital affordances, designed to allow them to transfer mainly their communication with groups/classes on a renewed, empowered technological level;
- Initiating collaboration between researchers and research participants (teachers, other professionals, volunteering paraprofessionals, parents, children), who were invited to participate in creating content and materials for the VLE. Co-creating the content of the VLE, using the cultural and linguistic resources of families and communities for this purpose, was a key design-principle. The expected outcomes were the increased engagement and empowerment of stakeholders, greater collaboration and a stronger sense of belonging to the local community, and the creation of an enriched and truly intercultural curriculum and communication. Initiating and supporting this process in selected study sites was the main task in the three WPs for the period January/February 2019-June 2019;
- Offering participants the opportunity to experience a variety of communication methods, implemented together in the same environment, across different sections. This way, the VLE offered an interactive arena, a technologically evolved teaching and communication setting for collaborative creativity and problem solving (Lévy, 1995). In the platform, professionals had the opportunity to organize the participants into groups, by varying roles and selecting among many different content resources within each course structure. The platform, its functions and the content resources were designed to be consistent with the ideal of supporting families (WP3) and teaching children (WP4), through active engagement and, especially in reference to the school setting, avoiding reducing the learning experience to simple “digitization”.(Salmon, 2002, Brown et al., 2016). The implementation and use of the VLE was meant to strengthen the teacher’s role as a coach in the development of the students’ works-in-progress; to promote the diffusion within the groups of an epistemological tolerance able to optimize the skills and attitudes of individuals during the various cooperative practices (Ferri, Moriggi, 2014) and digitally enhance the learning and communication experience of the children, through “multi-code” language, which could enhance students’ multiple skills with new learning opportunities (Buonaiuti, Calvani, Menichetti, Vivanet, 2017).

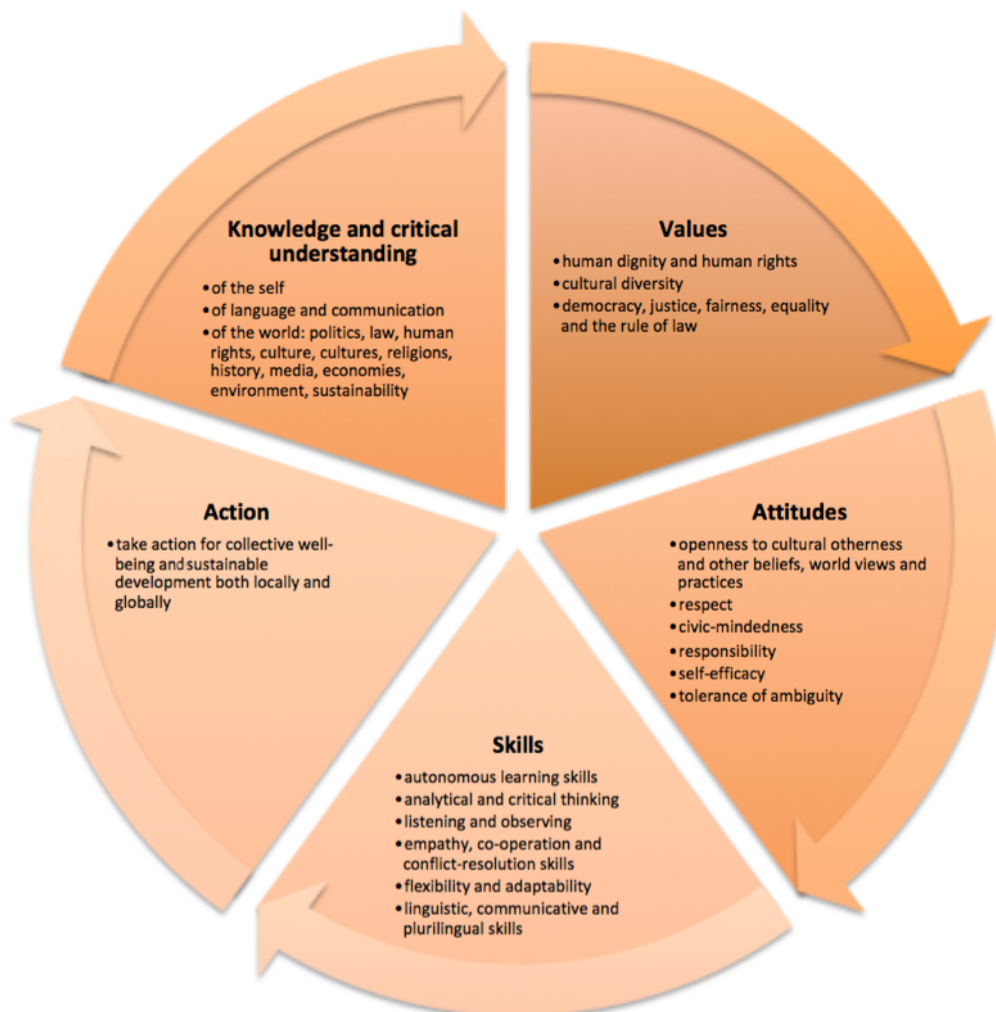
The integration of activities carried out both in “real” and in digital contexts found in the VLE a platform also for documenting processes and content produced by the participants, and to exchange experiences, also across countries (WP5): it was a ‘lab-journal’ for teachers and other professionals, while for children and parents it became a way to reflect on their practices and their learning journey. It was possible to observe how an item that was “virtual” by definition, such as the VLE, could ‘materialize’ the idea of a “context”: a context of participative research for the co-construction of knowledge and the development of skills in a dialogical perspective (Laurillard, 2012)

## 1.5 Framework: the content. The Global Competence framework

**At a content level**, the main underlying framework that guided the work across the WPs was the **Global Competence** framework, a wide framework that encompassed several dimensions and pedagogical approaches such as Human Rights Education, Intercultural Competence and Intercultural Education, Multilingual Education, Critical Pedagogy and Social Justice Education, Education for Democracy and reflective and active teaching methods.

Frameworks focused on global competence were used for instance by UNESCO (2013, 2015), the OECD (2018), and the European Council (2014). Although there are some minor differences in emphasis, all of these frameworks share a focus on knowledge, values, attitudes, skills and action from a basic human rights perspective while valuing cultural diversity as the foundation for global competence. Following the OECD (2018), global competence refers to the ability to examine local, global and intercultural issues in order to understand and value the perspectives and world views of others, to engage in open and constructive dialogues with people from different cultures and to act for collective well-being and sustainable development. Moreover, we include a focus on multilingualism as a resource with potential benefits for individuals and society, as proposed by the Council of Europe (2014), resulting in the model presented in Figure 3.

Figure 3 - *Conceptual model on global and intercultural competence*



In all the interventions, valuing multilingualism and language resources within families and classrooms was considered a key target. Linguistic diversity is a challenge for Europe's education systems (Gogolin, 2002; van Gorp & Moons, 2014; Young, 2014; Vetter, 2013) and children growing up with a different language other than the language of the school show persistent educational disadvantages over and above disadvantages that arise from low socio-economic status (Crosson & Lesaux, 2013; Leseman & van Tuijl, 2006; Stanat & Christensen, 2006). Moreover, in both pre-primary and primary educational systems, the valorization of heritage languages and in general the linguistic repertoires of children and families is not effectively addressed, even when neglected and maltreated.

In WP3, based on the expectation that using heritage languages would empower parents and stimulate children's development, all of the interventions prioritized (in different ways) language support in the home environment.

In WP4, based on the expectation that using heritage languages in early education would stimulate children's language awareness and intercultural attitudes, most of the interventions prioritized multilingual support in early childhood and primary education.

In WP5, professionals working with disadvantaged children and families were involved in professional development activities targeting multilingual education awareness and competences, intercultural sensitivity and competence as well as social justice awareness.

## 2 The ISOTIS Virtual Learning Environment: concept, structure, functions and interface

### 2.1 The VLE structure and functions: the design process

The concept, structure and main integrated functions of the platform were defined throughout a long research process. This process started earlier in the first year of the project and included three steps. Firstly, we analyzed the common and specific goals of each work package. Secondly, we identified the main target users of the platform (professionals as main users, parents and children as secondary users). Thirdly, we located the potentials and limits for the use of the platform in the different country contexts selected for the intervention. The project design had various phases:

- analysis of resources already available on the Web (sites, platforms). This focused on their features and potential for effective usage. In particular, the analysis aimed at exploring ideas that had been already tested on the field, and identifying solutions that could be innovative and consistent with the goals of the ISOTIS project;
- analysis of the opportunities offered by open source digital tools already available on the Web. Maintaining open source philosophy was essential, both in terms of coherence to the ethical criteria established by the European Community (*i.e.*, free software) and due to the financial budget for the project, which did not specifically allow for expenses to produce the platform;
- a collaborative analysis carried out by the task leaders and the project partners. This process also involved those professionals who had been contacted and paid special attention to possible uses and functions relating to the intervention goals and the tools already employed in the different contexts (*e.g.*, in England, the wide range of digital platforms accessible within schools and preschools).

To this end, partner teams were provided with a table (see Table 1) to analyze the potential functions and uses of the platform, with reference to the main objectives of the project and the interventions.

Table 1 - Functional analysis table

COUNTRY: _____									
What can a teacher or other professional do on the VLE, considering our aims?									
Aims	Subjects	As a Teacher/professio	With other teachers/professi	With children as a group	With a child	With a parent	With the group of parents	...	Functions and tools on the VLE
	Raising AWARENESS AND PROMOTING AGENCY	Knowledge and Learning practices							
Communication and Collaboration									
Networking									

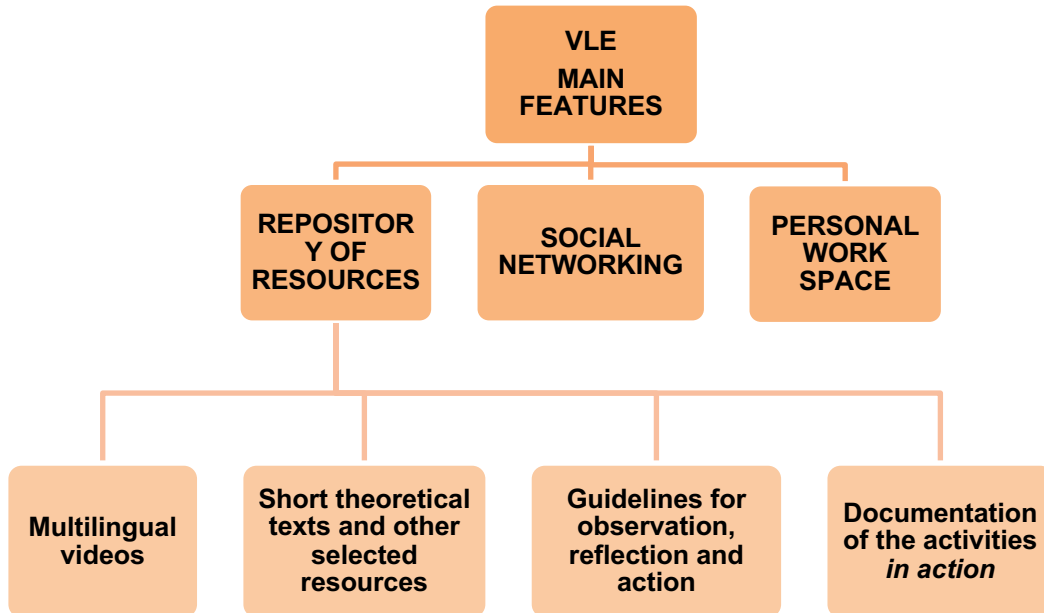
## 2.2 The VLE structure and functions: description

The process of elaboration resulted in the identification of three main features of the VLE. It was:

- a. a **REPOSITORY OF RESOURCES**: such as information and guidelines for practices about various topics connected to the ISOTIS themes;
- b. a **SOCIAL NETWORKING INFRASTRUCTURE**: tools facilitated communication and exchange through pages that adopted typical social media layouts, featuring multilingual support and offering a shared collaborative work space for professionals, children and parents, fostering the creation of ‘communities of practice’;
- c. a **SPACE FOR DESIGNING AND DOCUMENTING**: a professional could store materials, applications they wanted to propose or collect the documentation

related to the activities implemented (in a class, with a child, a group of children or parents ...)

Figure 4 - The VLE structure



The VLE environment interface is structured into three main sections:

- Contents: Explore the Resources
- Tools: Explore the Tutorials
- My Space

The first two sections are referred to the “repository of resources” function. The third one relates to the social networking and working space functions.

### 2.2.1 A repository of resources

The ISOTIS VLE prototype includes a collection of resources and experiences that practitioners (teachers, other professionals and volunteers) can explore and use in their own practice (in the classroom, with parents). Students and parents can also access the platform, to participate in the experiences or consult data. The ISOTIS VLE aims at providing users with a repository of resources – including theoretical insights and

information, observation guidelines for action and activities, using multiple media and multiple communication channels.

The resources were organized into 7 main courses:

- Participation & Democratic Life
- Promoting Multilingualism in The Classroom
- Promoting Multilingualism in The Family
- Promoting Second Language Learning
- Promoting Intercultural Sensitivity
- Social Justice & Human Rights
- Family & School Partnership

A final section was specifically dedicated for professional development activities in connection to the listed topics:

- Professional Development Activities

Each topic/course was organized in a sub-section corresponding to sub-themes. See examples in the table below.

Table 2 - *Examples of resource structures in the ISOTIS VLE*

Example 1 <a href="https://vle.isotis.org/course/view.php?id=183">https://vle.isotis.org/course/view.php?id=183</a>	
Main theme	Promoting Multilingualism In The Classroom
<b>Sub-themes</b>	<ul style="list-style-type: none"> <li>- <i>Exploring and understanding the multilingual self</i></li> <li>- <i>Making all languages visible and a resource for the classroom</i></li> <li>- <i>Creating narratives and storytelling</i></li> <li>- <i>Comparing languages</i></li> <li>- <i>Comparing languages and cultures</i></li> </ul>



<b>Example 2</b> <a href="https://vle.isotis.org/course/view.php?id=619">https://vle.isotis.org/course/view.php?id=619</a>	
<b>Main theme</b>	<b>Promoting Multilingualism in the family</b>
<b>Sub-themes</b>	<ul style="list-style-type: none"> <li>- <i>Involving families in exploring linguistic repertoires</i></li> <li>- <i>Living with more than one language</i></li> <li>- <i>The benefits of storytelling</i></li> <li>- <i>Learning in the early years and in school in England</i></li> <li>- <i>Supporting a multilingual approach and competences</i></li> <li>- <i>Promoting different languages at home</i></li> </ul>

The **resource section** provides three main types of content:

- Informative and descriptive resources in a section in the VLE entitled “**Did you know?**”
- Guidelines for observing and reflecting in a section in the VLE entitled “**Observe & reflect**”
- Guidelines for actions and interventions with children (WP4), families (WP3 and teachers (WP5 & 4) (through specific activities called “experiences”), in a section in the VLE entitled “**What can you do?**”

These three types of content are present in each course. This means that in all the above-mentioned courses, all of the sub-themes include the three sections:

- **Did you know?**
- **Observe and reflect**
- **What can you do?**

If a course doesn't have sub-themes, the course itself is organized according to these three sections.

An additional resource section provides tools and applications. It is a separate section called **TOOLS: EXPLORE THE TUTORIALS** (see par. 2.2.1.5. Digital Tools Tutorials).

### 2.2.1.1 Informative and descriptive resources – “Did you know?”

Informative and descriptive resources are provided in form of:

- a. videos
- b. theoretical background texts

#### a. Videos

Consistent with a citizen science paradigm to provide community members with access to scientific information, short, concise videos with essential information on key topics addressed by the interventions (e.g. Information on multilingualism, on Social Justice etc.) were made available in both written and audio form and translated in several languages, including the ones spoken by the research participants in the intervention sites. Namely, the voiceover of the videos is provided in English (and in Italian), while the texts of the video scripts are provided in 21 or 28 languages (see Table 13 – Chapter 2). and can be read using a vocal synthesis tool embedded in the platform in order to be accessible also to people who don't understand English (or Italian) and can't read their mother tongue.

**Guidelines for video scripts** were shared with partners who contributed to drafting the video scripts (UK, PT, NL, IT). A narrative style was chosen, to introduce realistic characters and short, concrete, everyday-life situations (featuring a mother, two parents, a teacher, a child or group of children), making reference to real questions or doubts, to make the information addressed in the script more accessible and to maintain attention. Using very simple language, providing essential information, the contents were supposed to be scientific, based on research evidence, though not directly quoting the authors. Where possible, we suggested to refer to one or two evidences from international statistics, in this case quoting the sources. With an average length of 2.5-3.5 minutes, each video script was limited to 400-500 words.

To sum up, the main criteria for writing video scripts were the following:

- Narrative style
- Link to real life and characters
- Simple, clear language
- Essential information
- Content related to research evidence (not quoting authors)
- One or two evidences from international statistics (quoting the sources);
- 400-500 words

Moreover, the texts, animations and graphics were carefully designed to be culturally sensitive and multilingual accessibility was an innovative value of the ISOTIS resources.

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All users (professionals, parents and children) could access the videos on the platform. The videos were also meant to be used by professionals both with parents and children as a stimulus for conversations/focus group discussion on the topic addressed in the videos.

13 videos were produced referring to main topics in the table below.

Table 3 - List of the videos produced and related topics

Topic	Titles	Link
<b>Multilingualism and children's development</b> <sup>1</sup>	Two languages are better than one	<a href="https://vle.isotis.org/mod/page/view.php?id=3505">https://vle.isotis.org/mod/page/view.php?id=3505</a>
	How bilingual children's two languages influence each other	<a href="https://vle.isotis.org/mod/page/view.php?id=3514">https://vle.isotis.org/mod/page/view.php?id=3514</a>
	Discover the language input of bilingual children!	<a href="https://vle.isotis.org/mod/page/view.php?id=3506">https://vle.isotis.org/mod/page/view.php?id=3506</a>
	Tips to give to your bilingual child the best language input	<a href="https://vle.isotis.org/mod/page/view.php?id=3507">https://vle.isotis.org/mod/page/view.php?id=3507</a>
	The four stages of Second Language Learning	<a href="https://vle.isotis.org/mod/page/view.php?id=3508">https://vle.isotis.org/mod/page/view.php?id=3508</a>
<b>Languages and society</b> <sup>2</sup>	Not only dinosaurs go extinct! How can we prevent language variety from disappearing?	<a href="https://vle.isotis.org/mod/page/view.php?id=3509">https://vle.isotis.org/mod/page/view.php?id=3509</a>
<b>Multilingualism in the school</b> <sup>3</sup>	Multilingualism at school is better than monolingualism #1 Strategies at school: translanguaging	<a href="https://vle.isotis.org/mod/page/view.php?id=3515">https://vle.isotis.org/mod/page/view.php?id=3515</a>

<sup>1</sup> Content Authors: Maria Teresa Guasti, University of Milan-Bicocca; Editing video Francesca Carta; Editing scripts: Alice Sophie Sarcinelli, Valentina Pagani, Stefania Sharley; Scientific supervisor of the video project: Giulia Pastori, University of Milan-Bicocca

<sup>2</sup> Content Authors: Silvia Ballarè, Giulia Pastori, Federica Da Milano, University of Milan-Bicocca; Editing video: Francesca Carta; Editing scripts: Alice Sophie Sarcinelli, Valentina Pagani, Silvia Ballarè University of Milan-Bicocca; Scientific supervisor of the video project: Giulia Pastori, University of Milan-Bicocca

<sup>3</sup> Content Authors: Giulia Pastori, Alice Sophie Sarcinelli, Valentina Pagani, University of Milan-Bicocca; Editing video: Francesca Carta; Editing scripts: Alice Sophie Sarcinelli, Stefania Sharley, University of Milan-Bicocca; Scientific supervisor of the video project: Giulia Pastori, University of Milan-Bicocca

	Multilingualism at school is better than monolingualism #2 Strategies at school: Language awareness	<a href="https://vle.isotis.org/mod/page/view.php?id=3516">https://vle.isotis.org/mod/page/view.php?id=3516</a>
<b>Multilingualism in the family<sup>4</sup></b>	Family life with more than one language	<a href="https://vle.isotis.org/mod/page/view.php?id=3510">https://vle.isotis.org/mod/page/view.php?id=3510</a>
<b>Human rights and social justice<sup>5</sup></b>	Is the world fair? Get engaged for justice!	<a href="https://vle.isotis.org/mod/page/view.php?id=3512">https://vle.isotis.org/mod/page/view.php?id=3512</a>
	Education to change the world	<a href="https://vle.isotis.org/mod/page/view.php?id=3513">https://vle.isotis.org/mod/page/view.php?id=3513</a>
<b>Intercultural sensitivity<sup>6</sup></b>	Looking at the world with other glasses: how to understand cultural misunderstanding	<a href="https://vle.isotis.org/mod/page/view.php?id=3517">https://vle.isotis.org/mod/page/view.php?id=3517</a>
<b>The value and use of Romani language<sup>7</sup> (provided by ISSA)</b>	Proud to speak Romani	<a href="https://vle.isotis.org/mod/page/view.php?id=3511">https://vle.isotis.org/mod/page/view.php?id=3511</a>

<sup>4</sup> Content Authors: Katharina Ereky-Stevens, University of Oxford, Giulia Pastori, Alice Sophie Sarcinelli, University of Milan-Bicocca; Editing video: Francesca Carta; Editing scripts: Giulia Pastori, Alice Sophie Sarcinelli, Valentina Pagani, University of Milan-Bicocca; Scientific supervisor of the video project: Giulia Pastori, University of Milan-Bicocca

<sup>5</sup> Content Authors: Sofia Guichard, Joana Cadima, Gil Natan, University of Porto, Alice Sophie Sarcinelli, Giulia Pastori, University of Milan-Bicocca; Editing video: Francesca Carta; Editing scripts: Alice Sophie Sarcinelli, Valentina Pagani, University of Milan-Bicocca, Sofia Guichard, University of Porto; Scientific supervisor of the video project: Giulia Pastori, University of Milan-Bicocca

<sup>6</sup> Content Authors: Giulia Pastori, Alice Sophie Sarcinelli, Valentina Pagani, University of Milan-Bicocca, Pauline Slot, Utrecht University; Editing video: Francesca Carta; Editing scripts: Giulia Pastori, Alice Sophie Sarcinelli, Valentina Pagani, University of Milan-Bicocca; Scientific supervisor of the video project: Giulia Pastori, University of Milan-Bicocca

<sup>7</sup> Content Author: Daniel Stano, ISSA Association, Video Editing by ISSA

**b. Theoretical background, guiding principles and other sources.**

The informative resources also drew on an in-depth study of the main theoretical background resources of the project, whose contents were summarized in brief texts, which we organized into manageable e-books available on the platform. This way readers were offered not only some essential conceptual references, but also the basis for elaborating on the educational goals and operational criteria, the guiding principles underlying the activities. In fact, the platform presents goals and criteria based on theories (accordingly to a design-based, research consistent logic) and reinforces them with references to further resources, such as articles and books, in order to provide users with opportunities to recognize and understand the pedagogical and political entanglements of their practices. All of these materials (texts, websites and audio-video resources) have been freely accessible on the project platform since the beginning. Link to an example of theoretical background:

<https://vle.isotis.org/mod/book/view.php?id=1228>

**2.2.1.2 Guidelines for observation and reflection – “Observe and reflect”**

On the platform, the information section described above is followed by a section which offers users materials for activities and indications for observing and reflecting on the educational experiences conducted. In fact, the platform provides much room for sharing one’s own experiences and work context as well as access to those shared by others (teachers or different professionals, parents and children). In particular, users were able to reflect and share their thoughts on their educational practices, with emphasis on the direct experiences of parents and children, in the family and at school.

Materials and observation guidelines were also used with parents, and in some cases with children too, in order to support discussion and create shared reflection spaces. This section was included in the platform because of the requirement to make all materials coherent with a reflective, research-oriented approach. Online, one can find several structured activity suggestions, for example about multilingualism and education, but guidelines are preceded by prompts for reflections based on the concrete situations of one’s own experience as well as that of children and parents. To tailor the proposals to specific features and needs, the user needs to modify based on their context, referring to their children and families.

Materials and questions for reflection and observation were thus proposed in order to facilitate the active, practical implementation of theory. This contributed to bridging theory and practice in a positive, circular way, fostering a critical, reflective stance in examining the resources/activities available within the same section/course, centered on children’s experiences and perspectives.

The “Observe and Reflect” content was organized into two parts:

- **A ‘critical case’:** a descriptive text presenting a research experience or a problematic situation, designed to trigger reflection on the case. Questions follow the case description to promote reflection, individually and/or with a group of professionals or parents (they can be also used to talk with children);
- **Prompts for observing the local context:** a short set of questions is offered as a guideline to observe children and/or parents and/or one’s own professional attitudes, behaviours and practices.

An example of prompt in an “Observe and Reflect” section:

<https://vle.isotis.org/mod/page/view.php?id=2923>

### 2.2.1.3 Guidelines for action and intervention with children – “What can you do?”

The VLE provided prototypes for activities, called ‘learning experiences’, with criteria to design meaningful practices and examples for activities, following a socio-constructivist and research-oriented approach.

As part of the process, an Executive Board (consisting of the WP task leaders) was established for defining the main criteria for designing and selecting the activities to be uploaded onto the VLE and in general for monitoring all of the content in the VLE in view of cultural sensitiveness, communication efficacy and coherence with the shared framework and aims.

Common criteria were used between researchers and professionals to co-design activities fitting the local context, through a bottom-up process of collaboration and co-construction.

The activities were meant to involve local stakeholders, and they specifically drew on the cultural and linguistic resources provided by the parents and children. To this aim, a selection of activity typologies was also identified and agreed upon.

The activity design, therefore, was guided by

- a. a set of criteria
- b. a selection of activity typologies
- c. a template (common to WP3 & 4)

## a. Sets of criteria

Table 4 - *The Cross-WP Criteria*

CROSS-WP CRITERIA	
<b>COHERENCE WITH THE ISOTIS VALUES</b>	Refers to a systemic-bio/ecological framework: building on and empowering interconnections among subjects and systems (e.g., family, school/organization, extended community...).
	Participative and resource-based: co-creation of content, exchange of knowledge, resources, competences; making use of existing resources and prior knowledge of the participants.
	Process-oriented: activities should not be intended and designed as isolated-segmented activities, rather they should be part of a meaningful process including several steps, connected to the local life systems of the participants.
	Active and research-based: participants have to be actively involved also in research and problem-solving actions.
	Culturally sensitive and develops cultural sensitiveness.
	Fosters awareness about economic inequalities and promotes active engagement for social justice
	Promotes emancipatory and inclusive processes: giving voice to subjects that are generally 'unheard', 'un-listened to'; increasing awareness & reducing barriers.
<b>COHERENCE WITH THE ISOTIS INTERVENTION METHOD</b>	Theory and method-founded: clear reference to literature and research and clear/explicit methodological criteria.
	Pragmatic (offering examples) and open to local adjustments.
	Blended (ICT enhanced/augmented activities).
	Sustainable by the participants after the researchers depart.
	Innovative (for the local context) and enriches/renews local practices.
	Transferable to other contexts/customizable/re-interpretable



Table 5 - Criteria specific to WP3

CRITERIA SPECIFIC TO WP3	
<p><b>Coherence with the WP3 objective to support interactions*</b> which foster mutual understanding about the value of family resources and family language practices and the management of several languages/cultural contexts in the family home [with a focus on changes happening through transition to pre/school].</p>	
<p><b>Facilitating shared* thinking/talking about and reflecting on...</b></p>	...cultural/language resources in the home and in the community
	...family engagement with language resources in the home
	...family engagement with (language) experiences relevant to child's schooling
	...strategies to integrate multiple cultural and language resources
	* parents with other parents, parents with practitioners, parents with children, parents with other relatives, parents with preschool/school
<p><b>Coherence with WP3 target group resources</b></p>	
<p>Linguistic: families' awareness, knowledge, skills, use and strategies</p>	<p>Flexible, allowing and facilitating engagement with all languages present in the family life</p>
<p>ICT: families' access, skills and use</p>	<p>Flexible, making use of ICT without depending too much on families' on-screen engagement/engagement with the VLE</p>

Table 6 - *Criteria specific to WP4*

CRITERIA SPECIFIC TO WP4	
<b>Coherence to Global – Intercultural competence &amp; pedagogical frameworks</b>	Engaging teachers, children (and parents) by raising awareness about global competence and multilingualism values and involving all the participants in concrete experiences
	Mobilizing all participants' cultural and language resources
	Stimulating critical thinking on crucial notions (culture, identity and cultural identity, multilingualism, race, democracy, social justice...); challenging and deconstructing stereotypes, essentialist construction and hegemonic ideologies
	Giving centrality to children's experiences (at school, at home, in the neighborhood, in the parents' country...)
	Giving voice to children and stimulating agency, democratic attitudes and behaviours
	Connecting and integrating ISOTIS project objectives and activities with the learning process and the local curriculum.
	Stimulating the co-construction and negotiation of meanings and practices connected to multilingualism and global-intercultural competence at school and in the every day life
	Involving children and parents in sharing materials (also through the VLE social-media infrastructure) about their home life, their country of origin and other cultural artefacts
	Encouraging communication, knowledge of each other, empathy and solidarity between children, parents and teachers
	Balancing the exploration of differences and of commonalities and the feeling of belonging to a community
	Raising children's engagement, concentration and fun
	Making a flexible use of ICT by integrating off- and on-line activities

Table 7 - *Criteria specific to WP5*

CRITERIA SPECIFIC TO WP5
Professional development (PD) as a means to improve professional competence or behavior, with the ultimate goal of improving children’s developmental or educational outcomes
Following the lifelong learning approach: all learning activity undertaken throughout life with the aim of improving knowledge, skills and competences within a personal, civic, social and/or employment-related perspective (CEDEFOP, 2003)
Fostering the understanding of the importance of establishing sustainable, continuous approaches for improving (teaching) practice in view of a rapidly changing societal context
Perceiving professionals as active learners who shape their own learning process through reflective professional development (Clarke & Hollingsworth, 2002)
Aiming to match different forms of PD (i.e. training, coaching or collegial exchange) for different domains (i.e. knowledge, beliefs, attitudes or skills) with the stages of the PD process
Viewing reflection and enactment as the key mechanisms of change of professional’s knowledge, skills, attitudes, beliefs, and expectations
Situating the professional within the larger (organizational) context (that provides important preconditions important for the effectiveness of PD)
Placing the PD model (described above) into a human rights and diversity context

## b. Types of Activities

A selection of activity typologies was identified to provide good alignment of the *style* (the approach privileged by the ISOTIS project) of activities across countries.

The table below illustrates the selected typologies.

Table 8 - *Types of activities in the ISOTIS VLE*

Type of activity	Examples
<b>A. Semi-structured learning activities for children</b> Analog, digital and “blended” activities, either individual or group-based.	Dialogic reading,
	Interactive videos,
	(Digital) story-telling or cartoons in multiple languages,
	Digital creation of signs for the school in multiple languages,
	A ‘language first-aid-kit’ made by children for newcomers...
<b>B. Children’s participation in teaching, learning and exchanging cultures and languages</b> Activities to involve children in creating materials to be uploaded and shared with other classrooms and with their parents/families/cultural communities	Videos or pictures showing elements of their life at home, at school, in their community/neighborhood
	Forum of children within classrooms/within cultural communities
	Short language lessons for peers, teachers, and parents...
<b>C. Parent participation in teaching, learning and exchanging cultures and languages</b>	
<b>C1. Parent-school partnership</b> Activities involving parents	Sharing pictures or videos of the home environment, home-culture, stories that can be used in classrooms
	Sharing documentation of child behavior/competence at the home with teachers

	Sharing competences (eg translations, brief language lessons ...) with teachers and other children;
	Sharing knowledge on cultural topics with classrooms
<b>C2. Parent-peer learning</b> Activities involving parents	Sharing experiences and knowledge (e.g. about life in school/preschool) with other parents
	Sharing competences (eg translations, brief language lessons...) with other parents
	Sharing documentation of activities with other parents as resources: telling stories, reciting poems, singing songs in the home language audio/video-recorded
	Sharing digital and non digital resources with the parents used for the home language maintenance with children
	Sharing experiences of activities at home for reflection with other parents
<b>D. Professional participation in teaching, learning and exchanging cultures and languages</b>	
<b>D1. Teacher or other professionals' personal involvement</b> Activities involving teachers/professionals	Sharing pictures or videos of the home environment, home-culture, stories that can be used in classrooms
	Sharing documentation of child behavior/competences at the home with teachers
	Sharing competences (eg translations, brief language lessons...) with teachers and other children
	Sharing knowledge on cultural topics with classrooms
<b>D2. Parent-school partnership</b> Activities involving professionals in strengthening parent-school	Sharing documentation of child behavior/competences in class/at school with parents

communication and collaboration	Sharing pictures or videos of the school environment and life at school with families (parents, grandparents, relatives)
	Communicating at a distance with relatives who are in the home country
	Sharing knowledge on educational topics with parents

**c. Template**

The tables below shows the template used by all partners to design the observation cases and prompts (included in the OBSERVE & REFLECT section) and the activity prototypes (in WHAT CAN YOU DO?).

For most of the interventions, the activity prototypes were uploaded onto the VLE before collaborating with professionals. In these cases, teachers/professionals were invited to explore the uploaded activities to take inspiration from them, select those most interesting and fitting to their interests and purposes, and then adjust and re-design the selected learning experiences to tailor them to their local context (according to children or families’ characteristics and needs, the local curriculum, etc).

In few interventions, collaboration with professionals defined the guidelines for the activities/learning experiences, uploaded afterwards onto the VLE.

Table 9 - *Template for the “Did you know” and “Observe and reflect” parts of resources*

PART I THEORETICAL BACKGROUND & OBSERVE & REFLECT	
<b>CORE ISSUE</b>	
<b>THEORETICAL BACKGROUND</b>	The theoretical background will be presented in short videos and short theoretical background texts.
<b>SHORT CASES TO OBSERVE AND REFLECT</b>	Introduce materials that can be useful to reflect on the topic: ethnographic observations, examples drawn from literature, narratives or videos (quote the source).

<b>QUESTIONS FOR REFLECTING</b>	<b>FOCUS ON THE CASE</b> propose some questions on the materials provided in order to stimulate reflection on a specific topic
	<b>FOCUS ON YOUR EXPERIENCE</b> prompts/questions on the VLE users' own experience
<b>OBSERVATION PROMPTS TO OBSERVE YOUR CLASSROOM/YOUR CHILD/...</b>	Propose some guidelines to make observations

Table 10 - *Template for the "What can you do?" part of resources*

<b>PART II: EXAMPLES OF ACTIVITIES/EXPERIENCES</b>	
<b>EXAMPLE OF ACTIVITY: TITLE</b>	
<b>AGE RANGE</b>	Wide age range to prioritize curriculum continuity, paying attention to age-specific adaptations
<b>MAIN CRITERIA</b>	Main criteria drawn from the theoretical background
<b>AIMS AND COMPETENCIES</b>	
<b>THE ACTIVITY/ EXPERIENCE IN STEPS</b>	
<b>POSSIBLE FURTHER DEVELOPMENT</b>	
<b>MULTIMODAL (TECHNOLOGICAL SUPPORT AND OTHER SUPPORT)</b>	
<b>LINKS TO CURRICULUM</b>	
<b>POSSIBLE LINKS TO RESOURCES</b>	

#### 2.2.1.4 The activities implemented: documenting the experience

Additional resources uploaded in the VLE, as an output of the research process in the field and the implementation of the activities, are the multimedia **documentary/reportage of some of the activities implemented (*in action*)**.

All partners collected documentation featuring use of the ISOTIS VLE sites, from the process of co-designing with professionals to the implementation and post-evaluation phase.

The documentation can be textual (observation), audio recordings, pictures and video-recordings, participant produced material, etc. The collection of visual documentation (pictures and videos) was optional for partners, depending on local Privacy regulations.

The digital presentations or e-books of multimedia documentaries/reportages are good examples, briefly illustrating the process of how the activities were co-created and realized, making the experience of the participants visible.

These artefacts on the platform in the resource section, in connection to the activity guidelines based on theory, bridging the transition ‘from theory to practice’ and for dissemination purposes.

#### 2.2.1.5 Digital Tools and Digital Tool Tutorials

A section of the VLE provides a set of Open Source applications created using the H5P framework (<https://h5p.org>). These applications have been designed to facilitate the creation of interactive digital products.

They were included as a resource on the ISOTIS VLE. Some of them also provided a tutorial made ad hoc in the section entitled **Tools: explore the tutorials**<sup>8</sup>. The tutorials were meant to facilitate low-skilled users.

These Open Source applications were selected as a structural part of the VLE, as they are coherent with the ISOTIS VLE philosophy and they present a collection of useful tools to digitally support the activities with interactive, easy-to-use, creative applications. They support professional development activities (see WP5), providing digital tools to facilitate collaboration and co-constructive dialogue in the creation of content (for example, video annotation)

Examples of activities supported by an H5P application are available in the resource “Promoting multilingualism in the classroom”, in the “Making multilingual research visible

<sup>8</sup> The H5P tutorials are available at <https://vle.isotis.org/course/view.php?id=35>



and a resource” section, inside the activity “*Doing research in the classroom: interviewing each other*”<sup>9</sup> and in the “Exploring and understanding one’s Multilingual Self”<sup>10</sup>.

### 2.2.2 A forum and social networking infrastructure

The ISOTIS-VLE was not just a mere repository, but also an interactive space: starting from the resources section, forums were made available where participants could discuss the proposed content (videos, theoretical backgrounds, observation cases, activity guidelines...). This opportunity represented an effort to give users the possibility to express themselves and their opinions about the elements on the platform.

Besides forums for open discussion, all the private group spaces where participants could actually meet each other centered around a notice board that was implemented as a **social networking space**. This was inside the “**My space**” section and allowed for multilingual communication and exchange between professionals, parents and children. This infrastructure provided the participants with a cooperative group space: a private networking infrastructure, an arena for exchange with specific support for multilingual communication (see par. 2.3 - The ISOTIS VLE Graphics and Language interface). Each user could post messages and status updates on a public noticeboard, and comment on posts of other users. This also meant that users had the chance to belong to a community of practice, sometimes for the first time in their lives, sharing a workspace that included education professionals, children and parents.

On the platform, the possibility to write texts (forums, notice boards, questionnaires or other Moodle activities) allowed users to exchange messages in written, video and audio formats, as well as uploading pictures and drawings or drawing directly in the message area. This multimedia system of communication was designed to overcome communicative obstacles and offer valid alternatives to writing, following the principles of Universal Design for Learning that will be discussed later.

“Group administrator” users (i.e., teachers or professionals working with groups of parents) were able to direct the communication within the groups based on different potential goals, specific to each group. Some examples of goals that were pursued during the pilot phase were:

- Online information delivery, to substitute offline communication, without expecting any answer from other participants (i.e. virtual, non-interactive notice boards);
- Dialogic exchange between participants;
- Sharing of various types of materials (including videos, audios, photos, drawings and texts), such as the documentation of an activity conducted in class or materials for an activity to be carried out.

<sup>9</sup> Available at: <https://vle.isotis.org/mod/page/view.php?id=2488>

<sup>10</sup> Available at: <https://vle.isotis.org/mod/hvp/view.php?id=3437>

Examples of groups that were formed during the pilot phase included:

- An entire class;
- Sub-groups of children from one class, who collaborated on a project;
- The parents from one class;
- Student representatives from a few classes;
- A child's parents;
- Classroom teachers (for one class);
- Teacher coordination groups, etc.;
- The teaching staff of an entire school;
- ...

During the platform pilot phase, the creation of groups was managed by the platform administrators (IT team) who were constantly in contact with all the country teams engaged in the implementation of the platform in their respective countries.

After the pilot phase, this role was assigned to teachers or other professionals, who could autonomously create groups or grant the same role to other particular users. As an example based on the usage of the platform so far, with the Italian team, in the case of a particular class, the parent representatives of a class were made administrators. On the platform, they organized the class parent group for the purpose of sharing communications that didn't require teacher interaction and participation.

Within the framework of the WP3 goals, parents, teachers or other professionals used the notice board to communicate and exchange materials and this way of shaping group interaction resulted as particularly innovative.

With reference to the WP4 goals, children were able to use the functions as long as a teacher was present and nearby during the activities.

As far as the objectives of WP5 regarding professional development are concerned, the notice board was used for communicating and exchanging experiences among teachers from different countries, thus creating the actual experience of a **transnational community of practice**.

Figure 5 - *Screenshots from a Noticeboard page where participants interacted using multiple media*

ENGLISH (EN) ▾

Andrea Mangiatordi  
7 failed logins since your last login

YOGA: LA LEGGENDA DELLA SUA NASCITA

**Yoga: la leggenda della sua nascita**  
by [User] Sunday, 12 May 2019, 6:37 PM

0:00 / 0:22

*Matsyendra*  
*La nascita dello Yoga*

*Matsyendra fu gettato da bambino  
nelle fredde acque dell'oceano Indiano  
in quanto la sua nascita era avvenuta  
sotto l'influsso di pianeti infausti.*

0:00 / 0:00

**POSIZIONE DELLE ONDE DELL'OCEANO**  
*Ingoiato da un pesce gigante, inviato per caso il grande Maestro Sh  
insegnare i misteri dello Yoga alla sua amata sposa Parvati  
nel loro nascondiglio segreto in fondo all'oceano.*

**Need Help?**

ENGLISH (EN) ▾

Andrea Mangiatordi  
7 failed logins since your last login

Bello vero?  
Devo dire che il lavoro è stato molto apprezzato dai bambini. Continueremo anche questa settimana.  
Chi manda la traduzione della leggenda nella sua lingua madre?  
Vanno bene anche gli audio fatti dai bambini. FORZA!  
SE riuscite a fare arrivare un po' di traduzioni riusciamo a farvi una bella sorpresa!  
Vi aspettiamo!

[Permalink](#) [Edit](#) [Delete](#) [Reply](#)

**Re: Yoga: la leggenda della sua nascita**  
by [User] Monday, 13 May 2019, 9:06 PM

Per me fare YOGA è liberare la mente e rilassarsi.  
Mi è piaciuto molto e a Voi?  
Un saluto a tutti e a Konnie  
Adelaide

**Need Help?**

[Permalink](#) [Show parent](#) [Edit](#) [Spin](#) [Delete](#) [Reply](#)

# ISOTIS Research Approach VLE intervention

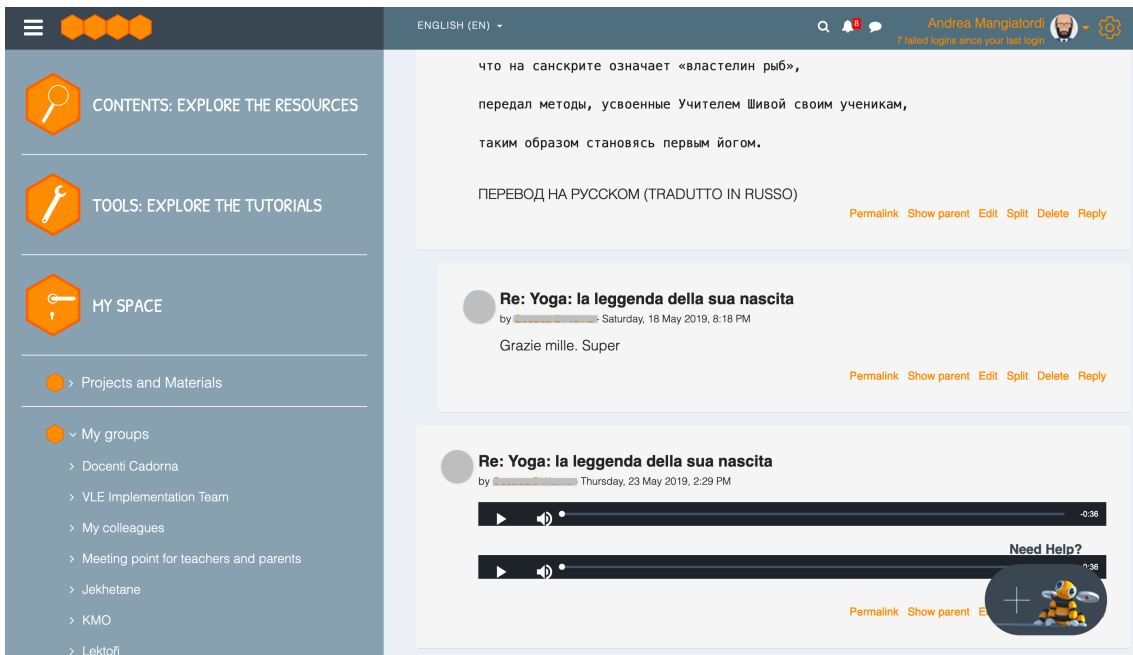


Figure 6 - The VLE login page, featuring a language selector and supporting image-based passwords

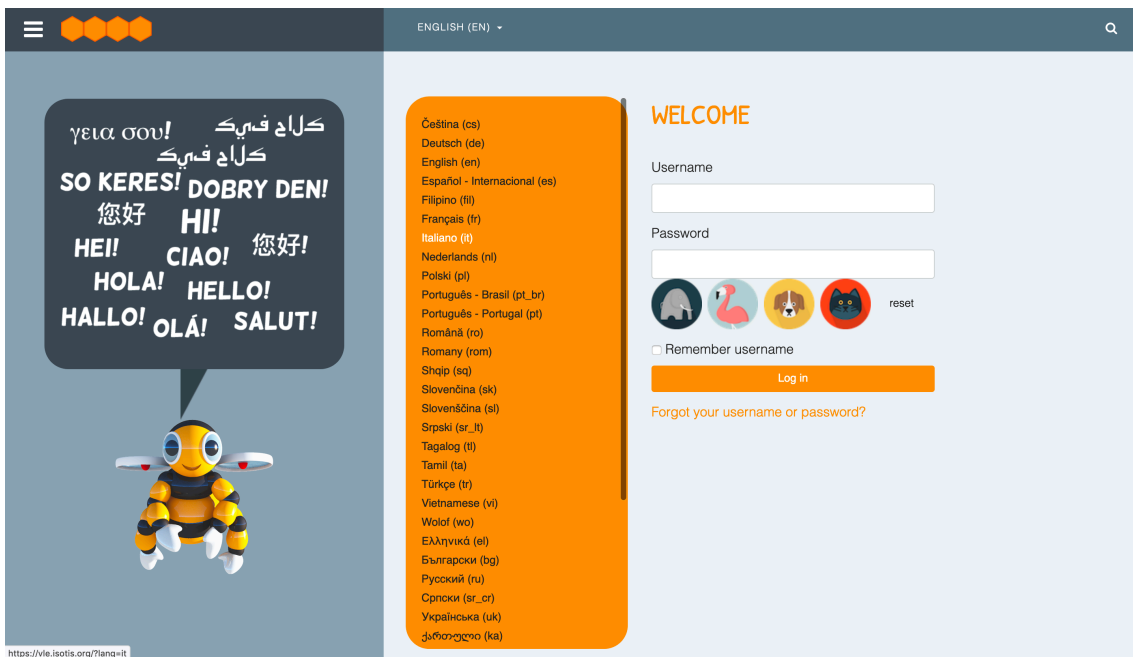


Figure 7 - The welcome page after login, with a brief tutorial showing the main functions of the VLE

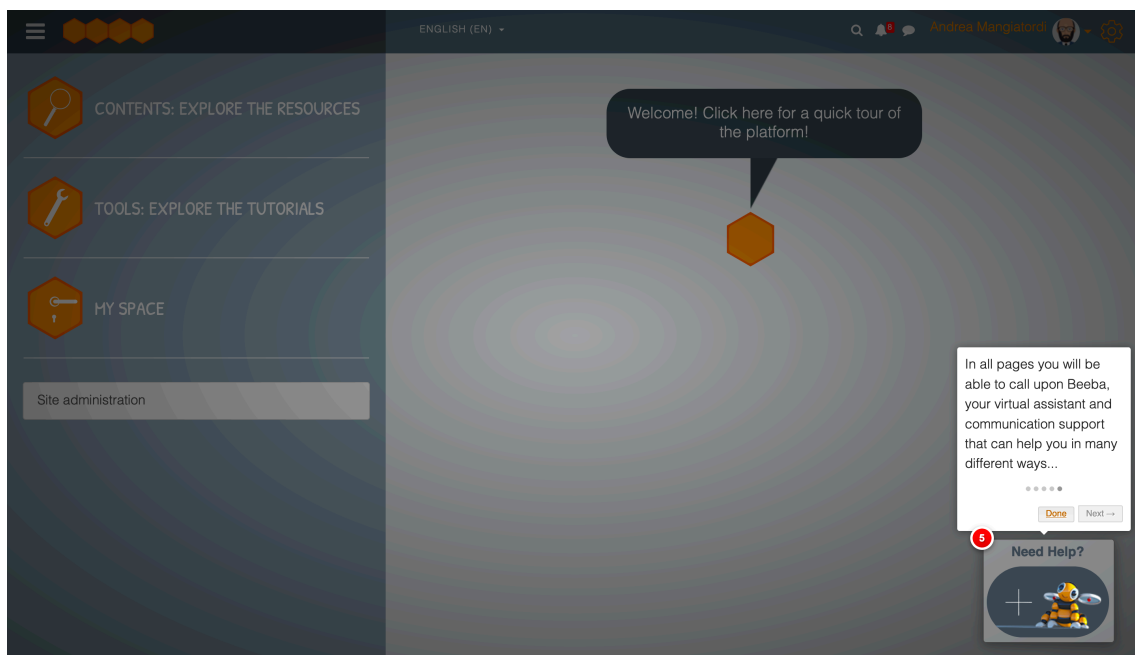


Figure 8 - A typical VLE page, displaying content from the resources section.



### 2.2.3 A space to design and document activities

The “My space” section of the platform includes two sub-sections:

- **Projects & Materials:** this sub-section is for storing and organizing materials the teacher or other professional users deems useful to plan learning experiences for children in class or to their families. In this space, a teacher can import activities, observation cases or videos, from the “Resources” section. They are dragged from “Resources” to the “My space – Projects and materials” sections, thanks to an automated content cloning system that turns read-only content from the public part of the platform into personal content that can be accessed privately, edited and shared. Once transferred and archived in one’s personal “Projects and materials” sub-section, the content can be modified, remixed and prepared for sharing in a specific group. This feature is limited to users who have parent, teacher or researcher roles in the platform.
- **Documentation:** this sub-section contains the documentation users collect about an activity or learning experience (observation notes, photographic material, etc.).  
During the ISOTIS project, users were sometimes asked to keep an observative journal in this section: a sort of reflection log for the teachers to complete during the process. It included also some self-assessment tools, to be filled in before and after the interventions.

In general, The VLE intends to support stakeholder teaching and learning, by facilitating processes for sharing, reflection, documentation and communication. The structure of the VLE and its content reflects a methodological approach and an idea of education professionals that combines theoretical details of educational topics with contextualized observations and grounded reflections about educational practices. Road maps and action lines were drawn by and inferred from existent operational suggestions. Observing real individual children and families and listening to their perspectives and experiences were the priority in order to design educational activities. Interventions were conducted and documented so as to thoroughly analyze, reflect on, understand and redesign further steps of action, as well as sharing observational materials with colleagues or families, in order to renew a shared educational reflection.

This structure, mutually connecting both theory and practice and different social actors from the micro- and meso-systems (professionals/teachers, children, families/parents), stands out as the general contribution the IT team provided, in order to:

- Model the platform consistently based on a socio-constructionist pedagogical perspective of the whole project and with the corresponding ideal of an educational professional. In other words, we worked to avoid what can sometime happen, i.e. that the very adoption of digital tools would indirectly induce technocratic logic, thus taking educational practices away from more desirable, participatory, interactive approaches.
- Match the specific goals of WP5 relating to the professional development of teachers and other professionals, not only by including specific activities in the platform, but also by configuring the platform’s structure, functions, tools and content accordingly (see the Italian Country Report in the WP5).

Table 11 - *The specific terminology of the ISOTIS VLE*

DEFINITIONS
<p><b>Resource:</b> a collection of content providing insights on a specific topic, in the form of texts, videos, pictures, links to external selected online resources, etc., intended to support the work of the professionals (teachers, educators) and to provide parents with some reliable information on the main topics of the project. Resources were accessible from the “Content: explore the resources” in main section of the VLE menu</p>
<p><b>Case:</b> a descriptive text presenting a research experience or depicting a problematic situation, designed to trigger reflection on the case itself and observation and reflection on the local context (on children, on parents, on our professional attitudes, behaviours and practices), bridging a link between theory and practice</p>
<p><b>(Learning) Experience:</b> an activity plan or other material with a specific objective, aimed at developing specific awareness, skills or to support reflection with children (in the family and/or at school) on a specific topic.</p>
<p><b>Group:</b> a space created for a specific group of people, where (communication and learning) experiences can be accessed by children or parents, but only after a teacher or other group administrator actively shares them with the participants.</p>

## 2.3 The ISOTIS VLE Graphics and Language interface

### 2.3.1 Graphics and layout

The VLE **graphics and layout** (colours and shapes, pages organization, sections layout, etc.) was designed by a professional designer, though it was not possible to customize in all the pages of the VLE. Colours were selected applying the accessibility criteria.

### 2.3.2 A multilingual interface and content

The VLE was made available in as many languages as possible, including most of the languages of the research participants. This was a key feature of the VLE, in order to make it accessible in many languages, to mirror the kaleidoscopic, multilingual European society and to give value (in some cases only symbolic acknowledgment) to as many languages as possible. It was not always possible to overcome complexities connected to language landscapes. For example, the Arabic is a language has several oral dialects, while the written language is same, and it was not possible to make the different dialects

visible in the written texts; Romani language is an oral language that has several different context-related versions to communities located in different countries or in different regions in the same country, and it was not possible to cover all the versions.

The content available in many languages are:

- the VLE interface & the Privacy Policy;
- the theoretical background,
- the observation cases and prompts,
- the activity guidelines and the video scripts of the “Resources” section.

Each content was translated into a different set of languages, according to the use and the available resources.

**Multilingual accessibility of the VLE interface & Privacy Policy:** these were made available in several languages: as shown in the table, the interface and the texts uploaded on the VLE could benefit from a moodle pack language translation covering 32 languages (column I in the table below); regarding the VLE interface, 26 languages were provided and checked by professional translators (see column II); regarding the Privacy Policy text, 20 languages (see column III). Support for the Romani language was added as a new language pack during the course of the Project including three dialects, Romani Čhib, Romani Prekmurje and Romani Romungro (see last rows).

Table 12 - *Languages of the VLE interface and Privacy Policy text*

LANGUAGES	VLE INTERFACE		PRIVACY POLICY TEXT (Translated by professional translators)
	MOODLE LANGUAGE PACK	PROVIDED BY PROFESSIONAL TRANSLATORS	
1. English	1	1	1
2. Italian	2	2	2
3. German	3	3	3
4. Dutch	4	4	4
5. Greek	5	5	5
6. French	6	6	6
7. Portuguese (PT & BR)	7	7	7



ISOTIS Research Approach VLE intervention

8. Czech	8	8	8
9. Turkish	9	9	
10. Ukrainian	10		
11. Chinese	11	10	9
12. Albanian	12	11	
13. Japanese	13	12	
14. Hindi	14		
15. Bengali	15		
16. Bulgarian	16		
17. Gujarati	17	13	
18. Persian	18		10
19. Polish	19	14	11
20. Punjabi	20	15	
21. Urdu		16	12
22. Tagalog	21	17	13
23. Romanian	22	18	14
24. Spanish	23	19	15
25. Arabic	24	20	16
26. Russian	25	21	17
27. Tamil	26	22	18
28. Georgian		23	19
29. Sinhalese	27	24	20
30. Serbian	28		
31. Slovenian	29		
32. Vietnamese	30		
33. Wolof	31		
34. Romani Čhib		25	
35. Romani Prekmurje		26	
36. Romani Romungro		27	

- a. **Multilingual accessibility of the theoretical background, observation cases and prompts, activity guidelines.** All these contents were made available in English (proofread) and in Italian. Other national languages (CZ, DE, NL, EL, FR, PT) of the ISOTIS countries involved in the VLE intervention were provided according to local need in each intervention and translated by the ISOTIS team.
- b. **Multilingual accessibility of the video scripts.** Most of the video scripts were made available in 30 languages (see the table below), a few of the scripts in 23, 24 and 27 languages (the missing translations were due to resource constraints). All translations were done by native speakers, in some cases university or PhD students, in others by professional translators.

Table 13 - Availability of video script translations

LANGUAGE	SCRIPTS											
	1	2	3	4	5	6	7	8	9	10	11	12
1. English												
2. Italian												
3. German												
4. Dutch												
5. Greek												
6. French												
7. Portuguese (PT & BR)												
8. Czech												
9. Turkish												
10. Ukrainian												
11. Chinese												
12. Albanian												
13. Japanese												
Hindi												
14. Gujarati												
15. Persian												
16. Polish												
17. Punjabi												
18. Urdu												
19. Tagalog												

20. Romanian																				
21. Spanish																				
22. Arabic																				
23. Russian																				
24. Tamil																				
25. Georgian																				
26. Sinhalese																				
27. Romani Čhib																				
28. Romani Prakmurje																				
29. Romani Romungro																				
30. Slovenian																				

### 2.3.3 An accessibility and language mediator: Beeba

Language accessibility is provided by the integration of embedded digital tools to support multilingualism and accessibility within the VLE platform.

A character, a robot-bee named Beeba<sup>11</sup>, acts as the **linguistic and accessibility mediator** in the VLE.

The bee as a character was chosen after a cultural check (a short survey was conducted among Turkish, Magrhebian-Muslims, Romani<sup>12</sup>) that showed that the bee was perceived positively in the cultural communities taking part in the VLE.

The bee was generally seen as a crucial being in the ecosystem of life, so much that her life is connected to the survival and vitality of the environment we all live in. As some parents highlighted during the intervention in Italy, bees also represent active,

<sup>11</sup> Designed by Stefano Pirovano Design Studio (<http://www.stefanopirovano.com/>).

<sup>12</sup> The cultural check about bees was conducted by Kateřina Sidiropulu Janků, another ISOTIS researcher who volunteered for the task.

collaborative and constructive beings, who collaborate in teams and produce, from diverse sources, a good product, the most long-lasting food ever (they suggested a symbol of *goodness* stemming from hybridity).

Beeba is a structural part of the platform. She appears on all pages and provides essential services:

- **selection of the interface language of the VLE:** the user can select the language to read;
- **text-to-speech synthesis in multiple languages:** in case of difficulties in reading, text- to speech synthesis reads the selected portion of text, using the language of the text (not all the languages included in the VLE are available for the text-to-speech synthesis tool);
- **a multi-layout virtual keyboard to facilitate writing in different alphabets:** in the social communication system or in the VLE forums, a user can write in a language different from the main one of the country and use the correspondent keyboard (over 25 keyboard layouts are available in the Beeba tool);
- **a translation system to support users in reading and writing:** due to resource constrains, the free Google translate application was integrated into the Beeba-tool.
- **options for changing text size and colour scheme:** these options were made available in order to maximize readability.

Figure 9 - *Beeba*, as it appeared in the VLE



### 3 The ISOTIS VLE: Technical features, user journeys, profiles and accessibility

#### 3.1 The ISOTIS VLE Technical description

Here we describe the ideas and methodologies that guided the design and development of the ISOTIS Virtual Learning Environment from a technological perspective.

The modular, Open Source software package Moodle (<https://moodle.org>) was chosen as the main basis for the development of the platform. It is designed to be customizable and to support communication, collaboration and the tracking of learning processes, supporting an "anytime, anywhere learning" approach<sup>13</sup>. This choice was mainly driven by the fact that Moodle is recommended in the related research literature for its features, especially in terms of communication tools (Cavus & Zavadi, 2014) and based on its

<sup>13</sup> Available at: <https://moodle.org/>, last consulted May 9, 2019

compliance with educators' needs (Cavus, 2013). There are also other motivations, discussed in detail in the following paragraphs, some more technical, others more strategic.

### 3.1.1 Openness, standardization and privacy

Open Source Software (OSS) grants its users with different rights, among which is the possibility to study and improve it to fit specific needs in the best possible way (Krishnamurthy, 2003). The use of OSS is encouraged by many governmental and non-governmental institutions, in order to leverage the possibility to reuse existing software, with benefits that are related both to a technical dimension (reliability, security, flexibility of use and performance) and to an economic dimension (freedom from vendor lock-in, increased collaboration and innovation) (Morgan & Finnegan, 2007).

For organizations that truly care about the privacy of their users, Open Source web applications like Moodle allow self-hosted, privacy-oriented environments to be built. Given that the ISOTIS project involved different kinds of participants and addressed delicate topics, it was important to keep data management strictly under control.

Privacy matters are connected to learning processes in a kind of secondary way, yet they lie at the foundation of trustworthy and successful learning experiences. In May 2018, the new *General Data Protection Regulation 2016/679/EU* (GDPR) came into effect in all European Countries. Moodle was enriched with a set of GDPR-related features via two plugins. The two software packages, named "Policies" and "Data Privacy", respectively

- "define various policy documents - site policy, privacy policy, intellectual property policy [...] and others as needed."
- provide "the workflow for users to submit subject access requests and for site administrators and privacy officers to process these requests."<sup>14</sup>

Activating these two plugins in the VLE meant having complete control over data access requests from participants, with the possibility to grant permission to different platform users to manage their data, according to their role in the project.

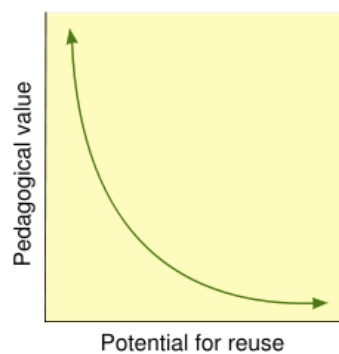
### 3.1.2 Sustainability in the long run

Another aspect that was taken into consideration for the choice of Moodle was the fact that the project aimed at being *redistributable*. Together with the research results, the VLE implemented by ISOTIS was meant to be a valuable resource for schools and institutions that want to implement inclusive educational platforms for their users. The adopted technology had to be redistributable and reusable in future scenarios, in order to maximize the dissemination impact of the whole project. Moodle supports different

<sup>14</sup> <https://moodle.org/plugins/browse.php?list=set&id=90>, last consulted May 9, 2019

eLearning standards, such as SCORM<sup>15</sup> and xAPI<sup>16</sup>, and provides an excellent way to export content in order to make it transferable and reusable, also after the overall project ended.

This specific aspect was taken into consideration to comply with the “Open Educational Resources” (OER) philosophy (Hylén, 2006), defined by UNESCO as “the open provision of educational resources, enabled by information and communication technologies, for consultation, use and adaptation by a community of users for non-commercial purposes” (UNESCO, 2002). OERs can be seen as the building blocks for sustainable education practices that have the potential and the ambition to reach learners in different contexts, removing barriers to knowledge. Actual reusability of Open Educational Resources has been discussed and criticized in literature, especially because of the “reusability paradox” described by Wiley (2003): the potential for reuse tends to decrease if the pedagogical value of a Learning Object is very high, and likewise, if designers of learning content focus more on transferability, the content needs to be more generic and less focused on a pedagogical level.



The reusability paradox (Wiley, 2003)

In developing the structure and content of the ISOTIS VLE, this paradox was taken into consideration: as discussed in the following sections, the solution was to diversify the topics and the approaches in order to make content interesting for various user groups.

### 3.1.3 Technological stack

The minimum technological stack behind the platform is based on a web server (Apache, <https://httpd.apache.org/>) configured to interpret PHP code and a database software

<sup>15</sup> <https://adlnet.gov/research/scorm/scorm-2004-4th-edition/>, last consulted May 9, 2019

<sup>16</sup> <https://www.adlnet.gov/research/performance-tracking-analysis/experience-api/>, last consulted May 9, 2019



(MySQL, <https://www.mysql.com/>). In order to guarantee optimal performance, other software components were implemented, namely the “Memcached” (<https://memcached.org/>) engine for page caching and performance optimization, and the “Solr” (<https://lucene.apache.org/solr/>) search engine to index all the contents and made them available to users who had access, also thanks to a simple search feature integrated in the system.

The Moodle instance installed over this stack was enriched with a custom graphic theme based on the basic “Boost” theme ([https://docs.moodle.org/37/en/Boost\\_theme](https://docs.moodle.org/37/en/Boost_theme)) provided by the developers of Moodle. The Moodle version used, 3.4, was the latest stable version at the time the project started. Security updates were applied regularly after their release. A list of plugins was also installed in order to expand the functionalities of the core system:

- **Dialogue** ([https://moodle.org/plugins/mod\\_dialogue](https://moodle.org/plugins/mod_dialogue)), to allow one-to-one discussions in a forum-like fashion;
- **Etherpad lite** ([https://moodle.org/plugins/mod\\_etherpadlite](https://moodle.org/plugins/mod_etherpadlite)), to make real time collaboration on text documents possible;
- **Open Forum** ([https://moodle.org/plugins/mod\\_hsuforum](https://moodle.org/plugins/mod_hsuforum)), to provide an alternative to standard Moodle forums, especially in terms of User Experience;
- **H5P** ([https://moodle.org/plugins/mod\\_hvp](https://moodle.org/plugins/mod_hvp)), to allow the integration of interactive learning activities such as small games and presentations that could be created directly within the platform;
- **Journal** ([https://moodle.org/plugins/mod\\_journal](https://moodle.org/plugins/mod_journal)), to add personal notes and open answers to reflection questions that could be reviewed by users, as an alternative to assignments;
- **Questionnaire** ([https://moodle.org/plugins/mod\\_questionnaire](https://moodle.org/plugins/mod_questionnaire)), to collect answers from participants using various types of questions, as an alternative to quiz and feedback modules.

Regarding “multimodal communication”, the solutions adopted in VLE development were varied. Another plugin, in addition those listed above, implemented from the beginning of the project, gave users the possibility to record audio and video directly from their web browsers, wherever a text area was present in the various activities proposed. This solution, available via a plugin to the default rich text editor called RecordRTC ([https://moodle.org/plugins/atto\\_recordrtc](https://moodle.org/plugins/atto_recordrtc)), later became part of Moodle core (since version 3.6). It enables people who are not familiar, confident or at ease using a keyboard to interact with forums and other writing spaces by simply sharing their thoughts and ideas in the form of oral and gestural transmission. In the same way, the Sketch plugin ([https://moodle.org/plugins/atto\\_sketch](https://moodle.org/plugins/atto_sketch)) was added to the default text editor, to allow expression through simple drawings as well as basic editing functions for uploaded images.

One last element, also in line with UDL guidelines, concerned content presentation. The integration of four other technological solutions were made available throughout the whole system via Beeba, the virtual assistant presented in the previous section:

- Text-to-speech synthesis, to allow for the direct and independent transformation of written text into audio – this was obtained integrating the ResponsiveVoice.JS (<https://responsivevoice.org/>) service into the platform;
- Automatic translation, to make user generated content available in multiple languages – obtained by integrating the Google Translate “Website Translator” service (<https://translate.google.com/intl/en/about/website/>)<sup>17</sup>;
- High contrast colour schemes, specifically for this platform but based on the Farfalla Project toolbar (<https://farfalla-project.org>), allowed for the personalization of the user interface appearance;
- Onscreen keyboard, to facilitate writing using different alphabets - based on the open source VirtualKeyboard library (<https://www.codeproject.com/Articles/17128/JavaScript-VirtualKeyboard>).

### 3.2 The ISOTIS-VLE User profiles and access levels

The system was designed to be used by four different categories of people, plus a platform administrator, for a total of 5 user roles. What follows is a description of each role, which are quite different from native Moodle User Roles. In the case of ISOTIS, the roles did not just determine the permissions and privileges for each user in the context of single courses. They defined how and where the participants could interact with the platform and with the content made available by the project.

Each main group of participants received credentials to access a specific user profile, tailored to their needs: professionals, children, parents and researchers were granted unique usernames and passwords that were associated to each group. Each group had specific access to selected areas of the platform and specific privileges. A key role was that of teachers, social workers and volunteers, who had to support access by other users (mainly parents and children) and stimulate their participation in the proposed activities.

The main functionalities of the system will be described from different user perspectives in the following subsections.

<sup>17</sup> The feature that allowed including Google Translate in a website was later removed by Google. This change does not affect existing use of the Website Translator.

### 3.2.1 Professionals (teachers, educators...)

Education professionals like teachers, training experts and educators, had responsibility over one or more groups connected to their work environment. The main functions available to this role were:

- a) Exploring the resources section, with the possibility to find information about topics of interest (e.g., multilingualism and multicultural education) and to look for useful prompts for experiences that could be proposed to a class;
- b) Designing, preparing, and setting up their own work plans, getting inspiration from the available resources on the platform;
- c) Communicating and collaborating with peers/colleagues using channels like group noticeboards and the integrated messaging system;
- d) Organizing their own resources (materials, tools, plans, etc.) by copying them from the resources section and adding new content;
- e) Documenting experiences in classrooms and with other groups of participants through pictures or videos, observations, notes, reflection, homework, etc.;
- f) Developing their own experiences, reflections, analyses and projects through their personal space;
- g) Communicating with students and parents, via the group noticeboards or personal messages;
- h) Accessing data about the activities of other group participants, both in aggregated and in a *per user* form.

### 3.2.2 Students

Students, especially children attending schools in the project sites, participated in group activities and only had limited access to the resources. The main functions available to this role were:

- a) Accessing the system while at school, at home or in a community centre
- b) Participating in the class/group experiences proposed by teachers
- c) Uploading content as part of the activities or in the form of answers to assignments
- d) Communicating with peers via the class noticeboard or via private messaging
- e) Organizing personal resources (i.e., files, links, annotations)

- f) Accessing their own personal data

### 3.2.3 Parents

Parents participated in activities and in groups that related to their area or to their children's schools. The main functions available to this role were:

- a) Accessing the system, including all of the available resources, at home or at a community centre;
- b) Participating in classroom/group experiences proposed by teachers, being involved in participative activities with their children, with other parents, or with professionals;
- c) Finding information about various topics through the resources
- d) Communicating with other parents via the group noticeboards or private messaging
- e) Organizing personal resources (i.e., files, links, annotations)
- f) Communicating with the teacher(s) or other group coordinators

### 3.2.4 Researchers

Researchers took care of directing and coordinating the efforts of one or more groups of participants on a Country basis. The main functions available to this role were:

- a) Accessing all the available resources, with editing capabilities on some of them, according to the organizational structure of the project and the participation of different researchers for specific WPs;
- b) Creating content for the relevant resources;
- c) Communicating with all the other users via the group noticeboards and the private messaging system;
- d) Organizing personal resources (i.e., files, links, annotations);
- e) Accessing data about single users and aggregated data from all classrooms/groups/other discussion spaces relevant to the WP and to the Country where each researcher worked.

### 3.2.5 Platform administrators

The platform administrator oversaw the entire platform, with the capability to add users, assign them roles and access content in every part of the system. This role was purely intended for the maintenance of the platform, not for pedagogical purposes.

### 3.3 The ISOTIS VLE Accessibility methodological approach

The design of the platform followed the Universal Design paradigm (Mace, 1985), considering every possible user need from the very beginning (including, for instance, learning disabilities, visual impairments, socio-cultural disadvantage, linguistic gaps, educational disparities). More specifically, the framework known as Universal Design for Learning, or UDL, (Rose & Meyer, 2002) was used as a reference for the variability of the learning potential of the target groups. UDL provides nine guidelines<sup>18</sup> for educators and instructional designers, with specific advice about three main areas that correspond to brain networks:

1. Perception – linked to the *recognition network*, the part of the brain in charge of collecting and interpreting information coming from the senses;
2. Strategic thinking – linked to the *strategic network*, where responses to complex questions are elaborated, in activities such as solving a mathematical problem or writing a text;
3. Emotions and engagement – linked to the *affective network*, the part of the brain in charge of collecting and interpreting the information coming from the senses;

The main theory of UDL is that people vary in the way they learn and how their brains process information and produce answers to pedagogical questions, and every learning process is also influenced by the level of engagement and in general by the affective sphere. By considering the 'user profiles' of people who would typically experience problems in accessing an average website, the design of the VLE incorporated various solutions meant to facilitate participation, also for people who may experience problems in reading or writing. This was addressed by the use of multiple means of representation and interaction with the content (i.e., almost all text areas where users could write allowed for audio and video recording; all textual content could be read aloud by a text-to-speech system). The general idea was to avoid the creation of unnecessary barriers to participation and to lower the technical skill requirements for all participants.

UDL has already been connected to multicultural education, in the training of pre-service educators (Pearson, 2015) or in secondary inclusive classrooms (Garderen & Whittaker, 2003), but apparently not in primary or pre-primary school contexts, nor in working with families. A strong focus was thus put on the use of multiple means for engagement, representation and interaction with the content, as suggested by the three Principles of Universal Design for Learning. The leading criteria was to avoid all unnecessary barriers to participation, and to lower – as much as possible – the

<sup>18</sup> <http://udlguidelines.cast.org/>, last consulted May 9, 2019.

requirements in terms of technical skills for all the involved participants. This made it necessary to make use of a variety of design and usability testing techniques.

### 3.3.1 Usability principles and methods

Given the strong focus on the overall principle of inclusiveness, one priority was to concentrate on the usability and accessibility aspects of the VLE. It was necessary to adopt a tool that allowed for high customization. Moodle is customizable mainly in two ways:

- it is extendable through plugins that add extra functionality or provide alternatives to built-in features: this aspect allowed us to quickly add features on the basis of the pedagogical and content requirements that emerged as important during the process.
- it supports theming: not only was the project aimed at the creation of the best possible user experience, but it also wanted to support multilingualism by facilitating the decoding of content by people with diverse needs and backgrounds. With a custom theme, the platform could be enriched by additional features at the user interface level.

Given these features, it was possible to integrate the character called Beeba in the platform interface, acting as a mediator between the interface and the users, specifically on the level of perception. Text could be vocalized, translated, its appearance changed (i.e. background and foreground colors), to custom keyboard layouts could be used, different from that of the actual device being used.

In order to provide features that would make sense to users, the initial design phase relied on the use of 'proto personas'. This is a variation on the user-centred design technique known as 'personas', initially defined by Cooper (1999) as fictitious, specific and concrete representations of target users, guiding the User Experience (UX) Design process. This form of user-centred design allowed designers and developers of tools and services to share a common view of the target users, their motivation and their expectations. Personas must be based on research in order to avoid becoming stereotyped representations of users. Each persona requires a short description and sums up some data about target users. Creating a list of them is useful to keep the variability of the target population in mind during all the phases of a project. Proto personas, in the case of ISOTIS, were based on previous knowledge of the target users that came from initial and past research.

### 3.3.2 The 'proto personas' creation process

Personas were initially conceived of to help overcome the drawbacks of data alone, i.e. to use knowledge we had but at risk of getting lost in the complexity of the project, or of not being applied where it should. Personas also help in keeping micro-decisions aligned with macro goals. They must not be confused with concepts such as market segmentation, as they do not provide insights about product features, or user

profiles/roles, as they are representations of user archetypes, regardless of their actual role in the platform.

The user base for the ISOTIS VLE was mainly composed of teachers, K-12 students, their parents and researchers. User Experience design was a priority for the first three groups. We needed of three/four personas for each role, plus one for the researchers – for a total of 10-15 personas.


Following a “lean UX Approach”, articulations of segments of the VLE user base were created in the form of proto-persona sheets to transfer knowledge between project members and gain alignment.

A common practice in the “persona sheet” generation is to include some kind of “structured” data such as: a quote (i.e. what is the motto of this persona?); priorities, needs, & expectations (i.e. what is important to the user in this domain?); must/must never (i.e. Tangible and actionable guidelines); frustration and pain points (what issues are they dealing with on a daily basis?).

In order to avoid the risk of basing the process on assumptions, instead of creating classical persona sheets the team decided to use a lightweight version of them, called proto-personas, based on previous research experience in the field that was about to be addressed.

Figure 10 - Example of proto-persona sheets

# ELINA



Mother

Elina is **thirty-five years old** and is **from Georgia**. She has been living in Greece since she was fourteen. Although she graduated from secondary school, she didn't continue her studies at the university.

Her **son** is at the **age of ten**, while her **daughter** at the **age of seven**. **She does not have a permanent job**. Previously, she was working at a craftmanship and some factories. Nowadays, due to the economic crisis, it is difficult for her to find a job. So, **it is so hard for her to cover her family's needs**.

**She only speaks Greek and Georgian**. In fact, she hardly ever uses the Georgian language, just when she wants to contact with some of her relatives.

She does not know how to use computers. There are some institutions, or the church that support her. However, she would like to be able to stand on her own feet so that to take care of her children.

**Her children do not speak Georgian**. They just know some words. In general, there is not communication between them and their relatives that stay there. **Neither she has internet connection at home, nor a computer**.

She thinks that if she had a permanent job, she would be able to offer more to her children.



**DENIZ**



### Female Professional

Deniz is a young **professional in the education sector**. She lives in a shared house with other young professionals, she has a university degree in education from Turkey and she recently graduated from a **Master's degree** at UCL. She is currently **working in a bilingual kindergarten** in London for Turkish-speaking children.

She **has a laptop and a smart phone** and she uses them everyday for her work and personal life. She sends e-mails, writes reports for work and she uses Facebook and Instagram and she skypes/facetimes her friends and family in Turkey.

Deniz is a **very dedicated** young professional. She loves her job and she is very happy with working with young children. She needs to work on her professional development as the education sector is very competitive and as an immigrant it is very difficult to find good jobs in London. As she is planning to start a family in the near future, she wants to find a better paid job in a few years.

To help herself learn new things in her field, she would love to **attend to seminars or workshops** to specialize in bilingual child development but she neither has the time nor the financial resources for that.

She **wants to develop her teaching skills** and learn new methods to apply in her classroom. She is mostly interested in learning new class activities to try with her students.

She follows a few magazines on child development and education that the nursery she works at subscribed to, focusing on various subjects. As she is mostly interested in bilingual child development in migrant contexts, she **looks for more specialized sources of information**.

### 3.3.3 Usability testing

Besides the use of proto-personas to guide the initial development of the platform, some qualitative usability tests were run during the course of the ISOTIS VLE implementation. The goal of usability testing was to discover what worked well and what areas needed to be improved: it allowed us to outline and prioritize necessary modifications, as well as to develop new ideas for the platform.

The initial idea was to run multiple, consecutive rounds, with 5 users involved in each of them, editing the platform appearance and behaviour between each test. After the first batch of 5 users there was already a huge amount of data to process, which is consistent with usability-related literature. As the platform was in an initial development stage and it was necessary to present it to real users, the following usability data was collected during the process and via questionnaires. The initial usability testing session stands as a standardized way to collect data for future design iterations. The following paragraphs describe the typical usability testing session, report the main findings, and present the feedback gathered from other users during the course of the pilot phase.

### 3.3.3.1 Typical UX testing session

- Number of users: 5 for each round
- Duration of sessions: 30 to 60 minutes
- Incentive: None
- Participant requirements: Participants were recruited among the platform pilot users and ISOTIS researchers.
- Computer set-up:
  - Apple MacBook pro laptop running Quicktime for screen recordings
  - Attached monitor size – 24”
  - Resolution: 1920x1080 pixel
  - Mozilla Firefox web browser
  - Sound enabled – Yes
  - Printer – No
  - High speed Internet connection – Yes
  - Webcam to record participant's audio
- Methodology:
  - Thinking aloud protocol – participants were asked to describe what they were doing and what they were thinking/expecting to happen while acting on the platform
  - Users started from the homepage and were presented with 5 tasks on another screen
  - Users were given 3-4 tasks, depending on the time spent on each task
  - Users were required to read each task aloud
  - Users answered one simple question about the level of ease of use they perceived between each task
- Task presentation

The tasks that participants were asked to complete during the sessions were presented on a separate screen, in the form of plain slides with the task written at the center of the screen in a clear and concise way. At the end of each task, users were asked how easy it was to complete it on a scale of 1 to 5.

At the end of each session: The facilitator reviewed the platform with the user and asked for any needed clarification, or allowed participants to try something that they missed.

After each session: Cookies were cleared, as well as browser cache and navigation history.

Quantitative measurements: Success for each task was described by the facilitator on a 0-4 point scale:

0. failure
1. partial failure
2. partial success
3. almost complete success
4. success

Facilitation: the facilitator coordinating each testing session was provided with a facilitator script, like the one in

Figure 12

### 3.3.3.2 Initial usability results

The first round of usability testing based on the methodology and the scripts described in the previous paragraphs took place from December 2018 to January 2019.

The five participants were chosen among ISOTIS researchers who would act as group leaders during the pilot phase, so that the usability testing feedback would be authentically based on the real participants and the co-design principles were also applied to the core group of researchers.

The four tasks used for the initial testing phase were:

- Assume you were just given the credentials to access the platform. Use them, and make yourself comfortable on the website.
- Assume you have heard something about the effects of being multilingual on your brain but you want to know more. Use the website to find some interesting information about that.
- You were just introduced to a group on the platform. Check if there are new messages from the group administrator.
- Imagine you just found out that someone you know accessed the platform. Greet him or her personally (your friend is called “Demo parent” on the platform).

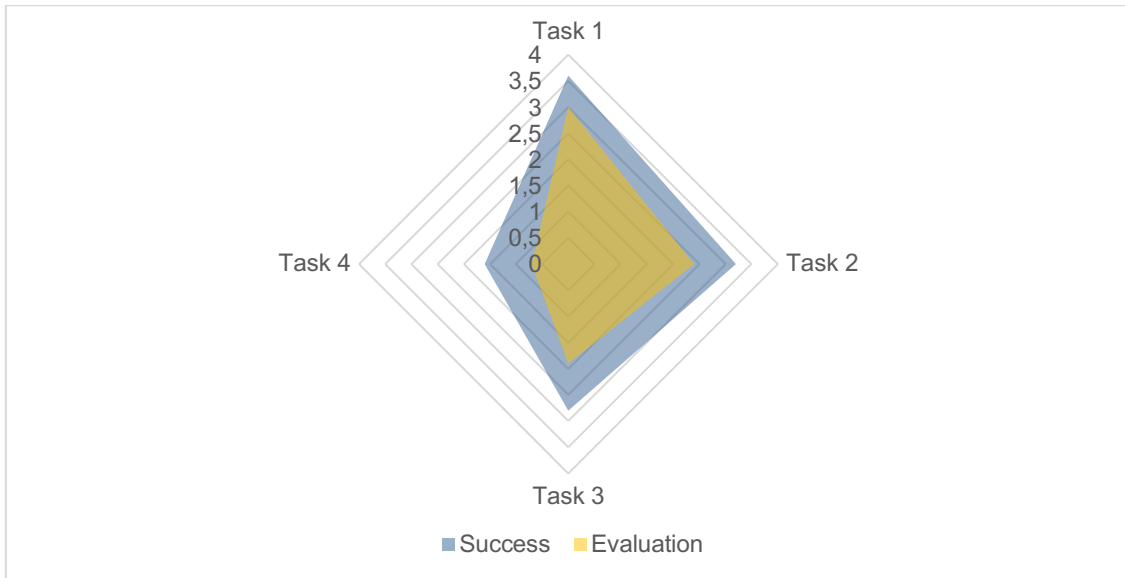
As success scores were rated on a 0-to-4 scale, while perception of the ease of use was rated by participants from 1 to 5, the “ease of use” score was recalibrated by subtracting one point from each answer. The final mean scores and standard deviations that the four tasks obtained in both success and ease of use terms are reported in the following table.

Table 14 - Data from the first round of usability testing in person

Task...	1	1	2	2	3	3	4	4
	Succes	Ease	Succes	Ease	Succes	Ease	Succes	Ease
	level	of	level	of	level	of	level	of
		use		use		use		use
<b>Mean</b>	3,6	3	3,2	2,4	2,8	1,9	1,6	0,7
<b>S.D.</b>	0,55	0,71	0,84	1,14	0,84	1,52	1,34	0,67

The mean scores are represented in the following chart, comparing success rates and ease of use evaluations.

Figure 11 - Success and ease of use ratings for each task



The graph shows quite clearly that the first two tasks were completed easily and had a relatively high ranking in terms of perceived ease of use. They were the more open-ended, explorative tasks and allowed participants to familiarize with the platform without the feeling of being under examination. Task 3 and 4 were created with the aim of testing out the discoverability of two main functionalities (group communication and individual, one-to-one communication). These two tasks scored lower in terms of both success rate and subjective evaluation of ease of use, with task 4 scoring very low in terms of ease of use. Later on it was discovered that the main problem with that specific functionality was connected to a misconfiguration of Moodle related to email notifications: this made the instant messaging functionality work very badly during the initial stages of the pilot.

Starting from these points and analyzing the interactions and comments of participants, it was possible to list ten elements that created problems or stimulated reflection in the participants. Each element was associated to an estimated level of importance, ranging from “low” to “high”. Possible solutions were proposed for each element in order to prioritize the technical interventions and to improve the overall usability of the platform.

1. Level: **high**

Graphic elements such as titles in the resource pages were generally confused because they looked too similar to each other. Two participants suggested differentiating them better. A recurring comment was about the overload of information: most pages were considered to present too much content.

Possible solutions considered:

- Change the default title styles
- Hierarchical organization of content into collapsible elements, to reduce the amount of visible information

2. Level: **high**

Participants details were visible in Moodle by default: they could be seen through chat functionality globally and their profiles were available in the “participants” section of each course. This raised some privacy concerns.

Possible solutions considered:

- Remove access to other user information via Moodle’s permissions management system
- Remove access to the search box in the messaging system

3. Level: **high**

The translation functionality offered by Beeba had some problems, especially when switching between viewing and editing posts in forums.

Possible solutions considered:

- Review Beeba’s translation functionality to better integrate with Moodle’s text editor

4. Level: **medium**

The platform terminology was not always very clear, especially where it concerned user interface elements coming from the underlying Moodle software (i.e., in group forums the buttons for replying to discussions used words like “discuss this topic” instead of a simple “reply”). One of the participants also pointed out that forum action links were difficult to find. Another user tried to reply to a post but instead created a new one.

Possible solutions considered:

- Review the terminology
- Use icons for the most used components

5. Level: **medium**

Multi-page elements such as Moodle “book” activities were not easy to navigate because the table of contents was displayed at the bottom of the page. Moodle has a built-in functionality that shows the next available activity in a course, this caused at least three participants to erroneously change activity while browsing a piece of content.

Possible solutions considered:

- Move the table of contents to the top of the page or the sidebar
- Remove the activity navigation menu

6. Level: **medium**

The default personal messaging functionality in Moodle makes a distinction between personal contacts and available users which was unclear to three participants. They had trouble in finding the “Demo parent” account and when

they finally succeeded, the system did not allow them to send messages.

Possible solutions considered:

- Design the personal messaging page to make the active functionality clearer and more evident
- 

7. Level: **medium**

Two users went to the private messaging area expecting to be able to send group messages as well, but the platform didn't allow this.

Possible solutions considered:

- Put private messaging and group access links/icons next to each other to make the difference between the two functionalities more visible;
- Integrate personal and group messaging together;

8. Level: **low**

Two participants pointed out the absence of "action links" in the left-hand menu.

Possible solutions considered:

- Add shortcuts to commonly used actions in the sidebar

9. Level: **low**

It was not clear if resources were intended for teachers or parents.

Possible solutions considered:

- Add labels to the resources
- Clarify that parents can only see some of the resources

10. Level: **low**

The cloning system did not prevent users from cloning the same content over and over.

Possible solutions considered:

- Add a dialogue window asking for confirmation before cloning a previously cloned activity

This classification of flaws and problems allowed us to prioritize interventions and fix some of the most important issues early on. Not all the problems were fixed directly in the platform, and some of them required huge efforts: problems 1, 2 and 3 were addressed first, but with satisfying results only for 2 and 3. The overall look of the platform did not improve enough to make it clear to all participants, as later usability assessments in the context of specific WPs demonstrated.

In order to address problem n. 4, the platform's graphic theme was modified. Issues n. 5, 6 and 7 were not addressed in the pilot platform, but were taken into consideration

during the development of a second iteration of the platform interface, tested with only one group of users (see section 2.6.3.4).

Elements n. 8, 9, 10 were not directly addressed.



Figure 12 - *The Facilitator script used in the usability testing session*

ISOTIS Project -Usability Testing	Facilitator Script & Instructions
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**Sample Facilitation Script**

Thank you for coming in today. My name is \_\_\_\_\_ and I am working for the ISOTIS Project. Thank you for helping us with this research study today.

I will be giving you activities to do on our website and asking you to work through them. So I won't really be interviewing you, instead I have some written instructions of specific things I'd like you to try.

The purpose of doing this is to understand how we can make the website easier to use. Getting feedback from you really helps us with that. Our session today will take no longer than 40 minutes.

We'll be recording the session, . The data is only used for our internal design purposes.

[Normally a consent form is given at this point, in our case we should just remind participants that this activity is compatible with the consent form they already signed for focus groups etc.]

I'm going to take notes as you work and be quiet most of the time. I may ask for clarification from time to time. But most of the time, I will be listening for your comments. Sometimes I might direct you to a different place on the website, or start a new activity before you complete the one you are working on. This is part of the process.

I will give you the activities one at a time. Work at your own pace. Go as far as you would if you were alone. Do what you normally would do if I was not here. When you complete an activity, say, "I'm done" or "I would stop here." I also want you to know there are no right or wrong answers.

If, at any time, you'd like to take a break please let me know.

To help us learn, please tell me what you are thinking as you work. If you are reading anything on a website, please read some of it out loud so I know what is interesting to you.

Tell me if anything comes to mind that you don't understand or that you think is easy to understand, or that you like or dislike.

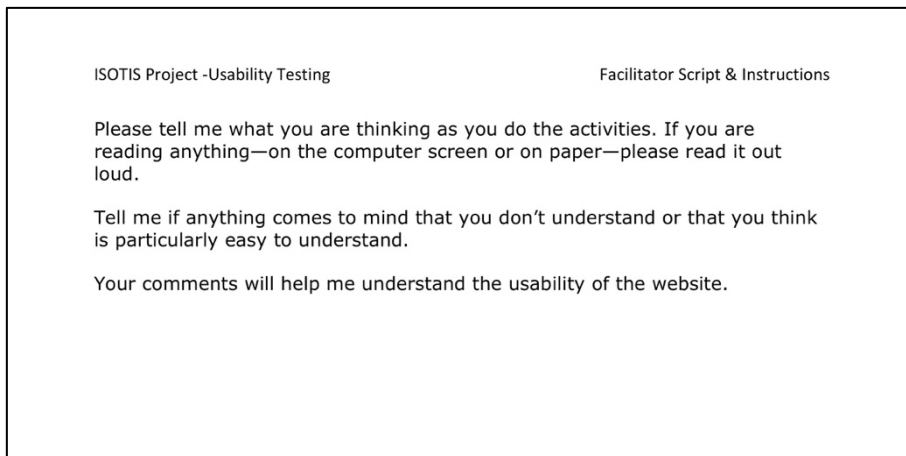
This page describes this a little more. Please read this out loud for us. [Hand *Think Aloud Instructions*]

If you have questions at any time, please feel free to ask. I might not be able to answer right away, because I don't know the answer or don't want to influence you. So I might ask if we can wait and talk about it at the end of the session.

Any questions before we start?

**Think Aloud Instructions**

*The following text should be printed on a blank page (without heading) and given to the participant to read out loud. "I" and "me" can be substituted for "we" and "us" if observers are present in the room.*



### 3.3.3.3 Feedback from researchers and participants

During the pilot phase, and specifically in March 2019, some issues with the platform, its usability and the process of testing it with real users were highlighted by some of the national teams. This led to the decision to adopt the platform as a space to reflect on possible problems that the implementation could encounter and share solutions, thoughts and warnings notices. A group was created on the platform, where all the researchers involved in the project could participate in three thematic forums and report issues they had experienced or that were reported to them by users:

1. Bugs and problems
2. Questions and anecdotes
3. Bug reproduction and testing

The main issues that were discovered and shared thanks to this collaboration were the following:

1. Photos shot and uploaded using a smartphone in 'portrait' mode ended up sideways on the platform when looking on a computer screen. This was considered annoying by many users.
2. Image upload was very complex, as it required a high number of clicks/taps. As one of the researchers reported, teaching users to do this would take up session time, and they were likely to forget how to do this by the following weeks; it was also possible that they would not feel confident to do this independently, when researchers or group leaders were not there.
3. The system featured an integrated audio and video recording system, based on WebRTC technology. This did not work on some devices, because of the lack of support by some companies (i.e. Apple). In addition, users reported problems saving videos that were more than a few seconds long.
4. The organization of menus was considered too difficult to manage, especially from mobile phones. Some researchers used a different organization of group noticeboards as a workaround, but in general the platform resulted as clunky to

use from a mobile phone. This was a problem mainly for parents, who often used only mobile devices to access it.

5. On the management side, there were some problems with user roles generating from the fact that in the initial design of the platform, some core Moodle functionalities were modified from their original purposes. This introduced unexpected behavior when the resources were shared with specific groups and activities required specific roles.
6. Language switches did not always work properly and the automatic translation system implemented using Google Translate could interfere with browser settings.

The above listed issues were all causing trouble in the various groups of participants. Issue number 1 was solved by introducing a Moodle plugin and then editing it in order to correctly reproduce images in forum posts and pages.

Problems n. 2, 3 and 4 were directly related to the nature of the technology in use and were not directly addressable during the pilot phase. An attempt at solving them was made in the second iteration of the platform design described in the following section.

The same happened for problem n. 5. In the second iteration the development team tried to avoid forcing the behavior of Moodle and readapted the user experience to the native functionality provided.

Finally, issue n. 6 was addressed directly, but it was only partially solved: many users continued to have difficulty understanding the difference between the platform language settings and the automatic translation function.

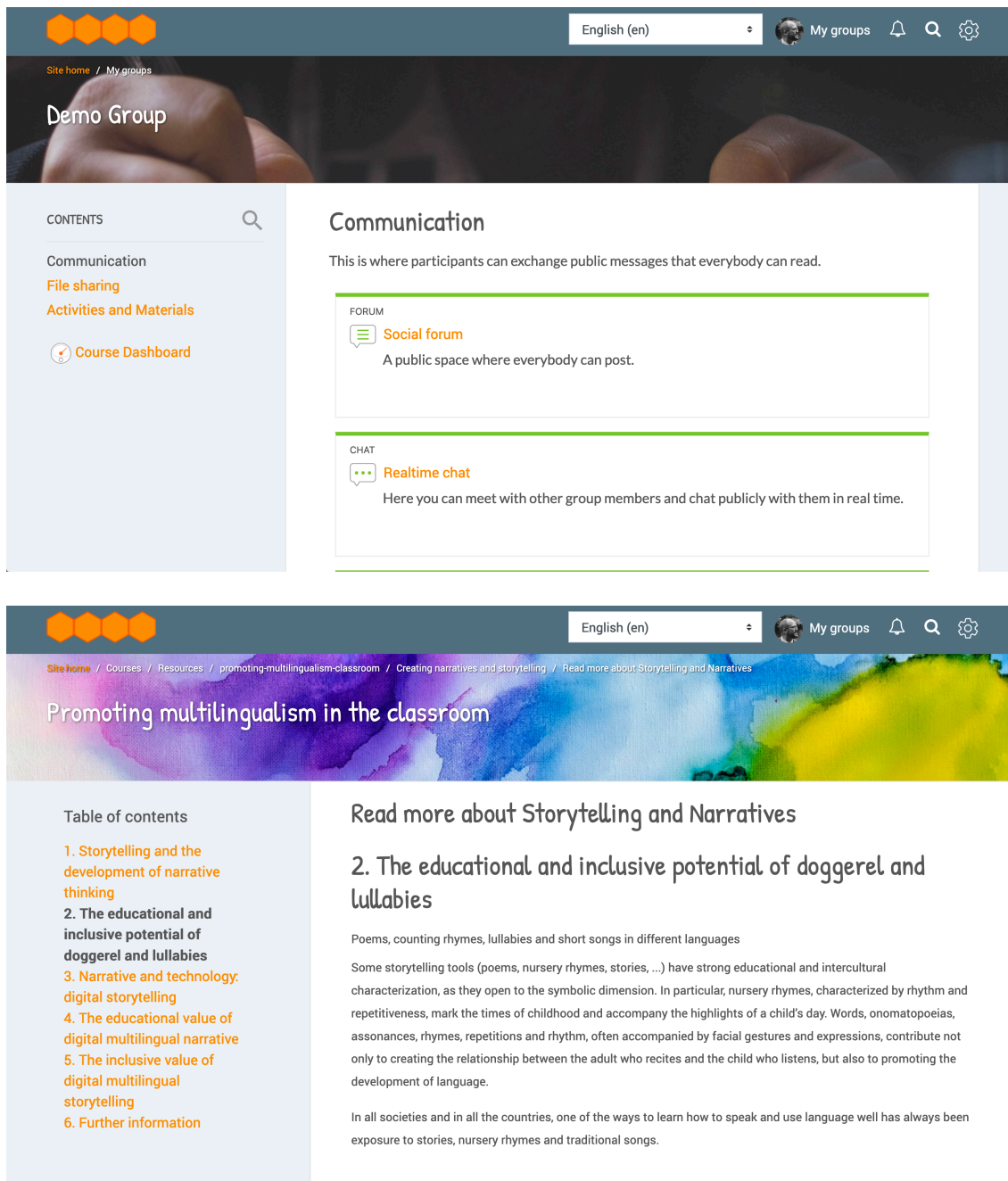
### 3.3.3.4 The second design iteration

Starting in April 2019, the development of a second iteration of the platform interface started, based on the idea that fixing the remaining issues on the initially developed platform would have been too difficult and would have impacted negatively on the groups of participants that were getting used to the platform as it was.

The resources were copied to a fresh Moodle install equipped with a responsive theme called Snap<sup>19</sup>, explicitly designed to improve Moodle's overall usability and provide users with a modern, easy-to-use interface.

<sup>19</sup> Available at [https://moodle.org/plugins/theme\\_snap](https://moodle.org/plugins/theme_snap)

Figure 13 - Screenshots of the second iteration of the VLE featuring a group page and a resource



This newer version of the platform was visually adapted to the graphic theme developed for the first iteration, taking advantage of some solutions that were already available in the new template that made some of the above highlighted issues easier to overcome.

More specifically, this second iteration showed that it was possible to solve the following problems:

1. In the initial qualitative usability assessment, some participants were confused by graphical elements such as the titles in the resource pages. This new layout made the information architecture clearer by appearing progressively on the screen;
2. Multi-page elements, such as Moodle “book” activities, were not easy to navigate because the table of contents was displayed at the bottom of the pages in the first version of the platform. In the second version, tables of contents were displayed in the sidebar menu during reading, replacing the main menu. Also in this case, showing only part of the menus improved relevance and overall satisfaction;
3. Image upload could still be very complex, but the graphic theme chosen as the basis for this version made it much easier, at least in some parts of the platform (i.e., in the course management pages and in “quick” forum posting areas). This solution did not work throughout in the entire platform.
4. The integrated audio and video recording system, based on WebRTC technology, still did not work on all devices, but an alternative solution was tested: since Moodle can also be accessed via a native mobile app for Apple iOS and Android platforms, users were encouraged to try that. They reported better experiences, but the final results differed between images uploaded from the web and images uploaded from apps: the former were integrated into posts, the latter were just attached alongside it. This difference in behavior between the web and mobile versions was deemed confusing by many participants.
5. The organization of menus was considered too difficult to manage and to understand, especially from mobile phones. To mitigate this, the hierarchical organization was inverted, putting the “my space” section and specific groups at the top of the user interface. Groups, now created using regular Moodle courses, were available on all pages via the activation of a dedicated menu item.
6. The unexpected behavior experienced earlier, when resources were shared with specific groups and activities required specific roles, was avoided by using Moodle functionalities in a more traditional way. This was also required in order to have the mobile app work as expected.

Besides solving many open issues, the second iteration of the platform still has some flaws that required attention. The main problem is due to the inconsistencies between the web and the mobile user experience. Besides adopting different file upload techniques, the two faces of the platform were also different in terms of multilingual support: switching between languages in the mobile app was far less intuitive than in the web version, and automatic translation was not available at all in the app.

At the present date, no in-depth usability assessment has been run on this platform.

## 4 Data management in the VLE, GDPR compliance and Privacy Policy

### 4.1 Different scenarios for data collection, storage and use

National teams were asked to ensure that the following elements were fully met during the VLE-related tasks:

1. the European General Data Protection Regulation (Reg. EU 2016/679) which apply across the European Union (including the United Kingdom);
2. relevant national legal and ethical requirements;
3. the standards described in the ISOTIS data management plan.

**Signing an informed consent** was required for all participants (i.e., information sources) and the anonymity of participants was guaranteed whenever possible.

There were two major cases for data collection in ISOTIS, namely:

data from interviews, focus groups and observations  
VLE related data

The following paragraphs discuss them in detail.

#### 4.1.1 Data from interviews, focus groups, observations

Anonymized research data from interviews, focus groups and observations were stored on secure servers in each country participating in the VLE initiative for a minimal retention period of 10 years after publication. Following the Consortium Agreement, all ISOTIS partners were granted unconditional access to anonymized data from their own countries. Access to the anonymized data from other countries was granted based on an approved analysis and publication plan and in close collaboration with the specific countries. In addition, anonymized research data were made available for reuse by other researchers, in line with the Open Access policy of the European Union.

As stated in the Data Management Plan, raw data from qualitative interviews, documents, minutes and observations were made available for reuse only after full anonymization in order to protect the privacy of informants and organizations. The narratives were made available by adding them as appendices to the obligatory public reports.

#### 4.1.2 VLE related data

The data related to the VLE falls into two broad categories:

1. Audio-video recordings and pictures of participants, documenting the activities;
2. User-Generated Content (UGC) like drawings, photographs and pieces of text.

Both data categories were collected and used only after explicit consent was given by all participants or by people responsible for them (i.e. parents). Consent was also required in the pilot of the VLE in order to authorize the creation of usernames and passwords to login to the VLE.

According to the Horizon 2020 guidelines on Open Access, all results to be disseminated will be published following Open Access practices. ISOTIS is in line with EU Commission's approach on data access, described as "as open as possible, as closed as necessary".

Anonymization was guaranteed by removing names from all transcripts; permission for keeping images of faces was granted explicitly, otherwise they were blurred out of pictures and videos.

#### 4.2 VLE Data Management Policy

The ISOTIS VLE was the collection point for the information described above in section 4.1, "b. VLE related data".

The ISOTIS VLE was entirely based on Open Source Software (OSS) which gives its users different rights, including the possibility to study and improve it to fit specific needs in the best possible way. Beyond that, the use of OSS is encouraged by many governmental and non-governmental institutions to leverage the possibility of reusing existing software, with benefits that are both economic (lower, or no licensing costs at all) and organizational (transparency, scalability, maintainability, security). The use of OSS provides a self-hosted, privacy-oriented environment installable on private servers and accessible only to those who are directly involved in the project.

Data collected by the means of the VLE activities will be archived in a secure infrastructure based in Italy. Backups of the whole platform will be stored on secure servers in different locations, in order to prevent data losses and to make disaster recovery more efficient.

#### 4.3 Responsibility for the data

The ISOTIS project and the University of Milano-Bicocca (as the acting host of the VLE infrastructure) were responsible for the data collected directly by the means of the VLE or otherwise stored directly in the VLE (see again section 4.1, "b. VLE related data").

Each project partner was responsible of the data collected in interviews, focus groups and observations in their own countries.

#### 4.4 Data portability

As mentioned before, the VLE is based on a software stack that is completely Open Source built over the Moodle LMS, documented at <https://docs.moodle.org>.

This granted the whole environment the possibility to be mirrored, moved or copied easily to a new location in case of server failures. The data uploaded to the platform was automatically saved in a specific folder inside the Moodle instance, so it could be backed up easily and transferred to a different location.

UGC will be converted to open file formats (i.e. DOCX files converted to ODT files) for long-term storage after the required anonymization actions have been performed. This is intended as a measure to ensure the readability of data over the 10-year archive period.

#### 4.5 Length of the data retention period

Data will be stored in different locations according to its nature.

1. Data from interviews, focus groups and observations will be kept on secure servers and shared only among ISOTIS partners for ten years after publication.
2. Data collected through the VLE will be kept on the platform server until the pilot ends (December 2019), then moved to the same location as the data from interviews, focus groups and observations.

#### 4.6 Privacy policy: plain language and consent

Following the directions given by the GDPR, all statements about privacy, data collection and data usage need to use plain language, specifying who is requesting the data, why it is going to be processed, how long it will be stored and who is going to receive it. Clear consent is required and must be explicit (i.e., not taken for granted if given only to some aspects of the process).

In order to clarify all of the above points, consent forms were granular (i.e., explicit about every single aspect) and signed by all participants involved in interviews, focus groups and observations.

When data collected through the VLE was involved, an initial consent letter was sent to the participants in order to get authorization for creating a username and password for accessing the platform. The same letter includes a brief explanation of the above-mentioned aspects. Upon signing this consent form, participants can enter the platform for the first time, and at this point they must change their password to a new one.



Data on the platform was accessible to participants under the conditions described by the following rules:

1. Teachers can access data uploaded by children and parents in the classes they are responsible for, as well as the content shared by other teachers in designated areas;
2. Other Education Professionals can access data uploaded by children and parents in the contexts they are responsible for, as well as the content shared by other teachers in designated areas;
3. Parents can access data uploaded by their children and by other parents in designated areas;
4. Children can access data uploaded by other children, parents and teachers in designated areas;
5. Researchers can access all data for research purposes only and are not authorized to share it outside the boundaries of the project dissemination activities.

The platform privacy policy was made visible on the VLE at the following address: <https://vle.isotis.org/admin/tool/policy/viewall.php#policy-16>. All users were required to accept it before being able to access any VLE section. The full text of the Privacy Policy is available in Annex 1.

#### **4.7 Intellectual property**

During the pilot, intellectual property over activities and lesson plans created by teachers or parents in the platform remained private, unless explicitly released under a copyleft licence.

#### **4.8 Languages and translations**

The VLE privacy policy documents were available in all of the languages spoken by participants (at least one language per participant).

#### **4.9 VLE Data processing**

The storage and data processing for the overall project is described in the ISOTIS Data Management Plan.

The data stored directly in the VLE will undergo the same treatment as observation data.

ISOTIS researchers have control of all the collected data, as it is all hosted on infrastructure directly managed by partner institutions.

The data management is regulated by Data Processing Agreements that were signed by the partners during the pilot phase. They are available as Annex (2) to this document.

#### **4.10 User profiles on the VLE**

Each participant was given a username and a password to access the platform. Email addresses were collected only for Teachers, Professionals, and Parents. Children were able to access the platform using a username and a password, but they were associated with a non-existing email address, so that their personal information was not sent to anybody. Passwords were stored in the VLE database in an encrypted form, so that the platform administrators could not be aware of their true values.

User profiles also included information about the participant's country, so that it was possible to map the general location of the people involved in the pilot.

Thanks to the Data Privacy Moodle plugin, a workflow was available "for users to submit subject access and erasure requests and for site administrators and privacy officers to process these requests". Thus participants were granted the possibility to opt out and the process of erasing their data was documentable.

All information about storage, access, data delete procedures, profiles etc. were made public on dedicated pages on the VLE platform, monitored by the "Policies" Moodle plugin, which provided a convenient way for managing privacy-related documentation and to track user agreements.

#### **4.11 Integration of external resources and services**

The usage of external digital tools (i.e., Youtube, Google Drive or Padlet) is subject to agreement with their individual privacy policies and puts data outside the direct control of ISOTIS.

Where possible, ISOTIS provides alternatives to the functionality of external platforms by providing Open Source alternatives. The decision to share data with external services is one that participants must be aware of.

#### **4.12 Anonymization and publication**

Data from the VLE was treated as observation data and can be published under the same conditions.

UGC will be publishable for research dissemination purposes, in anonymized form. Faces must be blurred off in images and videos, unless explicit consent is given from the people they depict.

### 4.13 Reports and Open Access publishing

According to the Horizon 2020 guidelines on Open Access, all results that will be disseminated will be published following Open Access practices. This includes “Green” and “Gold” Open Access:

1. Green Open Access means that “the author, or a representative, archives (deposits) the published article or the final peer-reviewed manuscript in an online repository before, at the same time as, or after publication. Some publishers request that open access be granted only after an embargo period has elapsed”
2. Gold Open Access means that “an article is immediately published in open access mode. In this model, the payment of publication costs is shifted away from subscribing readers.”

## 5 The VLE intervention: the research approach

Giulia Pastori, Valentina Pagani, Paul Leseman

### 5.1 Introduction

The methodology adopted in the VLE interventions was mainly Design-Based Research methodology, as stated in the ISOTIS- DoW:

“ISOTIS will employ design-based research for developing transferable models of family support, curriculum and pedagogy development, and professionalization using ICT technology. Design-based research includes operationalization of theoretical knowledge in concrete actions and materials, involvement of stakeholders, and repeated formative evaluations based on observation and interviewing. Design-based research is deemed essential for creating transferable models of good practice as concrete deliverables, but also, and foremost, for contextualizing scientific knowledge in relevant action contexts to generate practical knowledge that can bridge the theory-practice gap (Reeves, 2012).” (p.11)

Several challenges were raised by the complexity of implementing VLE intervention in many different countries as shown below (see Table 15). These issues required the elaboration of a robust but sui15method of research and intervention, also considering the variety of social working contexts.

In fact, the work in WP3 was carried out predominately in community centres, with practitioners and volunteers who support families in local communities. Activities were aimed at multiculturalism, multilingualism and promoting heritage language and culture in linguistically and culturally complex contexts.

WP4 worked with teachers in pre- and primary education to develop and implement curriculum activities aimed at fostering an inclusive social climate, awareness about inequalities, intercultural and multilingual competence, while emphasizing differences and commonalities.

WP5 was targeted at different professionals working with children in formal settings, such as preschools and primary schools and in informal settings, such as after-school activities and care. The focus was on enhancing global competence of professionals in the classroom and in work with children and/or families.

Table 15 - Participants and leaders of Work Packages 3, 4 and 5

	WP3 - PARENT SUPPORT	WP4 - CURRICULUM INNOVATION	WP5 - PROFESSIONAL DEVELOPMENT
<b>Task Leader</b>	England	Italy	The Netherlands
<b>Partners</b>			The Netherlands
	England		
	Italy	Italy	Italy
	NL Wise & Munro	NL Wise & Munro	NL Wise & Munro
	ISSA	ISSA	
		Portugal	Portugal
	Czech Republic	Czech Republic	
			France
		Greece	
Germany			

While the Design-Based Research was the main pillar of the research approach, the complexity of the study required some adjustments, especially in reference to the strong emphasis of DBR on top-down selection of the theoretical framework and principles. Other approaches, where there is always a strong, central focus on combining research, intervention and professional/personal development of the research participants, assigns greater emphasis to *bottom-up* processes, as in the Scenario Approach<sup>20</sup> and Action Research, allowing for a more flexible research-intervention design.

In the research approach adopted, drawing on the framework provided by different research perspectives with a common matrix, several issues central to this study were addressed:

- the need to answer to real problems in real contexts,
- the need to involve and engage local stakeholders in the research and intervention process during all the stages of the process in order to generate processes of change sustainable by local stakeholders after the intervention;
- the need to derive the intervention characteristics and the research findings from a clear reference to theory but also thanks to a strong connection to the context, through formative evaluation and reflectivity on the part of the subjects;
- the need to define interventions whose characteristics and guiding principles can be 'transferred' or 'reinterpreted' in other contexts

<sup>20</sup> Jerry Andriessen and Mirjam Pardijs (Wise & Munro, Den Haag), experts of the Scenario approach, provided an effective synthesis on this method. Parts of this document have been integrated in this text.

The research approach, the work flow and tools template described in the Chapter provided a methodological framework that created coherence across the interventions and the countries and created a common ground for comparison, allowing each partner to have enough flexibility and to make local adjustments. The aim of the common methodological framework was to support all partners in considering some essential steps and to make the ISOTIS intervention approach coherent.

## 5.2 An ISOTIS research approach: DBR and Scenario approach

Two main methodological perspectives guided us:

- **Design Based Research (DBR):** DBR is “a systematic but flexible methodology aimed to improve educational practices through iterative analysis, design, development, and implementation, based on collaboration among researchers and practitioners in real-world settings, and leading to contextually-sensitive design principles and theories” (Wang & Hannafin, 2005:6). DBR is particularly suited to understanding how, when, and why educational innovations work in practice. In DBR, researchers work in collaboration with practitioners to design and study interventions that solve practical problems in real, authentic contexts. Its ultimate goal is “to build a stronger connection between educational research and real world problems” (Amiel & Reeves, 2008:34). The most innovative and valuable characteristic of DBR is that it draws on different research traditions, such as Ethnography, Action Research, Formative Evaluation, and Experimental Research, integrating them into a single balanced framework (see the image below).
- **Scenario approach:** the Scenario approach (Andriessen & Sandberg, 1999; Carroll, 1995; Goodyear, 2005; McKenney et al., 2015) is a systematic description of the characteristics of an intervention, sufficient for stakeholders to know what to do and why to do it, without a scenario scripting every detail of the process, and sufficient for researchers to develop approaches for interpreting the crucial actions and outcomes, within a context. Crucially, the scenario depicts what will happen, why it will happen (given the aims of the project and the local situation), and on what basis (processes and) outcomes will be evaluated. “Scenarios help focus thinking on the most important factors driving change in any particular field. By considering the complex interactions between these factors, we can improve our understanding of how change works, and what we can do to guide it” (OECD website).

As the definitions presented above clearly show, these approaches share several commonalities that made it possible to merge them fruitfully into an integrated framework (see Figure 1).

### 5.2.1 Key common points

The research approaches we combined have some crucial commonalities:

- **Pragmatic:** DBR and SA are pragmatic because their goal is to solve current real-world problems by designing and implementing interventions;
- **Grounded in the real-world context:** research is conducted in real-world settings, with all the subsequent complexities, dynamics and limitations of authentic practice (Wang & Hannafin, 2005). The goals of the intervention take restrictions and specifications into account, given situational and temporal constraints;
- **Interactive:** the research process relies on the interactive collaboration among researchers and practitioners (Wang & Hannafin, 2005) and focuses on what practitioners consider meaningful and important in the situations (scenarios) they want to experience or avoid (Carroll, 1995);
- **Iterative:** the research process encompasses iterative cycles of analysis, design, implementation and redesign, relying on interactive collaboration between researchers and practitioners (Bannan-Ritland, 2003; Design-based Research Collective, 2003; van den Akker & et al., 2006; Wang & Hannafin, 2005);
- **Flexible:** the initial description of the characteristics of an intervention is sufficient for researchers and stakeholders to know what to do and why to do it, but details are not already established, allowing room for making deliberate changes if/when necessary;
- **Contextual:** research results are “connected with both the design process through which results are generated and the setting where the research is conducted” (Wang & Hannafin, 2005:11). The research process, research findings and changes from the initial plan are documented. This systematic documentation can support retrospective analysis and allow other researchers interested in the findings to examine them in relation to their own context and needs.
- **Reflective:** reflectivity (of the researcher and of the participants) pervades the entire process of the intervention-research, providing a strong stimulus in terms of professional/personal development.

Figure 14 - Design and Scenario Based Research comparison



### 5.2.2 Differences and balances

These methodological perspectives present three main differences, points of tension:



- a different emphasis assigned to *top-down* vs *bottom-up* processes, suggesting a different reference and use of the theory: DBR is grounded in theory, theory provides the foundation for the research and is continuously developed and elaborated throughout the research process, acting as a framework for the enacted innovation. The aim is not to test whether or not the theory works (van den Akker, 1999); rather, both design and theory are mutually developed through the research process. Therefore, researchers use design to enact and refine theories continuously (Edelson, 2002) so that the theories “do real work” in practice (Cobb et al., 2003:10) and eventually lead to substantial change in educational practice (van den Akker, 1999). In SA, theory is not explicitly addressed in setting up the research design, but only at the end of the intervention;
- there is a slightly different characterization of the role of the researchers and of the research participants;
- there is a different emphasis on the results/findings: DBR aims at a so-called ‘little generalization’, providing a well-documented and monitored experience, founded on clear principles, that can be implemented in another context thanks to reinterpretation and adjustment processes. “The findings are more than prescribed activities to be followed by other designers; they transcend the immediate problem setting and context to guide designers in both evolving relevant theory and generating new findings” (Wang & Hannafin, 2005:11). To increase the “adaptability” of the findings in new settings, guidance on how to apply those findings is also required (Wang & Hannafin, 2005:12). SA aims to describe an intervention providing (1) snapshots of the future, (2) steps to take in design, or (3) instantiations of models.

Within the ISOTIS project, the methodological approach proposed a balanced solution regarding the above issues:

- **a balance between top-down & bottom-up work processes.** While adopting an exclusively top-down approach would have likely lead to decontextualized interventions, adopting an exclusively bottom-up approach would have been highly time-consuming. In the ISOTS approach, even though researchers were the ultimate designers and a clear theoretical framework supported reflection on the practices and the co-design of the activities, the professionals - teachers, educators and parent support or volunteers - contributed to identifying the educational issues to be addressed (the ‘research problems’) and were actively involved in all the stages of the research, developing the interventions and the activities.
- **Role of researchers and practitioners:** Researchers and practitioners had to collaborate closely but with clearly different responsibilities. The researcher had the responsibility to provide a theoretical framework, respond to local needs for professional development, provide examples/prototypes of activities to be co-

designed according to the specific context, provide clear guidance regarding the research methodology, documentation tools and monitoring, in accordance with participants.

- **Validation vs Description:** The aim was not to control variables and to test hypotheses as in an experimental approach, nor to ‘simply’ provide a rich description of the research context. Rather, it was to try to document if, how and *under what circumstances* the intervention had an effect on/changed participants’ educational practices as desired and if, how and *under what circumstances* the VLE supported/empowered the work and the expected impact. The interventions were monitored using several qualitative instruments before, during and after, in order to provide rich documentation on short-term impacts and on the stakeholders’ perceptions and evaluation of the intervention. The rich qualitative description and the monitoring system also made clear reference to the theoretical premises applied in the design and to develop *contextualized theories* (Pellerey, 2005), not general ones. Moreover, it was not possible to have long cycles of implementation, so the refinement of theory could not be emphasized (van den Akker, 1999).

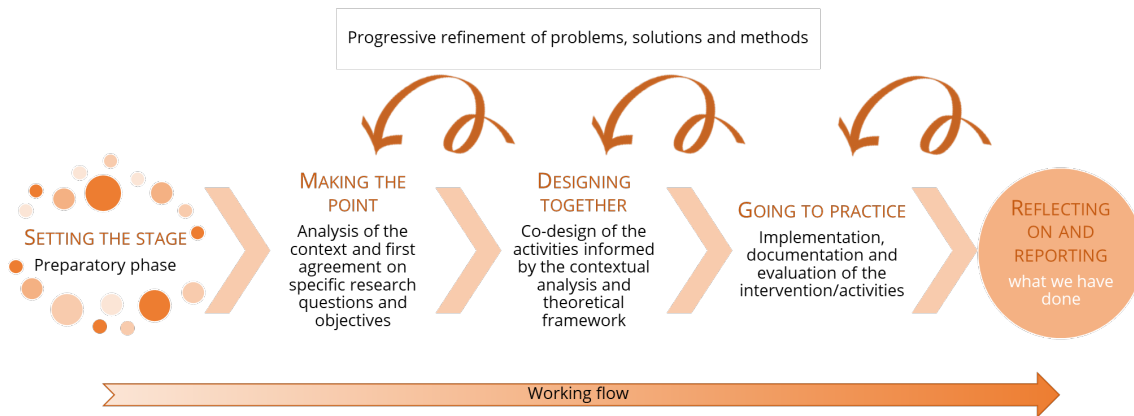
### 5.3 Research process: a template

The figure below illustrates the five-stage research process:

1. a preparatory phase: “Setting the stage”
2. an exploratory phase: “Making the point”
3. a co-designing phase: “Designing together”
4. an implementation phase: “Going into practice”
5. a monitoring and evaluation phase: “Reflecting and reporting”

The sequence of phases of the research process followed a (chrono)logical order but was intended to be a strict, binding sequence. Rather, it was a flexible guide that provided a chronological and logical work process (*what comes first? What is a priority and what can I decide later...?*). This was especially true in the co-design and implementation phases, within the iteration of cycles of designing-implementing-redesigning, that had a circular relationship. The monitoring and evaluation phase occurred throughout the work process (before, during and after) and not only at the end, although a final evaluation summarized the results and the process.

The following template (adapted from Herrington – Design-based research planning template; Herrington, Reeves & Oliver, 2010) assisted in working through the issues associated with each phase.

Figure 15 - *Design-Based Research planning template*

Key guidelines and research questions for each phase and the sub-phases were given to partners in the form of a Manual, with blank working tables (to write their ideas and comments).

### 5.3.1 Phase 0: Setting the stage. Preparatory phase

This phase regarded the preparation for the 'foundation' of the intervention study, according to the following sub-phases:

- **Phase 0.1 Definition of the main topics and the methodological approach:** the design of the theoretical and methodological framework (cross-WPs and specific to each WP);
- **Phase 0.2 Literature reviews and inventories:** building on the main results from the previous research efforts within the WPs involved in the VLE intervention: literature reviews, inventories of promising approaches, in-depth case studies, staff surveys and parent surveys that provided theories and good examples of experiences (action-research, program innovations, etc.) and concrete guiding principles;
- **Phase 0.3 Selecting and contacting sites:** selection of sites for the interventions, identifying criteria for the selection, ways to contact the sites; and
- **Phase 0.4 Creating the work group and presenting the main topic and the methodological approach:** a first step in collaborating with the selected organizations (schools, ECEC centres, community centres...) was sharing the research process and intervention characteristics, such as the main topics, overall main aims, research approach, and the use of the platform with the local group of research participants (or few representatives).
- **Phase 0.5 Ethics:** addressing all ethical issues related to consent and confidentiality, especially in reference to the use of the digital platform;
- **Phase 0.6 Timeline:** setting out a timeline for completion of the research project.

### 5.3.2 Phase 1: Making the point. Analysis of the context and identification of specific objectives and specific educational problems

This phase was related to the first fieldwork activity aimed at exploring, observing and collecting information on the characteristics of the selected site, the social actors and organization.

Knowledge of the contexts functioned as a pre-intervention qualitative data collection of the monitoring system and as a picture that was comprehensive enough to identify specific objectives as well as education and research questions to guide the design of the interventions/activities. The phase was as follows:

- **Phase 1.1 Ethnographic exploration of the context:** the ethnographic exploration of the context involved professionals (teachers or other practitioners), parents, children and other local stakeholders as key and paramount informants on the site. The site analysis included:
  - the socio-demographic characteristics of the school and the class(es) or the families and the community;
  - projects already developed by teachers/practitioners/volunteers over past years and currently on-going;
  - practices implemented in reference to ICT, multilingualism, mother tongue maintenance, intercultural and global competence;
  - parent-school communication and collaboration;
  - language practices and discourses by children on key topics at school and at home (discourses around different languages, cultural background, discrimination, social justice, ...);
  - children's solutions/strategies to overcome language barriers;
  - home and school resources for mother tongue and/or LOI (Language Of Instruction) as second language learning;

Regarding the analysis of the local pedagogical approach and educational practices, a multi-method approach and three levels of analysis were suggested:

- the level of the declared program/pedagogy (analysis of steering documents on the main pedagogical and teaching approaches to inclusion, multilingualism, ICT, family-school communication);
  - the level of the practices (observing everyday school/centre life);
  - the level of the perceptions/representations of the stakeholders (elicited through informal conversations, focus groups, interviews).
- **Phase 1.2 Reporting/Returning to practitioners (and in case of the WP3 parent support intervention – parents):** the return of the collected data on the context involved professionals in interpreting and providing feedback, raising questions, expressing doubts and reflections.
  - **Phase 1.3 Specific objectives, research questions and educational problems to be addressed:** identifying objectives, research questions and key

education issues coherent with the over-arching ISOTIS project framework with the group of professionals involved in the research process, tailored to the local context and the local research participants' needs and interests.

- **Phase 1.4 Professional development needs or Parent education needs:** considering the research participants' points of strength and weakness in reference to the topics and the specific questions raised, in order to identify professional development needs or parent education needs.

### 5.3.3 Phase 2: Designing together. Co-construction/co-design of the activities informed by the contextual analysis and theoretical framework

This phase (in many cases intertwined with the implementation phase in a cycle of design-implementation-design) referred to the design work as a collaborative elaboration between researchers and research participants. Together, they designed (innovative) activities that were coherent with the guiding principles drawn from the theoretical framework and responded to local education problems and research questions.

This phase had two steps:

- **Phase 2.1. Guiding principles drawn from the literature and the theoretical framework:** Researchers proposed a set of guiding principles (drawn from the theoretical framework) and operationalized them, that is they created a list of criteria/guidelines on designing for particular outcomes or addressing particular problems. A set of criteria was defined and shared across WP 3, 4, and 5, while each WP task leader defined a task-specific set of criteria (see Chapter 2) in collaboration with the partners involved in the task. The criteria was also an evaluation tool for reviewing and selecting the activities to be uploaded on the VLE. Sharing the guiding principles was a crucial step in the collaboration with local stakeholders, as a way to share more deeply and make practical use of the theories, bridging theory and practice.
- **Phase 2.2 Design of the planned intervention:** designing the activities or learning experiences (4 or 5). The collaborative design process was intended to be a recursive process that encompassed small pilot experiences carried out by practitioners. Researchers proposed examples/prototypes of activities to be refined, customized by the professionals; professionals also proposed activities/strategies that they had already practiced and wished to innovate, or new activities could emerge from the shared reflections and the guiding principles input. The co-creation process therefore was at times more researcher-led and at others more practitioner-led, according to the group of professionals involved, their competence and the initiatives. It was suggested that activity design include a clear reference to: ICT use, aims and guiding principles, links to the curriculum

or the centre program and the desired impact, the expected strengths and limitations and the monitoring and documentation tools.

#### 5.3.4 Phase 3: Going into practice. Implementation, documentation and evaluation of the intervention/activities

The fourth phase regarded the implementation of the activities and the monitoring and evaluation system *in itinere* and *at the end*.

- **Phase 3.1 Implementation:** the implementation of the activities designed maintained a socio-constructivist approach, meaning it was open to adjustments and adaptations according to the childrens' or parents' reactions, participation, proposals. It was suggested to keep track of the on-going changes and the reasons for them.
- **Phase 3.2 Monitoring and evaluating:** coherently with a design-based research approach, a multi-method monitoring system was applied before, during and after the intervention. It was not possible to apply common measures, due to the variability of the contexts involved which required a flexible adaptation of the methods in order to guarantee the ecological validity of the interventions in each local context and respect for the requests of the professionals. Over all, the monitoring and evaluation system was not meant to measure variables in a strict sense, but to collect rich qualitative data, not only on the results, but on the processes. A formative evaluation and constant feedback between researchers and professionals also aimed at adjusting the course of the on-going experiences. It was suggested to *consider multiple data sources (triangulation): such as interviews, surveys/questionnaires, focus groups, observations (neutral and participant), anecdotal records/activity logs, artefacts (or student work), participant's journals, usability tests (VLE)...*

The table below illustrates the main tools considered during the entire work cycle (pre-, during and post).

Table 16 - *Tools taken into consideration during the entire work cycle*

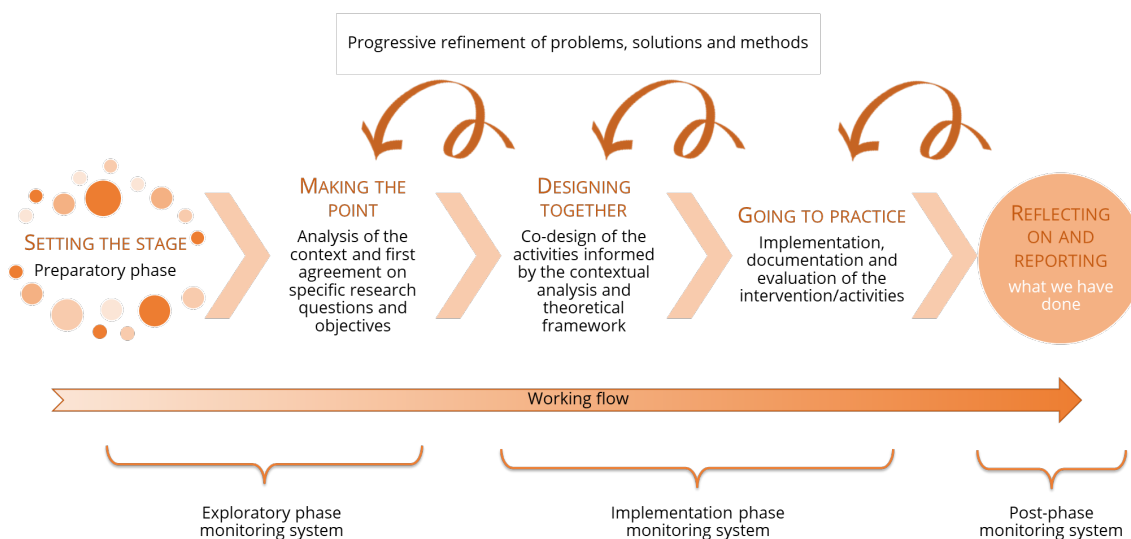
General overview		
	Pre-post	During
Professionals	<ul style="list-style-type: none"> <li>✓ Individual <b>interviews</b> and/or <b>focus groups (pre:</b> on previous experiences and opinions; <b>post:</b> on the intervention, activities and the VLE)</li> <li>✓ <b>Observations</b> (neutral and participant) in</li> </ul>	<ul style="list-style-type: none"> <li>✓ Researchers <b>observations</b> and <b>field notes</b> during the co-design meeting and during the implementation of the activities.</li> <li>✓ <b>Teacher's diary</b> or <b>journals</b></li> </ul>

	<p>classrooms/community centres/families.</p> <ul style="list-style-type: none"> <li>✓ <b>Analysis of documents</b> from the project and the final co-designed activities (only post-)</li> </ul> <p><i>Optional additional tools:</i></p> <ul style="list-style-type: none"> <li>✓ <b>Reflective self-evaluation questionnaire</b> on the sense of competence (efficacy) in promoting global-intercultural competence and multilingualism + group discussion;</li> <li>✓ <b>Focus group</b> discussion on the observation cases from the reflective part of activities) (only pre-) and/or on vignettes from the WP5 questionnaire.</li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>Short interviews/conversations</b> (opinions, formative evaluation on activities...) on activities and on the VLE</li> <li>✓ <b>Documentation</b> of the experiences in action: pictures &amp; audio/video-recordings according to local privacy agreements)</li> </ul>
<p><b>Parents</b></p>	<ul style="list-style-type: none"> <li>✓ Individual <b>interviews</b> and/or <b>focus groups</b> (<b>pre:</b> on previous experiences and opinions; <b>post:</b> on the intervention, activities and the VLE)</li> <li>✓ <b>Observations</b> (neutral and participant) in classrooms/community centres/families.</li> <li>✓ Feedback on the VLE</li> </ul> <p><i>Optional additional tools:</i></p> <ul style="list-style-type: none"> <li>✓ <b>Questionnaire</b></li> <li>✓ <b>Individual Interviews</b></li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>Focus Group</b> on the activities and on the VLE and its use.</li> </ul> <p><i>Optional additional tools</i></p> <ul style="list-style-type: none"> <li>✓ <b>Individual Interviews</b></li> </ul>

<b>Children</b>	<ul style="list-style-type: none"> <li>✓ <b>Classroom observations</b> (neutral and participant)</li> <li>✓ Conversations, spontaneous and elicited by teachers/researchers, with open questions.</li> </ul> <p><i>..Optional additional tools</i></p> <ul style="list-style-type: none"> <li>✓ <b>Sociogram</b></li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>Focus group</b> discussion after the implementation of each activity on the activity and on the use of VLE.</li> <li>✓ <b>Classroom observations</b> (neutral and participant)</li> <li>✓ <b>Conversations</b>, spontaneous and elicited by teachers/researchers, with open questions.</li> <li>✓ Researcher's <b>observations</b> and <b>field notes</b> during the co-design and the implementation of the activities.</li> <li>✓ <b>Documentation</b> of the experiences in action: pictures &amp; audio/video-recordings according to local privacy agreements)</li> </ul>
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The monitoring evaluation system was integrated in the workflow as the graphic below illustrates.

Figure 16 - Revised workflow





Several optional tools (interview/focus group guidelines, parent questionnaires, observation and field notes templates – see Annex 3) were proposed by the IT team, as examples open to local adjustments:

- Interview guidelines with teachers (pre- and post)
- Focus group guidelines with parents (pre- and post)
- Focus group guidelines with children (post)
- Parent Questionnaire
  
- Classroom Observation guidelines
  
- Teacher Self – evaluation questionnaire on sense of competence (applied in WP4 and 5; adapted in WP3)
- Teacher Diary

On the VLE, cross-WP and cross-countries final evaluations were required from all partners, to obtain a coordinated, overall evaluation on real use, user opinions, the role played by the VLE during the interventions, and possible enhancements (see Chapter 4).

The role of the 'editorial board', made up of task leaders, was also part of the monitoring system. This group set the cross-WP key-criteria and WP-specific criteria (also in collaboration with partners ) (see Chapter 2) to be followed during the co-design of the activities and applied in evaluating the adequacy of the activities. Criteria was set in order to preserve the coherence of all the activities with the main overarching framework and main aims of the VLE Isotis project (strengthening community bonds, enhancing communication and collaboration, mobilizing and valuing resources, triggering co-creation processes...).

### 5.3.5 Phase 4: Reflecting and reporting - What we have done

The last phase regarded the final reflection and report on the experience realized and the results/outcomes achieved:

- **Phase 4.1 Final evaluation and report:** key questions and a full template for the report were provided to all partners in each WP, describing the overall experience, the objectives and desired impacts achieved or missed as well as unexpected impacts; what learning (in terms of professional development, children and parents' knowledge and skills) resulted from the intervention; what strategies proved to be effective; what refinements were made to the original guiding principles and the activity guidelines, etc.

- **Phase 4.2 Outputs of the research:** the three main outcomes of the research foreseen in planning the interventions related to:
  - the intervention activities and changes produced sustainability (it related, in the final meetings with the professionals, a last reflection on how to carry at least part of the activities in the future, without the researchers)
  - the VLE and all content, refined after the implementation, including the documentation of the implemented activities;
  - the dissemination of the results and the VLE resources (synergies with WP7)
  - the final reports of the interventions with embedded links to the digital resources used in the local contexts and to the documentation, in order to facilitate the dissemination of the resources and the experiences conducted at each site.

## 6 The ISOTIS VLE monitoring and evaluation system

### 6.1 Introduction

The VLE was implemented in different sites and for different purposes in each WP, though following a common overarching framework and pursuing common general aims. In relation to the variability of the contexts and the uses, the evaluation and the feedback collected from the research participants relied on the task leader and on partner initiative. In order to provide a coordinated overall evaluation of the VLE, a monitoring and evaluation system common to all the partners involved in the three WPs was also proposed, integrating each WP and partner local initiative.

The monitoring and evaluation of the VLE was conducted in relation to three data sources, integrating quantitative and qualitative data collection and analysis:

- **quantitative** data collection and analysis was in reference to:
  - VLE data reporting and logs
  - Usability and interest scales administered to users
- **qualitative** data collection and analysis on user opinions

### 6.2 VLE data reporting and logs

Moodle has a built-in logging functionality for the tracking of almost every single user action and it automatically builds reports on a per-user or per-course basis. This includes “view only” actions, seen as a manifestation of interest that can be otherwise difficult to detect with other methods. Some specific indicators of user activity were selected to better represent VLE use, in order to have a means to describe it. Part of this data comes directly from the logging and reporting functionality of the platform, part come from direct collections of data from users, i.e. via interviews or questionnaires.

The selection resulted in the following list of items:

- a. **Data directly derived from the platform logs:**
  - number of views per course and per single activity
  - number of content creation actions per course
  - number of elements added to “my space”
  - number of overall forum posts per participant
- b. **Data per user:**
  - forum posts (across all courses - both in regular forums and “open forums”)
  - forum discussions started by the user (both in regular forums and “open forums”)
- c. **Data at system level:**
  - most active courses

**d. Data per course:**

- number of creations, edits, deletions, views in a course

**e. Data per activity/piece of content:**

- number of views and posts filtered:
  - by single users (how many views and edits a single user made)
  - by date (how many users interacted with a course on a specific date)

**f. Data from participants:**

- use of the VLE in the classroom or in other meeting spaces

The total amount of users registered in the platform was 516; those who accessed the platform between October 2018 and August 2019 was 293. They were classified in the following platform-wide groups (cohorts, in terms of Moodle management):

Table 17 - *Registered and active users count*

Role	Registered users	Active users
Teachers	115	101
Students	97	85
Parents	267	93
Researchers	33	33
<b>Total</b>	<b>512</b>	<b>312</b>

### 6.2.1 Data directly derived from the platform logs

The following tables show the activity on the main ISOTIS Resources made available through the VLE.

Table 18 - *Total amount of views for each resource in the period between October 2018 and August 2019*

Resource	Number of views	Number of single content views
ISOTIS Videos (Online since June 2019)	396	624
Participation and democratic life	1599	535

ISOTIS Research Approach VLE intervention

Promoting multilingualism in the classroom	5605	3619
Promoting multilingualism in the family	1791	1386
Promoting Second Language Learning	747	348
Promoting Intercultural sensitivity	1197	683
Social Justice and Human Rights	869	511
Family & school partnership	539	243
Professional Development Activities	868	474

Table 19 - Content creation actions logged in the whole platform

Action	Frequency
<b>Post in noticeboard</b>	1338
<b>Course section created</b>	751
<b>Message sent</b>	729
<b>Course module created</b>	724
<b>Post created</b>	576
<b>Item created</b>	448
<b>Discussion created</b>	418
<b>Subscription created</b>	161
<b>Discussion subscription created</b>	135
<b>Wiki page created</b>	25
<b>Message contact added</b>	19

<b>A file has been uploaded as response in an assignment</b>	12
<b>An online text has been uploaded as a response to an assignment</b>	12
<b>Journal entry created</b>	10

Table 20 - Number of elements in the “my space” section

<b>Total number of...</b>	<b>Number</b>
<b>elements in the “projects and materials” section</b>	307
<b>groups created</b>	40

Table 21 - Average number of posts for users who actually used this feature (N=124)

<b>Value (in 120 users who posted)</b>	<b>Number of posts (in noticeboards and in forums)</b>
<b>Average (per user)</b>	15,95
<b>Standard deviation</b>	41,5
<b>Minimum</b>	1
<b>Maximum</b>	409
<b>Total</b>	1914

Figure 17 - Total frequency of posts in noticeboards and forums per posting user

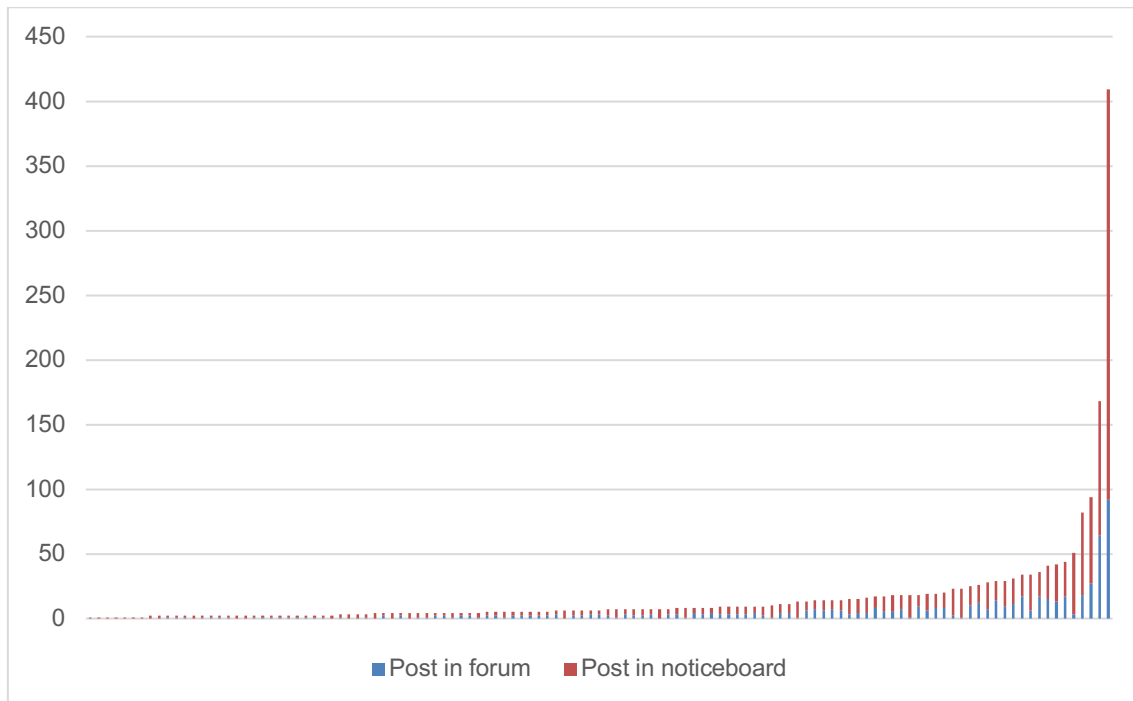


Table 22 - Average number of created threads for users who actually used this feature (N=80)

Value (in 80 users who created threads)	Number of created threads (in noticeboards and in forums)
<b>Average (per user)</b>	5,23
<b>Standard deviation</b>	9,27
<b>Minimum</b>	1
<b>Maximum</b>	74
<b>Total</b>	418

Table 23 - Most active platform areas between January and June 2019

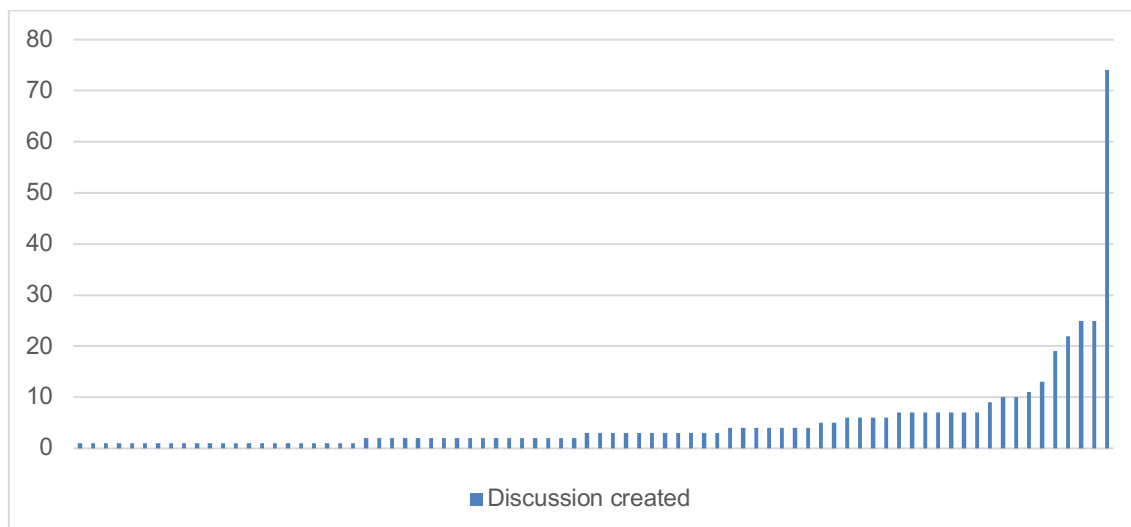
Moodle Course	Activity
<b>Group Noticeboard – “2A Cadorna”</b>	3807
<b>Resource – “Promoting multilingualism in the classroom”</b>	2785

ISOTIS Research Approach VLE intervention

<b>Resource - “Promoting Multilingualism in the Classroom”</b>	2314
<b>Group Noticeboard – “Lettori”</b>	1199
<b>ISOTIS Videos</b>	1198
<b>Resource – “Participation and Democratic Life”</b>	1169
<b>Resource - “Social Justice and Human Rights”</b>	1135
<b>Resource – “Professional Development Activities”</b>	898
<b>Self Evaluation Tools</b>	768
<b>Group Noticeboard – “5C Cadorna”</b>	693
<b>Group Noticeboard – “Classe arancione Cadorna”</b>	530
<b>Resource – “Promoting Intercultural Sensitivity”</b>	470
<b>Group Noticeboard - “Genitori 3C Cadorna”</b>	385
<b>Resource – “Family-school partnership”</b>	363
<b>Resource – “Second Language Learning”</b>	339
<b>Group Noticeboard – “VLE design team”</b>	247
<b>Group Noticeboard – “5C Cadorna”</b>	210
<b>Group Noticeboard – “Leicestershire”</b>	205
<b>Group Noticeboard – “Braunstone”</b>	200
<b>Resource – “Choose your tools”</b>	186



Figure 18 - Number of discussions created per active user



### 6.3 Usability and interest scales administered to VLE users

Beyond qualitative usability testing conducted in one-to-one sessions during the pre-intervention phase and during the VLE implementation, post intervention data collection regarded also the crucial topics regarding usability and interest in use. Two simple scales were selected:

- System Usability Scale: general usability feedback** (see: <https://www.usability.gov/how-to-and-tools/methods/system-usability-scale.html>) Includes 10 items associated to 5-point Likert scales, going from *Strongly agree* to *Strongly disagree*, rated from 5 to 0 (not all in the same order, half are positive and half are negative), as follows:

Table 24 - *The System Usability Scale questionnaire*

I think that I would like to use this system frequently.	<b>Strongly disagree</b> 1☐ - 2☐- 3☐- 4☐- 5☐ <b>Strongly agree</b>
I found the system unnecessarily complex.	<b>Strongly disagree</b> 1☐ - 2☐- 3☐- 4☐- 5☐ <b>Strongly agree</b>
I thought the system was easy to use.	<b>Strongly disagree</b> 1☐ - 2☐- 3☐- 4☐- 5☐ <b>Strongly agree</b>
I think that I would need the support of a technical person to be able to use this system.	<b>Strongly disagree</b> 1☐ - 2☐- 3☐- 4☐- 5☐ <b>Strongly agree</b>
I found the various functions in this system were well integrated.	<b>Strongly disagree</b> 1☐ - 2☐- 3☐- 4☐- 5☐ <b>Strongly agree</b>

I thought there was too much inconsistency in this system.	<b>Strongly disagree</b> 1☐ - 2☐- 3☐- 4☐- <b>5☐Strongly agree</b>
I would imagine that most people would learn to use this system very quickly	<b>Strongly disagree</b> 1☐ - 2☐- 3☐- 4☐- <b>5☐Strongly agree</b>
I found the system very cumbersome to use.	<b>Strongly disagree</b> 1☐ - 2☐- 3☐- 4☐- <b>5☐Strongly agree</b>
I felt very confident using the system.	<b>Strongly disagree</b> 1☐ - 2☐- 3☐- 4☐- <b>5☐Strongly agree</b>
I needed to learn a lot of things before I could get going with this system.	<b>Strongly disagree</b> 1☐ - 2☐- 3☐- 4☐- <b>5☐Strongly agree</b>

- **‘How enthusiastic are our users?’**: a **Net Promoter Score** was based on simply asking users to rate the likelihood of suggesting the platform to other possible users, on a scale from 1 to 10. Results from 1 to 6 represent detractors, 9 to 10 represent supporters. The percentage of supporters minus the percentage of detractors gives a score from -100 to + 100, where products with a score of +20 or more are considered successful.

Table 25 - *The Net Promoter Score questionnaire*

<i>Would you suggest the platform to a colleague/a friend?</i>	<b>Not at all</b> 1☐ - 2☐- 3☐- 4☐- 5☐ - 6☐- 7☐- 8☐- 9☐- <b>10☐</b> <b>Yes, definitely</b>
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### 6.3.1 Brief overview of the results across WPs

The System Usability Scale and the Net Promoter Score questionnaire were administered to the practitioners who tested out the environment during sessions led by ISOTIS Researchers (N=16). In general, the score was quite low (mean 46.9, s.d. 13.5). As SUS scores can be converted into percentile ranks, the result falls at the 15th percentile, which is a sign of low acceptance among the professionals who were involved. Besides the low number of respondents, looking at the raw scores of the single items in the SUS allow determining what aspects of the platform were the most problematic and which one were more appreciated. “Unnecessary complexity” (as in item n.2) of the system was the top problem, followed by perceived confidence (item n. 9). The most appreciated aspects of the platform were the fact that functionalities were well-integrated (item n. 5) and the perceived autonomy in using the system (item n. 4).

The Net Promoter Score was consistently low, with 3 respondents qualifying as Promoters of the platform and 8 as Critics. The computed score for this index of -31.25, represents a low result which is in line with the outcomes of the SUS questionnaire.

Given the fact that the platform was intended as a prototype and was based on Moodle, which is generally perceived as complex also in the related literature, these low results are negative but not completely unforeseeable. The following paragraphs will shed light on the specific problems and pain points that were studied adopting a qualitative framework, which yielded results that were consistent with those of this part of the study. As a second iteration of the platform is currently under development, new data collections based on these same scales will allow comparing future usability scores to measure improvement.

## 6.4 User opinions of the VLE resources, structures and functionalities

A qualitative evaluation was proposed to the research participants in all the WPs, on all the contents and functionalities embedded in the VLE, including Beeba.

The criteria and key points for the users' qualitative evaluation were the following:

- **Usability:** How easy it was to use to use the platform
- **What use and how much Interest:** what functions and resources were concretely used, how they were used and what the interest in using them was;
- **Best and worst:** what the best and the worst VLE contents and functionalities were and why
- **Innovation:** whether the VLE introduced any innovations in practice and possible potential for the tool;
- **Changes:** What the suggested changes were
- **Overall evaluation:** general opinions on the VLE (Did you like it? Would you use it again?)

A summary table and interview guidelines were provided (see Annex 4) to support one-to-one or group interviews, integrating the qualitative questions and the usability and interest scales.

### 6.4.1 Exploration and use

The exploration and use of the VLE across the different Work Packages showed some common patterns, with **a few/several** usage features and behaviors that were specific to single WPs. Users were guided and supported almost everywhere by the ISOTIS researchers while interacting with the platform, in order to have procedures and introduction patterns adjusted according to local requests, constraints or conditions.

In WP3, the implementation of the VLE was mainly directed at parents and the educators working with them. In WP4 it regarded mainly teachers and children, while parents were involved only in Italy (in synergy with WP3) and Greece. Researchers in WP5 focused on professionals who worked in different types of organizations.

In all three Work Packages, the overall structure of the VLE was introduced to users by its three main sections (“MY SPACE,” “CONTENTS,” and “TOOLS”) and its main functions. This required to set up meetings with participants in different countries and contexts. In some cases this was facilitated by the fact that meetings fit into already-existing schedules.

All participants received personal login credentials at the beginning of the site intervention in their specific contexts so that they could continue the exploration on their own. Many users, mostly children and parents, were not required to provide their email address, in order to better protect their privacy. Teacher and parent profiles were set so as to provide those users with full access to all the VLE sections and explore all of the resources, functionalities, and applications.

In all three Work Packages, participants explored the VLE in the presence of the researchers. Teachers and parents were also invited to explore the platform by themselves: this happened in all Work Packages but not in all countries.

Across different countries and groups, participants mainly browsed the resources related to the intervention topics in which they were involved, including the use of the available tutorials. In the scope of WP5, participants were specifically invited to consult a wider range of resources, to the end of widening their multicultural, educational and technological competences. In particular in Portugal and Italy, teachers also accessed activities and materials from other countries, as well as content of the VLE from different educational, cultural and linguistic contexts.

Children, who were involved only in WP4, had different access to the platform from country to country. Access varied from simply looking at some videos and resources, to having their analogical content uploaded by the teachers or the researchers, to directly using and exploring the VLE, using it mainly as a communication tool.

The VLE settings were designed so that the resources children could directly access were limited to what teachers decided to explicitly share with them. This was obtained by letting teachers either copying content from the general resources section into their profile’s space in the VLE or editing/adding content that was in some way adapted or designed for their specific context.

Common activities across all groups of users were the participation in forums and the exploration of the communication functionalities provided by the Noticeboard system, allowing them to send messages using different languages (via multilingual keyboards and Google translator) and various channels and codes (text, audio & video-recording,

drawing). In some countries (namely Italy and the Czech Republic) a specific page was used to create profile avatars.

Where possible (e.g. in Italy and Portugal) the same resources were used and discussed by adopting the different perspectives of professional development, parenting, teaching and learning.

#### 6.4.2 What did the participants use

The use of the VLE varied according to the level of autonomous access:

in WP3 some training sessions were organized with parents, and most of the intervention was lead by the researchers. In WP4 the variability of technological equipment at the schools and teachers' digital skills determined autonomy. In WP5 most participants only used the VLE in presence and with the assistance of the ISOTIS researchers, mainly due to time constraints.

In general, not all participants used all the functionalities present in the VLE: they were oriented towards some parts of it according to their roles and to the WP they were involved in.

In some countries the social infrastructure (the Noticeboard) of the VLE was used more intensively for several purposes:

- to send children a video or other material to engage them in commenting on it, either in presence (offline) and at distance (using the noticeboard at home);
- to send a notice to children to engage them in a task/activity that in some cases was carried out offline, while in other cases entailed the use of one or more applications.

The noticeboard was used in WP3 and WP4 to communicate with parents and to involve them in activities. In particular with WP4, meant connecting them with schools. Consistently, in this same Work Package the noticeboard was hence used to upload - in digital or digitalized form - artifacts from the children. Compared to that, in Italy the use of the noticeboard was extended, also involving parents in the communication and exchanges.

In WP5, professionals used the noticeboard mainly during in-person meetings, and not much between them.

In WP4, the VLE was mainly used to:

- find information about some key topics
- look at the videos;
- get inspiration for some possible activities to implement;
- read observation cases to sustain teacher reflectivity.

The Documentation section was used only in WP4, as an archive for activities and videos that teachers appreciated, and as a digital version of the Teacher Diary tool.

Noticeboards and forums resulted being employed to communicate between different groups of children and between teachers and children, or children and parents.

Participants in general, but children in particular, also used Beeba, the linguistic accessibility graphic/animated mediator embedded in the VLE, in order to translate and read texts aloud in different languages.

### **6.4.3 What resources and functionalities did users consider as interesting, and which ones did they like the most**

In WP3, participants expressed their appreciation for different features of the platform, depending on their country and on their backgrounds. Parents mostly liked the communication and translation features, practitioners considered the resource bank useful and stimulating. They seemed to particularly like the working sheets and the videos that were closely related to instructions for parents.

In the context of WP4, teachers had variable levels of engagement with the platform, and feedback on specific resources and functionalities was obtained only in some countries.

In this Work Package, teachers showed their general appreciation for those activities and videos that could provide inspiration. However, they appreciated the “My space” section the most, also for the chance it represents for each teacher to have her or his specific, customized content archive for each classroom. Some teachers deemed the VLE in general as a useful tool to foster empathy and active participation between families.

Teachers also appreciated Beeba for its functions of facilitation and its friendly design, as well as for the possibility to use audio-video recordings and drawings to communicate, besides texts. They added to this that, with regular use, the platform could result in a useful space for regulating children’s activities and work to some extent - *i.e.* as a real educational platform in its own right.

Among the most appreciated features were the possibility to create an archive of resources and documentation in one place, dedicated to one class, as well as the opportunities for communication and sharing between children, teachers, and families provided by the noticeboard.

Children in WP4 appreciated the opportunity to interact with peers and to communicate with parents between home and school. Visual information was considered engaging, as well as the opportunity for learning through play. The fact that the children products were published online proved to be of their interest, thus confirming the motivational potential of the overall ‘sharing’ and ‘posting’ framework offered by the VLE.

Again regarding the WP4, parents appreciated several features of the multilingual and multimedia communication system. The noticeboard tool made it possible for them to have more inclusive, faster, easier communication with other parents, the teachers and the school system. They were able to access documentation about the activities carried out at school by their children, and to strengthen school-home connection in terms of effective communication and collaboration. They also appreciated the way the VLE was used by their children, which was different from what they could observe in their home context.

In the WP5 experiences, the VLE facilitated the dialogue and exchange among professionals from different schools and different countries: several activities were uploaded, which resulted from the co-creation process of the interventions.

### 6.4.4 What did users like the least

Practitioners from WP3 commented that they liked the potential of most aspects of the VLE, but things did not always work in practice (yet). The theoretical information was not always considered interesting or relevant. The language translation functions integrated into Beeba did not work well enough and were not complete enough. This group of users expressed/revealed some background uncertainties at employing digital applications, tutorials, and documentation. In some cases, the text in the Resources section was perceived as too complicated and not explanatory enough. For some participants (as it also happened for parents in WP4) the system was too complex and unintuitive, and in general suitable of improving its internal integration between different contents. On smartphones, accessing all the functionalities resulted too difficult at times, and connection issues negatively influenced user experience. Some participants across WP3 and WP4 pointed out that better systems exist with similar functions (WhatsApp, Google translate).

In WP4 context, teachers criticized the VLE mainly because it was perceived as unintuitive, complex and fragmented in its functions. These aspects made it quite difficult for the professionals to use – far less master – the platform in complete autonomy.

In some countries, teachers criticized the theoretical information, considering it as too complex for them: they would have preferred less theoretical information and more guidelines for actions to be taken and more videos in several languages. Moreover, the fact that the platform was a prototype, unfinished, with some functions available only in English, represented a barrier to appreciating all of the resources and functionalities. Some teachers also considered the VLE graphic interface to be unattractive.

In the same context, children mostly appreciated the interface and they had fewer difficulties in using the VLE, discovering by themselves how to use some functionalities. In a few cases, they also expressed some criticism when the use of the noticeboard was too intense, as the request for uploading videos or answers to questions made them feel a bit anxious.

In WP5 the participants evaluated the VLE as unnecessarily complex, reporting they experienced some difficulty in its navigation. Although a few considered the multilingual feature of the tool impressive, most of them reported back on the fact that not all content was available in their language, or it rather was accessible only through an automatic translation system, which evidenced some or major flaws. It should be reminded that some of these negative feelings resulted from very high expectations about what the VLE was supposed to be or bring - e.g., providing professionals with exhaustive answers to their questions or complete, ready-to-use solutions to their needs, while dealing with multiculturalism and multilingualism.

Because only a few of the WP5 participants actually used the VLE on their own, and most resorted to the assistance of ISOTIS researchers when the platform was needed in activities with the classrooms or the parents, the evaluation of these aspects remains at a general level.

#### **6.4.5 Potential for the innovation of practices**

The potential estimated by WP3 participants regarded six main aspects:

- the access to a bank of resources for practitioners to share and improve hands-on, in a grounded way, in the field;
- the possibility to create documentations of home activities – capturing linguistic and cultural elements – and to share them for further reflections;
- the chance to enhance family-school communication and collaboration, with more symmetrical relationships between parents and educators;
- the potential to manage and partly overcome some language barriers, by resorting to audio-visual presentation resources and available multilingual functions;
- the occasion to scaffold dialogue and exchange between professionals in different institutions and contexts;
- the availability of a trustworthy platform for parents to get ideas and resources from, and to enhance their interaction with their child.

Also in WP4, some teachers found the following aspects valuable:

- the availability of an ample inventory of activities to potentially use in class, accessible in the local languages;
- the possibility to have all relevant class information and resources in the “My space” section;
- the motivating and engaging influence on students exerted by the digital platform, its positive impact on children’s participation, and the response it got from them;
- an environment to build a learning community among children and professionals



- the potential to facilitate dialogue and exchange between different schools/countries. Here, the importance of the VLE as a means for sharing ideas and comments, learning experiences and skills, choose and use materials was stressed.
- the possibility to expand the teaching and learning time outside the boundaries of school timetables, especially for disadvantaged students.

Some interesting results came from specific contexts. In Italy, teachers and parents considered the VLE as a useful tool for the enhancement of family-school communication and collaboration, defining a more symmetrical relationship and better negotiation modalities. Communication between school and migrant families, often complicated by problems of linguistic misunderstanding, was also facilitated by the visual languages used (video-photo) and by a sensibly improved, active, and recognized presence of the languages of origin, both on the VLE and at school. School-to-family communication, often unidirectional, was also developed in the opposite direction, thus increasing inclusion and participation. These strengths induced to extend the use of VLE to the whole school starting from the following school year and also in another school in the same area.

In WP5, the VLE was seen as innovative for the same reasons illustrated above. This applies specifically in those contexts where the VLE was not directly intended as a PD instrument, but rather as an environment to be used in the classroom (WP4) and to get better connected with parents (WP3). Although the teachers in these two countries acknowledged their difficulties in trying to incorporate ICT in their daily practice, they still considered it as a necessary part of today's education. For the Dutch participants, where the VLE was used purely as a PD instrument, participants did not deem it as an important means for innovating their professional development. Whereas they were inspired by some of the resources in it, and for some of them this changed their practice or their communication with parents, they still preferred a face-to-face approach. However, the exchange between different sites and countries showed potential. Most participants were interested in what professionals in other countries did and expressed their aspiration to exchange ideas and practices. In this regard, the highest added value seems to lay in the opportunity for creating a community of learners.

As a whole, the aspects mentioned above result in a meaningful depiction of the VLE as a high potential affordance for different groups of users, in the direction of strengthening the educational offer quality and in the interest of a better management of multiculturalism and multilingualism in education.

### **6.4.6 Changes suggested by the participants**

Similar changes and improvements were suggested across WPs. Most of them were common, some were specific to a single Work Package. The common ones included:

- improve and simplify the structure of the platform and its interface, make it more user-friendly;
- provide a mobile app to grant easier, more immediate access from phones;
- improve the quality of the language-translation functions;
- make the interface more attractive and adapt visual and content language to the various categories of users;
- improve the opportunities for content creation, but also communication and exchange (between teachers and pupils, between teachers and families, between professionals);

From WP3 came the specific suggestions to add more activities targeting younger children, to add more games and to make also text content more playful. Interactive activities for children should be more adaptable to developmental levels.

In WP4 some other ideas emerged, main connected to the multilingual dimension of the platform: participants suggested to add more activities and videos in different languages, add more support for more languages and specifically to translate the platform into Romani language. There was also a concern about maximizing engagement in the long run.

#### **6.4.7 Summing up: points of strength and weakness of the VLE tool and its implementation**

Overall, the evaluation seems to suggest that participants attributed good potential to the VLE. It offered interesting and valuable functions and content, but its overall usability was far from optimal. It will be crucial to improve both its interface and its structure to make it more intuitive and straightforward.

#### **6.4.8 Lessons learned and recommendations**

The interventions highlighted some valuable lessons and allowed the research team to collect some recommendations for future work. Again, the input coming from the three Work Packages is partially common and partially specific.

The main common points were:

- the VLE should be easily used on a smartphone, and in general require the lowest possible level of technical skill and equipment;
- it is very important to make time for practitioners to learn about the system and practice working with it, as well as for understanding how to work with parents; in the school context this investment of time was rewarded by the possibility to extend teaching and learning time beyond the borders of school timetables;
- it proved to be helpful to rely on children to engage parents, considering their use of the VLE in the school context to develop engagement and digital competence;

In WP3 some other recommendations were formulated:

- it would be convenient to develop resources or methodologies for the documentation of experiences/activities, which is difficult also on other platforms;
- there is a need to think about how the VLE could integrate with other advanced and well-known communication tools (i.e. WhatsApp);
- the VLE could be used to further develop ways of collaboration between different systems.

WP4 allowed to reflect more on teachers and students:

- teachers saw the VLE - and ICTs in general - as an important asset for the teaching and learning processes, as well as for the social climate;
- using a multilingual, multimedia digital support showed great potential for improving communication and bi-directional exchange between family and school; it allowed to increase communication among children, between children and teachers, children and parents, children, teachers and parents, children and School Director;
- children demonstrated a very positive attitude towards ICTs and they were frequently more skilled than teachers (IT). To overcome possible teacher resistance towards ICTs, it may be helpful to consider the parallel involvement of children. Pupils can play a bridge role, helping teachers (and parents) to approach and see the potential offered by new technologies.

WP5 taught some lessons about the role that the VLE played for practitioners in professional development contexts:

- the VLE functioned well as a resource repository, although not all the content was readily applicable across all countries and contexts
- the functions dedicated to the development of a Community of Practice were not fully explored, and this made it less effective for the development of PD practices;
- since co-designing and developing a VLE is time-consuming and technically challenging, and users were mostly involved in trying out or co-creating some of the activities, their sense of ownership of the tool was affected; strategies to involve them in a more continuous way should be considered;
- There was an overall risk of overload on the platform, as well as a loss of overview;
- The role of someone guiding the process is inevitable. Designing an environment with the idea of professionals working on it independently seems less feasible, and needs a clear strategy for implementation. This was done in a variety of ways in WP5.

## Annex 1 – The VLE Privacy Policy

### Who we are

The partners of the ISOTISPROJECT ('we' or 'us', listed at <http://www.isotis.org/consortium/partner-institutions/>) collect, use and are responsible for certain personal information about you. The data controller is the University of Milano Bicocca, Italy and the main contact person is Dr. Andrea Mangiardi. We are regulated under the General Data protection Regulations (EU) 2016/679, which apply across the European Union (including the United Kingdom) and we are responsible as a 'controller' of that personal information for the purposes of those laws.

### What personal information we collect and use

#### a) Personal information you provide to us

When you create your personal account on our website, or when you participate in the educational activities on the website, you provide us with following personal information:

- If you are an adult participant (a parent or a teacher): your name (non-mandatory), your email address, the country of your residence
- If you are representing a pupil (as a parent, legal guardian or other responsible figure): the country of residence of the pupil

These types of information are collected for the following reasons:

Name: for identification by us or by other users

Country: for research purposes

Email (only if you are an adult participant): for communication purposes or for the maintenance of your account (i.e., for password recovery)

Role (teacher, parent...): for research purposes and for assignment to proper groups inside the platform

We will inform you at the point of collecting information from you, whether we will need you to provide the information to us.

Some examples of when we collect this information include:

- the creation of your personal account
- during participation in educational activities

#### b) Sensitive personal information

Sensitive personal information includes any information which relates to the following (examples of information that could be involved in the activities proposed here):

your ethnic origin  
your religious beliefs  
your physical or mental health or condition  
your sexual orientation

No sensitive personal information will be requested directly during the registration on the website. Yet some sensitive personal information may be collected when you participate in the discussions or activities in the platform. This includes for instance information related to your ethnic origins, your religious beliefs or your physical or mental health and condition. We are collecting this information for research purposes only.

Examples of potential situations in which sensitive personal information could be involved in the activities:

- participants can be asked to tell about their typical day, their home environment and their families, the traditions they honor: this would allow to infer some of the above listed data;
- children can be asked to upload drawings, which could reveal states of physical or intellectual impairment.

## How we use your personal information

We collect information about our users for the following purposes:

- conducting research on your activity inside the platform, to evaluate whether the proposed activities were efficient, understandable, and thought provoking;
- reporting and scientific writing, including presentations in conferences; all academic publications will be listed on the ISOTIS website.

Data will not be transferred outside the European Union, and no third-party will access your personal information. Your data will not be used to feed automatic decision systems (i.e., there will be no recommendation of further content or services based on your behavior).

## Whether we will ask you to provide personal information, and if so why

The provision of the following information will be needed from you:

If you are an adult participant (a parent or a teacher): name (non-mandatory), email address, country, role (parent or teacher)

If you are representing a pupil (as a parent or other responsible figure): country of the pupil

This is to enable us to do the following:

Name: for identification by us or by other users (e.g., teacher, other pupils)

Country: for research purposes

Email (only if you are an adult participant): for communication purposes or for the maintenance of your account (i.e., for password recovery)

Role (teacher, parent...): for research purposes and for assignment to proper groups inside the platform

We will inform you at the point of collecting information from you, whether we will need you to provide the information to us.

## How long your personal information will be kept

We will hold your personal information for the following periods:

Raw data, which means data collected from the website users that has not been processed yet, will be stored on secure servers located at the University of Milano-Bicocca, Italy and will undergo a pseudonymization process. In this process we will remove or encrypt the personally identifiable information so that people whom the data describe remain anonymous. The anonymization process will happen as soon as possible, and raw data will be kept at the University of Milano-Bicocca, Italy for a maximum period of six months after the end of the project and then be deleted. The anonymized research data (without any identifiable information) will be moved to secure servers located at Utrecht University, the Netherlands, and be kept there for a 10 years period.

The periods for storing the data are no longer than necessary for the research purposes.

## Reasons we can collect and use your personal information

We rely on a Consent form as the lawful basis on which we collect and use your personal information.

The basis on which we process your sensitive information (i.e. special category as in the GDPR) is that processing is necessary to demonstrate the validity of research findings produced by the project.

## Keeping your information secure

We have appropriate security measures in place to prevent personal information from being accidentally lost, or used or accessed in an unauthorised way. We limit access to your personal information to those who have a genuine need to know it. Those processing your information will do so only in an authorised manner and are subject to a duty of confidentiality.

We will also use technological and organisation measures to keep your information secure. These measures may include the following examples:

User account access is controlled by a unique username and password; all data is stored on secure servers; passwords are stored in an encrypted form; users are asked to set a custom password after their first login.

We also have procedures in place to deal with any suspected data security breach. We will notify you and any applicable regulator of a suspected data security breach where we are legally required to do so.

Indeed, while we will use all reasonable efforts to secure your personal data, in using the site you acknowledge that the use of the internet is not entirely secure and for this reason we cannot guarantee the security or integrity of any personal data that are transferred from you or to you via the internet. If you have any particular concerns about your information, please contact us using the details below.

## Children and the validity of consent

Where we obtain consent from any user we will take reasonable steps to ascertain whether the user is aged 16 and over, and whether the child is sufficiently informed to give valid consent. If the user is younger than 16 years of age, parental consent will be required to provide consent for the processing of any personal information.

Each user, including children, will possess a unique username and password. Passwords associated to usernames will be initially set by the platform administrators or randomly generated. Users will have to change them at their first access. For privacy reasons, passwords will be stored in an encrypted form in the VLE database, so that neither the researchers of the ISOTIS Project nor the platform administrators will have the possibility to read them, only to reset them upon a user's request. The password reset procedure, which will be autonomously manageable by users, will involve sending a special link to the email address of the user. In case of the creation of multiple accounts connected to a single email address, the password reset procedure will be manageable by the person who is authorized to access that email account (typically a teacher). Note that, in case of accounts managed by a single person, we will make sure that the final account owner is the only one who actually knows both username and password. As stated above, every user, adult or child, will be asked to choose a new

password right after the first authenticated access to the platform, so that previously communicated passwords will not be effective.

## What rights do you have?

Under the General Data Protection Regulation you have a number of important rights free of charge. In summary, those include rights to:

- opt-out at any time if you do not want your information to be stored on our servers any longer
- fair processing of information and transparency over how we use your use personal information
- access to your personal information and to certain other supplementary information that this Privacy Notice is already designed to address
- require us to correct any mistakes in your information which we hold
- require the erasure of personal information concerning you in certain situations
- receive the personal information concerning you which you have provided to us, in a structured, commonly used and easily portable.
- object in certain other situations to our continued processing of your personal information
- otherwise restrict our processing of your personal information in certain circumstances
- claim compensation for damages caused by our breach of any data protection laws

For further information on each of those rights, including the circumstances in which they apply, see the Guidance from the UK Information Commissioner's Office (ICO) on individual's rights under the General Data Protection Regulations (<http://ico.org.uk/for-organisations/guide-to-the-general-data-protection-regulation-gdpr/individual-rights/>)

If you would like to exercise any of these rights please:

- send us an email
- let us have enough information to be sure it is you, and not someone else, making the request (username and associated email)
- let us know the information to which your request relates



## Do you need extra help?

If you would like this policy in another format (for example: audio, large print, braille), please contact us using the e-mail address below.

## How to complain

We hope that we can resolve any query or concern you raise about our use of your information.

The General Data Protection Regulation also gives you the right to lodge a complaint with a supervisory authority, in particular in the European Union (or European Economic Area) state where you work, normally live or where any alleged infringement of data protection laws occurred. The supervisory authority in the UK is the Information Commissioner who may be contacted at <https://ico.org.uk/concerns/> or telephone: 0303 123 1113.

## Changes to the privacy policy

This privacy policy was published on 30/05/2018 and last updated on 11/12/2018.

We may change this privacy policy from time to time. We will notify all users of any changes by email (if you have opted in to receive emails); by a notice on the website header; by a notice in the news section of the website.

## Contacting us

If you have any questions about this policy or the information we hold about you, please contact us by:

e-mail: [privacy@isotis.org](mailto:privacy@isotis.org)

The main contact person is Dr. Andrea Mangiatordi, who is based at the University of Milano-Bicocca, piazza dell'Ateneo Nuovo 1, 20126 Milan - Italy.

## Annex 2 – Data Processing Agreement Model

### DATA PROCESSING AGREEMENT

**THIS AGREEMENT** is made on

**BETWEEN:**

**On the one part,**

- (1) **UNIVERSITA' DEGLI STUDI DI MILANO BICOCCA**, whose administrative office is at Università degli Studi di Milano-Bicocca, Piazza dell'Ateneo Nuovo 1, 20126 Milano, Italy, (email contact point for this agreement: giulia.pastori@unimib.it) (the "**Recipient**"),

**and**

**on the other part, (the "Partner" or "Partners")**

- (2) ...
- (3) ....

Recipient and Partners are collectively referred as the "**Parties**" or each a "**Party**".

#### **BACKGROUND**

- (A) The Partners and the Recipient are participating in ISOTIS, a 'Research and Innovation Action' project funded by the European Union H2020 programme under the Grant Agreement number 727069, concerning the virtual learning environment as further detailed in the consortium agreement dated 1 January 2017 (the "**Project**"), which includes the collection of various Personal Data (as defined below).
- (B) The Recipient has agreed to process the Personal Data collected by the Partners for the purposes of the Project using its Virtual Learning Environment platform (the "**Platform**") on the terms set out in this agreement.

#### **DEFINITIONS**

**Data Protection Legislation** means any law, statute, declaration, decree, directive, legislative enactment, order, ordinance, regulation, rule or other binding restriction (as amended, consolidated or re-enacted from time to time) which relates to the protection of individuals with regards to the processing of Personal Data to which a Party is subject,

including the Data Protection Act 2018 and the General Data Protection Regulation ((EU) 2016/679) (“**GDPR**”) and any successor legislation to the Data Protection Act 2018 and the GDPR;

**Controller, data controller, processor, data processor, data subject, processing and appropriate technical and organisational measures** have the meanings set out in the Data Protection Legislation in force at the time;

**Personal Data** means any personal data (as defined in the Data Protection Legislation) processed by either Party in connection with this Agreement.

## **DATA PROTECTION**

Both Parties will comply with all applicable requirements of the Data Protection Legislation. This Clause (Data Protection) is in addition to, and does not relieve, remove or replace, a Party's obligations under the Data Protection Legislation.

The Parties acknowledge that for the purposes of the Data Protection Legislation, the Partner is the data controller and the Recipient is the data processor. Schedule 1 sets out the scope, nature and purposes of processing by Recipient, the duration of the processing and the types of Personal Data and categories of data subject.

To the extent that the Recipient processes any Personal Data as a data processor for and on behalf of the Partner (as the data controller) it shall:

only process Personal Data for and on behalf of the Partner for the purposes of performing its obligations under this Agreement and only in accordance with the Partner's written instructions from time to time, unless the Recipient is required by the laws of any member of the European Union or by the laws of the European Union applicable to the Recipient (“Applicable Data Processing Law”) to process Personal Data. In such a case, the Recipient shall inform the Partner of that legal requirement before processing, unless the law prohibits such information on important grounds of public interest;

inform the Partner immediately if it considers any of the Partner's instructions infringes Data Protection Legislation;

ensure that it has in place appropriate technical and organisational measures to protect against unauthorised or unlawful processing of Personal Data and against accidental loss or destruction of, or damage to, Personal Data, appropriate to the harm that might result from the unauthorised or unlawful processing or accidental loss, destruction or damage and the nature of the data to be protected, having regard to the state of technological development and the cost of implementing any measures (those measures may include, where appropriate, pseudonymising and encrypting Personal Data, ensuring confidentiality, integrity, availability and resilience of its systems and services, ensuring that availability of and access to Personal Data can be restored in a timely

manner after an incident, and regularly assessing and evaluating the effectiveness of the technical and organisational measures adopted by it);

ensure the reliability of any of its personnel who have access to the Personal Data and ensure that such personnel have committed themselves to confidentiality or are under an appropriate statutory obligation of confidentiality;

taking into account the nature of the processing, at the Partner's request, assist the Partner to comply with the obligations imposed on the Partner by the Data Protection Legislation, and in the relevant timescales, in relation to: (i) security, breach notifications, data protection impact assessments, and consultations with supervisory authorities or regulators; and (ii) responding to any requests from data subjects;

notify the Partner promptly following its receipt of any request from a data subject to exercise their rights under the Data Protection Legislation or any correspondence from a supervisory authority or regulator and shall:

not disclose any Personal Data without first consulting with and obtaining the Partner's prior written consent; and

provide the Partner with all reasonable co-operation and assistance required by the Partner in relation to any such request or correspondence;

notify the Partner without undue delay and in any event within twenty-four (24) hours upon becoming aware of any breach of the Data Protection Legislation in relation to the Personal Data and provide assistance to the Partner as is necessary upon reasonable request to facilitate the handling of any data security breach relating to the Personal Data in an expeditious and compliant manner;

keep a record of any processing of the Personal Data it carries out on behalf of the Partner and hold the Personal Data in such a manner that it is capable of being distinguished from other data or information processed by Recipient;

promptly comply with any request from the Partner to amend, transfer or delete any Personal Data;

at the written direction of the Partner, delete or return Personal Data and copies thereof to the Partner on termination of the Agreement unless required by Applicable Data Processing Law to store the Personal Data;

at the Partner's reasonable request: (i) make available to the Partner evidence to demonstrate the Recipient's compliance with the requirements of this Clause (Data Protection); and (ii) allow for and contribute to audits, including inspections, conducted by or on behalf of the Partner, on reasonable notice and subject to appropriate confidentiality obligations;

not engage a third party processor of Personal Data under this Agreement (a sub-processor) unless the Partner in its absolute discretion gives a specific or general written authorisation; and where such consent is given, the Recipient:

shall inform the Partner of any intended changes to a general written authorisation to add or replace processors, thereby giving the Partner the opportunity to object to such changes;

shall impose data protection obligations that are substantially the same to those set out in this Agreement;

acknowledges that the Recipient remains fully liable to the Partner for the performance of any sub-contracted processing obligations,

not transfer any Personal Data outside of the European Economic Area (“EEA”) or to an international organisation<sup>21</sup> except:

with the prior written consent of the Partner and in accordance with any written instructions and terms the Partner may impose on such transfer to ensure that transfers of Personal Data outside of the EEA have adequate protections in place as set out in the Data Protection Legislation; or

if required by Applicable Data Processing Law, in which case the Recipient shall inform the Partner of that legal requirement before transferring, unless the law prohibits such information on important grounds of public interest.

Notwithstanding anything in the Agreement to the contrary, this Clause (Data Protection) shall continue in full force and effect for so long as the Recipient processes any Personal Data.

## **GENERAL**

The Partners’ representative for receiving notices relating to a breach of the Data Protection Legislation shall be:

...

<sup>21</sup> Defined as an organisation and its subordinate bodies governed by public international law, or any other body which is set up by, or on the basis of, an agreement between two or more countries (GDPR Article 4(26))

This agreement shall commence on the date when it has been signed by all parties and shall continue until the termination or expiry (whichever is the earlier) of the Project when it shall terminate automatically without notice.

Any notice under this Agreement shall be in writing and shall be delivered by hand, post or email to the recipient's address set out at the head of this Agreement or such other address for service as may be agreed from time to time. This clause does not apply to the service of any proceedings or other documents in any legal action or method of dispute resolution.

This Agreement may only be varied by the written agreement of the parties.

If any provision or part-provision of this Agreement is found by a court to be unlawful, unenforceable or void, that provision or part-provision shall be severed and the remainder of this Agreement shall remain in force. Either party may at any time request that the provisions of this Agreement be replaced with any standard controller-to-controller clauses issued by any competent regulator, and the parties shall work together in good faith to accommodate any such request.

Any waiver by any party of any breach of any provision of this Agreement must be in writing and shall not be deemed a waiver of any subsequent or other breach.

### Applicable law

This Agreement shall be construed in accordance with and governed by the laws of Belgium excluding its conflict of law provisions.

### Settlement of disputes

The parties shall endeavour to settle their disputes amicably.

Any dispute, controversy or claim arising under, out of or relating to this contract and any subsequent amendments of this contract, including, without limitation, its formation, validity, binding effect, interpretation, performance, breach or termination, as well as non-contractual claims, shall be submitted to mediation in accordance with the WIPO Mediation Rules. The place of mediation shall be Brussels unless otherwise agreed upon. The language to be used in the mediation shall be English unless otherwise agreed upon.

If, and to the extent that, any such dispute, controversy or claim has not been settled pursuant to the mediation within 60 calendar days of the commencement of the mediation, the courts of Brussels shall have exclusive jurisdiction.

Nothing in this Agreement shall limit the Parties' right to seek injunctive relief in any applicable competent court.

### Schedule 1 – Data Protection Particulars

<b>The subject matter and duration of the Processing</b>	Management of the Platform for the duration of this Agreement
<b>The nature and purpose of the Processing</b>	Management of the Platform as, in particular, a repository to preserve project data generated during the project ISOTIS
<b>The type of Personal Data being Processed</b>	Pictures, video-clips, personal stories, identity statements, interactive chats and login data
<b>The categories of Data Subjects</b>	Parents, children, teachers and staff working with parents and children at the selected study sites

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### SIGNATURES

The Parties have caused this Data Processing Agreement to be duly signed by the undersigned authorised representatives in separate signature pages.

## Annex 3 – Monitoring tools templates

### Interview with teachers

**General objective of the interview:** to know what teachers think (ideas and beliefs, perceptions, concerns and positive elements) and do (educational and teaching practices/strategies, on the relational, methodological and organizational levels) on the central themes of the multicultural and multilingual class (relationships, identities, multilingualism, intercultural competences).

<p><b>PRESENTATION OF THE CLASS</b></p>	<p>1. <b>Tell me about your class.</b> (give teachers time to present their class)</p> <ul style="list-style-type: none"> <li>• <i>How would you describe this group of children?</i></li> <li>• <i>What are the educational themes to which you devote more attention?</i></li> <li>• <i>What are the strengths and weaknesses of the children in your class?</i></li> </ul>
<p><b>PEER RELATIONSHIPS</b></p>	<p>2. <b>What are peer relationships like in your class?</b> 3. <b>Tell me a specific episode or time about it.</b></p>
<p><b>NEWCOMER STUDENTS</b></p>	<p>4. <b>During this school year, have you introduced a newcomer student just arrived in [YOUR COUNTRY] into your classroom?</b></p> <p>5. If teachers answer YES: <b>Focusing on [NAME OF THE NEWCOMER STUDENT], how did you manage his/her introduction into your classroom?</b></p> <ul style="list-style-type: none"> <li>• <i>What are your main concerns when a newcomer student joins your classroom?</i></li> <li>• <i>What resources do you draw on? (at different levels: resources of the child, of the family, of the teachers, of the school...)</i></li> </ul> <p>If teachers answer NO: <b>How do you usually manage the introduction into your classroom of newcomer students?</b></p> <ul style="list-style-type: none"> <li>• <i>...possible <u>resources</u> to draw on to guide practices (collaboration with colleagues within the school, cultural mediators, training/professional development courses, families...)</i></li> <li>• <i>...possible <u>difficulties/issues</u> to face (communication/relationship with the child; communication/relationship with the family; teaching/learning processes; relationship among peers within the classroom...)</i></li> </ul>



<p><b>IDENTITY</b></p>	<p><b>6. Thinking about your classroom, what are the first thoughts that come to your mind about the theme of cultural identity?</b></p> <ul style="list-style-type: none"> <li>• ... perceptions and thoughts of children from migrant background</li> <li>• ... perceptions and thoughts of their classmates</li> </ul> <p><b>7. Tell me a specific episode or time about it.</b></p>
<p><b>MULTILINGUALISM: VALORIZATION OF L1</b></p>	<p><b>8. Thinking about your classroom, what are the first thoughts that come to your mind about the theme of multilingualism?</b></p> <ul style="list-style-type: none"> <li>• ...role of L1 in L2 acquisition</li> <li>• ... concerns</li> <li>• ....advantages</li> </ul> <p><b>9. Do children from migrant speak in their mother tongue at school?</b></p> <p><b>10. Tell me a specific episode or experience about it.</b></p> <ul style="list-style-type: none"> <li>• ...do similar episodes occur frequently?</li> <li>• ...do these episodes involve also other children?</li> </ul> <p><b>11. In your classroom, do you implement any strategies/practices to give visibility to and promote linguist diversity?</b></p>
<p><b>MULTILINGUALISM: TEACHING L2</b></p>	<p><b>12. In your classroom, do you implement any strategies/practices to support children from migrant background in learning [L2]?</b></p> <ul style="list-style-type: none"> <li>• ...what methodologies do you use? (e.g. cooperative learning, peer tutoring, translanguaging...)</li> <li>• ...to whom are these strategies/methodologies addressed? (newcomers, second generation students, native pupils)</li> </ul>
<p><b>INTERCULTURAL COMPETENCES AND LEARNING</b></p>	<p><b>13. Thinking about your classroom, what are the first thoughts that come to your mind about the theme of learning to live together with people from different cultures and to understand different cultural perspectives?</b></p> <ul style="list-style-type: none"> <li>• ...how do you promote learning of intercultural competences?</li> <li>• ...what intercultural competences do children learn?</li> </ul> <p><b>14. Tell me a specific episode or time about it.</b></p>

<p><b>GENERAL INFORMATION ABOUT THE TEACHERS AND THE CLASS</b></p>	<p><b>At the end of the interview, collect some specific data about:</b></p> <ul style="list-style-type: none"> <li>• <b>the teachers</b> (if needed):             <ul style="list-style-type: none"> <li>• names</li> <li>• what subjects they teach</li> <li>• in which classroom they teach</li> </ul> </li> <li>• <b>and their class:</b> <ul style="list-style-type: none"> <li>• number of children with migrant background</li> <li>• nationality of children with migrant background</li> <li>• languages known and/or spoken by children with migrant background</li> </ul> </li> </ul>
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### Focus group with teachers

**General objective of the focus:** to access parent's discourses (ideas and beliefs, perceptions, concerns and positive elements) and practices (practices/strategies to ensure transmission) on the central themes of plural identities, multilingualism, intercultural competences, and transnationalism.

### Introduction of the project

We are a research team from University.... and we are collaborating in a big European project ISOTIS that means *Inclusive Education and Social Support to Tackle Inequalities in Society*. In Greek ἰσότης means equality, evenness, fairness, parity.

In alignment with the Greek term, ISOTIS builds on the strengths and potential of culturally and linguistically diverse families, by giving them a voice in how to adapt early education systems and support services. The central goal of the project is to combat inequalities and increase inclusiveness.

It is a collaborative project funded by the European Union, that includes 17 partners and 11 countries.

We will work with teachers of the classroom of your child and we will use a Virtual Learning Environment, proposing activities that will allow children to discover their linguistic resources in several languages, to explore and play with languages and cultures. All children know more than one language: the Italian children, they may know dialects and all of them started to learn English; the children from families of different cultural and linguistic background, may speak a first language at home, or even more. .

### Introduction to the Focus Group

We are very happy to meet you and we are very interested to learn from you about your personal experience on these issues, that is to say on the use of languages in your

family, if and how you encourage your children to use and learn different languages, on your ideas as well on your emotions and concerns on cultural diversity that you and your children experience. You already had the possibility to answer few questions in a questionnaire on linguistic experiences in families. This afternoon, we would like to get more into this topic through as a group.

As we did in the questionnaire, we remind you that you are not obliged to answer to our questions and you do not have to justify yourself because of that. Each of you will be able to share their own experience and point of view. Each experience is unique and thus, it is not right or wrong: it is simply your experience. We are here to listen to your different experiences. We wish to thank the linguistic mediators (NAME OF THE MEDIATORS) who are here to help us to communicate altogether, even if we do not necessarily speak the same languages. (NAME OF THE MEDIATORS) are here to help those of us who are not fluent in (NAME OF THE LANGUAGE OF THE FOCUS GROUP). We kindly ask you to be patient if the discussion will be slow down by the translations. We ask you to listen to everybody, even when their experience might seem strange or far from your own. And we invite you to wait for your turn to share your opinion.

We will record the conversation so that we do not have to write everything down. During the questionnaire, you already signed the form where we guarantee you the maximum respect of your anonymity and confidentiality. We have here some extra copy of the form in cases some of you might have not signed beforehand.

To warm up, we propose you a very short clip from a movie called “Almanya: welcome to Germany”. This film talks about a Turkish family living in Germany.

### Projection of the initial clip to start the focus

“Almanya-La mia famiglia va in Germania”, min. 8H06-13H39

Themes of the clip:

- Management of plural identities and of the origins among peers at school and at home
- Short mention of the knowledge of mother tongue

### Theme 1: Plural identities

**Goal:** to grasp ideas about advantages, complexities and anxieties concerning plural identities

**Questions:** On the short clip of this movie, we saw that having more than one cultural identity is a rich, yet complex experience. Both foreign families and (NAME OF THE COUNTRY, in our case Italy) families have plural identities (-> Provide an example of plural identity for non-foreigners, e.g. different religions/city-rural areas etc.)

- What do you think about it?
- What happens in your family?
- Do you think it is a complicated experience?
- Do you see any advantage?
- Do you have any concern about it?
- What do you think your children experience about this? Do they talk about it? Did they share any experience about it?
- What do you do to transmit your own culture? What kind of choices did you do concerning transmission of your culture? How? Do you use technologies?

### Theme 2: Multilingualism

**Questions on multilingualism:** In the clip, there is a scene where a primary school kid is not accepted in the Turkish team because he doesn't speak Turkish. Yet, he is not accepted as German from his German peers. One of the aspects characterizing multicultural families is that they know and speak more than one language at home.

- Do you consider important to keep your mother tongue or your dialects?
- What are the positive and negative aspects of using more than one language in your everyday life (and at home)?
- Is the way you use languages born of an explicit decision you took as parents beforehand? Did it change through time?
- Do you consider as important that your children know your mother(s) tongue(s)? Or do you think that it is an obstacle to the learning (NAME OF THE LANGUAGE OF THE COUNTRY)? What were your choices concerning the transmission of your mother tongue?
- How do you teach or help your children to learn more than one language? Do you encourage the expression in your mother tongue? How?
- How do you transmit your language? Though which means? Do you use technologies at home to support the learning of your mother tongue? If so, which ones? And how?
- Do your children would like to learn and speak (if he can) your mother tongue or dialect?

### Theme 3: Expectations on school

1. What do you think school should do on these issues?
2. Concerning (NAME OF THE COUNTRY) national parents:
  - What is the experience of your children who are learning to live together with other cultures?
  - What do you think to have children in a school where there are many other students who are speaking several other languages beside Italian?
  - Do you consider it as an obstacle or a positive aspect of the school experience of your children?
  - What are your concerns – if you have some- on these issues?



## Parents questionnaires introduction

We prepared these questionnaires in order to start mapping the situation in our site.

The goals are:

- Discovering which languages are present in the classroom
- Knowing which language practices are carried out at home: when, with whom, which languages are spoken and which experiences do the children usually do at home with their parents and siblings
- A first understanding of the beliefs related to mother tongue maintenance and expectations about the role of school.
- Discovering existing technologies at home in order to have a more clear idea of their resources in terms of ICT-technology.

Through the questionnaires, it is possible to create a first “map” of the languages known and/or spoken at home with the children, among the parents, with the other children at home, with the teacher or the other parents at school and the available technologies.

We have asked the parents to fill the questionnaires during meetings organized with the teachers in each classroom. We asked the teachers to spread the questionnaires between the parents that were not present during the meetings in the following days.

There are two versions of the questionnaires: one for parents with migrant background, later translated in several languages, and one for native parents, with an attention to dialects too.

The questionnaires have different sections for mothers and fathers because they could have different language profiles. There is no need to fill both the sections in case of mono-parental families, divorced parents, ...

Name of the school • Preschool • Primary School: Class \_\_\_\_\_ Children's number \_\_\_\_\_ Children's age: 1° \_\_\_ 2° \_\_\_ 3° \_\_\_ 4° \_\_\_ ....  
 Children's place of birth: \_\_\_\_\_  
 How long have they been in Italy? (if born abroad) \_\_\_\_\_

**ISOTIS PROJECT QUESTIONNAIRE– NON-ITALIAN PARENTS**

		MUM - Mother's age: _____	DAD - Father's age: _____
Country of origin.	Where were you born?		
	How long have you been in Italy?		
Which language/languages do you know or use?	What is your mother tongue?		
	Which other languages do you know? (regardless of the level)		
Which languages do you speak within the family?	With your husband/wife?		
	With your children?		
	With your family of origin?		
Which languages do you speak at school?	In which language do you talk with your child's teachers?		
	And with the other parents at school?		

**Languages of children (think about the child that is in this class).**

- Which languages does your child know? (regardless of the level)  
\_\_\_\_\_
- Which languages does your child speak gladly...
  - in family with mum?  
\_\_\_\_\_
  - in family with dad?  
\_\_\_\_\_
  - in family with siblings?  
\_\_\_\_\_
  - in family with grandparents?  
\_\_\_\_\_
  - in family with friends?  
\_\_\_\_\_

**Languages spoken at school (according to what you know).**

- Which languages does your child speak with teachers at school?  
\_\_\_\_\_

- ... which languages does he/she speak with schoolmates?  
\_\_\_\_\_
- Does he/she speak Italian gladly?  
• Yes, a lot - • Yes, enough - • Just a little - • No, absolutely - • I don't know

**Language learning support at home.**

- Do you think that the maintenance of the language(s) of origin is important?  
• Yes, a lot - • Yes, enough - • just a little - • No, absolutely - • I don't know
- Do you do anything in order to support your child in learning the mother tongue(s)?  
• Yes - • No
- If yes, which tools do you use or did you use?
  - We always use the mother tongue at home
  - We enrolled our child in mother tongue classes
  - We use books in mother tongue (about religion, tales, other)
  - We use computer/technologies
  - We use online resources in mother tongue
  - We use audio and/or video tapes in mother tongue (cartoons, other)
  - Other \_\_\_\_\_
- Is your child willing to learn/talk (if she/he already knows it) the mother tongue?  
• Yes, a lot - • Yes, enough - • Just a little - • No, absolutely - • I don't know
- Do you do anything in order to support your child in learning the Italian language? • Yes - • No
- If yes, which tools do you use or did you use?
  - We always use the Italian language at home
  - We enrolled our child in Italian language classes
  - We use books in Italian language (religious, tales, other)
  - We use computer/technologies
  - We use online resources in Italian language
  - We use audio and/or video tapes in Italian language (cartoons, other)
  - Other \_\_\_\_\_
- Do you think that the maintenance of the languages of origin slows the Italian language learning?  
• Yes, a lot - • Yes, enough - • Just a little - • No, absolutely - • I don't know
- Do you think that the maintenance of the languages of origin eases the Italian language learning?  
• Yes, a lot - • Yes, enough - • Just a little - • No, absolutely - • I don't know

**The school**


- Do you expect the school to do something for the language of origin learning?
  - Yes, for example \_\_\_\_\_
  - No, we don't expect this



## ISOTIS Research Approach VLE intervention

ISOTIS

**INCLUSIVE EDUCATION AND SOCIAL SUPPORT  
TO TACKLE INEQUALITIES IN SOCIETY**

THIS PROJECT HAS RECEIVED FUNDING FROM  
THE EUROPEAN UNION'S HORIZON 2020  
RESEARCH AND INNOVATION PROGRAMME  
UNDER GRANT AGREEMENT NO. 101019151

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- I don't know.
- Do you expect the school to do something for the Italian language learning?
  - Yes, for example \_\_\_\_\_
  - No, we don't expect this
  - I don't know.

**Technologies at home:** Please indicate which technologies you have at home:

- Television
- Computer
- Internet ●
- Smart-phone
- Tablet

**EVENTUAL CONTACT:** *Would you be available to tell us better about your experiences? If yes, please write down your email and/or telephone number and you will be contacted a second time:*

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*Thank you for your participation!*

## Classroom observation guidelines

### Basic information

**Please, write down the following information**

1. Country
2. Which type of school are you going to observe? (primary school, pre-primary school, etc...)
3. Grade of the observed class
4. Observers' name
5. Observation period (e.g. from the 7th to 11th of May)
6. What is the total number of the children in each class?
7. What is the number of the children with migrant background in each class?
8. Where do they come from?

**The following are useful places or moments to be observed**

- didactic moments
- lunch
- break
- toilet moments (if possible)
- getting out of school
- peers conversation

### Principal focuses

1. Linguistic and pluri-linguistic practices among peers or between peers and teachers (translanguaging /language brokering)
2. Dialogues and conversations about diversity (language diversity, food, clothes, attitudes, ...)
3. Relational dynamics (ethnic groups, non-ethnic subgroups, ...)

### Secondary focuses

You can identify key-children, and you can observe them in a deeply way, recording some interesting conversations (e.g: newly arrived children, mutism case, plurilingual and loquacious child, ...)

**Observer records**

OBSERVER NAME:
DATE: ____/____/____
CLASS:
OBSERVATION TIME: FROM _____ TO _____
NAME OF THE TEACHER:
SUBJECT:
TOTAL NUMBER OF THE CHILDREN: N. OF THE FOREIGN CHILDREN:
NATIONALITY OF THE CHILDREN WITH MIGRANT BACKGROUND (please, record if they are 1st, 2nd or 3rd generation) <ul style="list-style-type: none"> <li>• ...</li> <li>• ...</li> </ul>
KEY-CHILD:  NAME:      WHY IS HE/SHE A KEY-CHILD?:  <ul style="list-style-type: none"> <li>• ...</li> <li>• ...</li> <li>• ...</li> </ul>
OBSERVER'S NOTES:

Description of the context (place, characteristics of the place, roles, aims of the activity...)          Time:
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<p><b>A TEACHER'S DIARY OF THE ACTIVITIES</b></p> <p><b>Observing and reflecting</b></p>	
<p><b>Teacher:</b></p> <p><b>Activity:</b></p>	
<p><b>STEP 1 – BEFORE THE IMPLEMENTATION</b></p>	
<p><b>A. Describe the process of co-designing and implementation of the activity, and your comments/reflections about it</b></p>	
<p><b>Eg:</b></p> <p><b>Did I appreciate the guidelines?</b></p> <p><b>How far did I want to change them?</b></p> <p><b>What contribute I think I gave in the design?</b></p> <p><b>Did I find connections to the curriculum?</b></p>	
<p><b>B. Briefly describe the activity and eventual links to curriculum.</b></p> <p><b>Eg. The flow of the experience proposed to children (activities, timing, participants, connections to curriculum).</b></p> <p><b>You may take decisions during the implementation: you can describe the activity flow during and after the implementation.</b></p>	
<p><b>STEP 2 – DURING THE IMPLEMENTATION</b></p>	
<p><b>A. Observing the class during the implementation, how generally children respond to the activity proposed?</b></p>	
<p><b>e.g.:</b></p> <p><b>Participation, interest, peer interactions, conversations...</b></p>	

**B. Observing just few key children (eg. 2 or 3) you have chosen as particularly in difficult/silent/challenging, how these children respond to the activity proposed?**

e.g.:

participation, interest, peer interactions...

**Child 1:**

**Why did you choose this child?**

**How does he/she respond to the activity?**

**Do you observe a change in his/her behaviour?**

**Child 2: idem**

**C. Are you changing the activity or part of it during the implementation? On the base of what observations and reflections?**

**STEP 3 – AFTER THE IMPLEMENTATION**

**A. Thinking about the implementation of the activity afterwards, choose a picture and/or three key-words to describe it**

**Pictures/key words:**

**Why did you choose this picture/key word?**

**B. From your point of view, what was the impact of the activity?**

**On yourself**

e.g.: changes in:

- your educational practice,
- your ideas and opinions on children and their competences,
- your interaction with children and/or parents;
- your beliefs;

<b>- any other reflection triggered by the activity...</b>
<b>On the class</b>  e.g.  <b>- Contents brought up in children' conversations afterwards;</b>  <b>- Changes in children's behaviours and interactions in general and considering the key-children...</b>
<b>C. What do I think are the points of strength and the points of weaknesses of it? How would I change it? (If so) Why?</b>
<b>D. Do I think that I will keep this activity within my education practice? (In both cases) Why?</b>
<b>E. Evaluate how far the activity was coherent with the following criteria</b>

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Please answer the following questions by stating your agreement on a scale from 1 (*do not agree at all*) to 5 (*fully agree*).

		Before the implementation					After the implementation					- Reflections/comments elicited by the items - Eventual reasons for the differences in the scores before and after the implementation
		Do not agree at all				Fully agree	Do not agree at all				Fully agree	
<b>Teaching efficacy in diverse classrooms</b>												
1.	I can cope with the challenges of a multicultural classroom.	1	2	3	4	5	1	2	3	4	5	
2.	I can adapt my teaching to the cultural diversity of children.	1	2	3	4	5	1	2	3	4	5	
3.	I can deal with problems and conflicts which result from cultural difference.	1	2	3	4	5	1	2	3	4	5	
<b>Intercultural sensitivity</b>												
1.	I know how to learn about the children's culture of origin.	1	2	3	4	5	1	2	3	4	5	
2.	I can offer many opportunities to engage in other cultures in class.	1	2	3	4	5	1	2	3	4	5	

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3.	I can raise awareness for cultural differences and similarities amongst the children.	1	2	3	4	5	1	2	3	4	5	
4.	I know how to encourage children to look at things from different cultural perspectives.	1	2	3	4	5	1	2	3	4	5	
5.	I can promote respect for cultural diversity amongst the children.	1	2	3	4	5	1	2	3	4	5	
6.	I can boost the self-esteem of the children of immigrant background.	1	2	3	4	5	1	2	3	4	5	
7.	I can ensure that problems among children that are caused by cultural differences are openly addressed and resolved.	1	2	3	4	5	1	2	3	4	5	
<b>Strengthening classroom community</b>												
8.	I can organize joint activities to strengthen the classroom community and make children learn to cooperate with each other.	1	2	3	4	5	1	2	3	4	5	
9.	I can prevent children from segregating into small groups along ethnic boundaries during breaks.	1	2	3	4	5	1	2	3	4	5	
10.	I can make sure that in the classroom children from different cultural groups do not sit separately.	1	2	3	4	5	1	2	3	4	5	
11.	I can make children to help each other when one is in difficulty in learning	1	2	3	4	5	1	2	3	4	5	



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12.	I can make children to help each other when one feels excluded	1	2	3	4	5	1	2	3	4	5	
13.	I can make children to help each other when one is in difficulty with the language (Italian).	1	2	3	4	5	1	2	3	4	5	
<b>Reducing prejudices</b>												
14.	I can contribute to reducing mutual prejudices between the children.	1	2	3	4	5	1	2	3	4	5	
15.	When selecting materials for my classes, I know how making sure that they do not convey cultural stereotypes or prejudices.	1	2	3	4	5	1	2	3	4	5	
<b>Multilingualism</b>												
16.	I know how to encourage the maintenance of the home language.	1	2	3	4	5	1	2	3	4	5	
17.	I know how to make children acknowledge that it is valuable to be multilingual in our society	1	2	3	4	5	1	2	3	4	5	
18.	I know how to encourage children's curiosity towards other languages.	1	2	3	4	5	1	2	3	4	5	
19.	In my classroom I know how to give visibility to children's home languages (e.g., multilingual signs, books in L1...).	1	2	3	4	5	1	2	3	4	5	
20.	I can make children use their home language in completing class work or assignments	1	2	3	4	5	1	2	3	4	5	

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21.	I can make children help the newly arrived with their mother tongue.	1	2	3	4	5	1	2	3	4	5	
<b>Parent-teacher relationships</b>												
22.	I can prepare parents of immigrant background for upcoming decisions concerning the educational trajectories of their children.	1	2	3	4	5	1	2	3	4	5	
23.	I specifically inquire about the cultural backgrounds of the families of their immigrant children.	1	2	3	4	5	1	2	3	4	5	
24.	I provide guidance to parents of immigrant children so they understand the [English] school system.	1	2	3	4	5	1	2	3	4	5	
<b>Global competence</b>												
25.	I can foster the children's critical thinking skills.	1	2	3	4	5	1	2	3	4	5	
26.	I can sustain all children's sense of identity and self-worth											
27.	I can support children in developing an enquiring mind (e.g., asking questions when they do not understand; encouraging their desire to learn...).	1	2	3	4	5	1	2	3	4	5	
28.	I encourage children to bring information together from multiple sources (e.g., family and	1	2	3	4	5	1	2	3	4	5	

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	personal history, websites, books...) to answer their question.										
29.	I can support children in developing themselves solutions for their problems.	1	2	3	4	5	1	2	3	4	5
30.	I can support children in using multiple media in a purposeful manner to present their ideas.	1	2	3	4	5	1	2	3	4	5
31.	I can support children in taking responsibility for their actions.	1	2	3	4	5	1	2	3	4	5
32.	I can support children in learning to discuss and listen to classmates even when they don't agree.	1	2	3	4	5	1	2	3	4	5
33.	I can provide children an experience with democracy at school	1	2	3	4	5	1	2	3	4	5
34.	I involve children in decision making on matters concerning them.	1	2	3	4	5	1	2	3	4	5
35.	I can raise awareness for social inequalities amongst the children.	1	2	3	4	5	1	2	3	4	5
<b>ICTs in teaching-learning process</b>											
36.	I use ICTs daily in my lessons	1	2	3	4	5	1	2	3	4	5
37.	I can use ICTs to make teaching-learning process more effective	1	2	3	4	5	1	2	3	4	5

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38.	I can use ICTs to make teaching-learning process more enjoyable	1	2	3	4	5	1	2	3	4	5	
39.	I can use ICTs to enhance children's motivation	1	2	3	4	5	1	2	3	4	5	
40.	I can use ICTs to make communication with parents more effective.	1	2	3	4	5	1	2	3	4	5	

## Final evaluation with children

### Directions for carrying out the monitoring:

1. Administration of the sociogram (if any)
2. Written questionnaire (if possible embedded in the VLE "class group" so that children can answer questions through writing, audio, video or drawing)
3. Group comparison (group focus/circle time)

Estimated time (if points 1,2,3 are foreseen): about 90 min (N.B. the 3 monitoring aspects can be carried out at different times depending on the availability of the group)

### Part I: Initial questionnaire

**(N.B. questions can be adapted or added depending on the specific use of the platform with the group in question)**

Dear children,

we ISOTIS researchers are very happy to have worked with you and heard your valuable opinions, but now our journey together is coming to an end.

Below are some questions that we ask you to answer sincerely, to give us an idea of how you experienced the project.

The whole team thanks you for your participation and the time you have dedicated to us.

1. Have you ever used the ISOTIS platform?

- YES
- NO

2. If yes, where?

- AT HOME
- AT SCHOOL
- OTHER: \_\_\_\_\_

3. If at home, who did you use it with?

4. What device did you use?

- MOBILE PHONE
- COMPUTER
- TABLET
- OTHER: \_\_\_\_\_

5. What did you do on the platform?

- I WROTE MESSAGES ON THE BOARD
- I UPLOADED VIDEOS/AUDIO FILES/IMAGES ON THE BOARD
- I WROTE PRIVATE CHAT MESSAGES
- I ANSWERED SOME QUESTIONS
- OTHER: \_\_\_\_\_

5a. Was it easy to use?

- YES
- NO

5b. Did you have any difficulties?

- YES
- NO

If yes, please specify?

---

6a. In your opinion, how could it be easier to use the platform?

---

7. What did you like most about the platform? Why?

---

8. What did you like least about the platform? Why?

---

9. Did you use Beeba?

- YES
- NO

10. In your opinion, what is Beeba's most useful feature?

---

11. Would you like to use the platform again?

- YES
- NO

If yes, how would you like to use it?

---

Please draw what you liked best about this experience.

(space for drawing)

What did you draw? Why?

---

## Part II – Guide for focus-circle time

The focus can be introduced by a few "warm-up" questions (show of hands), referring to the questions in the questionnaire, to which the first part of the focus group is dedicated. It is advisable to use the projection of the platform or other type of visual documentation to recall and show (in connection with the questions) what you are talking about.

Questions can be flexibly adapted depending on the context and use of the VLE.

**The focus is divided into two parts that will investigate A- The evaluation of the VLE and B- The evaluation of the activities carried out.**

A- EVALUATION OF VLE	
TOPIC	QUESTIONS
<b>OPINIONS ABOUT VLE</b> (the questions here are similar to the written ones above, but they can trigger a conversation among the group and it is interesting to	Did you like using the platform? You know that on the platform there are several functions, for example you can write things on the bulletin board or private messages, you can 'attach' videos, audio files, etc. <i>(Show on the interactive whiteboard if necessary)</i> ...what did you use most? What did you like to use the most?
<b>LEARNING</b>	What do you think you learned by using the platform? <i>(Survey on aspects of interest for research: new technologies/multilingualism/cultural valorization/communication and relations)</i>
<b>FUTURE USE</b>	Would you like to use the platform again? What features? To do what? At home or at school? Would you like to give some advice to the researchers who are creating the ISOTIS platform to improve it? What suggestions?



<b>B- EVALUATION OF THE ACTIVITIES</b>	
<p>This second part can be introduced using photos/video clips of some moments from the various meetings and/or of each meeting (or the most significant ones)</p>	
<b>Topic</b>	<b>Questions</b>
<b>OPINIONS ABOUT THE ACTIVITIES</b>	<p>What did you like most about (this activity)? <i>(if topics of interest to the research are not brought up, suggest them. For example: ask them to tell their classmates what Ramadan is, discover how 'X' observes Easter, write on the computer, record my voice, be the director, speak in Filipino, etc.)?</i></p> <p>What would you add or change?</p>
<b>LEARNING DURING THE ACTIVITIES</b>	<p>What did you learn from (this activity)? And from (this activity)?</p> <p><i>(If they do not come up, investigate possible learning regarding multilingualism/interculture/new technologies.)</i></p>
<b>LEARNING AND RELATIONSHIPS</b> (survey on cooperative learning, exchange of information/knowledge of languages/cultures/technologies)	<p>Did you enjoy working together during these activities?</p> <p>Did you learn something from your peers? What?</p> <p>Did you discover anything new about your peers?</p> <p>And about yourself?</p> <p>Did you make new friends?</p>
<b>THE FUTURE</b>	<p>Would you like to do any of these activities again? How would you continue it?</p>

## Teacher's interview – final evaluation on activities

Before proceeding with the interview, read the teacher's diary on the VLE [section 'Documentation' > 'Self Evaluation'].

If completed, the researcher can administer the interview by referring to the contents already explained in the diary and, if necessary, integrate some missing aspects. If the teacher has not completed the Diary, ask the questions and mark with "Question in the Diary" to complete the collection of pre-established data.

ESTIMATED TIME: 60 minutes

THEMES	QUESTIONS
<p><b>DESIGN AND REALIZATION OF THE ACTIVITIES</b></p>	<p>Let's review together which activity(ies) you developed with your class...</p> <ul style="list-style-type: none"> <li>- Why did you choose these activities?</li> <li>- Did you make any changes to the activities compared to how they were presented on the platform? Why? <b>(Question in the Diary)</b></li> <li>- Was it interesting to work on the design of these activities?</li> <li>- In working with your colleague/s (if any), was it easy to discuss these activities? Was it interesting?</li> <li>- What links did you find between the activity developed and the curriculum of the subject(s) you teach? How did you find these links? <b>(Question in the Diary)</b> [<i>ascertain whether they came to mind independently, were suggested by you, read on the platform...</i>]</li> <li>- In retrospect, what do you think are the strengths of the activity you developed? And the weaknesses? If you had to do it again, would you change something? <b>(Question in the Diary)</b></li> <li>- Is there any other activity on the platform that you would have liked to develop? Why?</li> </ul>

<p><b>CHILDREN'S PARTICIPATION AND INTEREST</b></p>	<p><b>(Questions in the Diary)</b></p> <ul style="list-style-type: none"> <li>- How did the children respond to the proposed activity over time? [<i>Investigate possible changes in attitude/involvement at the beginning, during and at the end of the activity</i>].</li> <li>- Did they seem interested in the activities? What makes you say that? [<i>investigate evidence/examples</i>]</li> <li>- Looking back, is there anything that you think involved/interested them more? Why do you think they showed this interest/involvement? How do you know? [<i>what behaviors/attitudes</i>]</li> <li>- Some activities let children express their voice and proposals. Do you think children react differently to these activities? [<i>in terms of engagement, participation...</i>]</li> <li style="padding-left: 40px;">- What did engage them most?</li> <li style="padding-left: 40px;">- Why do you think this happened?</li> </ul>
<p><b>OBSERVED AND PERCEIVED IMPACT ON THE CHILDREN</b></p>	<p><b>(Questions in the Diary, but less detailed)</b></p> <p>From observing the children in the class, talking to them and listening to their conversations...</p> <ul style="list-style-type: none"> <li>- Could you detect changes in children's behaviour and interactions? [<i>in the classroom, in the relationships between peers and with the teacher...</i>]</li> <li>- And in their way of talking about some of the issues addressed in the activities?</li> <li>- In their way of participating in school activities?</li> <li>- What do you think they learned about multilingualism, intercultural education/participation in school/use of technologies/social justice/democracy? How do you know? [<i>evidence/examples</i>]</li> <li>- And what skills and competences do you think they have had the opportunity to practice?</li> <li>- Thinking about the "key children", do you think that there were changes since the beginning of the project ...</li> <li style="padding-left: 40px;">- in general in the class [<i>serenity and participation</i>]?</li> </ul>

	<ul style="list-style-type: none"> <li>- in the way they perceive themselves <i>[social/cultural/linguistic identity, role as students]</i>?</li> <li>- in relationships between peers?</li> <li>- in relationships with teachers?</li> <li>- in their attitudes towards ICTs?</li> <li>- What about their learning and skills?</li> </ul>
<b>PARENT'S PARTICIPATION AND INTEREST</b>	<p>Do you think that the parents felt involved in the project/activities? Why or why not? How do you know? <i>[concrete evidence/examples]</i></p> <ul style="list-style-type: none"> <li>- Which elements facilitated their involvement? What elements made it difficult for them to get involved?</li> <li>- How do you think their involvement could have been strengthened?</li> <li>- If so, what added value did parent participation bring to the activities?</li> </ul>
<b>OBSERVED AND PERCEIVED IMPACT ON THE PARENTS</b>	<ul style="list-style-type: none"> <li>- Do you see a change due to this project in your relationship with the parents? In what way? Why?</li> <li>- And in the relationship between parents? In what way? Why?</li> <li>- And in the relationship between parents and their children? In what way? Why?</li> </ul>
<b>PERCEIVED IMPACT ON THE TEACHERS (SELF-EVALUATION)</b>	<p>Did participation in the project as a whole (your own, your colleagues, children and parents) change something about you as a teacher... <b>(Question in the Diary)</b></p> <ul style="list-style-type: none"> <li>- in your educational practice?</li> <li>- in your ideas and opinions about children and their skills?</li> <li>- in your ideas and opinions about the value/possibility of letting children express their voice and assume an active role in the school?</li> <li>- in your interactions with children and/or parents?</li> </ul>

	<p>- any other reflections generated by the activity...</p> <p>Do you think you will propose these activities again in your future educational practice? What in particular? (<b>Question in the Diary</b>)</p>
<b>CONCLUSION</b>	<p>In general, what did you like and find useful about the work done together?</p> <p>What did you <b>dislike</b> and find less useful?</p> <p>This class already participated in other projects on intercultural education/enhancement of multilingualism [<i>give examples, if any, related to the class</i>], in your opinion what was the added value from participation in this project?</p>

## Annex 4 – VLE Evaluation Table

### Summary table on qualitative questions and usability & interest scales.

QUESTIONS	OBJECTS	ANSWERS	
What did you explore?	Resources	<input type="checkbox"/> Videos - <input type="checkbox"/> Theoretical information - <input type="checkbox"/> Observation cases - <input type="checkbox"/> Experiences/activities	
	DIGITAL TOOLS	<input type="checkbox"/> Digital applications - <input type="checkbox"/> Tutorials	
	My space	<input type="checkbox"/> Noticeboard - <input type="checkbox"/> Projects and Materials - <input type="checkbox"/> Documentation	
	BEEBA	<input type="checkbox"/> Multilingual Keyboard - <input type="checkbox"/> Vocal synthesis - <input type="checkbox"/> Translator - <input type="checkbox"/> Format options	
What did you use?	Resources	<input type="checkbox"/> Videos - <input type="checkbox"/> Theoretical information - <input type="checkbox"/> Observation cases - <input type="checkbox"/> Experiences/activities	
	DIGITAL TOOLS	<input type="checkbox"/> Digital applications - <input type="checkbox"/> Tutorials	
	My space	<input type="checkbox"/> Noticeboard - <input type="checkbox"/> Projects and Materials - <input type="checkbox"/> Documentation	
	BEEBA	<input type="checkbox"/> Multilingual Keyboard - <input type="checkbox"/> Vocal synthesis - <input type="checkbox"/> Translator - <input type="checkbox"/> Format options	
Do you think the resources and functionalities are interesting?	Resources	<input type="checkbox"/> Videos - <input type="checkbox"/> Theoretical information - <input type="checkbox"/> Observation cases - <input type="checkbox"/> Experiences/activities	Comments:
	DIGITAL TOOLS	<input type="checkbox"/> Digital applications - <input type="checkbox"/> Tutorials	
	My space	<input type="checkbox"/> Noticeboard - <input type="checkbox"/> Projects and Materials <input type="checkbox"/> Documentation	
	BEEBA	<input type="checkbox"/> Multilingual Keyboard - <input type="checkbox"/> Vocal synthesis <input type="checkbox"/> Translator - <input type="checkbox"/> Format options	
What did you like the most?	Resources	<input type="checkbox"/> Videos - <input type="checkbox"/> Theoretical information - <input type="checkbox"/> Observation cases - <input type="checkbox"/> Experiences/activities	Comments:
	DIGITAL TOOLS	<input type="checkbox"/> Digital applications - <input type="checkbox"/> Tutorials	
	My space	<input type="checkbox"/> Noticeboard - <input type="checkbox"/> Projects and Materials <input type="checkbox"/> Documentation	
	BEEBA	<input type="checkbox"/> Multilingual Keyboard - <input type="checkbox"/> Vocal synthesis <input type="checkbox"/> Translator - <input type="checkbox"/> Format options	
What did you like the least?	Resources	<input type="checkbox"/> Videos - <input type="checkbox"/> Theoretical information - <input type="checkbox"/> Observation cases - <input type="checkbox"/> Experiences/activities	Comments:

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	<b>DIGITAL TOOLS</b>	<input type="checkbox"/> Digital applications - <input type="checkbox"/> Tutorials	
	<b>My space</b>	<input type="checkbox"/> Noticeboard - <input type="checkbox"/> Projects and Materials <input type="checkbox"/> Documentation	
	<b>BEEBA</b>	<input type="checkbox"/> Multilingual Keyboard - <input type="checkbox"/> Vocal synthesis <input type="checkbox"/> Translator - <input type="checkbox"/> Format options	
<p><b>Do you think that the platform provides/fosters any innovation</b> in your practice? What (if any) potential do you see in the platform?</p> <p>How do you think you could use the platform with children? And with parents?</p>			
<p><b>What changes would you suggest?</b></p>			

<b>How easy and usable was the platform?</b>	
I think that I would like to use this system frequently.	<b>Strongly disagree</b> 1 <input type="checkbox"/> - 2 <input type="checkbox"/> - 3 <input type="checkbox"/> - 4 <input type="checkbox"/> - 5 <input type="checkbox"/> <b>Strongly agree</b>
I found the system unnecessarily complex.	<b>Strongly disagree</b> 1 <input type="checkbox"/> - 2 <input type="checkbox"/> - 3 <input type="checkbox"/> - 4 <input type="checkbox"/> - 5 <input type="checkbox"/> <b>Strongly agree</b>
I thought the system was easy to use.	<b>Strongly disagree</b> 1 <input type="checkbox"/> - 2 <input type="checkbox"/> - 3 <input type="checkbox"/> - 4 <input type="checkbox"/> - 5 <input type="checkbox"/> <b>Strongly agree</b>
I think that I would need the support of a technical person to be able to use this system.	<b>Strongly disagree</b> 1 <input type="checkbox"/> - 2 <input type="checkbox"/> - 3 <input type="checkbox"/> - 4 <input type="checkbox"/> - 5 <input type="checkbox"/> <b>Strongly agree</b>
I found the various functions in this system were well integrated.	<b>Strongly disagree</b> 1 <input type="checkbox"/> - 2 <input type="checkbox"/> - 3 <input type="checkbox"/> - 4 <input type="checkbox"/> - 5 <input type="checkbox"/> <b>Strongly agree</b>
I thought there was too much inconsistency in this system.	<b>Strongly disagree</b> 1 <input type="checkbox"/> - 2 <input type="checkbox"/> - 3 <input type="checkbox"/> - 4 <input type="checkbox"/> - 5 <input type="checkbox"/> <b>Strongly agree</b>
I would imagine that most people would learn to use this system very quickly	<b>Strongly disagree</b> 1 <input type="checkbox"/> - 2 <input type="checkbox"/> - 3 <input type="checkbox"/> - 4 <input type="checkbox"/> - 5 <input type="checkbox"/> <b>Strongly agree</b>

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I found the system very cumbersome to use.	<b>Strongly disagree</b> 1☐ - 2☐- 3☐- 4☐- 5☐ <b>Strongly agree</b>
I felt very confident using the system.	<b>Strongly disagree</b> 1☐ - 2☐- 3☐- 4☐- 5☐ <b>Strongly agree</b>
I needed to learn a lot of things before I could get going with this system.	<b>Strongly disagree</b> 1☐ - 2☐- 3☐- 4☐- 5☐ <b>Strongly agree</b>
<b>Would you like to share any comments on the filled scale?</b>	

**SUMMING UP:**

<i>Would you use this platform again?</i>	<b>Not at all</b> 1☐ - 2☐- 3☐- 4☐- 5☐ - 6☐- 7☐- 8☐- 9☐- 10☐ <b>Yes, definitely</b>
<i>Would you suggest the platform to a colleague/a friend?</i>	<b>Not at all</b> 1☐ - 2☐- 3☐- 4☐- 5☐ - 6☐- 7☐- 8☐- 9☐- 10☐ <b>Yes, definitely</b>



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ISOTIS

**INCLUSIVE EDUCATION AND SOCIAL SUPPORT  
TO TACKLE INEQUALITIES IN SOCIETY**



This project has received funding from the  
European Union's Horizon 2020  
research and innovation programme  
under grant agreement No. 727069.

# Section B

## MULTILINGUALISM AND GLOBAL COMPETENCE IN ECEC & PRIMARY SCHOOL SETTINGS.

**Report on the ISOTIS Virtual Learning Environment development and implementation in four countries to innovate inclusive and effective curricula and pedagogies.**

**EDITORS:** Giulia Pastori, Valentina Pagani,  
Alice Sophie Sarcinelli.



# SECTION B

## Multilingualism and global competence in ECEC & primary school settings.

REPORT ON THE ISOTIS VIRTUAL LEARNING ENVIRONMENT DEVELOPMENT AND IMPLEMENTATION IN FOUR COUNTRIES TO INNOVATE INCLUSIVE AND EFFECTIVE CURRICULA AND PEDAGOGIES.

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**Document Identifier**

D4.4 - SECTION B - Report on the design-based interventions aimed at innovating curriculum and pedagogies in ECEC and primary school settings

**Version**

1.0

**Date Due**

M28

**Submission date**

30 September 2019

**Work Package**

WP4 Task 4.4

**Lead Beneficiary**

UNIMIB

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## **CHANGE LOG**

<b>Version</b>	<b>Date</b>	<b>Amended by</b>	<b>Changes</b>
<b>1.0</b>	30 September 2019		

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## ACKNOWLEDGEMENTS

We would like to thank the staff members of all institutions involved in this research:

The Dutch team wants to express their gratitude to the school that has participated in the research, the teachers with whom we worked and who opened up their classrooms to afford our collaborative learning about intercultural education in kindergarten.

In Italy, we would like to gratefully thank the school involved in the research, the Istituto Comprensivo, all the teachers who participated to the study and the school Director who accepted to join the project, and we dedicate a special grateful thank to all children and parents who participated in the phases of work, dedicating time and efforts and sharing their views and knowledge.

The Portuguese team would like to acknowledge the two schools who accepted to collaborate with us and all the coordinators, teachers, and children who participated in this collaborative process, for their time and inputs. Additionally, we would like to thank Angelica Dass from the Humanae Project for giving us an innovative idea in how to approach skin colour and racism, through art, and for giving children her kind feedback on their work. Thank you to Carolina Pezzoni for her books' recommendations to explore issues of multiculturalism, migration and human rights.

The Czech team would like to thank all three schools, especially the vice principal who allowed us to conduct activities in the classrooms, and to the teachers who participated actively, who were meeting with us repeatedly, discussing and co-designing the activities. We would like to thank them for their time, effort and valuable feedbacks. We would also like to thank the parents and children who actively engaged in the activities and who shared their views with us.

We are grateful to the European Commission for funding the project ISOTIS "Inclusive Education and Social Support to Tackle Inequalities in Society".

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## EXECUTIVE SUMMARY

### Introduction

The ISOTIS project addresses challenges raised by the cultural and linguistic *super-diversity* of our European society connected to sustained immigration. Europe's education systems are in the centre of this super-diversity and while they are acknowledged as a key driver of the economic and social integration of immigrants and their offspring, educational opportunities for children still strongly depend on family origin. The success of children from immigrant and cultural minority groups at school is not only related to their attitudes, socio-economic status and prior education, but also to the quality and receptiveness of the education system.

Applying a Bronfenbrenner's bio-ecological model (Bronfenbrenner & Ceci, 1994; Bronfenbrenner & Morris, 2006), which was the overarching framework of the ISOTIS project, ECEC and school contexts are microsystems that have relevant, direct influence on children's development, learning and well-being. They are key settings in the child *educational niche* that can contribute to reducing educational and social inequalities, succeeding in enhancing both cognitive and non-cognitive skills (Bronfenbrenner & Ceci, 1994; Bronfenbrenner & Morris, 2006), helping students and families with an immigrant and minority ethnic backgrounds integrate into their communities, overcome adversity and build their academic, social, emotional and motivational path as well as grow up multilingual and multicultural, promoting key competencies of citizenship in all children globally.

### The framework

The VLE Task 4.4 interventions aimed at contributing to identify guiding criteria, strategies and practices, supported by the implementation of ICTs in order to innovate curricula and pedagogies in pre- and primary school settings. Interventions focused on the system of relationships among the social actors at the intervention sites (teachers, children, parents) and worked on the proximal processes in the immediate micro-system of the children, namely classrooms, directly involving the main social actors, children and teachers, introducing selected, co-designed experiences to work on Global and Intercultural Competence, multilingualism and language awareness, and in some cases involving also parents, aiming to bridge children's experience between home and school, valuing family resources, including them more in school children's experiences and strengthening the partnership and collaboration between teachers and families.

As illustrated in Chapter 1, the theoretical framework at a methodological level made reference to the **Design-Based methodology** (see also [Report 4.4 – Section A](#)) and at

a content level made reference to the **Global competence** theoretical construct as it has been developed and used by several international organizations (UNESCO, 2013, 2015; OECD, 2018a; Asia Society/OECD, 2018; European Council, 2014) referring to a wide range of *knowledge, values, attitudes, skills* and ‘*take action*’ initiatives from a basic Human Rights perspective and valuing cultural diversity as the foundation for Global Competence. It is a multi-faceted concept that comprises cognitive development, socio-emotional skills and civic learning, crucial for the professional development of professionals who deal with children from different linguistic and cultural backgrounds, different socio-economic family conditions and who are engaged in training active and aware citizens. It encompasses several dimensions and pedagogical approaches such as **Human Rights Education, Intercultural Competence and Intercultural Education, Multilingual Education, Critical Pedagogy and Social Justice Education, Education for Democracy** and reflective and active teaching methods, adopted in the Task 4.4 interventions.

A main component of interventions was the **use of technology** (the ISOTIS virtual learning environment - <https://vle.isotis.org/>, see Report 4.4 – Section A) to provide teachers, children and parents a digital enhancement of educational and communication processes, and to involve them in co-creation processes for developing content using the cultural and linguistic resources of children, families and communities.

Set within the key-general cross WP VLE framework criteria and aims (*raising awareness and knowledge; promoting agency; valuing resources and sustaining collaboration and communication*), Task 4.4. interventions pursued some general objectives, adapted in each site according to the local context: -connecting and bridging home and school children’s linguistic and cultural experience, making them visible, legitimate and valued as part of a multilingual and multicultural community; - promoting the intercultural competence of teachers and children in dealing with diversity, appreciating differences and commonalities; - promoting positive attitudes and ideas regarding all languages and cultures as equal, deconstructing stereotypes and power relationships; - soliciting the acknowledgement of equal rights and social justice and promoting democratic values, attitudes, skills and behaviours; - enhancing digital competence and increasing the use of positive technology.

## The intervention cases

In this report we present and discuss design, implementation, and findings of the design-based research studies carried out in four European countries (Italy, the Czech Republic, Greece, Portugal) in Early Childhood Education and Care and primary school

classrooms (age range 4 -12ys), aimed to increase and innovate curricula and teaching approaches regarding multilingualism, cultural diversity, social justice and human rights, to promote *Global – intercultural competence* and language awareness in all the research participants (teachers, children and parents).

While chapter 1 describes the theoretical framework and the guiding principles, the main aims and goals shared across countries, the research methodology and procedures, and the monitoring and evaluation system (also illustrated in D4.4 – Section A), **chapters 2 to 6** illustrate the country report on the interventions carried out in each country, starting from the Dutch pilot study followed by reports in the sequence order of the beneficiary list in ISOTIS (IT, PT, GR, CZ).

Within the common conceptual and methodological framework, each country team tailored the VLE-supported intervention to the local characteristics and needs of the sites.

- The *Dutch team* carried out a two consecutive years of pilot work in a kindergarten section in a primary school in The Hague and the study has some specific features that differ from the four VLE-supported interventions. The work - aimed to pilot the design and execution of several activities relevant to an Intercultural Education perspective in a multicultural context - can be considered as an exploratory work for the WP4 VLE interventions.
- The *Italian team* carried out the VLE-supported intervention in a preschool and in a primary school located in a highly diverse neighborhood of Milan (Northern Italy), where a high percentage of children and families were from North Africa (Egypt, Morocco - relevant as a target group), focusing especially on Multilingual and Language Awareness Education and on the Children's Voice approach, in synergy with the WP2 Children Study (Task 2.4).
- A similar research design in terms of topics and approaches (Multilingualism and Children's Voice education) was adopted in the *Czech Republic*, where the research team worked in three primary schools, two in Brno and one in Ústí nad Labem, hosting a large population of Roma children and families (target group). Also in this case there was a synergy with the WP2 Children study, represented the initial part of the intervention, involving children in collaborative research.
- The *Greek team* made reference mainly to the theoretical background of Critical Multicultural Citizenship Education, emphasizing a focus on democracy, critical thinking, the deconstruction of stereotypes, empathy and multilingualism, working in a primary school in Evosmos and in a kindergarten in Sykies in Western Thessaloniki, selected in an area characterized by a high percentage of immigrants and ethnic minorities, social inequalities (target group) and the increasing presence of refugee families.

- The *Portuguese team* selected two public schools located in the Porto district, implementing an innovative curriculum and educational practices focused in one site on economic inequalities and Social Justice Education, in the other on multiculturalism.

## Findings and recommendations

A **final chapter** discusses some key lessons learned from the analysis of the documentation and data collected before, during and at the end of the implementation phase in all the countries. All country reports provided an evaluation of the interventions in terms of results and coherence with the adopted framework. The aim of the monitoring system conducted using several qualitative instruments before, during and after the intervention, provided rich documentation on short-term impacts and the research participants' perceptions and evaluation of the ISOTIS project. Collecting feedback from all the research participants, all the studies provided evidence that the interventions conducted were generally successful in terms of goal achievement and coherence with the framework, while they also discussed the limitations and the main challenges encountered for the full achievement of general and local objectives with a generative analysis of reflections useful for future experiences in this field.

The main lessons learned from these experiences of curriculum innovation and educational practices supported by the use of the ISOTIS platform, were examined in relation to the model adopted in the methodological and pedagogical framework at the different levels of the ecological system, from the microsystem (most involved) to the macro-system, and in relation to the three main spheres of 1) the innovation of inclusive curriculum and pedagogies, and 3) the use of ICTs to innovate teaching and learning practices and communication. 2) the intervention methodology and process

## The innovation of inclusive curricula and pedagogies

The research design had a clear methodological and theoretical framework that incorporated some of the key recommendations, and success features, facilitators and obstacles of innovative promising interventions, provided by previous work in WP4 (D.4.2 Aguiar et al., 2018; D4.3. Aguiar, Silva eds, 2019).

The ISOTIS interventions promoted a *strengths-based curriculum concept* and pedagogical approaches based on the resources of all stakeholders, including children and families with diverse racial, ethnic, cultural, linguistic and social class backgrounds. This resource-based approach was appreciated by all the stakeholders and represented

a successful feature. The framework and the implementation of the interventions highly recognized the *social role of children* and promoted *interpersonal relationships* by actively involving children in decision making and sharing their resources, also in the early years at the preschool level, allowing them to share personal stories, information about their country of origin and their first language. The implementation of *equity pedagogies*, proposing a socio-constructivist approach and cooperative learning strategies to promote meaningful learning, enrich socio-emotional interactions with cognitive acquisitions was included, balancing cognitive, academic, and socio-emotional skills and outcomes and supporting positive contact. Experiential learning, such as role-playing or video and multimedia production, drawing or writing songs or poems or organizing exhibitions shared with parents on the VLE, were also proposed on purpose.

The analysis of the four intervention reports allowed to deepen some reflections on the key features of the interventions, specially at the microsystem level: **the centrality assigned to the experiences of children** (and families) proved to be of great importance in the intervention and for the construction of experiences to foster intercultural dialogue and the enhancement of the linguistic and cultural repertoires of the children; **conversational practices resulted as key competences for teachers**, as the approach based on experiences required authentic competence in promoting interaction and communication between children, with the teachers being open to listening and exchange; **engaging children as reliable informants in open debates** was one of the aspects most appreciated by children, and **engaging them as researchers and action takers**. These aspects were closely linked: children were not only given voice from being able but also actively engaged in collaborative research and problem solving, with the commitment to make proposals and implement them. Children also appreciated of **having a voice in their mother tongue**. Most of the intervention projects within T4.4 referred to the perspective of Language Awareness, to promote the enhancement of languages and cultures of origin in the school in a form integrated with the school curriculum. This approach generated new behavioural modalities among children within the school context. The children progressively manifested naturalness in expressing their own language skills and curiosity about those of their classmates. In many contexts, the enhancement of mother tongues encouraged children who were usually silent and less involved in discussion in class or in collaborative activities, to become involved and dynamic, expressing their desire to share their history and the language or languages spoken in the family, feeling proud of them. This work on languages also encountered difficulties in few cases, when children from different cultural linguistic backgrounds (including Romani-speaking children) preferred not to expose themselves and not to declare if they spoke languages other than the national language.

Some key lessons and policy recommendations related to the innovation of inclusive curricula and pedagogies, drawn from the analysis of the interventions conducted in the four countries, regarded:

- The essential centrality of the children's experience as a starting point to create intercultural dialogue and shared knowledge, from the early years, meaningful to the children and close to their life: an '**emergent intercultural and multilingual curriculum**' can be elicited and promoted listening to children's experiences, knowledge (even if partial) and elaborations, socialized through school experiences with the teachers and the class group.
- The importance of **involving families** in sharing resources and knowledge in a systemic generative way for positive effects on the families' and children's participation, motivation and enjoyment.
- The crucial role played by teacher's **conversational practices** and communication skills in engaging children in open dialogues, sharing life experiences, exploring and meta-reflecting on the diversity emergent from their experiences.
- In connection to this, it is crucial to provide children of all ages with **true opportunities for open dialogues** with teachers and peers, to express opinions without being judged or evaluated, enjoying the exploration of complex topics connected to the real world.
- The value of considering **children as reliable informants**, researchers on their life experience and on societal and real world issues, engaging children in authentic learning and raising their motivation and enjoyment in learning.
- The importance of supporting **children's collaboration in decision-making process and taking action**, in order to motivate participation so that children experience democratic values and attitudes starting from the early years, and to **cultivate the hope of being agents of change**.
- The crucial importance of providing professionals with concrete and well documented curriculum implementations to make visible **the integration of main school learning with Global Competence, Intercultural and multilingual education**, transversal to all disciplines, not limited in time and disconnected from the rest, in order to overcome resistances to change.
- Specifically in reference to multilingual education, it is relevant to reinforce **the importance given to a socio-linguistic approach** in school curricula and pedagogy, guiding teachers in considering their crucial role in fostering positive emotions and ideas about all the languages present in the class, affecting children's relationships with their language repertoire and their cultural heritage.
- The crucial importance of providing professionals with concrete and well documented curriculum implementations to make visible the **virtual interplay of socio-**



**emotional, cognitive and academic acquisitions** enacted by active, socio-constructivist and cooperative practices, to facilitate the true valorization of soft skills at school.

- An inclusive context can be built progressively, posing **widespread attention throughout the school day on the relational and discursive modalities with children**, the use of words, in order to create a coherent social climate, and posing a careful/thoughtful attention to the spaces and materials present at school. The visibility of the presence of languages and cultures in the school space creates a coherent and fair context, able to facilitate the socialization of cultural and linguistic knowledge and reflections connected to them and avoiding feelings of discomfort by asking children to talk about linguistic or cultural differences

### **The use of ICTs to innovate teaching and learning practices and communication.**

The ISOTIS VLE, in task 4.4, meant to provide teachers and children a digital “enhancement” of educational and communication processes, adapted to the local context, not a “digitization” of traditional teaching and communicating, for which co-creation processes for developing content using the cultural and linguistic resources of children, families and communities were essential. The platform, its functions and content resources were designed to be consistent with the ideal of active teaching children, through active engagement and through avoiding reduction of the learning experience to a simple “digitization”. The implementation and use of the VLE was meant to strengthen the teacher’s role as a coach in the development of the children’s work-in-progress during the various cooperative practices, and to boost the learning and communication experience of the children digitally, through a “multi-code” language, which could enhance students’ multiple skills with new learning opportunities.

Though the use of the VLE resulted complex and unintuitive to use, specially for teachers and parents, it played also a positive role: in use with children, facilitating research, organizing information and exchanges among actors; promoting children’s motivation and interest to learn more about the topics addressed by the project, but also regarding other curricular topics; promoting active student participation and interactions between peers and the working group also at distance; promoting learning through play and usage of ICT, promoting communication and interactions between children and teachers enriched by the noticeboard-based distance communication system; promoting multilingual communication and the exchange of multilingual materials; in use with parents, contributing to enhance family-school communication, making teachers find and

experiment with new modalities to engage and communicate with families and acquire a more critical, reflective stance in their way of valuing families.

While it resulted paramount to make the overall structure and interface of the platform simpler and more intuitive, so as to favour more active, gratifying and autonomous use by teachers, children and parents, and to provide even more translations of the interface and contents, some key positive points **regarded the work process with professionals and children in using ICTs**. The potentialities of the VLE platform to raise student motivation, interest and participation while allowing for the development of digital competence, were acknowledged also by teachers who started see the VLE and ICTs in general as an asset of the teaching and learning processes and of the social climate, and feel the need to develop skills and to be supported by the ICT equipment at school, or professional development. Children demonstrated a very positive attitude towards ICTs and, to overcome possible teacher resistance towards ICTs, it may be useful to consider the parallel involvement of children, who can be driver of change and can play a bridge role, helping teachers (and parents) to approach and see the potential offered by new technologies.

When teachers struggled with time and an overloaded work scheduled, close support and collaboration of the research team with teachers was necessary and enabled the usage of the VLE. An initial step in close collaboration with the team seems to be necessary, together with structural conditions (e.g. time) for teachers to explore the platform and use it autonomously. In this regard it is important to plan an extended time to let professionals (& parents) familiarize with the VLE. While it can be helpful to provide some demonstrations/tutorials to show them the possibilities that the VLE provides, it is nonetheless crucial to let them explore its functions at their pace, to develop autonomous use.

The main lessons learned and the recommendations for practice and policy, in the use of ICTs to innovate teaching and learning practices and communication, are the followings:

- The great potential of using a multilingual, multimedia digital support to improve communication and bi-directional exchange between family and school, to increase communication among children, between children and teachers, children and parents, children, teachers and parents, children and School Director.
- The symbolic value of a multilingual digital tool such as the VLE as part of the school experience, providing visibility of languages and legitimating them.
- The great potential of ICTs to engage children, increase their participation in accomplishing typical school activities such as reading and writing.

- ICT tools, such as the VLE, can foster children's motivation and interest, especially using guiding criteria aimed at fostering cooperation, networking, sharing etc. and a blended approach open to offline and online solutions.
- The importance of providing simple, easy digital tools to lower the skill requirements, both in reference to teachers and parents, to favor more active, gratifying and autonomous use.
- The importance of dedicating time so that professionals & parents can familiarize with the adopted digital tools, the VLE, by providing some demonstrations/tutorials to show them the possibilities that the ICTs provide and let them explore the functions at their own pace.
- The key role potentially played by children by involving them in the use of ICTs to help teachers approach and see the potential offered by new technologies.

## The intervention methodology and process

All interventions involved the teachers in a closely collaborative research process, also aimed at building teacher group collaboration. The collaboration of the research team with the teachers included efforts to support professionals, striving to reinforce teacher knowledge, values, beliefs and commitment to children's (and families') respectful inclusion, viewing themselves as agents of change towards inclusion and social justice. The intervention process was organized in few main work phases: from an exploratory phase of getting to know the context, to a co-design phase aimed at defining the activities according to the features, interests and needs of the local context, with a monitoring system throughout the work process that led to a final evaluation involving all the stakeholders. With regard to collaboration with teachers and the work process some key lessons regard the following points:

- The relevance of starting from the in-depth exploration of the context as a key foundation of the intervention in order to gain familiarity with the local environment, collect meaningful data and address problems and topics relevant to the local stakeholders.
- The relevance of proximal tutorship and coaching in supporting teacher professional development.
- The importance of combining references to a clear theoretical framework and concrete proposals.
- The great potential of involving teachers in research-oriented processes to provoke change in beliefs and attitudes.
- The key role of the School Director as part of the intervention and collaboration during the process, valuing efforts and supporting the coordination of the teachers.

- The importance of 'mapping' the local school culture related to inclusion, diversity, multilingualism, progressively letting the contradictions and the implicit different views (when present) emerge, to highlight the gap between the declared pedagogy and practice and the actual situation.

# 1 The VLE-supported intervention research design to innovate ECEC & primary school curriculum and pedagogy

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## 1.1 Introduction

Task 4 in WP4 focused on conducting designed-based interventions, enhanced by the use of the ISOTIS Virtual Learning Environment (see Section A of the report) in Early Childhood Education and Care and primary school classrooms (age range 4 -12ys) in four countries (Italy, the Czech Republic, Greece, Portugal) with the aim to increase and innovate curricula and teaching approaches regarding multilingualism, cultural diversity, social justice and human rights and to promote *global – intercultural competence* and language awareness in all the research participants (teachers, children and parents).

In line with the REV-INEQUAL-06-2016 work program, the ISOTIS project aimed “to contribute to effective policy and practice development at different system levels in order to effectively combat early arising and persisting educational inequalities” (p. 4).

More specifically, WP4, within the numerous and interconnected ISOTIS WPs, aimed

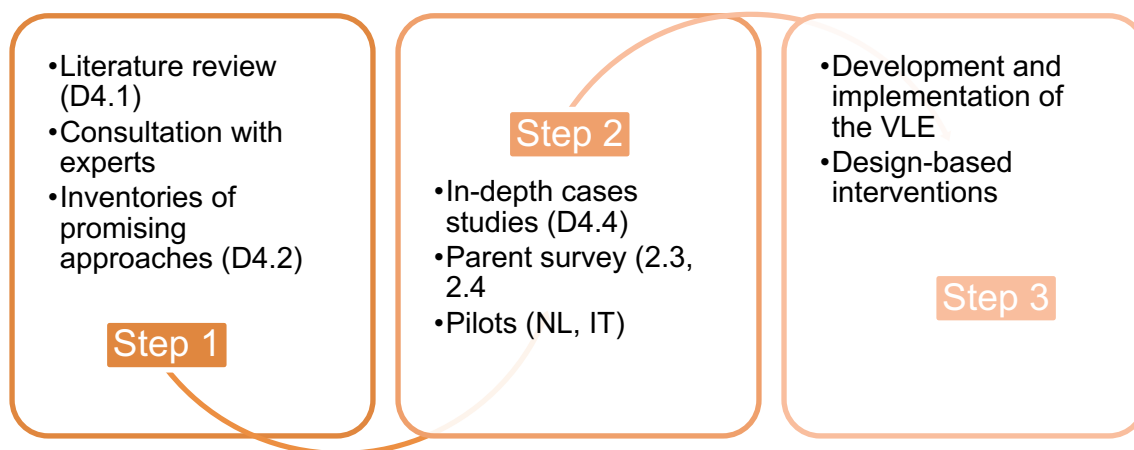
- ‘To collect research evidence and expert knowledge on best practice in curriculum,
- pedagogy and inclusive climate development in early childhood and primary school education to enhance the accessibility, effectiveness and inclusiveness of these provisions.’ (p.5)

To realize this objective, a three-step procedure was followed, as for WP3 and WP5 (see SECTION A, Chapter 1). In WP4:

- Firstly, literature reviews, consultations with expert and inventories were carried out in order to generate an overview of the main theoretical framework and promising approaches for inclusive and effective intercultural curricula and pedagogies (Deliverables 4.1, D4.2);
- Secondly, in-depth case studies of the most promising approaches were conducted, aimed at identifying effective characteristics and generating concrete recommendations for development and implementation (Deliverable 4.3). Pilots were conducted for the year preceding the VLE Implementation in order to learn about how to use digital tools in the ISOTIS communities;

- Thirdly, design-based interventions were developed and implemented in four countries, supported by the use of the ISOTIS Virtual Learning (& Communication) Environment (VLE), namely 'a transferable prototype of a multilingual support programme', aimed at increasing and innovating inclusive and effective curricula and pedagogies in early childhood and primary education.

Figure 1.1 - Overview of the three-step procedure



The countries involved in the design-based interventions and the implementation of the VLE in the WP4, in line with ISOTIS criteria, were selected according to relevant variations in national income levels, the main target groups of ISOTIS and a balanced representation of countries from the wealthy Northwest (NL), post-communist countries from the East (CZ) and less wealthy countries from Southern Europe (GR, PT & IT).

Within a common conceptual and methodological framework (Global Competence) and shared main aims, each country team tailored the VLE-supported intervention to their local characteristics and needs, emphasizing some topics and pedagogical approaches more than others.

## 1.2 The theoretical and methodological framework

As described in Section A, the prototype for a digital platform was developed, piloted and evaluated for parents (D3.4), focusing on activities to support engagement with the multiple language and cultural resources present in the lives of families with diverse backgrounds). in WP3. WP5 centered on (para)professionals in family support, care and education (D5.4), focusing on professional development and on teachers and

classrooms (D4.4), focusing on curricular activities to support multilingual development in early childhood and primary education.

The common theoretical and methodological framework for WP 3, 4 and 5 could be flexibly adapted and integrated within each WP and in each site where the intervention was carried out, in relation to the *process* and *content level*.

**At the *process level***, within the general theoretical framework of Bronfenbrenner's bio-ecological model (the conceptual core of ISOTIS), the study adopted a *positive socio-constructivist approach* focused on including family cultural and linguistic resources, promoting the agency and active participation of all subjects, meaningful and rich communication within the community by all participants in the research and the learning process as well as the use of ICT (the VLE) to enhance communication and learning processes (see Section A - Chapter 1).

At the research methodological level, a *design-based methodological research approach* was applied (see Section A - Chapters 5 and 6), consistent with the idea to base the intervention on scientific knowledge and theories while prioritizing the promotion of close partnership and collaboration between the researchers and the research participants thanks to a co-designed and co-constructed work process guided by the researchers..

**At the *content level***, the main underlying framework that guided the work across the WPs was the **Global Competence** framework, a wide framework that encompassed several dimensions and pedagogical approaches, such as Human Rights and Social Justice Education, Intercultural Competence and Education, Multilingual and Language Awareness Education, Critical Pedagogy and Multicultural Citizenship Education, strongly connected to reflective and active teaching methods.

Before presenting these two levels as illustrated in Task 4.4, we will introduce the main results from the previous work in WP4 (D.4.1, D 4.2. and D4.3), providing several relevant insights, that contributed to defining the framework, the design of the interventions and the guiding principles in the learning experiences and design of activities.

### **1.3 Key criteria and recommendations drawn from the WP4 literature review, an inventory of promising practices and**

## **an in-depth case study comparative analysis (deliverables 4.1, .4.2, 4.3)**

The short literature review (D. 4.1 Aguiar et al. *Short literature review of main trends and challenges in curriculum approaches, educational practices and social climate interventions aiming to tackle social inequalities*), the inventory and analysis of promising interventions (D.4.2 Aguiar et al., *Inventory and analysis of promising curriculum, pedagogy and social climate interventions tackling inequalities*) and the in-depth case study comparative analysis (D 4.3. Aguiar, Silva eds, *Case studies on curriculum, pedagogy and social climate interventions tackling inequalities*) conducted in WP4 provided a number of research based evidences, meaningful principles, successful features and recommendations that worked as a basic matrix /foundation on which choices in designing the task 4.4. interventions, both at theoretical and methodological level, were based.

The short comparative literature review showed that successful inclusion of immigrants and minority groups can be facilitated through key factors such as: maintaining high expectations for all students; ensuring feelings of membership/belongingness; increasing proficiency in the first and second languages, acknowledging the importance of heritage languages and the language of instruction, by providing early sustained language support within regular classes; preparing teachers to handle linguistic and cultural diversity; avoiding ability grouping; etc. (OECD, 2015); offering creative, demanding and supportive school environments (OECD, 2016); ensuring the availability of and participation in extracurricular activities; encouraging the involvement of parents and local communities (OECD, 2018a).

These key-factors relate not only to knowledge and cognitive skills, but also focus on social relationships and social skills, emotional (feeling of belonging) and representational aspects (high expectations), curriculum organization that integrates academics and extra-curricular activities as well as the involvement of families and the larger community.

The main weaknesses and limitations of current or past programs were also identified in the review. It was highlighted that most approaches focused on what Banks (1993) defined as *content integration* (i.e., integrating ethnic and multicultural content across subjects) and less on reducing prejudice and discrimination by fostering contact between diverse cultural groups.

A second point of weakness related to the low presence of effective interventions to promote intercultural communication, considered a required feature for the integral



implementation of multicultural education programs. In strict connection to intercultural communication, also regarding multilingual education, it was highlighted how many European countries have a weak model for the enhancement of multilingualism in the school system (Baker, 2006). It is possible to observe the absence of a clear view of the political, cultural and identity consequences generated by a school context that favors monolingualism, with only sparse opportunities for learning a foreign language (typically, English).

A third critical aspect pinpointed by the literature review regarded the fact that the most common forms of multiculturalism in educational settings focus on events celebrating ethnic groups' history, culture, etc. This approach focuses on 'important differences' (Rosenthal & Levy, 2010), fostering understanding of different experiences and perspectives, without also focusing on shared experiences to foster the promotion of common, inclusive identities.

The Inventory (see D4.2; Aguiar et al., Forthcoming) - of early childhood education and primary school interventions in the classroom and school<sup>1</sup> aimed at increasing equality in educational opportunities for immigrant, low-income and Roma children – highlighted, through a comparative analysis, common patterns, limits and the points of strength of current interventions and provided a set of criteria addressed to researchers and policy makers for designing effective policies and/or interventions.

**The main strengths** of the selected interventions regarded the language support, the cornerstone of classroom and school interventions and the acknowledgement of the importance of non-cognitive skills (e.g., socio-emotional skills) for school and life success (e.g., Heckman, 2006), including intercultural competence and awareness.

**The main limits** observed considered the low percentage of interventions targeting academic or cognitive skills of disadvantaged students, support for or acknowledging children's heritage languages, promoting multicultural curriculum activities (i.e., didactic approaches based on sharing content on diverse cultures and minority and immigrant groups), providing interactive anti-bias strategies, family involvement activities, active cooperative learning and the absence of interventions reporting heterogeneous grouping as an intentional strategy to promote positive contact among minority/immigrant and majority/native students (Berry, 2013).

<sup>1</sup> 75 interventions were selected among more than 500 collected in eight European countries (The Czech Republic, England, Germany, Greece, Italy, the Netherlands, Poland and Portugal).

Key criteria for further development in the field were suggested regarding four main areas:

Values and Priorities, Guiding Decision Making; Intervention Approaches and Strategies; Involving and Supporting Key-Actors; Monitoring, Evaluation and Dissemination (see Table 1.1).

Table 1.1 - *Key criteria and recommendations*

<b>Values and Priorities Guiding Decision Making</b>	1. Start early.
	2. Develop the intervention within a coherent theoretical framework and based on strong empirical evidence.
	3. Target a balanced set of skills, considering cognitive, academic and socio-emotional outcomes.
	4. Actively identify, explicitly value and intentionally acknowledge the resources of all children, families and communities.
	5. Value all languages and cultures equally and consider them as resources for teaching, learning and succeeding in life.
<b>Intervention Approaches/ Strategies</b>	6. Provide language supports to immigrant background students concurrently to teaching the age-appropriate curriculum.
	7. Explicitly value and intentionally support the development of the language and cultural heritage of immigrant and minority students.
	8. Actively promote positive contact between minority/majority and advantaged/disadvantaged students through joint learning activities based on positive interdependence.
	<p>8.1. Use cooperative learning to support the development of social skills, the reduction of prejudice and the academic achievement of all students.</p> <p>8.2. Use heterogeneous grouping to support positive contact among diverse students.</p>

	9. Use interactive socio-cognitive training approaches (e.g. role-playing, simulation games and group exercises) to support the development of anti-bias/anti-prejudice attitudes.
<b>Involving And Supporting Key Actors</b>	10. Actively support family participation (e.g. through bidirectional communication strategies, meaningful learning at home activities, active involvement in decision making processes in school, etc.).
	11. Provide appropriate support and training to classroom teachers.
	12. Use the potential of information and communications technology to actively engage children in learning, support teachers, establish bidirectional communication channels with families, etc.
<b>Monitoring, Evaluation And Dissemination</b>	13. Monitor both student learning and sense of belongingness in the classroom and in school.
	14. Use high-quality research designs to evaluate the effectiveness of the intervention/approach/strategy.
	15. Make information about the intervention/approach/strategy readily accessible.

The comparative analysis of the interventions also emphasized the interconnectedness of curriculum, pedagogy and school social climate (as defined in Deliverable 4.1<sup>2</sup>). This interconnectedness was also visible in the findings of ISOTIS inventories focused on

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- *Curriculum*, briefly defined here as the “knowledge, skills and values that children are meant to attain” (Sylva, Pastori, Lerkkanen, Ekery-Stevens, & Slot, 2016).
- *Pedagogy*, briefly defined as “the practice (or the art, the science or the craft) of teaching” (Sylva et al., 2016). In this case, we focus on the instructional dimension of pedagogy, aimed at describing activities, strategies and materials used.
- *Social climate*, with a focus on the relational dimensions of the classroom and school climate, that is, respect for diversity, classroom and school connectedness, engagement and social support (Thapa, Cohen, Guffey, & Higgins-D’Alessandro, 2013).

family supports (Cadima, Nata, Anders, & Evangelou, 2017) and professional development (Slot, Romijn, & Wysłowska, 2017).

The lessons learned from the in-depth case study comparative analysis (D3- Aguiar C., Silva S.C. et al, Case studies on curriculum, pedagogy and social climate interventions tackling inequalities) were also highly relevant. The authors critically discussed 'the key success features, facilitators and obstacles of innovative promising interventions, approaches, programs, or projects aiming to reduce social and educational inequalities through curriculum design and implementation, pedagogical practices and/or school social climate, through the lens of the bio-ecological model of human development (Bronfenbrenner & Morris, 2006). At all levels of the ecological system, several features were identified suggesting that a lot can be done and a wide range of options are available for practitioners, policy makers and researchers, both from more distal levels and within activity settings, highlighting the central role of teachers and other practitioners.

At the **microsystem level**, multiple success factors were identified focused on social roles, interpersonal relations and on the patterns of activities experienced by students in the school setting.

*Regarding the social role and interpersonal relationships*, the following were emphasized:

- the importance of children's participation and involvement in decision making, sharing their resources, even in the early years, allowing them to share personal stories, information about their country of origin and their first language, chair meetings, become tutors or mediators;
- Peer mediation was also underlined as a key feature to promote children's agency and to foster progressive competence in conflict resolution, contributing to positive school social climate, with general attention to the development of positive relationships with children.

*At the pedagogical/activity level*, the implementation of *equity pedagogies*, such as cooperative learning to support positive and meaningful contact and non-directive activities that allowed children to choose their mode of participation, resulted as relevant success features with some specific patterns such as:

- individualization of learning plans;
- experiential learning activities such as acting-out, role-playing and role-shifting, also including prestigious activities (like performances, exhibitions,...) involving parents and the local community;

- focus on play and children's enjoyment, ensuring positive and meaningful experiences that built on and supported children's imaginations;
- children's involvement in guided reflection about their experiences (regarding multicultural awareness, language awareness).

Language support building on multilingual activities that valued and gave visibility to all languages co-existing in the classroom/school, including first languages, was highlighted especially when embedded in typical activities and routines in the school day, promoting positive contact and documenting individual children's language abilities (in their first language and in other languages).

Success features **at the meso-system** level included two main dimensions: the connection (1) between professionals and (2) between schools and families. Regarding the latter, multiple levels of family involvement were considered. One was the basic level of *communicating with parents to convey information* regarding school goals, activities and children's experiences, providing documentation (in the families' first language), frequent parent-teacher conferences and use of ICT-based bidirectional communication channels. Another was creating opportunities for *parental involvement in selected classroom/school activities* (i.e. exhibitions and performances) or *supporting parent involvement* in activities providing services such as child care for siblings or second language classes. Other levels of family involvement were *mediated intercultural dialogue*, even sharing personal stories,; *recognizing the value* of parents' perspectives, their competences and their potential contributions and finally *partnerships with parents/families*, ensuring parental participation in decision-making processes to allow for cultural and context-appropriate design and implementation.

At **the exo-system level**, success was related to consistent and systematic efforts to support professionals and schools by mobilizing relevant external resources to strengthen teachers and staff professional competence, enhancing institutional networks (e.g. municipalities, universities, community organizations) and stakeholder communication, as well as providing systematic support to school staff and to the school as an organization by focusing on team development.

At the level of **school institutional patterns**, success features involved the school culture and values, supporting the notion that schools are *cultural microsystems* where culture plays a central role in everyday practices and activities (Vélez-Agosto et al., 2017) and supports the idea that intervention must permeate school routines, discourses and processes in order to reach the expected goals and outcomes. These features included, among others:

- *Strengths-based curriculum* and pedagogical approaches that build on the resources of all stakeholders, including children and families with diverse racial, ethnic, cultural, linguistic and social class backgrounds, according to the UNESCO inclusive education propositions (UNESCO, 1994);
- Focus on language support, giving visibility to children's first languages while also ensuring a strong focus on learning the second language (i.e. the language of instruction in host country), consistent with previous evidence on the importance of early sustained language support (OECD, 2015);
- Curriculum alignment with real-world democratic experiences as well as societal challenges which result in perceptions of relevance and meaningfulness among stakeholders. Intervention goals and processes aligned with teacher needs regarding diverse student populations are more likely to be implemented with fidelity and purpose;
- Intervention curricula aligned with the goals of the education system to respond to school and staff needs;
- School and professional commitment to the respectful inclusion of children and families, while considering themselves as agents of change towards inclusion and social justice (Pantić & Florian, 2015). In this regard, teacher and staff professionalism should include beliefs, values and attitudes as core professional competences;
- Strong community focus, based on a joint/integrated approach at the school and neighborhood levels to provide a common vision and a common language, building a strong basis for meaningful communication, joint problem solving and the promotion of human development.

Specifically, in reference to the VLE design aimed to support school professionals in developing cultural awareness and multi-lingual competence in children (and families), the case study analysis suggested five key recommendations:

- to provide high-quality program design features, relying on a clear theoretical background, systematic monitoring and evaluation, either quantitative or qualitative, building on formative evaluation approaches;
- to tailor intervention goals, contents and processes to the school needs and culture in order to ensure meaningfulness for the local social actors involved;
- to include family participation in the development and use of the virtual learning environment, promoting bidirectional communication and opportunities for participation in decision-making processes and negotiation, so as to avoid promoting initiatives that could result as counterproductive;

- to pursue a regular, increasing use of the VLE to positively influence student and family outcomes;
- to guarantee sustainability after the intervention, ensuring low costs, securing the commitment of school/centre leadership and building competence in key stakeholders.

Several choices were made taking into account: these recommendations, the main points of strength and weakness highlighted above, the successful features related to the intervention content and process (in particular regarding the design and implementation of the VLE), also in accordance with the results obtained in WP3 and 5 regarding both the theoretical and methodological frameworks in the definition of the overall aims and guiding principles of the interventions, as will be illustrated in the following paragraphs.

#### **1.4 The overarching framework of global-intercultural competence in wp4**

In accordance with the 2020 Education and Training framework setting as a main goal of Europe's education systems to promote equity, social cohesion and active citizenship (European Commission/EACEA/Eurydice, 2013), ISOTIS aimed to effectively contribute to combatting the early presentation and persistence of educational inequalities.

In this regard, WP4 in ISOTIS focused on innovative classroom management strategies and investigated how curricula and teaching approaches could reconcile the need for academic skill development in disadvantaged children with the promotion of non-cognitive, '21st century'- skills such as self-regulation, creativity, collaboration and citizenship deemed important for optimal participation in education and society. In reference to minority and immigrant groups, the project also prioritized multilingual education in early childhood and primary education, with the expectation that using heritage languages in early education would stimulate children's language awareness and intercultural attitudes.

The *Global Competence framework* was considered particularly well-fitting within the general ISOTIS intervention concept and aims in all the three WPs involved in the implementation of the VLE (WP3, 4 & 5). In Task 4.4 research design, it was considered consistent with the WP4 recommendations introduced above.

Frameworks focused on *Global Competence*, as they have been developed and used by several international organizations (UNESCO, 2013, 2015; OECD, 2018a; Asia Society/OECD, 2018; European Council, 2014) refer to a wide range of *knowledge*,

*values, attitudes, skills* and '*take action*' initiatives from a basic Human Rights perspective and value cultural diversity as the foundation for Global Competence. In brief, Global Competence is a multi-faceted concept that comprises cognitive development, socio-emotional skills and civic learning. As proposed by the Council of Europe (2014), the focus on multilingualism as a resource with potential benefits for individuals and society resulted in the model presented in Section A (Chapter 1, Figure 3).

The *Global Competence framework* encompasses four key overlapping facets:

- the capacity to critically analyze local and global issues in a more and more interconnected and changing world and to examine intercultural issues such as poverty, trade, migration, inequality, environmental justice, conflict, cultural differences and stereotypes;
- the ability to recognize, understand and appreciate the perspectives and world views of others and to interact with people from different cultures in an open, appropriate and effective manner;
- the development of communication skills that allow for the exchange of ideas with diverse audiences through open, appropriate and effective interactions across cultures;
- the capability to act for collective well-being and sustainable development, both locally and globally.

The general focus and scope promote “pupils’ understanding of the world and empower them to express their views and participate in society” (OECD 2018a, p. 7) and “prepare all today’s students to live and thrive in this increasingly interdependent world, characterized by international markets, unprecedented migration of peoples, growing economic inequalities, increasing ethnic and religious tensions and violence and massive changes in the environment will require the transformation of education” (Ibidem, p.11):

“Put simply, if individuals and their communities are to thrive in the future, schools must prepare today’s students to be globally competent for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and nonviolence, global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable development.” (SDG 4, Target 4.7, UN General Assembly, 2015).

The *Global Competence framework* gained significance in Task 4.4. in reference to school contexts characterized by super-diversity and by a large presence of students exposed to the risks of exclusion, school failure, a *global well-being condition gap*



(OECD, 2018b), like the target groups of ISOTIS (immigrants, minorities and low-incomes). While education, especially early education, is acknowledged to be a key driver of the economic and social integration of immigrants and their offspring (OECD/European Union, 2015), educational opportunities for children still strongly depend on family origin (Levels & Dronkers, 2008). How well children from immigrant and cultural minority groups do at school is not only related to their attitudes, socioeconomic status and prior education, but also to the quality and receptiveness of the education system (OECD, 2015). Linguistic diversity is a challenge for Europe's education systems (Gogolin, 2002; van Gorp & Moons, 2014; Young, 2014; Vetter, 2013) and children growing up with a different language than the language of the school show persistent educational disadvantages over and above disadvantages that arise from low socio-economic status (Crosson & Lesaux, 2013; Leseman & van Tuijl, 2006; Stanat & Christensen, 2006). Moreover, in both pre-primary and primary educational systems, the valorisation of the heritage languages, and in general of the linguistic repertoires of the families and of the children, is not effectively pursued, and at times even neglected and maltreated.

Results from OECD international comparisons consistently show the persistence of an academic achievement gap and a lower sense of belonging at school even after accounting for socio-economic status (OECD, 2018a) (see Deliverable 4.1) among children from low SES families or with immigrant/ethnic minority backgrounds. As has recently been shown in OECD studies (OECD, 2018b), the persistence of a *more global well-being condition gap*, referred not only to academic achievement and sense of belonging to school, but also to levels of academic proficiency, satisfaction with life, the level of schoolwork-related anxiety and motivation to achieve (OECD 2018b).

The Global Competence framework offered a broad platform of values and knowledge, attitudes and behaviours, skills and competences, crucial for the professional development of professionals who deal with children from different linguistic and cultural backgrounds, different socio-economic family conditions and who are engaged in training active and aware citizens everyday. It is an effective framework, adequate and useful for designing research-interventions aimed at innovating curricula and pedagogical practices in order to foster an inclusive social climate, awareness about inequalities, intercultural and multilingual values and skills.

This wide framework also aided the coordination of all the interventions in national, local and school contexts, providing a shared and coherent common point of reference while giving the possibility to each country team to make references to specific educational theories and pedagogical approaches subsumed by the Global competence framework (such as the Human Rights and Social Justice education, Critical Multicultural Citizenship

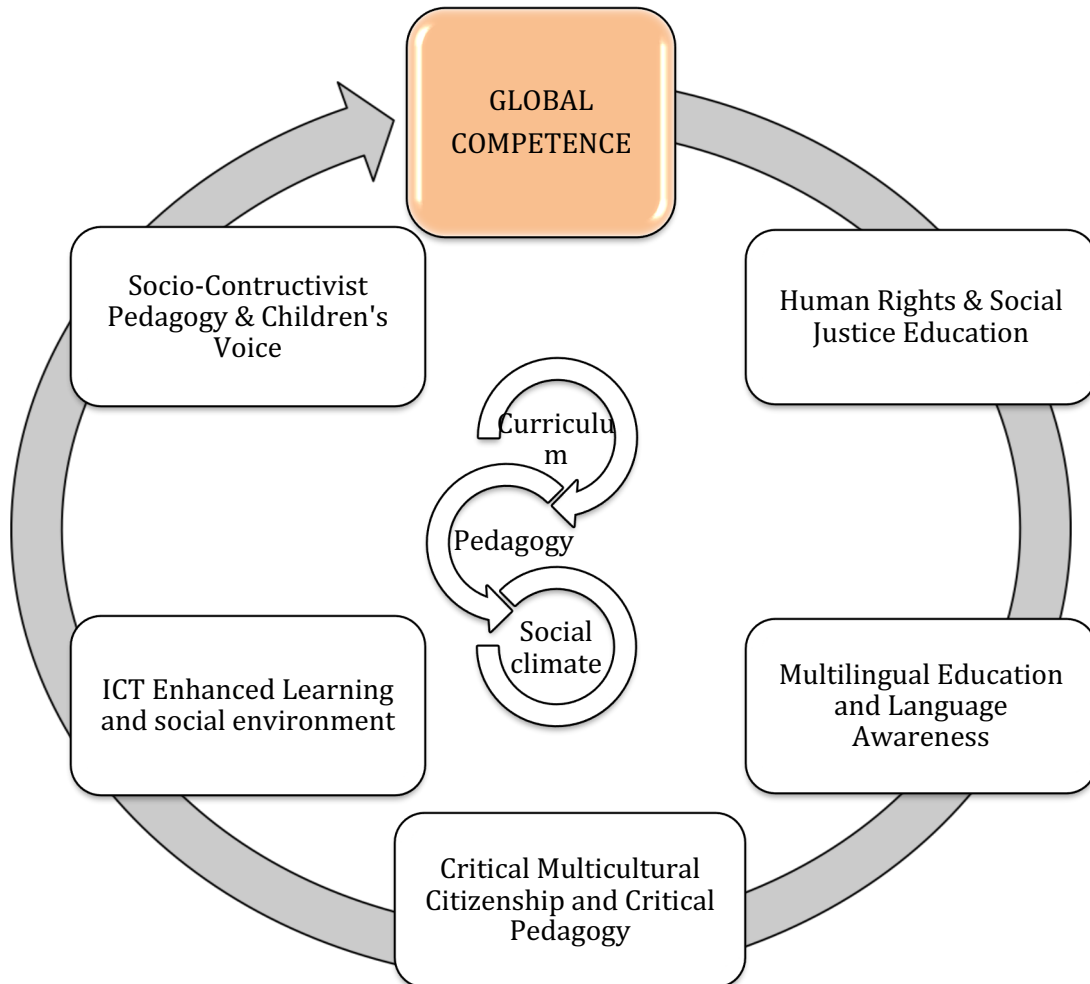
Education, Language Awareness and Multilingual Education etc.), tailoring the aims and methodologies of the design-based interventions. In fact, not all the dimensions included in the Global Competence framework were addressed by each intervention, while each country team, in close collaboration with local stakeholders, selected priorities, main goals and meaningful activities, preserving the ecological validity of the interventions and meeting real, concrete local needs.

## 1.5 The pedagogical framework

Global Competence, as a recent comprehensive theoretical framework, subsumes several approaches to education such as Intercultural Education, Global Citizenship Education and Education for Democratic Citizenship (UNESCO, 2014a; Council of Europe, 2016a).

In the ISOTIS Task 4.4 designed-based intervention framework, each country team contributed by selecting some key pedagogical approaches that were all coherent with the overarching framework of global competence, designing a clear theoretical framework that guided the interventions (as suggested in the **second key recommendation** – par 1.3). Within the wider perspective of Socio-Constructivist and Cooperative Education, key-references were provided by Social Justice and Human Rights Education, Critical Multicultural Citizenship Education and Multilingual and Language Awareness Education. As presented Section A of the report (see Chapter1), a crucial component of the intervention framework was ICT education, pursued mainly through the implementation of the ISOTIS prototype of a Virtual Learning Environment.

Figure 1.2 - Overview of the Global Competence perspective



The pedagogical framework in Task 4.4. also aimed to be coherent with the key criteria and recommendations for policy and interventions drawn from the previous WP4 work, as reported in par. 1.3. As highlighted in the previous WP4 research steps, teaching, learning and socialization were multidimensional processes characterized by close interconnection between the curriculum, pedagogy and social climate (also see note 3), and this was taken into account.

Regarding **Points 8, 8.1** and **8.2**, suggesting **(8)** the active promotion of positive contact between minority/majority and advantaged/disadvantaged students through joint learning activities based on positive interdependence, **(8.1)** the use cooperative learning to support the development of social skills, the reduction of prejudice, the academic achievement of all students and **(8.2)** the use of heterogeneous grouping to support positive contact among diverse students, the Socio-Constructivist approach was adopted

to actively involve children valuing their role as active citizens, key informants, 'researchers', learning community members.

In reference to **point 3** (Target a balanced set of skills, considering both cognitive, academic and socio-emotional outcomes), all of the selected pedagogical theories, like the Global Competence framework, provided ample perspectives, promoting not just the mere acquisition of knowledge related to the core-topics, but emphasized the relevance of the soft skills increase in terms of:

- *analytical skills* (i.e., critical thinking, problem solving, decision making, research and inquiry);
- *interpersonal skills* (i.e., communication, collaboration, leadership and responsibility);
- *ability to execute* (i.e., initiative and self-direction, productivity);
- *information processing* (i.e., information literacy, media literacy, digital citizenship, ICT operations and concepts);
- *capacity for change* (i.e., creativity / innovation, adaptive learning / learning to learn and flexibility) (Finegold and Notabartolo's, 2008).

Regarding 'Valuing all languages and cultures equally and considering them as resources for teaching, learning and succeeding in life' (**key criterium n° 5**) and 'Explicitly valuing and intentionally supporting the development of the language and cultural heritage of immigrant and minority students' (**n°7**), a strong emphasis was put on Multilingual and Language Awareness Education, Intercultural Education in connection to the topics of Social Justice and Equality, striving to also meet the ideal key-recommendation to 'Actively identify, explicitly value and intentionally acknowledge the resources of all children, families and communities' (**n°4**).

Table 1.2 - Overview of the Core-concepts

Socio-Constructivist Education	
<b>Core-concept</b>	<p>Socio-constructivism is based on three propositions:</p> <p>(1) understanding is part of our interaction with the environment;</p> <p>(2) cognitive conflict (puzzlement) is the stimulus for learning and determines the organization and nature of what is learned;</p> <p>and (3) knowledge evolves through social negotiation and the evaluation of the viability of individual understanding. Learning cannot be separated from social context. What is learned cannot be understood without how it is learned (Savery and Duffy 1995). Social interactions are crucial as they are at the origin of cognitive</p>

	<p>functions and learning. According to Vygotsky (1978), language, culture and mental representations play essential roles in a child's intellectual development and have to be understood as social phenomena, since they are co-constructed in interactions and in various contexts (Vygotsky 1978).</p> <p>In pedagogical theory, in Constructivism (Glaserfeld 1984; Dewey 1997; Vygotskij 1978), as Savery and Duffy state (1995: 37), “the focus is on learners as constructors of their own knowledge in a context similar to that in which they would apply that knowledge.” Children co-create, monitor and evaluate their own understanding; they negotiate meanings with other actors such as their peers, parents or teachers. Besides the emphasis put on the active role and responsibility of a child for her own learning, social constructivist principles define learning in holistic terms and thus focus not only on cognitive, but also on emotional and social aspects of learning.</p> <p>The Social Constructivist perspective became prominent in pedagogical approaches focused on heterogeneity in the classroom, where the values of cooperation, empathy and motivation for learning were crucial. Use of cooperative learning approaches, based on contact theory (Allport, 1954) in multi-ethnic schools and classrooms seems to benefit interracial relationships but also academic outcomes (e.g., Roseth, Johnson, &amp; Johnson, 2008). Cooperative learning models are consistent with inclusive education principles that build on diversity as a value and aims to benefit all learners, not only targeting children who may be struggling (UNESCO, 2005).</p>
<p><b>Essential Components</b></p>	<p>Constructiveness (Cumulative learning); Activeness (Self-Directed and Feedback-guided learning); Cooperativeness (community of learning) - Contextuality (Situational and connected to the real word learning) – Problem-based and reflective (Ruokamo et al, 2008)</p>
<p><b>Human Rights and Social Justice Education</b></p>	
<p><b>Core-Concept</b></p>	<p>Social justice refers to a just distribution within societies of wealth, opportunities and privileges. More specifically, social justice can be defined as “principles that set stringent limits for permissible socio-</p>

	<p>economic inequalities, even if not all of them require strict equality” (Banai, Ronzoni, Schemmel, 2011b, p. 59).</p> <p>Social justice has increasingly been connected to global dynamics and to other relevant (global) concepts, namely human rights education (e.g., Agartan, 2014; Banai, Ronzoni, Schemmel, 2011a; Department Of Economic And Social Affairs. Division for Social Policy and Development, 2006). Furthermore, this concept has increasingly been used throughout educational settings and actors (Darling-Hammond, French, &amp; Garcia-Lopez, 2002).</p> <p>Hackman (2005) defines “social justice education to include student empowerment, the equitable distribution of resources and social responsibility and her processes to include democracy, a student-centred focus, dialogue and an analysis of power. Social justice education does not merely examine difference or diversity but pays careful attention to the systems of power and privilege that give rise to social inequality and encourages students to critically examine oppression on institutional, cultural and individual levels in search of opportunities for social action in the service of social change” (p. 104).</p>
<b>Essential component</b>	Content mastery; Tools for critical analysis; Tools for social change; Tools for personal reflection; and Awareness of multicultural group dynamics (Hackman, 2005).
<b>Critical Multicultural Citizenship education</b>	
<b>Core-concept</b>	<p>Critical citizenship education utilizes and extends the philosophical perspectives and practices of multicultural education and critical pedagogy (Kincheloe &amp; Steinberg, 2002). Education has long been regarded as a key institution for the development of democratic citizens, particularly through citizenship education. Critical multicultural citizenship education encourages the contestation of existing knowledge and critical thought (Banks 2008; May 1999; Nieto 1999). Critical multiculturalism pushes beyond traditional multiculturalism since it promotes democratic programs and implementation in curricula, pedagogical and social relationships in school settings (McLaren, 2003). It fosters empathy and participation in a diverse society, supporting efforts toward attaining</p>

	<p>socio-cultural and emotional accord. It promotes pluralism, an appreciation of diversity and the provision of teachers, students and learners with tools to critique the relationships between power, knowledge and other oppressive discourses. The connection between knowledge, power, re-examination and transformation are explicit in critical multiculturalism (May &amp; Sleeter, 2010; McLaren, 2003; Sleeter &amp; Grant, 1994). Critical multiculturalism uses critical pedagogy to transform how people make sense of their place in the world. By allowing for a social justice analysis of their respective communities (Shor, 1992). Duncan-Andrade and Morrell (2002), as cited in McLaren &amp; Kincheloe, 2007, p.187, it defines critical pedagogy as being, an approach to education rooted in the experiences of marginalized peoples; it is centred in the critique of structural, economic and racial oppression, focused on dialogue instead of the one-way transmission of knowledge; and it is structured to empower individuals and collectives as agents of social change.</p>
<p><b>Essential Component</b></p>	<p>Critical thinking, Anti-bias education; Emancipatory learning; Co-constructive knowledge; Citizenship awareness.</p>
<p>Multilingual and Language Awareness education</p>	
<p><b>Core-concept</b></p>	<p>Multilingual education mainly states that:</p> <ul style="list-style-type: none"> <li>• all the languages of education (that is all languages entering a child's socialization path: home languages, national and regional, foreign languages, languages of disciplines such as science, history and so on) contribute, each in different ways, to each child's cognitive, affective, social and cultural development and knowledge and therefore to the construction of her identity;</li> <li>• here are many ways of being multilingual and diverse multilingual profiles, not only the restrictive form of the multilingual individual who demonstrates the same level of competence as a native speaker in two or more languages. Every linguistic competence, even partial, is a linguistic and cognitive resource available to the subject;</li> </ul>

- each language is not only a system of signs (semiotics), but language is at the origins of psychic life in order to think about oneself, life and the world (Hymes, 1972; Breen, Candlin 1980; Kramersch, 2009; Glenn Levine, 2014, et al.). It encompasses a network of social and cultural-historical meanings shared in a community, within which it is located and exists. A better understanding of linguistic repertoires should promote sensitivity to other linguistic and cultural attitudes (respect for the languages and cultural views of others, efforts to learn other languages and use them even partially.) – Council of Europe, Beacco, Byram et al., 2010);
- languages and cultures are not classified into strictly separated mental compartments, but they contribute to forming a single communicative competence, according to the *Common Underlying Proficiency model* (Cummins, 1996) and core concepts and skills are transferred from one language to another in their deepest and most general aspects. The multilingual perspective in education emphasizes that the transfer of competence from one language to another must be valued in education, through teaching that stimulates meta-cognitive and meta-communicative capacities.
- in the social arena, there is a linguistic hierarchy that affects the vitality of languages, their prestige and sometimes their destiny. Many languages of minority groups of immigrant origin in Europe are not recognized and are then forgotten by the younger generations or kept secret due to self-censorship (Council of Europe, Beacco 2005). Among several factors, the place occupied by a language in the hierarchy depends by the class and the status of the group that speaks it and by the language market (Bourdieu, 1982), meaning that language skills are forms of the so-called human capital, along with others and they infer their value from the value they have on the market. In the case of students with a migration history or a language minority, teachers are not always convinced that it is important to preserve the mother tongue. The burden of language learning is presented as problematic and excessive.



Working on the social representations and emotions connected to languages is one of the main aims of multilingual education.

**Pluralistic approaches** to languages and cultures refers to didactic approaches which involve the use of several (or at least more than one) varieties of languages or cultures simultaneously during the teaching process. (Council of Europe, FREPA, Candelier et al., 2013; Council of Europe, 2007; Council of Europe, Coste D, Moore D., Zarate G., 2009; Council of Europe , Beacco J., Byram M., Cavalli M., Coste D., 2010).

**Language awareness** is one of the main plural approaches to language teaching and learning recommended in Europe (Council of Europe, FREPA, Candelier et I. 2013; Council of Europe, LEA, 2007). The teaching-learning activities concern all languages present in the class and aim to value and extend the existing *linguistic repertoires* of all children, recognizing the social and identity value of the linguistic *repertoire* and *biography*<sup>3</sup> of children.

In this approach, what matters is not linguistic 'learning' in the strict sense, but rather an "education" *to* and *through* languages. At the preschool and primary school levels, this approach represents a first sensitization to the multilingualism existing in a class and a systematic approach to unveiling the linguistic repertoire and biography of each child. Languages spoken by the children gain visibility and legitimacy in the school context, they become objects to reflect on and tools to play with. This reflection can be extended progressively, to include a wider variety of languages. It can be enriched and diversified with other codes of communication (iconic language, gestural language, braille, sign language, animal languages...) and with characteristics of the different forms of

<sup>3</sup> **Linguistic repertoire:** all the languages one has available (for speaking, understanding, writing and /or reading) and their relationship (which one is the most important and when, which is my favorite, which my least favorite...).

**Linguistic biography:** when and how each language was learned (even in a partial way...for instance, just understanding but not speaking), when and with whom different languages are used.

	<p>human communication (oral and written, stylistic registers, textual genres). The aims pursued within this approach concern:</p> <ul style="list-style-type: none"> <li>• the acquisition of awareness with respect to the diversity of languages;</li> <li>• the promotion of a linguistic culture and knowledge that contributes to understanding contemporary multilingual and multicultural reality and to feel part of a multilingual community;</li> <li>• the development of positive ideas, attitudes, interest in all languages as treasures, tools for understanding and shaping the world and that all languages are equal;</li> <li>• the promotion of a harmonious personal relationship with all of the languages in one's life;</li> <li>• the acquisition of awareness and agency regarding one's own linguistic repertoires, practices, ways of learning languages;</li> <li>• the development of meta-linguistic and meta-communicative skills by observing differences and similarities in phonetics and the structural characteristics of languages, exploring different body movements, proximity and gestures connected to communication.</li> </ul>
<p><b>Essential Component</b></p>	<p>Linguistic identity promotion; Critical thinking regarding social representations on languages; Meta-reflection on language and cultures; Intercultural Linguistic Communication Competence</p>

## 1.6 The methodological framework in reference to task 4.4

As presented in the Section A of the report (see Chapter 1), at a process level the methodology adopted in all the interventions in WP3, 4 and 5, followed:

- a. Bronfenbrenner's bio-ecological model (Bronfenbrenner & Ceci, 1994; Bronfenbrenner & Morris, 2006) as the overarching framework for the ISOTIS project;
- b. positive socio-constructivist perspective;
- c. an ICT-enhanced communication and learning-teaching approach;
- c. a design-based research approach (Section A. Chapter 5).

- a. **Following Bronfenbrenner's bio-ecological model** (Bronfenbrenner & Ceci, 1994; Bronfenbrenner & Morris, 2006), a child's development and learning acquisition, her construction of personal, cultural and social identities and ideas regarding the self, the world and society take place not only in reference to the individual or to the family, but within a wide *regulation system* (Sameroff, 2000; Sameroff & Fiese, 2000), within a complex interplay of interactions and influences between the child (with her characteristics and her active role in shaping the environment and interactions), her parents and the family, the places and social actors present in her social life, institutions and culture in general. Interactions and influences occur at a proximal level in contexts directly experienced by children, like school, the family, peers as well as through indirect influence (from the parents' work place to cultural, social, educational, linguistic, religious political, institutional, and ideological aspects that inform society at a local and global level):
- ECEC and school contexts are microsystems that have relevant, direct influence on children's development, learning and well-being. They are key settings in the child *educational niche* that can contribute to reducing educational and social inequalities, succeeding in enhancing both cognitive and non-cognitive skills (Bronfenbrenner & Ceci, 1994; Bronfenbrenner & Morris, 2006), helping students and families with an immigrant and minority ethnic backgrounds integrate into their communities, overcome adversity and build their academic, social, emotional and motivational path as well as grow up multilingual and multicultural, promoting key competencies of citizenship in all children globally;
  - These opportunities are connected to the quality, quantity and content of the proximal processes in which the teachers involve the children (Leseman & van den Boom, 1999), in reference to, on the one hand, the curriculum, pedagogy and social interactions as interdependent dimensions that shape the child's experience at school and, on the other, communication and partnership with the family. All children need to be exposed to a curriculum that makes them curious about different languages, forms of expression, cultures and they need to be consciously supported in the development of critical thinking, to avoid stereotypes regarding cultural, linguistic, physical, familial and religious differences. Children and families from a linguistic and cultural background different from that of the school need to be reassured about the appreciation and

maintenance of the language of origin, cultural values and habits, while allowing children to grow up bilingual and bicultural and shape their identity and sense of belonging without stereotypes, discrimination and tension. It is therefore relevant to promote a school environment that offer opportunities in terms of:

- Content: integrating within the curriculum the promotion of new knowledge, values, attitudes and skills, such as those encompassed by the *Global Competence* framework and multilingual education, renewing a 'traditional' view on the curriculum and the school's general aims; emphasizing the attention on soft, non-academic skills;
  - Quality: allowing for children's personal initiatives, active engagement, matching children's skill levels and preferences; promoting coherence in the children's educational niche by strengthening the communication, collaboration and involvement of families at school; valuing children's and families' resources;
  - Quantity: involving children in everyday life at school consistently, in coherent interactions and activities, supports the acquisition of skills and competences related to multiculturalism, multilingualism, critical thinking and action-taking skills.
- This is not an obvious change in educational systems, institutions that are particularly resistant to change, whose initial and foundational aim was to form the citizens of a nation through the acquisition of one language and one culture as incorporated within an official curriculum. Today, their role and aims have to be reviewed because of the huge changes in societies which has become multilingual, multicultural, multireligious;
  - School can also be seen as a microcosm of society in all its complexity, that can mirror social and symbolic factors and reproduce aspects of the larger society and the mentality informed by the dominant ideology and social reality (Mc Naughton G., 2005). Social fragmentation, the non-recognition of differences, forms of discrimination and ethno-cultural stereotyping as well as ideologies can be reproduced at school. The pedagogical approaches adopted in the ISOTIS framework together with the general overarching framework of Global Competence represent a new and challenging transition for schools, curricula and professionals;
  - The VLE Task 4.4 interventions aimed at contributing to identify guiding criteria, strategies and practices, supported by the implementation of ICTs, to innovate curricula and pedagogies in pre- and primary school settings. Interventions focused on the system of relationships among the social actors at the intervention sites (teachers, children, parents) and worked on the proximal processes in the immediate

micro-system of the children, namely classrooms in Task 4.4, either directly involving children and involving the main social agents (teachers and in some cases also parents), introducing selected experiences to work on global and intercultural competence and multilingualism within school or in some cases family settings, strengthening the partnership and collaboration between teachers and families. The experiences were also co-designed with the professionals and supported and enhanced by the digital environment, the VLE, designed considering the symbolic impact of its interface and graphics (see Section A, Chapter 2);

- As highlighted in the accurate in-depth case study comparative analysis (D.3 Aguiar C., Silva S.C. et al, 2018), at all levels of the ecological system several features were addressed and a wide range of options were available for intervention designs, both from more distant levels and within activity settings, where a central role was played by teachers;
- At the **microsystem level**, the framework recognized *children's social role and interpersonal relationships* actively involving children in decision making and sharing their resources within the overall implementation of *equity pedagogies*, such as cooperative learning to support positive and meaningful contact and non-directive activities. Some of these activities also involved experiential learning activities such as acting-out and role-playing or video and multimedia production shared with parents and the larger community on the VLE. Children's creativity and imagination were supported as well as guided reflection about their experiences was stimulated (regarding multicultural awareness, language awareness, socio-economic equity and human rights, stereotypes and discrimination). All of the interventions included activities aimed at valuing and giving visibility to all languages coexisting in the classroom/school, especially first languages and a strong connection with the 'official curriculum' and school life was considered paramount, in order to connect the intervention goals and content with the school's goals and contents;
- Coherently, **at the school/institutional level**, the VLE intervention promoted a *strengths-based curriculum* and pedagogical approaches that built on the resources of all stakeholders, including children and families with diverse racial, ethnic, cultural, linguistic and social class backgrounds, focused on *language support*, giving visibility to children's first languages (without the possibility to also focus on learning the second language due to time constraints), and aligning the *curriculum with real-world democratic experiences* as well as societal challenges which resulted in perceptions of relevance and meaningfulness among local stakeholders;

At the **mesosystem**, all of the interventions closely involved the teachers in a collaborative research process, also aimed at building the teachers' group collaboration (though not as a main goal). In some interventions, it was also possible to address

parents, especially in Italy thanks to the synergy with task 3.4, aimed at enhancing *communication with parents, to convey information* regarding school life, activities and the children's experiences, providing textual and visual documentation through a multimedia and multilingual communication system embedded in the ISOTIS VLE. Parents were also *involved in selected classroom/school activities* (i.e. exhibitions and performances), sharing personal and traditional stories in the home language at school, sharing their language competences;

At **the exosystem level**, the collaboration of the research team with the teachers included efforts to support professionals, striving to reinforce teachers' knowledge, values, beliefs and *commitment* to children's (and families') respectful inclusion, viewing themselves as *agents of change* towards inclusion and social justice.

- b. In line with a **positive socio-constructivist perspective**, the ISOTIS interventions prioritized the promotion of **collaborative and co-constructive processes** between the social agents, the researchers and **community bonds** among the main actors (teachers, children and in some countries also parents) in multilingual, multicultural and socially disadvantaged contexts, namely in task 4.4 preschools and primary schools:
  - The promotion of *Global Competence* in individuals and communities aimed to better include, children's and families' cultural and linguistic resources in the curriculum and pedagogy of ECECs and primary schools by:
    - **Sustaining communication and collaboration** between stakeholders, encouraging and supporting networking between stakeholders;
    - **Promoting agency of all stakeholders** based on valuing their cultural background, resources and identity;
    - **Using the resources available** in the form of diverse family languages and cultural backgrounds to innovate the learning practices of children and professionals and to create rich learning experiences;
    - **Raising awareness and knowledge** (of multiple languages, cultures, human rights, discrimination mechanisms) and promoting skills (in multiple languages, critical thinking and establishing shared understanding).
- c. This perspective, centred on social actors' active engagement and participation and on the stakeholders' resources, also informed the development and implementation of the ISOTIS VLE, **enhancing communication and learning environments with the use of ICT**:

- As also suggested in **point 12** of the key recommendations (Use the potential of information and communication technology to actively engage children in learning, support teachers, establish bidirectional communication channels with families, etc.), the ISOTIS VLE, in task 4.4, meant to provide teachers and children (in a different way according to the local context) a digital “enhancement” of educational and communication processes (and not a "digitization" of teaching and communicating) and co-creation processes for developing content using the cultural and linguistic resources of children, families and communities. The expected outcomes were: to increase the engagement and empowerment of stakeholders, increase collaboration and sense of belonging by the local community and create an enriched and truly intercultural curriculum and communication. In the platform, teachers were invited to organize the participants in groups, by varying their roles and selecting among many different content resources within each course structure. The platform, its functions and content resources were designed to be consistent with an active ideal of teaching children (WP4), through active engagement and, especially in reference to the school setting, avoiding reducing the learning experience to simple “digitization” (Salmon, 2002, Brown et al., 2016). The implementation and use of the VLE was meant to strengthen the teacher’s role as a coach in the development of the students’ work-in-progress during the various cooperative practices (Ferri&Moriggi, 2014), and boost the learning and communication experience of the children digitally, through a “multi-code” language, which could enhance students’ multiple skills with new learning opportunities (Buonaiuti, Calvani, Menichetti, Vivinet, 2017). The VLE offered a platform for the integration of activities carried out both in “real” and in digital contexts and also for documenting processes and contents produced by the participants.

d. The VLE interventions mainly adopted a **Design-Based Research methodology**, as stated in the ISOTIS-DoW and presented in Section A (see Chapter 5), combined with references to other approaches that place greater emphasis on the *bottom-up* process, such as the Scenario Approach and Action Research, allowing for more flexible research-intervention design and meeting several key-features in the ISOTIS interventions:

- to answer to real problems in real contexts;

- to involve and **engage local stakeholders** in all stages of the research and intervention processes in order to generate change that is sustainable by the local stakeholders after the intervention;
- to derive the intervention characteristics and research findings through a **clear reference to theory** but also through a **strong connection to the context**, thanks to formative evaluation and subjects' reflectivity (**good balance between top-down and bottom-up work processes**);
- to allow a **coherence** across the interventions and the countries through a common ground for comparison, at the same time giving each partner room for **flexibility** and **local adjustments**;
- to define the interventions whose characteristics and **guiding principles** could be '**transferred/reinterpreted**' in other contexts.

Regarding the roles of the researchers and the research participants, the research implementation required **strong collaboration between researchers and teachers**, though with clearly different responsibilities in the research process. The researcher had the responsibility to provide a theoretical framework, respond to local needs for professional development, provide examples/prototypes of activities to be co-designed according to the specific context, provide clear guidance in the research methodology and instruments for documentation and monitoring, in accordance with participants. The professionals were key informants regarding the contexts and main actors for the activities implemented. In the ISOTS approach, even though the researchers were the ultimate designers and a clear theoretical framework supported the reflection on the practices and the co-design of the activities, the professionals (teachers) contributed to the identification of the educational issues to be addressed and were actively involved in all the stages of the research, developing the intervention and the activities.

The engagement of teachers in the research process, especially in co-designing the activities in task 4.4 interventions, also aimed to guarantee the connection between the activities with the curriculum and school life. Language support and the valorization of linguistic and cultural resources should be valued, supported and integrated within an age-appropriate curriculum (**key recommendation n. 6**) and not be something 'apart' from real school. Hence, curriculum innovations, proposed following criteria drawn from the Global Competence framework and the selected pedagogical approach (Social Justice-Human Rights, Critical Multicultural Citizenship, Multilingual and Language Awareness Education), were co-designed with teachers. More generally, at different levels, children and families (and other local stakeholders) were also involved in participatory and collaborative processes in designing innovations for strategies and



activities, contributing to exchange and create knowledge, by collaborating and communicating.

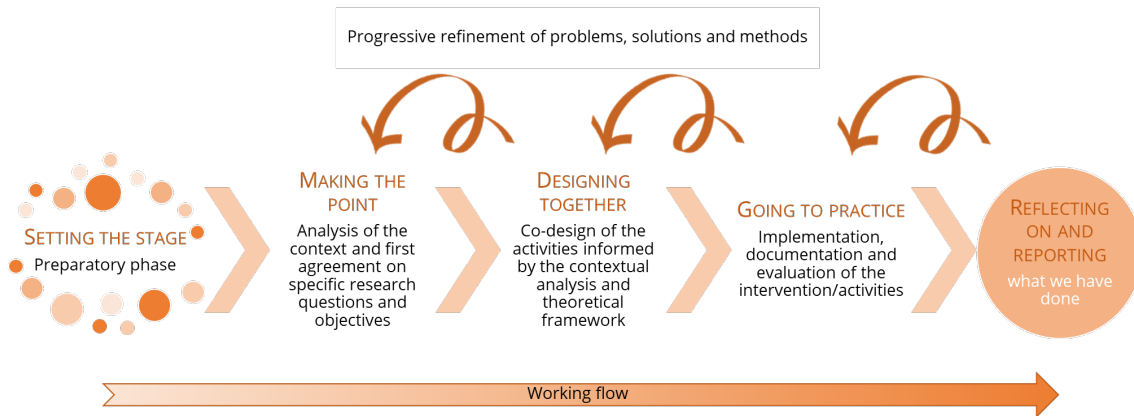
This collaborative feature also represented a crucial component of the professional development support provided to teachers (**key recommendation n. 11**) and was a way to involve children and, in some cases, families (**key rec. n. 10**), actively supporting communication and collaboration.

Regarding the validity of the research results, the transferability of the guiding principles for the interventions and the validity of the study, the aim was not to control variables and to test hypotheses as in an experimental approach, nor to 'simply' provide a rich description of the research context. Rather, the objective was to try to document if, how and *under what circumstances* the intervention had an effect on/changed participants' educational practices as desired and if, how and *under what circumstances* the VLE supported/empowered the work and the expected impact. The interventions were monitored through several qualitative instruments before, during and after, to provide rich documentation on short-term impacts and the stakeholders' perceptions and evaluation of the intervention. The rich qualitative description and the monitoring system also had a clear reference to the theoretical premises applied in the design, to develop *contextualized theories* (Pellerey, 2005) rather than general ones. Moreover, long implementation cycles were not possible, so the refinement of theory could not be emphasized (van den Akker, 1999).

The **workflow** was organized in a five-step research process, not intended as a strict, binding sequence, but rather as a flexible guide that provided a chronological and logical work process. The co-design and implementation phases, within the iteration of cycles of designing-implementing-redesigning, had a circular relationship. The monitoring and evaluation phases occurred during the work process (before, during and after) and not only at the end, though a final evaluation and synthesis of the results and the process was produced.

As reported in Section A (see a detailed description of each stage in Chapter 5 SECTION B), the following template (adapted from Herrington – Design-based research planning template; Herrington, Reeves & Oliver, 2010) assisted in working through the issues associated with each phase.

Figure 1.3 - Overview of the workflow



## 1.7 The research design of task 4.4 interventions

The WP4 designed-based interventions addressed pre-primary and primary schools (age ranges: 3-5 and 6-11/12) in four countries: the Czech Republic, Greece, Italy and Portugal. A pilot study was carried on in the Netherlands. Interventions were aimed to develop and implement the use of a cooperative virtual learning environment (VLE) to support teachers in innovating the curriculum and the teaching approach in reference to cultural diversity, social justice, human rights, multilingualism and to promote knowledge and critical understanding, values, skills, attitudes and behaviors covered by the global-intercultural competence theoretical model previously presented, within the classroom and in the family-school partnership in all the participants (teachers, children and parents).

### 1.7.1 The intervention goals

The objectives of the interventions were detailed by each country team according to the specific context where the interventions were carried out, negotiating them with the teachers involved in the research. The general framework and the wide aims shared across WP 3, 4 and 5 represented a common ground and a point of reference to all teams in designing and co-designing goals and activities. All the interventions prioritized the promotion of *community bonds* in multilingual, multicultural and socially disadvantaged (pre)schools among the main actors (practitioners, children and in some cases parents) and the promotion of global intercultural competence of individuals and communities by *raising awareness* and *knowledge*, *promoting agency* of all stakeholders, *using the resources available* (diverse family languages and cultural backgrounds) to innovate learning practices and to create rich learning experiences,

sustaining communication and collaboration between stakeholders, encouraging and supporting networking between stakeholders.

Task 4.4 specific common goals elaborated by all country teams involved in the task were as follows:

Table 1.3 - Task 4.4 Goals

TASK 4.4 GOALS	
<b>CROSS WPS GENERAL AIMS AND GUIDING CRITERIA</b>	<b>Promoting awareness, agency, communication &amp; collaboration among teachers, children and families</b>
	<p><b>Connecting and bridging home and school children’s linguistic and cultural experience</b>, making visible (hence legitimizing, valuing) all of the multilingual repertoires and profiles of children (L1 – MT; L2-LOI; FL; Dialects), so that children explore, reflect on, practice different languages and cultures at school and feel part of a multilingual and multicultural community</p>
	<p><b>Promoting teachers’ and children’s intercultural competence</b> in dealing with diversity, in terms of respect for the uniqueness of each person, curiosity and appreciation of differences and acknowledgment of commonalities.</p>
	<p><b>Promoting good attitudes/ideas regarding all languages and cultures</b>, soliciting the acknowledgement and deconstruction of the power relationship between cultures, ethnicities, races and languages (i.e. deconstructing the hierarchy of languages; dominant vs minority languages/ethnicities...)</p>
	<p><b>Soliciting the acknowledgement of equal rights and social justice and promoting democratic values</b>, attitudes, skills and behaviors.</p>
	<p><b>Enhancing digital competence</b> and increasing the use of positive technology.</p>

Although not a specific goal of the Task 4.4 interventions, but part of the intervention in the general framework, each country team also pursued the involvement of parents and the local community, involving parents in the children’s classroom activities, valuing parents and community resources and strengthening the family-school connection.

## 1.7.2 Research sites, target groups and participants

Basic criteria to select the sites for the interventions were the following ones:



- Presence of the target groups in the school population;
- ICT equipment;
- Willingness of the school to participate;
- Intercultural and multilingual education already implemented to some extent.




Most of the WP4 interventions addressed super-diverse schools where the classes had a highly mixed composition in terms of ethnic and linguistic origins and economic backgrounds, especially in Italy and in Greece. In these countries it was not possible to select schools where a majority of the ISOTIS target groups were present, especially regarding cultural background. In the Czech Republic and Portugal, it was possible to work at least partially in sites with a high presence of Romani families and children.

Overall, all the classes involved in the study included children from the target groups (Maghrebian and Romani people), while children and families from many other backgrounds were involved in the research as members of a class. No alteration of the classes was made for research purposes.

The table below reports the sites and the research participants:

Table 1.4 - Overview of sites and research participants

	Area	Organisation	N. Of Classes & children age range	N. of Children	N. of teachers	Target group
	Thessaloniki	1 Primary School 1 Preschool	3 classes: ages 5-7	72	5	Low-SES, immigrants and refugees.
	Milan	1 Primary School 1 Preschool	4 classes: 1: ages 3-6 1: ages 7-8 1: ages 9-10 1: ages 10-11	91	9	Immigrants (Maghrebian, Egyptians, Filipino, Peruvian)

	Brno & Ústí nad Labem	3 Primary schools	5 classes ages 8-11	100	5 + 6 teacher assistants	Low SES, Roma
	Greater area of Porto	2 Primary schools	7 classes 1 class: 7-10 ys 1 class: 10-12 ys 1 class: 12-14 ys 4 classes: 10 ys	210	6	Low SES, Roma
	The Hague	1 Preschool	Year 1: 1 class Year 2: 6 classes (observations in 3) 4-6 years old	73	8	Middle-class, Culturally Diverse
Total	6 areas	10 schools (3 Preschools and 7 primary schools)	26 classes	546	39	

### 1.7.3 Work Phases

As mentioned above, the workflow was organized in 5 main stages:

- a preparatory phase: SETTING THE STAGE;
- an exploratory phase: MAKING THE POINTS;
- a co-designing phase: DESIGNING TOGETHER;
- an implementation phase: GOING INTO PRACTICE;
- a monitoring and evaluation phase: REFLECTING ON AND REPORTING.

The table below provides a general overview of the main steps within each phase and the timeline. Country teams in the country report provide a more specific workflow of phases and timelines.

Table 1.5 - *Stages of the workflow*

<p><b>PHASE 0: SETTING THE STAGE.</b>  <b>Preparatory phase</b>  <b>From March 2017 to December 2018</b></p> <p><b>International Meeting on VLE and Interventions:</b>          May 2017- Utrecht          October 2017 – Brno</p>	<ul style="list-style-type: none"> <li>• In this phase, the task leader (IT team ) provided a General Cross-WP VLE Roadmap and developed a Task 4.4 Manual, developed collaboratively with partners;</li> <li>• The literature reviews and the inventories of promising approaches (realized in tasks 4.1 and 4.2, provided a set of important theories, data, interventions;</li> <li>• Each country team started selecting and contacting sites coherently with the criteria agreed;</li> <li>• Each team started presenting the ISOTIS project and the VLE intervention framework and main aims;</li> <li>• Following different procedures according to the local requests of the schools, teams agreed upon the group of teachers involved in the reserach and the classes (in several cases this step occurred later);</li> <li>• Country teams also contributed to a functional analysis of the VLE, involving potential users in expressing their opinions on the use and functionalities to be included in the VLE.</li> </ul>
<p><b>PHASE 1 - MAKING THE POINT</b>  <b>From January - September 2018</b></p> <p>Analysis of the context, the local resources and constraints and identification of the specific needs, educational problems and goals, in collaboration researchers and practitioners in collaboration</p>	<ul style="list-style-type: none"> <li>• Implementing several research actions (focus groups and interviews, observations, questionnaires, documentation analysis) each country team carried out a phase of exploration and observation of the characteristics of the school contexts selected for the research, deepening the knowledge about the characteristics of the group of teachers, the teaching approach as declared in the official steering documents of the school and as observed into practice and the population of the school (children and families). This ethnographic research phase helped to familiarize with the context, identifying the local resources and limits, the needs and the educational issues most relevant to the teachers;</li> </ul>

<p><b>International Meeting on VLE and Interventions.</b></p> <p>December 2017 – Berlin  March 2018 – Utrecht  June 2018 – Milan</p>	<ul style="list-style-type: none"> <li>• Main results were returned and discussed with the teachers, in order to identify specific objectives, research questions and educational problems to be addressed in the activities;</li> <li>• Each country team started collecting and building resources to be uploaded on the VLE and designing prototypes of activities to be shared with the teachers, to be customized and redefined with them (also triggering ideas for new activities proposed by teachers);</li> <li>• All the resources were designed in accordance to templates and to guiding principles (see Chapter XX, Par. XXX) drawn from the theory and the theoretical-methodological framework;</li> <li>• Usability-accessibility testing of the VLE required the collaboration of partners.</li> </ul>
<p><b>PHASE 2 &amp; 3 .  DESIGNING TOGETHER &amp; GOING INTO PRACTICE</b></p> <p><b>From September 2018- June 2019</b></p> <p>Co-construction/co-design of the intervention/activities informed by the contextual analysis and theoretical framework and implementation.</p> <p><b>International Meetings on VLE and Interventions.</b></p> <p>October 2018 Prague  December 2018 Milan</p>	<ul style="list-style-type: none"> <li>• Co-design and implementation phases mainly took place in a circular way, alternating cycles of co-designing – implementation - re-designing, etc.</li> <li>• In IT and CZ, the first part of the activities coincided with Child Study Activities (see D2.4 – XXX);</li> <li>• The VLE introduction in the setting was delayed to February 2019, due to complexities related to the new regulations on data protection and privacy (GDPR);</li> <li>• Research participants had the opportunity to access the VLE and explore it; they received credentials to enter the platform autonomously. In most cases, the platform was used by the subjects supported by the researchers (especially teachers, while children, when they had the opportunity, used it in an autonomous way);</li> <li>• Research participants had also the opportunity to express their opinions on the VLE;</li> <li>• Where needed and possible, researchers organized also training on the key-topics;</li> <li>• The design took place through a collaborative process involving jointly researchers and practitioners and in some case children and parents. Researchers proposed examples/prototypes of activities already uploaded</li> </ul>

	<p>on the VLE that were selected by the teachers and then customized considering the characteristics of the classes and children.</p> <ul style="list-style-type: none"> <li>• Throughout the whole process, the monitoring system required the collection of rich documentation (field observations, visual documentation, short conversations with children and teachers).</li> </ul>
<p><b>PHASE 4: Reflecting and reporting what we have done.</b></p>	<ul style="list-style-type: none"> <li>• A final evaluation was realized, using several instruments (see monitoring system below) regarding the activities, the work process and the VLE itself;</li> <li>• Reports were drafted and restitutions of the main results were carried out or planned.</li> </ul>

#### 1.7.4 The ISOTIS VLE in WP4 interventions

As presented in Section A, the main features of the VLE are represented by:

- a **repository of resources**: including theoretical insights and information, observation guidelines for action and activities, connected to the ISOTIS themes, using multiple media and multiple communication channels:
  - In Task 4.4., Teachers had the opportunity to explore and use in their own practice (in class or to support parents) the collection of resources and experiences; students and parents had also access to the platform, to participate in the experiences or consult data. Information and guidelines for practices about various topics could be consulted;
- a **social networking infrastructure**: tools facilitating communication and exchange through pages that adopted typical social media layouts, featuring multilingual support and offering a shared collaborative workspace for professionals, children and parents, fostered the creation of ‘communities of practice’;
  - In task 4.4., Teachers had the opportunity to create (supported by the platform administrator and by local researchers) different groups of children, parents and colleagues, to communicate and collaborate with remotely;
- a **space for designing and documenting**: a storage space for materials, applications to use and propose, documentation related to the activities implemented (in a class, with a group of children or parents, with a child ... );



- In task 4.4., in this space, teachers had the opportunity to fill in Diaries to reflect on the research process they were collaborating in.

Regarding the resources, the activity guidelines (in the VLE called 'experiences') were designed at first by the researchers and afterwards in collaboration between researchers and professionals who together co-designed activities adapted to the local context, through a bottom-up process of collaboration and co-construction. Professionals were supported in adapting the activities, changing or even in creating new activities to be uploaded. In fact, one of the main features of the *VLE interventions* was initiating collaboration between researchers and research participants (teachers, parents, children) who were invited to participate in creating content and materials for the VLE. Co-creating the content of the VLE, using the cultural and linguistic resources of children and families for this purpose, was a key design principle, with a two-fold expected outcome: increased engagement and the empowerment of stakeholders as well as an enriched and truly intercultural curriculum.

Regarding the videos (see par. 1.7.4.2), some of them were used as a trigger for conversation with teachers, children and/or parents and were made available (even if quite late in the school year) to all the VLE users (see Section A).

#### 1.7.4.1 Guiding principles for designing the resources

The resource section provides three main types of content:

- the “**Did you know?**” section provides informative and descriptive resources, corresponding in the VLE to a section entitled;
- the “**Observe & reflect**” section, with guidelines for observing and reflecting on *critical cases* presenting research experience or depicting a problematic situation and a short set of questions for observing one’s local context (children and/or parents and/or one’s own professional attitudes, behaviours and practices);
- the **What can you do?** section, features guidelines for action and intervention with children (through specific activities called “experiences”).

The whole structure of the resource was informed by a reflective and a research-oriented approach. Theoretical information was aimed at providing a scientific foundation, while observing real children and families. Listening to their perspectives and experiences was given priority in view of designing educational activities. The guidelines for *learning experiences/activities* were designed following two sets of *criteria*, one drawn from the ISOTIS cross-WP 3-4-5 framework, one drawn from Task 4.4 framework (see Section A, Chapter 2). Criteria were used as guiding principles to design the activity prototypes, select the activities developed by all partners during the preparatory phase of work, monitor the activities during the co-design and implementation phase and evaluate the

quality of the implemented activities at the end of the process. The tables at pg 38 and 40 report the sets of criteria.

In WP4, guidelines for activities were meant to support and enhance a teaching approach that values the child as an active agent of her learning, a critical thinker, a member of a community of learners and a 'researcher' and to enhance parent-school communication and collaboration, valuing family resources and involving families in the school activities.

#### 1.7.4.2 The Task 4.4. VLE Resources developed

All partners contributed to the construction of the resources in all the sections (theoretical, observational & reflective and practical), according to the specific focus of the local interventions. The Czech team and the Italian team focused mainly on Multilingual education, Democratic Education and Intercultural education, the team from Portugal focused more on Human Rights and Social Justice Education and Intercultural Education and the Greek team focused on Multilingual Education and Intercultural Education.

As presented in Section A, the resources were organized into 7 main courses:

- Participation & Democratic Life;
- Promoting Multilingualism in The Classroom;
- Promoting Multilingualism in The Family;
- Promoting Second Language Learning;
- Promoting Intercultural Sensitivity;
- Social Justice & Human Rights;
- Family & School Partnership.

The table below provides an overview of resources developed by Task 4.4 partners and present on the VLE:

Table 1.6 - Overview of resources for the VLE developed by Task 44 partners

Course/ Theme	Sub-theme	Activity	Team
Participation & Democratic Life	Children's voices	Welcome to our school 7+ <a href="https://vle.isotis.org/mod/page/view.php?id=1661">https://vle.isotis.org/mod/page/view.php?id=1661</a>	IT Team  PT team
		Welcome to our preschool 3-7 <a href="https://vle.isotis.org/mod/page/view.php?id=1672">https://vle.isotis.org/mod/page/view.php?id=1672</a>	IT Team  NL team
	The Children's Rights Convention (only in Italian)	I consigli consultivi dei bambini diventare pienamente protagonisti della vita scolastica (Advice from children to become full protagonists in school life) 3-7 <a href="https://vle.isotis.org/mod/page/view.php?id=3495">https://vle.isotis.org/mod/page/view.php?id=3495</a>	Save The Childre n (IT partner)
		I consigli consultivi dei bambini diventare pienamente protagonisti della vita scolastica (Advice from children to become full protagonists in school life) 7+ <a href="https://vle.isotis.org/mod/page/view.php?id=3496">https://vle.isotis.org/mod/page/view.php?id=3496</a>	
Promoting Multilingualis m in The Classroom	Exploring and understanding one's multilingual self	The language portrait 4+ <a href="https://vle.isotis.org/mod/page/view.php?id=1238">https://vle.isotis.org/mod/page/view.php?id=1238</a>	IT team
		Individual language story: how do we draw it? <a href="https://vle.isotis.org/mod/page/view.php?id=2172">https://vle.isotis.org/mod/page/view.php?id=2172</a>	CZ team
		Exploring the language biographies of famous celebrities <a href="https://vle.isotis.org/mod/page/view.php?id=2169">https://vle.isotis.org/mod/page/view.php?id=2169</a>	CZ Team
		Drawing the bilingual/multilingual mind 3+ <a href="https://vle.isotis.org/mod/page/view.php?id=1237">https://vle.isotis.org/mod/page/view.php?id=1237</a>	IT Team
		World tour in 80 languages <a href="https://vle.isotis.org/mod/page/view.php?id=3577">https://vle.isotis.org/mod/page/view.php?id=3577</a>	IT Team
		Our suitcases...where do we come from? Family and personal stories/Family trees 4-6 <a href="https://vle.isotis.org/mod/page/view.php?id=3741">https://vle.isotis.org/mod/page/view.php?id=3741</a>	GR Team
		Which languages I speak with whom 3+ <a href="https://vle.isotis.org/mod/page/view.php?id=1740">https://vle.isotis.org/mod/page/view.php?id=1740</a>	IT Team

	Making all languages visible and a resource for the classroom	Conducting a research in the classroom: interviewing each other 7+ <a href="https://vle.isotis.org/mod/page/view.php?id=2488">https://vle.isotis.org/mod/page/view.php?id=2488</a>	IT Team
		Plurilingual battleship 8+ <a href="https://vle.isotis.org/mod/page/view.php?id=2024">https://vle.isotis.org/mod/page/view.php?id=2024</a>	
		How do you say it in...? Snakes and ladders in multiple languages 6+ <a href="https://vle.isotis.org/mod/page/view.php?id=2024">https://vle.isotis.org/mod/page/view.php?id=2024</a>	
		Multilingual Dictionary 5+ <a href="https://vle.isotis.org/mod/page/view.php?id=1570">https://vle.isotis.org/mod/page/view.php?id=1570</a>	
		I'll teach my language <a href="https://vle.isotis.org/mod/page/view.php?id=2732">https://vle.isotis.org/mod/page/view.php?id=2732</a>	
		World tour in 80 languages <a href="https://vle.isotis.org/mod/page/view.php?id=3577">https://vle.isotis.org/mod/page/view.php?id=3577</a>	
	Creating narratives and storytelling	Tell me a story in another language! 5+ <a href="https://vle.isotis.org/mod/page/view.php?id=3742&amp;forceview=1">https://vle.isotis.org/mod/page/view.php?id=3742&amp;forceview=1</a>	IT Team
		Making a multilingual digital story telling 7+ <a href="https://vle.isotis.org/mod/page/view.php?id=3737">https://vle.isotis.org/mod/page/view.php?id=3737</a>	
		The word in rhyme 3+ <a href="https://vle.isotis.org/mod/page/view.php?id=2492">https://vle.isotis.org/mod/page/view.php?id=2492</a>	
	Comparing languages	Let me introduce you my language: language identity card 8+ <a href="https://vle.isotis.org/mod/page/view.php?id=2032">https://vle.isotis.org/mod/page/view.php?id=2032</a>	IT Team
		Want to borrow a word? 8+ <a href="https://vle.isotis.org/mod/page/view.php?id=2030">https://vle.isotis.org/mod/page/view.php?id=2030</a>	
		The colours of the world 5+ <a href="https://vle.isotis.org/mod/page/view.php?id=2028">https://vle.isotis.org/mod/page/view.php?id=2028</a>	
	Comparing languages and cultures	Multimedia intercultural calendar 5+ <a href="https://vle.isotis.org/mod/page/view.php?id=2026">https://vle.isotis.org/mod/page/view.php?id=2026</a>	
		It's good behaviour when... 4+ <a href="https://vle.isotis.org/mod/page/view.php?id=2034">https://vle.isotis.org/mod/page/view.php?id=2034</a>	

Promoting Second Language Learning		Multilingual Dictionary 5+ <a href="https://vle.isotis.org/mod/page/view.php?id=1570">https://vle.isotis.org/mod/page/view.php?id=1570</a>	IT Team
		My life outside school <a href="https://vle.isotis.org/mod/page/view.php?id=1636">https://vle.isotis.org/mod/page/view.php?id=1636</a>	
		Narration of silent books <a href="https://vle.isotis.org/mod/page/view.php?id=1576">https://vle.isotis.org/mod/page/view.php?id=1576</a>	IT Team
		Collaborative writing 8+ <a href="https://vle.isotis.org/mod/page/view.php?id=1579">https://vle.isotis.org/mod/page/view.php?id=1579</a>	
Promoting Intercultural Sensitivity	Comparing languages & Cultures	Multimedia intercultural calendar 5+ <a href="https://vle.isotis.org/mod/page/view.php?id=2026">https://vle.isotis.org/mod/page/view.php?id=2026</a>	IT Team
		It's good behaviour when... 4+ <a href="https://vle.isotis.org/mod/page/view.php?id=2034">https://vle.isotis.org/mod/page/view.php?id=2034</a>	
	Dealing with multiculturalism	Our suitcases...where do we come from? Family and personal stories/Family trees 4-6 <a href="https://vle.isotis.org/mod/page/view.php?id=3741">https://vle.isotis.org/mod/page/view.php?id=3741</a>	GR Team
		Dealing with multiculturalism 4+ <a href="https://vle.isotis.org/mod/page/view.php?id=364">https://vle.isotis.org/mod/page/view.php?id=364</a>	GR team
Social Justice & Human Rights	Economic inequalities	How to contribute to a social just world? 6+ <a href="https://vle.isotis.org/mod/page/view.php?id=1625">https://vle.isotis.org/mod/page/view.php?id=1625</a>	PT Team

Also, video scripts were developed in collaboration with some task 4.4. partners, as illustrated in the table below:

Table 1.7 - Overview of the video scripts

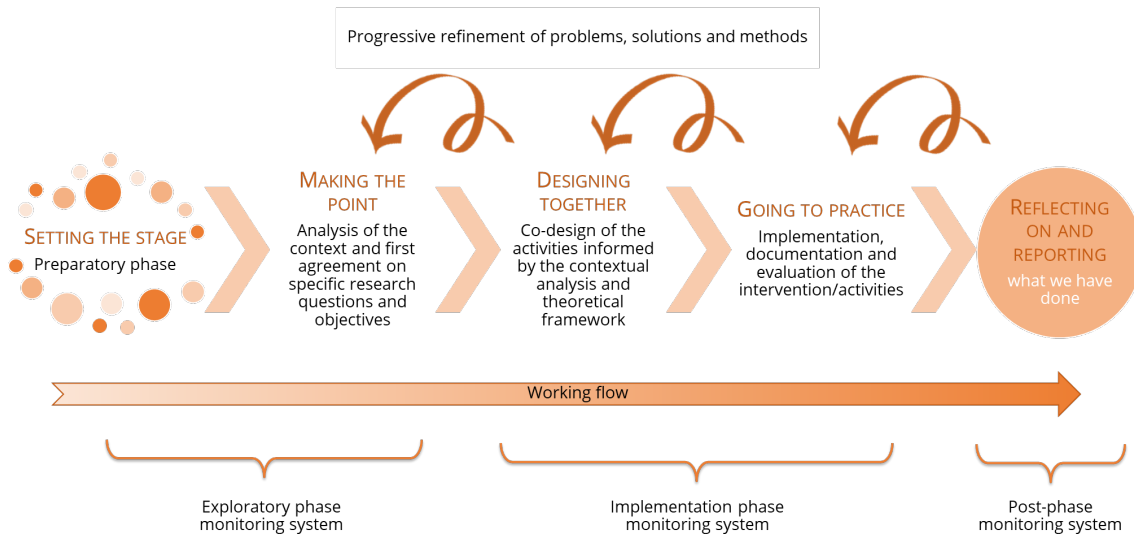
Titles	Link	Team
<b>Multilingualism and children's development</b>		
Two languages are better than one	<a href="https://vle.isotis.org/mod/page/view.php?id=3505">https://vle.isotis.org/mod/page/view.php?id=3505</a>	IT team
How bilingual children's two languages influence each other	<a href="https://vle.isotis.org/mod/page/view.php?id=3514">https://vle.isotis.org/mod/page/view.php?id=3514</a>	IT team
Discover the language input of bilingual children!	<a href="https://vle.isotis.org/mod/page/view.php?id=3506">https://vle.isotis.org/mod/page/view.php?id=3506</a>	IT team
Tips to give to your bilingual child the best language input	<a href="https://vle.isotis.org/mod/page/view.php?id=3507">https://vle.isotis.org/mod/page/view.php?id=3507</a>	IT team

The four stages of Second Language Learning	<a href="https://vle.isotis.org/mod/page/view.php?id=3508">https://vle.isotis.org/mod/page/view.php?id=3508</a>	IT team
<b>Languages and society</b>		
Not only dinosaurs become extinct! How can we prevent variety of languages from disappearing?	<a href="https://vle.isotis.org/mod/page/view.php?id=3509">https://vle.isotis.org/mod/page/view.php?id=3509</a>	IT team
<b>Multilingualism in the school</b>		
Multilingualism at school is better than monolingualism #1 Strategies at school: translanguaging	<a href="https://vle.isotis.org/mod/page/view.php?id=3515">https://vle.isotis.org/mod/page/view.php?id=3515</a>	IT team
Multilingualism at school is better than monolingualism #2 Strategies at school: Language awareness	<a href="https://vle.isotis.org/mod/page/view.php?id=3516">https://vle.isotis.org/mod/page/view.php?id=3516</a>	IT team
<b>Human rights and social justice</b>		
Is the world fair? Get engaged for justice!	<a href="https://vle.isotis.org/mod/page/view.php?id=3512">https://vle.isotis.org/mod/page/view.php?id=3512</a>	PT Team
Education to change the world	<a href="https://vle.isotis.org/mod/page/view.php?id=3513">https://vle.isotis.org/mod/page/view.php?id=3513</a>	PT Team
<b>Intercultural sensitivity</b>		
Looking at the world with other glasses: how to understand cultural misunderstanding	<a href="https://vle.isotis.org/mod/page/view.php?id=3517">https://vle.isotis.org/mod/page/view.php?id=3517</a>	IT Team
<b>The value and use of Romani language (provided by ISSA)</b>		
Proud to speak Romani	<a href="https://vle.isotis.org/mod/page/view.php?id=3511">https://vle.isotis.org/mod/page/view.php?id=3511</a>	ISSA Association

### 1.7.5 The evaluation and monitoring system

Coherently with the Design-Based research, **pre, during and post-** intervention, qualitative (and in few cases quantitative information) data was collected involving teachers, children and parents.

Figure 1.4 - Workflow & Monitoring system



A multi-method set of instruments was used.

- Before the intervention:
  - survey of opinions, perceptions and reflections from the participants on the topics addressed and on the VLE (when presented);
  - observation of teacher and children’s behaviors;
  - analysis of official school documentation (educational Guidelines if any; School projects, etc.).
- During the co-designing and implementation phases:
  - documentation of the work process of the teachers, involving them in formative evaluations to refine the activity design;
  - data collection of the children’s and teachers’ experiences using the VLE and participating in the activities;
  - data collection of parent-teacher communication and parents’ experience (if involved directly in activities) or opinions on the children’s experience.
- After the intervention:
  - survey of opinions, perceptions and reflections from the participants;
  - evaluation of outcomes, changes, impacts related to the main aim and specific objectives of the ICT-based intervention.

Qualitative documentation during the implementation phase was crucial for describing and interpreting the local experience in implementing activities and using the VLE. It also provided rich materials for documenting the implemented activities in the form of short narratives uploaded on the VLE.

The table below provides a synthetic overview of the instruments and dimensions for each kind of participant (teachers, children, parents).

Several optional tools (interview/focus group guidelines, parent questionnaires, observation and field note templates – see Annex 3 Section B) were proposed by the IT team as examples open to local adjustments:

- Teacher Self – evaluation questionnaire on their sense of competence;
- Teacher Diary;
- Interview guidelines with teachers (pre and post);
- Focus group guidelines with parents (pre and post);
- Parent Questionnaire;
- Classroom Observation guidelines;
- Focus group guidelines with children (post).

Task 4.4. partners used some of the tools and an overview of the monitoring system for each intervention is provided in the Country Reports.

Table 1.8 - Overview of the Task 4.4. monitoring system and tools

	Pre-post	During
Teachers	<ul style="list-style-type: none"> <li>• <b>Focus group and/or one-to-one interviews</b></li> <li>• <b>Reflective self-evaluation questionnaire</b></li> <li>• <b>Analysis of school documents/projects</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Qualitative documentation</b> of the process of co-designing and implementation in practices:               <ul style="list-style-type: none"> <li>○ <b>Classroom observations</b> (neutral and participatory) and field notes;</li> <li>○ <b>Teacher diary</b>;</li> <li>○ Pictures &amp; audio/video-recordings (<u>if feasible</u>);</li> <li>○ short interviews/conversations for formative evaluation and follow up;</li> <li>○ project documents and the final co-designed activities.</li> </ul> </li> <li>• VLE use</li> </ul>



<p><b>Children</b></p>	<ul style="list-style-type: none"> <li>• <b>Classroom observations</b></li> <li>• <b>Conversations</b> (spontaneous or elicited by teachers/researchers with open questions)</li> <li>• <b>Sociogram</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Qualitative documentation</b> of the process of implementation in practice and co-design if children were involved in designing activities (as for teachers);</li> <li>• <b>Classroom observations</b> (neutral and participatory);</li> <li>• <b>Focus group</b> discussion after the implementation of each activity and /or at the end of the experience and on the use of VLE;</li> <li>• <b>Conversations</b>, spontaneous and elicited by teachers/researchers with open questions;</li> <li>• <b>Observations</b> and <b>field notes</b> by the researchers during the co-design and implementation of the activities.</li> </ul>
<p><b>Parents</b></p>	<ul style="list-style-type: none"> <li>• <b>Questionnaire</b></li> <li>• <b>Focus group and/or one to one interview</b></li> </ul>	<ul style="list-style-type: none"> <li>• Group discussion after the presentation of the VLE;</li> <li>• Interviews;</li> <li>• VLE use (forums, chat, automatic report on use...).</li> </ul>

Table 1.9 - *Monitoring system on teachers - Tools and dimensions*

Teachers	
Pre-post	
How: Methods/Instruments	What: Dimensions observed
<ul style="list-style-type: none"> <li>• Reflective self-evaluation (questionnaire) + group discussion  <b>PRE: The questionnaire was proposed as a stimulus to engage teachers in a process of self-evaluation. They were invited to fill out the questionnaire and take notes of any item/topic that elicited reflections or made them question their practices/beliefs. Their answers and comments served as a starting point for the subsequent group discussion. POST: The same questionnaire was proposed to teachers. Once they completed it, researchers returned the questionnaires filled out in T<sub>1</sub> back to teachers and invited them individually to compare their answers and reflect on any changes occurred. That comparison served as a starting point for subsequent group discussion and reflection. Scales featured in the questionnaire:</b> <ul style="list-style-type: none"> <li>○ Questionnaire developed by Schachner (2010; 2016) – Subscales: Teaching efficacy in diverse classroom; Acculturation expectations; Diversity climate (equality and inclusion; support for cultural pluralism; teaching cultural pluralism);</li> <li>○ Questionnaire developed by Lee &amp; Oxelson (2006) (selection of items);</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>The Teacher Self – evaluation questionnaire on their sense of competence addressed 8 dimensions:</b> <ul style="list-style-type: none"> <li>○ Teaching efficacy in diverse classrooms;</li> <li>○ Intercultural sensitivity;</li> <li>○ Strengthening classroom community;</li> <li>○ Reducing prejudices;</li> <li>○ Multilingualism;</li> <li>○ Parent-teacher relationships;</li> <li>○ Global competence;</li> <li>○ ICTs in teaching-learning process.</li> </ul> </li> <li>• <b>Interviews and focus groups related to:</b> <ul style="list-style-type: none"> <li>○ Teachers' general beliefs and practices on teaching and learning;</li> <li>○ Teachers' attitudes about linguistic and cultural diversity among their students, if/how they valued and gave visibility in the classroom to children's L1 and if/how they supported L1, if and how they implemented intercultural education;</li> <li>○ Teachers' attitudes about social justice and human rights/prejudices and stereotypes (...), if and how they promoted educational experiences on those topics;</li> <li>○ Teachers' attitudes and beliefs about ICT, if and how teachers' use of ICTs in teaching-learning</li> </ul> </li> </ul>

<ul style="list-style-type: none"> <li>○ <b>WP5 scale regarding parent-teacher relationships;</b></li> <li>○ <b>Perceptions about ICTs in teaching-learning process scale (Bas, Kubiato, &amp; Sünbül, 2016).</b></li> <li>• <b>Focus group &amp; Interviews: PRE &amp; POST teachers were interviewed about their beliefs, perceptions and opinions and their educational practices/strategies on the key topics addressed by the intervention.</b></li> </ul>	<ul style="list-style-type: none"> <li>• process in the classroom changed after the intervention.</li> </ul>
<p><b>During</b></p>	
<p><b>How: Methods/Instruments</b></p>	<p><b>What: Dimensions observed</b></p>
<ul style="list-style-type: none"> <li>• <b>Teacher diary for descriptive, reflective and/or critical recording of their experience during the co-designing and the implementation of the activities. It could be digital on the VLE;</b></li> <li>• <b>Field notes and audio-recordings of co-designing meetings;</b></li> <li>• <b>Observations in the classroom and field notes during the implementation of the activities of conversations that occurred in the classroom among children and between teachers-children related to the topics and/or critical episodes or particularly positive situations;</b></li> <li>• <b>Conversations with children, spontaneous or elicited by the teacher/researcher asking open questions – consistently with the socio-constructivist approach – to</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>The Teacher Diary</b> (also uploaded on the VLE) was conceived of as a journal where the teacher before – during and after the implementation of the activities- had the opportunity to take notes on: <ul style="list-style-type: none"> <li>○ observations and reflections conducted during the experience;</li> <li>○ descriptions of the activities implemented also focused on the decision to conduct the activities and overcome difficulties or reach specific goals;</li> <li>○ observations on children, their participation, interest, motivation, interactions and relationship;</li> <li>○ observations on <b>key-children</b> selected by the teachers in collaboration with the researchers, as particularly challenging and on their participation, motivation, interest in the Isotis activities;</li> </ul> </li> </ul>

<p><b>let children express their opinions about the activities and the VLE;</b></p> <ul style="list-style-type: none"> <li>• <b>According to local privacy constraints and parental consents:</b> audio-recordings, pictures <b>of and/or</b> video-recording <b>during the implementation of the activities;</b></li> <li>• Short interviews/conversations with teachers <b>during the implementation phase about the activities and the use of the VLE;</b></li> <li>• <b>Documents about the project and artefacts made by the children.</b></li> </ul>	<ul style="list-style-type: none"> <li>○ post- intervention reflections on changes in educational practice, ideas and opinions on children and their competences, interaction with children and/or parents and any reflection triggered by the activity;</li> <li>○ evaluations on the intervention, on the points of strength and weakness, what activities would be continued after the intervention.</li> </ul> <ul style="list-style-type: none"> <li>• Observations, notes and any kind of documentation collected by the researchers focused on teacher practices, communication and interactions with the children during the activities.</li> </ul>
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Table 1.10 - *Monitoring system on children - Tools and dimensions*

Children	
Pre-post	
How: Methods/Instruments	What: Dimensions Observed
<ul style="list-style-type: none"> <li>• Classroom observations <b>before and during the implementation;</b></li> <li>• Conversations, <b>spontaneous or elicited by teachers/researchers with open questions on the topics addressed by the activities;</b></li> <li>• Sociogram (e.g. <b>Friendship flowers</b>) <b>on social relationships in the classroom</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Day-long observations</b> at school (formal and informal moments) focused on : <ul style="list-style-type: none"> <li>○ Linguistic and multilinguistic practices among peers or between peers and teachers (translanguaging /language brokering);</li> <li>○ Dialogues and conversations about diversity (language diversity, food, clothes, attitudes, ...);</li> <li>○ Relational dynamics (ethnic groups, non-ethnic subgroups).</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• <b>Sociograms</b> surveyed social relationships before and after the intervention;</li> <li>• <b>Conversations and focus groups</b> were aimed to elicit children's knowledge and opinions/views on the key topics addressed (cultural diversity, multilingualism, democracy, justice, fairness, equality...), on the activities experienced during the ISOTIS Intervention and on the VLE.</li> </ul>
<b>During</b>	
<b>How: Methods/Instruments</b>	<b>What: Dimensions assessed</b>
<ul style="list-style-type: none"> <li>• <b>Observations in the classroom and field notes during the implementation of the activities on children's behaviors and interactions;</b></li> <li>• <b>Conversations among children and between teachers-children related to the topics and critical episodes or particularly positive situations;</b></li> <li>• <b>Conversations with children, spontaneous or elicited by the teacher/researcher asking open questions – consistent with the socio-constructivist approach – to let children express their opinions about the activities and the VLE;</b></li> <li>• <b>According to local privacy constraints and parental consents:</b> audio-recordings, pictures <b>of and/or</b> video-recording <b>during the implementation of the activities</b></li> <li>• <b>FG discussions: during and after the presentation of the VLE, during and after the activities.</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Day-long observations</b> at school (formal and informal moments) focused on <ul style="list-style-type: none"> <li>○ Linguistic and multilinguistic practices among peers or between peers and teachers (translanguaging /language brokering);</li> <li>○ Dialogues and conversations about diversity (language diversity, food, clothes, attitudes, ...);</li> <li>○ Relational dynamics (ethnic groups, non-ethnic subgroups).</li> </ul> </li> <li>• <b>Conversations and focus groups</b> aimed to elicit children's knowledge and opinions/views on the key topics addressed (cultural diversity, multilingualism, democracy, justice, fairness, equality...) and on the activities experienced during the ISOTIS intervention.</li> </ul>

Table 1.11 - *Monitoring system on parents - Tools and dimensions*

Parents	
<b>Pre-post</b>	
How: Methods/Instruments	What: Dimensions observed
<ul style="list-style-type: none"> <li>• <b>Questionnaire</b> A questionnaire was meant proposed to parents both at T1 and T2 (it was administered only in Italy in T1 ) Scales featured in the questionnaire:                             <ul style="list-style-type: none"> <li>○ Ad hoc items to explore the value parents gave to the maintenance their cultural traditions and heritage language and their language practices at home;</li> <li>○ Ad hoc items to explore their opinions about the intervention and the VLE.</li> </ul> </li> <li>• <b>Focus groups &amp; interviews</b> FGs with parents and or individual interviews allowed for more in-depth exploration of the same topics addressed by the questionnaire. The guidelines used a video-cued strategy to trigger a conversation with parents.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>The Parent Questionnaire</b> aimed to collect and map information on the languages spoken by parents and children, the value parents attached to the maintenance of their cultural traditions and heritage language, their language practices at home, their choices to support language maintenance and their expectations towards the school, as well as ICT use at home;</li> <li>• <b>Focus groups and/or Individual interviews</b> with parents explore in-depth what parents thought about multilingualism and multiculturalism at home and at school (parents' attitudes, ideas, also emotions towards L1 use and maintenance and the value they attached to multilingualism) and on the main educational challenges, complexities, resources related to it, both at school and at home.</li> </ul>
<b>During</b>	
How: Methods/Instruments	What: Dimensions observed
<ul style="list-style-type: none"> <li>• <b>Focus Group discussion after the presentation of the VLE;</b></li> <li>• <b>Interviews</b> to 3-4 selected 'key-parents' per class about the intervention and the use of the VLE.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Focus group</b> during a meeting presenting the VLE was to observe first reactions to the VLE interface and functionalities and to elicit ideas on ICT, the use of the VLE in the classroom and at home (possibilities, constrains, opinions)</li> </ul>

- |  |                                                                                                                                                                                                                                 |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <ul style="list-style-type: none"><li>• <b>Interviews</b> with key parents collected family stories and in-depth narratives on their experience with multilingualism and on the ISOTIS activities involving children.</li></ul> |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

On the VLE, a cross-WP and cross-country final evaluation was required from all partners, allowing for a coordinated overall evaluation on the real use, the user opinions, the role played by the VLE during the interventions and possible enhancements.(see Section A, Chapter 6).

#### 1.7.5.1 The research outcomes

The main outcomes of the research planned by the interventions, were the following:

- Changes produced by the intervention and long-term activity sustainability (according to the professionals, a final reflection on how to carry at least part of the activities in the future, without the researchers);
- The VLE and all content (videos, theoretical background, digital books, observation prompts and materials; guidelines for learning experiences) was refined after the implementation and included the documentation of the implemented activities;
- The dissemination of the results of the research and the VLE resources (synergies with WP7) , in a first step with the final reports of the interventions with an embedded link to the digital resources used in local contexts and to the documentation, in order to facilitate the dissemination of the resources and the experiences conducted in each site.

Regarding the implemented activities, WP4 partners provided multimedia **documentary/reportages of some of the implemented activities (*in action*)** using the documentation collected during the work process, from the co-design phase with professionals to the implementation and post-evaluation phase. The documentation consists of texts (observation), audio recordings, pictures and video-recordings, participants-produced material, etc. The collection of visual documentation (pictures and videos) was optional for partners, depending on Privacy local regulations. The digital presentations or e-books formed multimedia documentaries/reportages for a number of good examples, briefly illustrating the process on how the activities were co-created and realized, aimed at making the experience of the participants visible. They were uploaded onto the platform in the resource section, in connection to the activity guidelines, based on theory, for further sharing with professionals who will use the platform, bridging the transition 'from theory to practice' and for dissemination purposes.

## 1.7.6 Ethics and data management

### 1.7.6.1 Data collection, storage and use

National teams were asked to ensure that (1) the European General Data Protection Regulation (Reg. EU 2016/679) which applies across the European Union (including the United Kingdom); (2) relevant national legal and ethical requirements; (3) the standards described in the ISOTIS data management were fully met during this task. Informed consent was required for all participants (i.e., information sources) and anonymity of participants was guaranteed whenever possible.

### 1.7.6.2 Data from interviews, focus groups, observations

Anonymized research data from interviews, focus groups, observations were stored at secure servers at University of Milan-Bicocca for a minimal retention period of 10 years after publication. Following the Consortium Agreement, all ISOTIS partners were granted unconditional access to anonymized data of their own countries. Access to the anonymized data of other countries was and will be granted based on an approved analysis and publication plan and in close collaboration with the particular countries. In addition, anonymized research data is be made available for reuse by other researchers, in line with the open access policy of the European Union.

### 1.7.6.3 Audio, video and user-generated content

A Privacy Policy (Section A Chapter 4) document was agreed on among all the partners participating in the VLE-based interventions.

Audio-recordings, video-recordings, pictures, user-generated content (eg. children's drawings), by children, parents and teachers was collected and used only after explicit consent by all participants (teachers and parents).

Anonymization was guaranteed by erasing names from all transcripts; if required by participants, a system of blurring faces from pictures or videos was applied.

The documentation was collected for research purposes: final reports and publications on Open Access Journals as requested by EU regulations on Horizon 2020 projects.

### 1.7.6.4 VLE Data Management Policy

The ISOTIS VLE is entirely based on Open Source Software (OSS) which grants users different rights, including the possibility to study and improve it to fit specific needs in the best possible way. Beyond that, the use of OSS is encouraged by many governmental



and non-governmental institutions to leverage the possibility of reusing existing software, with benefits that are both economical (fewer licensing costs) and organizational (transparency, scalability, maintainability, security).

**The use of OSS allowed the ISOTIS team to provide a self-hosted, privacy-oriented environment** installable on private servers and accessible only to those directly involved in the project.

Data collected and stored by the means of the VLE activities will be archived in a secure infrastructure based at The University of Milan-Bicocca. Backups of the whole platform will be stored on secure servers in different locations, in order to prevent data losses and to make disaster recovery more efficient.

See Section A - Chapter 4 for a detailed presentation of the VLE privacy policy and data protection.

## 2 COUNTRY REPORT: The Netherlands

Mirjam Pardijs, Jerry Andriessen, Wise & Munro, The Haag

### 2.1 Introduction

For two consecutive years, Wise & Munro (WM) worked together with the kindergarten section of a primary school in The Hague in order to pilot the design and execution of several intercultural activities in a multicultural context. This work can be considered as exploratory work for the VLE interventions of work package 4. In this report, we will report on this piloting work, the main lessons learnt and the results.

### 2.2 Overall objectives of piloting work

Most young children are not aware of their own or others' cultures. As Seele (2012, p.312) states quite clearly: "children themselves, just as most adults, have no elaborated or consciously reflected opinion or theory about ethnicity that could easily be articulated. Rather it gains importance in concrete interactions...in everyday practice" Culture, however, influences the language, behaviour, interaction styles, and expectations of young children. Moreover, they do notice and sometimes even reject people who do speak or act in unfamiliar ways. To counteract this tendency teachers can encourage children to construct and maintain open and flexible views of how people function in the world (Ramsey, 2004). Intercultural education is a term that has been widely used to name educational activities meant to develop the ability to live together with different people, sometimes even clearly linked to the goal of eliminating prejudice or racism (Cushner, 2009, Tupas, 2014). The term intercultural education already shows a focus on the relationship and the interaction between persons, thereby giving it an active and dynamic accent (as opposed to multicultural education, which is often seen as more descriptive in nature). Pedagogical goals related to intercultural education will therefore aim at providing opportunities to act on the differences and similarities that are encountered through interaction in (multicultural) classrooms (Portera, 2008).

The overall research goals for this piloting work were to contribute to better understand:

- what intercultural education is about in kindergarten classroom, what it can look like and what barriers can be encountered.
- the role of the teacher in designing, and facilitating intercultural activities in the classroom
- the role technology can play in intercultural activities, try this with existing (easy-to-use) technology, report back on workable ingredients of this technology and of the

implemented activities, highlighting important processes for the design of the VLE interventions.

## PART I -Site & Research design and plan

### 2.2.1 Presentation of the site

#### 2.2.1.1 Selection of site

The pilot school was selected because of our existing connections to the school and the kindergarten section of it. The pilot work started bottom up, with two teachers of one kindergarten classroom interested in addressing the topic of (cultural) diversity in their classroom. From this interest, the management level of the school (headmaster, subhead master, internal supervisors) became involved. Several meetings were held in which goals and objectives were discussed and experiences from the first classroom were shared. This resulted in scaling up the collaboration for the second year of piloting, involving this time all kindergarten classrooms.

#### 2.2.1.2 Characteristics of the site:

The primary school in The Hague is a general public school, with around 300 students. The kindergarten (pre-primary) is integrated in the school, which means that children start school at age 4. Students mostly come from, but are not limited to, the area around the school, which is a middle class neighbourhood. Although the school from the outside looks like a dominantly 'white' school, there actually is a lot of cultural diversity and the inflow from families with non-Dutch backgrounds is growing every year. In each class there is a large number of children, with one or more parents, grandparents or other relatives from another country and/or cultural background, and children who are either raised multilingual (Dutch and other language(s)) or who's L1 is not Dutch, meaning they have to learn Dutch as L2 at school. There is no dominant group, the school could be described as 'super-diverse'.

When we started the pilot work in the school, there was not much attention for the (growing) diversity of the school population. In the school guide<sup>4</sup> for instance, there were only two very general policy statements regarding this topic, under the heading of the school mission and in the section on artistic development.

<sup>4</sup> Retrieved online on 10-8-2017 from school website – website contains name of the school and shall not be shared for privacy reasons.

*“School mission*

We respect norms and values of all and try to create unity from this diversity in which we value each other. Together.

*Artistic development*

We find it important that our students focus on artistic and cultural aspects that play a role in their world of living. That they acquire knowledge of the current artistic and cultural diversity and that they learn to understand and appreciate them.....”

An explicit pedagogical approach for dealing with diversity in the school therefore did not exist, it was up to individual teachers to find ways to approach their increasingly diverse classrooms and handle issues that might result from this diversity. One kindergarten teacher explained that she struggled with the two Russian children in her classroom who did not speak Dutch. How could she engage them in activities, in interactions? How to communicate with their parents?

Besides the language issues resulting from becoming a multilingual environment, understanding the different (cultural) backgrounds of the children as important resources for learning (e.g., for increasing cultural sensitivity, the value of multilingualism) depended very much on the individual view and competences of the teacher. Some kindergarten teachers had teaching experiences in International Schools and understood the need to address interculturality in their multicultural classrooms, while others lacked this kind of knowledge and experience, and were shy to act. Some even expressed the view that there is no need to address this topic at this young age, showcasing a colour-blind view on diversity.

The school is a good example of a multicultural environment that is not yet understood as such by the school (management and teachers) itself. The school however started to experience barriers and limitations that resulted from this approach, and experienced negative reactions of the parents about it. One teacher explained how new parents from Singapore were shocked when entering the (seemingly) white kindergarten classroom with their child, asking the teacher if and how their child would fit in. The teacher explained she did not know how to respond to this.

During the two years of pilot work in the kindergarten section of the school, the school started to acknowledge the changing population in the school and tried to address the topic of cultural diversity more purposeful in the school. They also became more aware of the multilingual environment the school had become and that they had to acquire more pedagogical knowledge about this in order to support all the children in their learning.

### 2.2.1.3 Characteristics of the research participants

During the first pilot year, we worked with two teachers and one kindergarten classroom. In the second-year piloting was scaled up, which meant that all kindergarten classrooms were involved (n=9), and all their teachers. However, for research purposes, we observed activities in three classrooms, interviewed two teachers (one teacher before and one teacher after the piloting period), and worked with a team of three teachers in co-designing the pilot project. We however evaluated how the technology was used for all of the classrooms by looking at how the technology was used during the project and at its end products.

The two teachers (one male, one female) involved in the first year were from Dutch origin. They were both relatively new at the school (male 2 years, female first year at the school), but they had several years of teaching experience (m=4, f=7).

In the specific pre-primary class (28 children, age 4-6) almost half of the kids were from families with other cultural backgrounds than the Dutch one. Most of the time, these were mixed families (e.g., mother Japanese and father Dutch, mother Norwegian and father Dutch), but there are also kids from homes with both parents from non-Dutch backgrounds (e.g., mother and father Turkish, mother and father Moroccan). Access to ICT at home was 100%.

The three classrooms in which we observed activities in the second pilot year were of similar make up, and all of their teachers (n=3), the teachers we interviewed and the teachers in the design team were of Dutch origin. We did not explicitly ask for years of experience in the second year of the work.

## 2.2.2 Phases of work

The piloting work consisted of two rounds of designing and trying out intercultural activities, that took place in two consecutive years. During the first year, these activities were situated in the context of a specially designed project (The Breakfast Project), lasting three weeks. During the second year, the activities were situated in the context of the first introductory theme of the year, which was called "Welcome to all". This theme lasted for six weeks.

Each year of piloting can be divided in three phases:

- the first phase consisted of discussing and deciding on the goals and outline of the pilot project with the teachers;
- the second phase of designing and executing the activities;

- and the third phase consisted of evaluation and reflection after the project and sharing the results further in the school.

In line with the overall design-based research approach in ISOTIS task 4.4, all three phases were setup as co-creation process between researcher and teachers, which means that ideas and principles from the ISOTIS project and frameworks are combined with the daily practice and expertise of the school and teachers to create a scenario for the pilot projects in which objectives, outcomes, desired behaviour, role of technology and evaluation approach are discussed (Andriessen & Pardijs, in preparation). During the execution of the scenario, the co-creation involved a continuous feedback loop through the activities (activity – feedback – implications for next activity), which was sometimes done face-to-face right after the activity, and sometimes via email later the same day. During the third phase, the co-creation consisted of the collaborative evaluation of the pilot as a whole, in which teachers and researcher participate from their own experience. The scenario and experiences during the execution are combined in order to understand what had happened, and the results can be used as input for an improved scenario for next intercultural activities or projects. Co-creation is constructive for the facilitation of collaboration between researchers and educational practitioners, because its goal lies in creating new knowledge together that has value and relevance for both worlds.

### **2.2.3 Ethical considerations**

As this work is considered to be piloting work, that could give us much insight into the daily practices in kindergarten classroom when dealing with cultural diversity, understanding also the possibilities of technology in this process, we wanted to collect as much (video, audio and observational) data as possible. During the first year of piloting (before GDPR), it was easy to inform parents and collect informed consents from them to be able to make video and audio recordings during classroom activities. During the second year, as a result of the new GDPR, awareness of parents concerning privacy issues had grown and that influenced the way we approached the research. Parents had been asked many times by the school for consent about the collection of information and data processes in the school as a result of GDPR, and we decided not to overload them for this project as well. So, we decided to keep the research less intrusive, and stick to (anonymous) observational note taking, and not record anything. We informed parents about the newly designed introductory theme, its aims and goals and the fact that a researcher could be present in the classroom to observe. For the teacher data (interviews, questionnaires) we collected informed consents from the teachers.

## **2.3 PART II – year 1**

### **2.3.1 Overview of procedures year 1: co-creation**

During the first year of piloting we established contact with two teachers of one kindergarten classroom. They were aware of the (growing) diversity in backgrounds of the children in their classroom, but had not developed ways to purposefully address this in the classroom yet. Although at least one of the teachers had previous teaching experience in a more evidently mixed school, her attention for the children's background in this classroom was up till now very limited.

Both of the teachers were enthusiastic about the positive pedagogical message of ISOTIS, and opened up their classroom and themselves as teachers for discussing and piloting activities that resulted from translating ISOTIS objectives and principles to daily classroom practice in a co-creational way.

Together we created a scenario for the project (including objectives, types of activities, e.g., group work, classroom discussions etc.), ideas for some specific activities (e.g., the start and final activity), time table) that would guide the teachers in developing the specific learning activities. In this general scenario, we also discussed the possible role of technology, requirements and decided on the specific tool that that would be used during this project. The researcher supported the teachers in understanding this new tool, preparing the tool for use and - as it was meant to be a tool for making a connection between the home environment and the classroom – also made sure all parents had access to the tool. During the project the researcher and teachers continued to discuss and evaluate the activities (evaluate and relate them to the goals), and after the project a more formal evaluation with the teachers took place in the form of two interviews. Results from this project were discussed with the management of the school and presented during a teacher meeting to all of the teachers of the school.

### **2.3.2 Project scenario**

#### **2.3.2.1 Brief description of the Breakfast project**

The breakfast project was designed as a three week-project for one kindergarten classroom (4-6 years old). For the school and specific classroom, it was a first step to introduce the topic of cultural diversity in the classroom and try to use this topic as resource for several learning activities.

The project was integrated with the other activities that were planned for that period. There was for instance the Easter celebration in school, which is always celebrated by

making each other breakfast and eating it together in the class. The breakfast project could be easily related to this. Besides that, the yearly school trip was already planned in that period and there were many days off. The activities for the breakfast project were planned in between already existing ones. In the three-week period, almost every school day one activity related to the breakfast project took place.

**Central activity:** During the three week period, several learning activities took place in the classroom. The project however started with an activity for parents and children at home: the children were asked about their breakfast, to take a picture of the breakfast and share this picture digitally by placing it on the Padlet (a shared platform for displaying pictures; see more on the rationale, role and type of technology used in section 7). Parents were asked for another input halfway the project. They were asked to share (again digitally) what they had for breakfast when they were young and explain about it.

These shared pictures were shown in the classroom and informed the activities in the classroom. The main recurrent activity was that of a classroom discussion during circle time about the pictures of the children's breakfasts, to discuss what they ate, and to use the pictures as resources to be able to talk about differences and similarities between the children. Through these discussions, the topic of (cultural) diversity could enter the classroom. During these circle time discussions, the teachers sometimes extended the discussion with small exercises (e.g., about favourite foods, types of cutlery used, or using the world map to learn where different dishes came from).

**Other activities the teachers designed in the project were:**

- Small group craft work: Children worked in small groups, collaborating in order to decide on and then craft a breakfast that the whole group liked. They used shopping flyers to cut out pictures of breakfast items and placed these on a paper plate, to represent their shared favourite breakfast. Groups then presented their breakfast to the whole class;
- Individual craft work: Children individually choose from printed out pictures of the parents' breakfasts what they liked best and presented this item in a craft activity focused on cutting and colouring;
- Whole class lessons: Three whole classroom lessons were designed by the teachers. The first one was about languages; the class and teacher made an inventory on languages that were spoken at home, and taught each other how to say the word breakfast (or related words) in all these languages. The second lesson was about learning to taste. Children learned about the different flavours (sour, sweet, salty and bitter) and tried to distinguish them by trying out several breakfast items. This lesson was a preparation of the final activity of making a short tasting movie (see below). The third lesson was a math lesson in which the class learned what a



bar chart was by making one on paper and in 3D using breakfast items and the number of children that had these items for breakfast in the morning;

- **Gymnastic lesson:** During a gymnastic lesson devoted to the project, children used gigantic chopsticks to move objects around, and actively learned about their and others (cultural) habits around clothes and food and eventually learned about the word culture, and what it means;
- **Tasting movie:** The project's final activity was making a short movie together with the children, in which they tasted and talked about a diversity of breakfast items that were made by the parents. The children discussed in small groups what it tasted like, where this breakfast item would come from, to which classmate it could be linked and if they liked it or not. The film was shown to the whole class as final activity of the breakfast project, as input for evaluation.

### 2.3.2.2 Responsible participants/design group

This project was designed by two teachers of the school, together with a researcher of WM (Wise & Munro, The Hague). The two teachers involved were the teachers of the specific pre-primary class. The teachers were the owners of the intervention that was the outcome of the co-creation activities. The head of the school and the other kindergarten teachers knew of the project, but they did not participate in discussions and in the design process. The outcome of this project was shared with the head teachers and three internal supervisors, in order to see if the project could be scaled up to other classes/levels. The project was also presented to the other teachers in the school, during a staff meeting.

### 2.3.2.3 Objectives

Three objectives were at the heart of the project:

- Making more of the cultural backgrounds of the children visible in the classroom and use these resources in activities. By doing this, both the children and the teachers would become more aware of their multicultural (and multilingual) environment and this could positively increase their cultural sensitivity. Furthermore, acknowledging more of the children's background could have a positive effect on how accepted the children feel in the classroom;
- Connecting the classroom to home environment: by starting the project with an activity that uses input from home, and sharing back to the home environment what happens during the project, a stronger and more positive connection is made between the home environment and the classroom. Parents can now see that their

(cultural) background is being acknowledged and is positively addressed in the classroom. This two-way path will be afforded by exploiting technology;

- Using input from home/cultural backgrounds for linking to other school subjects: by trying to make a link to other school subjects (e.g., early math, early literacy) the topic of cultural diversity is being integrated in the 'normal' school practice.

#### 2.3.2.4 Tangible outcomes

The tangible outcomes of this project were in the first place all the designed learning activities that would happen during the three weeks. These activities were written down in lesson plans, and could be re-used in next years or by other teachers.

Furthermore, at the end of the project there were the following tangible outcomes:

- First a (digital) collage of all the breakfast pictures (of the children and their parents);
- Two; a digital account of all the learning activities of the project in the form of pictures and products. These two artefacts could be used again in other projects or activities, which meant that the possibility for designing trajectories of intercultural activities was created;
- The third tangible outcome was the tasting movie. All of these tangible outcomes would be shared with parents during and at the end of the project.

#### 2.3.2.5 Desired behaviour during the project

The aim of this project was trying to stimulate purposeful interaction about cultural diversity in a classroom full of young children with a variety of (cultural) backgrounds, in order to increase understanding of each other and find ways to discuss topics such as differences and similarities with the children.

For the teachers involved desired behaviour in the classroom was: facilitating/making these interactions happen, stimulating children to participate in the interactions (to ask questions, to share their stories, to listen to each other), stimulating talk between the children during individual and group activities, and trying to integrate the topic of diversity in discussions during the whole class lessons.

For the children, desired behaviour during the project concerned sharing their stories, their experiences, listening to stories from the other children, and relate their own stories to stories and experiences shared by other kids.

### 2.3.2.6 Participants

The two teachers (one male, one female) involved were from Dutch origin. They were both relatively new at the school (male 2 years, female first year at the school), but they had several years of teaching experience (m=4, f=7).

In the specific pre-primary class (28 children, age 4-6) almost half of the kids were from families with other cultural backgrounds than the Dutch one. Most of the time, these were mixed families (e.g., mother Japanese and father Dutch, mother Norwegian and father Dutch), but there are also kids from homes with both parents from non-Dutch backgrounds (e.g., mother and father Turkish, mother and father Moroccan). Access to ICT at home was 100%.

### 2.3.2.7 Roles for technology & description of used technology

In designing and setting the goals for the project, the possible roles of technology in this project were also discussed. The first possible role for technology was found in facilitating the connection between the home environment and the classroom by offering easy multimedia sharing possibilities. In this way stories in the form of pictures, short clips or short descriptions could be easily shared from home to school/classroom and experiences from the classroom (in the form of pictures of products the children made, pictures taken during activities, short descriptions) could also be shared easily with home again. This two-way communication was deemed to be very important, because this could stimulate growing involvement and trust of parents/caretakers. In the classroom, another possible role for technology was seen in facilitating (reflective) classroom discussions on the pictures/stories to be shared from home by providing the opportunity to show the pictures in an easy way. Of course, offering a safe and closed digital environment was an important criterion, because the content that would be shared involved children.

The specific tool that was found to be able to do this and to provide a safe and closed environment was Padlet ([www.padlet.com](http://www.padlet.com)).

This existing tool for supporting creative collaboration could be used to create a safe/closed space for the classroom (a padlet or board) that could also be shared with parents. In this space all parents and children could upload their pictures/stories. Teachers were controllers of the classroom space and could use the space to share accounts of activities in the classroom (docs, pictures, short movies, links). The environment looked like an old school blackboard on which all pictures and other documents appear side by side. This board or padlet could be displayed on the digital whiteboard in the classroom and as such be used in classroom discussions and other activities. As the shared space was made up of one screen, lacking any kind of layering

or maps to choose or get lost in, Padlet was seen as very easy to learn and use. This made it possible for everyone to participate, as no elaborate technical skills were needed. Furthermore there was a mobile version of padlet available, which made uploading pictures taken with the phone very easy. We expected all parents and teachers to be able to use this tool, after receiving (written) instructions.

### **2.3.3 Evaluation approach of the project**

As this project was done as a pilot project in the first year of the ISOTIS project, no formal evaluation framework was there yet. We approached the evaluation very open and collected many different kinds of data to inform our piloting research goals:

- to better understand what intercultural education is about in kindergarten classroom, what it can look like and what barriers can be encountered.
- to better understand the role of the teacher in supporting and facilitating intercultural activities in the classroom
- to better understand the role technology can play in intercultural activities, try this with existing (easy-to-use) technology and report back on workable ingredients of this technology and important processes for the design of the VLE.

Open observations were made during all the activities and most classroom activities that were aimed at interacting with the children (circle time, classroom lessons) were videotaped and transcribed, to be able to focus on the interactions between teacher and children (micro-level). Furthermore, the two teachers involved were interviewed at the end of the project, to reflect with them on (success and their learnings from) the project.

### **2.3.4 Preparation approach, including communication, instructions, examples, meetings, other organisational matters**

The researcher supported the teachers in all preparatory activities and communication with parents, and during the project with uploading pictures/documents on the Padlet to share with parents what happened in the classroom. Teachers and researcher met a few times before the project, and during all project activities the researcher was present, always making observational notes as well as video-recordings. At the end of each activity there was time for brief reflections and discussing the next activity with the teacher and sometimes these formative evaluations were extended through email later that day. These discussions could inform the design of the next activities.

The project was explained to parents in a letter sent by email. All parents reacted positively. In a separate email the Padlet was explained, including a manual with a step-by-step procedure of creating an account and uploading a picture. The first request for

parents and children at home (taking a picture of the breakfast) was sent by email to the parents and was also mentioned in the classroom to the children. Reminders about the request were sent to parents using the WhatsApp group of the class. During the project, regular emails were sent to parents to remind them that they could find accounts of the classroom activities on the Padlet as well. The parents also received the tasting video as end product of the project. The communication with parents could be done in Dutch only, because proficiency of Dutch was sufficient in all home environments.

### **2.3.5 Results & Evaluation**

We organise our findings based on the three research questions that lead this piloting work.

#### **2.3.5.1 To better understand what intercultural education is about in kindergarten classroom, what it can look like and what barriers can be encountered.**

The start activity of the Breakfast project – sharing a picture of your breakfast – was meant to bring valuable resources from the home environment in the classroom, that could be used in learning activities. The first activity that was undertaken with these pictures was to discuss them in the group during circle time moments. The teachers thereby related to the interaction component of intercultural education described above. Three of these circle time discussions took place during the first week of the project. They were always planned in the morning, right after the collective start of the day, which was done by singing some songs, talking about what day it was and what would be the program of the day.

Classroom interaction in Dutch kindergarten classrooms is often very teacher centred, meaning that what seems to be a group interaction actually consists of several subsequent individual teacher-child interactions. We also saw this happen during most of the circle times about the breakfast pictures. The teacher interacted with one child about the picture he or she had shared, asking the child questions about what was on it. After a few questions, the teacher moved on to the next picture and the next child. After several of these interactions, circle time was over and the group started the next activity. For transforming these interactions into real opportunities for children to act on the differences and similarities that were encountered through these pictures, another step was needed in which these individual interactions are brought to the group or class level, making it relevant for all children and allowing interaction between children. This group level, where exchange and meaning making can take place is important to facilitate growing understanding of diversity.

We did see some instances in which a group level was reached based on these individual pictures. They were not part of the circle time discussions of the pictures, but part of another pre-designed activity. An example: One morning, the teacher – after the circle time discussion of the breakfast pictures on the digital screen in the way that was described above – started a math lesson about bar charts. The teacher explained the concept, after which together with the class a bar chart was created about different breakfast items that were part of the pictures of the children. Together they investigated how many of the children had a particular item for breakfast that day. The teacher depicted the results on paper and at the same time the children built a 3D bar chart using Lego blocks, to visualise the bar chart in real life. Through this activity, the individual experiences of the children were combined to create a classroom story, in which differences (the range of items) and similarities (the number of children that had the same item) between the children could be better understood.

The children were very proud and enthusiastic about sharing and seeing their own and the other children's pictures on the large screen. During many (off-task) moments we noticed children commenting on their own and the other pictures. Most of them were proactive in wanting to talk about their picture during the circle time discussions. The type of interaction depended very much on what kind of questions were asked by the teacher (we will elaborate on that further in 2), but in the responses of the children we could see a generic point: they were very keen on sharing stories of experiences related to this photo. We came to understand that these visual images of the breakfast were actually a trigger for sharing stories from home, so that investigating and comparing all of these stories touched on the essence of what intercultural education in kindergarten classrooms is about. As we have explained, this did not happen automatically, and in analysing what happened during the interactions, we came to understand more about the role of the teacher in this process.

When evaluating the breakfast project with the two teachers they indicated that it was exactly this relation to the lives of children that made this project very worthwhile for them. It is strange, one of the teachers explained, we know it is important to make all learning relevant for children and that linking it to their experiences is the way to do this, but then there are these educational methods we use in which activities are prescribed and you somehow forget about it.

#### 2.3.5.2 To better understand the role of the teacher in supporting and facilitating intercultural activities in the classroom

To better understand the role of the teacher in facilitating these intercultural activities, we choose to look at the micro level and analyse classroom interactions based on

transcribed protocols of these events. We came to see in what ways the teachers interacted with the children. This analysis is still ongoing, but on a general level we can say that the teachers do not automatically stimulate or facilitate classroom interaction on diversity issues. The personal experiences of the children that were shared in the form of pictures can be a very rich starting point for collaborative intercultural meaning making, but how to go from these individual pictures to interaction at the classroom level is – as we have already stipulated above - not easy.

Analysing the micro-level of these interactions helps us better understand the challenges teachers are faced with, and what kind of teacher behaviour stimulates or prohibits intercultural meaning making. We will describe a number of recurrent teacher behaviours, that show us some of the challenges of engaging in interaction during designed intercultural activities.

### **Children as expert of their cultural background**

One of the goals of the breakfast project was to bring more of the cultural backgrounds of the children into the classroom, but at sometimes this goal was taken too literally by the teachers. We saw two recurrent practices:

- during the circle time discussions about the breakfast project we saw that the teachers tended to focus more on the children from families with different or minority (cultural and linguistic) backgrounds and ignored the children with a Dutch background (the majority culture) altogether;
- The teachers also inclined to address this cultural background quite directly with the children, and even more, approached them from time to time as experts of their assumed cultural background.

For instance: two children with mothers from Japan were asked about typical Japanese food. They were silent for quite a long time before one child softly stated: vegetables. The teacher in surprise repeated this answer and repeated his question, but now to the whole class: what else was typical Japanese food. One of the other children answered with sushi. The teacher reacted more pleased and then summarized that now they had discovered two things that were not from the Netherlands, but from abroad: sushi and vegetables. The teacher then moved onto a child with a mother from Norway, asking him what typical Norwegian food was. The child stayed silent, even after two repeated questions from the teacher.

This example shows us a teacher trying to interact with the children about their backgrounds through the topic of food, but we can immediately see that the way the teacher tries to have this conversation is too direct and assumes a lot of knowledge and awareness of the children concerning their backgrounds. This is however not what they

are experts about, they are experts about their stories and experiences, which can be addressed much better through their shared pictures.

### **Knowledge focused interaction**

Many of the circle time interactions around the shared pictures could be characterised as knowledge-focused. By this we mean that the questions that were asked by the teachers aimed at some kind of knowledge transfer by learning of 'facts'. An example: when discussing one of the pictures, the teacher noticed the child was eating a baguette. The teacher asked the class who knew the origin country of the baguette. One of the children responded with Morocco. This child's family came from Morocco. The teacher responded with no, that is not correct, but you are right, in Morocco they also have very special bread. Another child said: France. The teacher confirmed this answer: yes, that is correct. The teacher then moved on to the next picture.

In this example we might have seen a sign of how the intercultural processes in a child could look like: with his response (Morocco), the child seems to relate what he sees on the picture of his classmate to his own experiences with similar kind of bread related to this family's origin. The focus of the teacher is however on getting the correct (in the teachers eyes) answer to the question, so the child's answer is coined as incorrect. After the right answer is provided, the teacher moved on and did not come back to what was said before.

In general, we noticed that the kind of questions the teachers asked about the shared pictures were very fact-oriented, and missed the layer of sharing experiences, practices or stories that related to these pictures. The teachers stayed very focused on the breakfast, asking what is was the children were eating, asking the children to describe the pictures instead of using the picture as starting point for sharing stories about them. We already saw that the children themselves were very much inclined to reach this layer of sharing stories and experiences. Many questions were answered by telling something about what they had experienced with their grandparents or done with their parents.

### **Missed opportunities**

The example above also shows us something about the many opportunities for sharing stories and learning about each other that occurred in the circle time discussions about the shared pictures. The child that responded with Morocco revealed an insight into his thinking and relating. In the response of the teacher, we can see some acknowledgement of this, but at the same time a missed opportunity: the child was not really given space for explaining his answer, for example by sharing a story or experience that could be used in the *intercultural* meaning making that could be going on. This type of missed opportunities happened very often; children willing or trying to share a story or



experience, and the teachers ignoring or missing this because they were more focused on getting the right answer or following their line of reasoning instead of being open to input from the children.

### **Use of stereotypes**

Another characteristic of the classroom interactions was the frequent use of stereotypes or simplifications. For example: in discussing with the children on the origins of certain types of food, the teacher only referred to the stereotypical examples of foods related to certain countries (e.g., pizza for Italy, sushi for Japan, shawarma for Turkey). Using such stereotypes can be seen as useful simplifications when dealing with young children. They may however evolve into cultural stereotypes when nothing else is added to them.

### **Teacher as learner**

We think that these recurrent patterns are related to each other and can possibly be linked to an underlying topic: teachers' conceptions of teaching or of being a teacher<sup>5</sup>. In much of the behaviour of the teachers we observed, we could see a particular (traditional) view on teaching being played out in practice: the teacher as the more/most knowledgeable, responsible for and actively leading the learning process of the children. The teachers displayed at many times to the children that they already knew of their diverse backgrounds, or even that they knew more about it. We could see this in the way in which children were addressed when discussing the pictures, but also in other activities. For example: when the teacher together with the class made an inventory of who also spoke other languages at home or with family members, the teacher actively approached the children of which she already knew this was the case. When other children also wanted to share about themselves (e.g., a child explained that she sometimes tried to talk English with her dad), this was not taken very seriously, and the teacher quickly moved on to one of the minority culture children again.

The focus on facts or knowledge transmission in the classroom interactions can also be seen as an instantiation of this traditional conception of teaching or of being a teacher. By focusing on factual knowledge in the interactions, the teacher was always in the lead. This approach however prohibited many possibilities to open up the classroom for meaningful intercultural interaction in which the children engaged in meaning making together. These processes seem to need another approach to teaching, and another role

<sup>5</sup> Brown, C. P., & Lan, Y.-C. (2015). A Qualitative Metasynthesis of How Early Educators in International Contexts Address Cultural Matters That Contrast With Developmentally Appropriate Practices. *Early Education and Development*, 26(1), 22–45. <https://doi.org/10.1080/10409289.2014.934176>.

of the teacher. At some occasions we could see a glimpse of what this might be. As next step to the inventory described in the example above, the teacher created with the children a document in which the word 'breakfast' was written down in many of the languages that were collected in the inventory. In this exercise, there was no way around it: the children were in the lead. They were the ones teaching to the teacher and their classmates how to say breakfast in Turkish, Arabic, Japanese, Norwegian, Spanish, English etc. And while they were making a document to collect these words, the teacher had to write this new word down. This created an even more challenging situation, because the children often did not know how to spell the word, and the teacher did not know this either. A situation arose in which all were learning and trying together. The teacher then handed over the role of teacher even more when she stimulated the children to try to pronounce the new word, thereby giving the child who brought in this word the role of evaluator, and asking him or her if '*we pronounce it correct*'. The teacher thereby was included explicitly as a member of the group of learners.

**2.3.5.3 To better understand the role technology can play in intercultural activities, try this with existing technology and report back on workable ingredients of this technology and important processes**

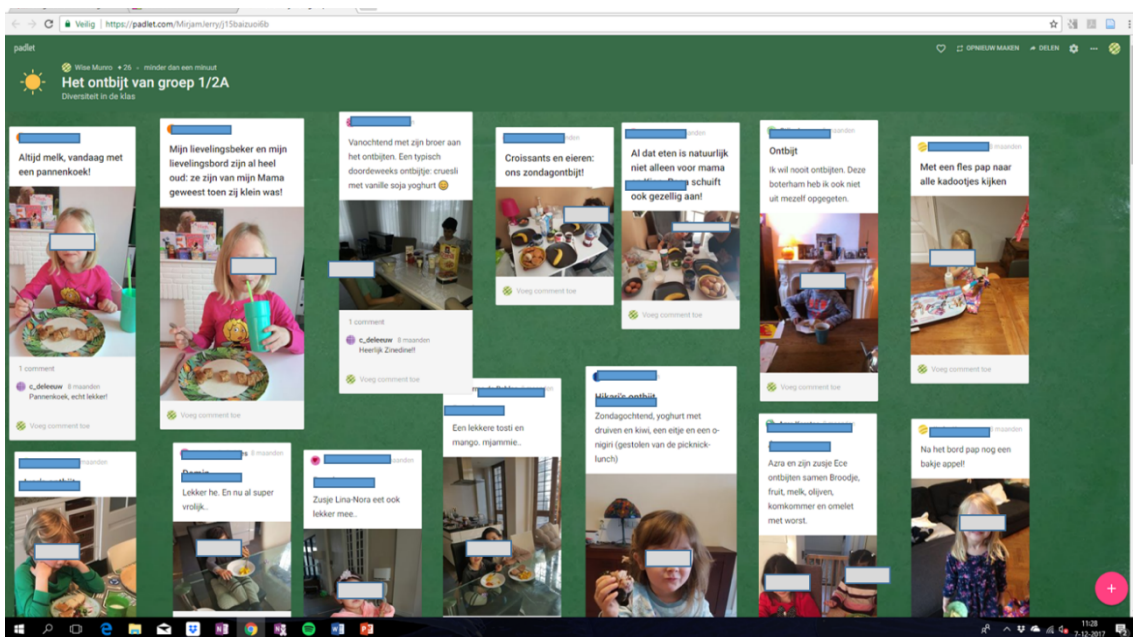
#### **Connection between home/school**

One of the possible roles of technology that was experimented with in this project was to use technology to make a *better connection between the home environment and school/classroom*. This 'better connection' was *operationalised* as using technology to create opportunities to share stories or pictures from home live with the classroom in order to use these shared resources in the classroom for meaning making and increased understanding about similarities and differences between the children. As first activity, the children (and their parents) were asked to digitally share a picture of their breakfast by placing it on the Padlet. Through these digitally shared pictures, it was argued, the home environment of the children could enter the classroom. During the project we came to see what it actually was that was being shared in this connection between home and school, and how this could possibly be a valuable resource to explore in the classroom.

When the pictures started to appear on the padlet (see figure 1), one thing that we noticed was that the first two pictures (of the same child) that were placed on the Padlet seemed to set the tone for the rest. The assignment asked for a picture of the breakfast, but the first photos that were shared displayed a scene with the child, at the dinner table, with the breakfast there in front of her; a picture taken during breakfast, showing the activity of having breakfast. This picture consisted of more than a thing ('a breakfast'), it

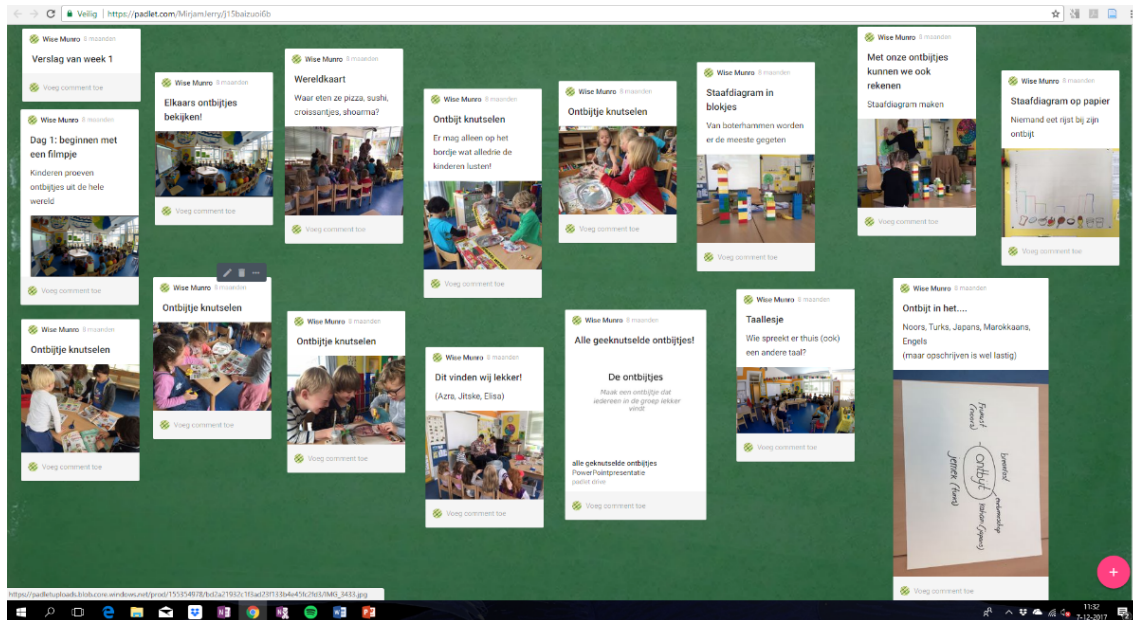
actually represented a practice. The pictures that followed all had a similar make-up: they showed children that were having their breakfast. These pictures therefore showed not only what was eaten, but also how, where and who was eating it. Sometimes more people of the family were portrayed on the picture (siblings, parents). A short description was almost always added to the picture, and this description explained about what was eaten (e.g., “yoghurt with grapes, an egg and an o-nigri from yesterdays’ picnic”, when the picture was taken (“...our Sunday breakfast”) and who else was in the picture (“...together with his brother...”). We came to understand that through sharing these pictures from home, the children are faced with the notion that there are many ways of doing things. This made them very rich resources for engaging the children in meaningful intercultural exploration.

Figure 2.1 - Padlet with accounts of classroom activities



Creating a better connection between home and school was seen as a two-way path; letting home life enter in the classroom, but also sharing experiences from within the classroom with home. So during the three week project pictures were taken of classroom activities and the products that were created and they were uploaded on the same padlet board to share back to parents/caretakers what had happened in the classroom.

Figure 2.2 - Padlet with accounts of classroom activities



The researcher took an active part in making this part of the connection between home and school happen, by posting most of the accounts of the learning activities that took place in the classroom. For the two teachers this appeared not to be an obvious task. This might be because there already was a particular way in which the teachers shared stories from the classroom and that was in the weekly school newsletter that was sent out per email. They did report about the breakfast project in this newsletter. The newsletter was always accompanied by pictures. The way in which was shared about the breakfast project on the padlet, however, added another layer to the sharing that was already happening; it was object-focused, showing the products that were created in the classroom, and not only individual products that children would eventually took home, but also the collaborative products that usually remained in the classroom and were not very visible for parents.

### Use of padlet in the classroom: equality and diversity

The second possible role of the technology was seen in supporting reflective discussions in the classroom by being able to show what was shared on the digital board of the classroom.

The specific tool that was used during the breakfast project, Padlet, is a tool designed for supporting creative collaboration, and a board or padlet is seen as shared working space. A board is set up in a flat or one-dimensional way by default, meaning that there is no pre-defined hierarchy and also no complicated folder-structure that has to be understood before one could use it. Uploading pictures or documents to the board is

therefore extremely easy, because all the pictures are uploaded in the same screen, at the same time, next to each other. Users can freely move the pictures or other media files and organize them in a way that suits the task at hand.

During the breakfast project, however, we came to understand another benefit of this non-hierarchical or flat organisation of the pictures. Once the pictures started to appear on the board, a collection of different and similar breakfast practices was in the process of being created. The two teachers also uploaded their breakfast pictures, and these pictures also appeared between the pictures of the children, thereby showing the teacher – usually in the role of head of the class, meaning in a different hierarchical position than the children - as one of the group, engaged in the same practice as the children. When presenting the board on the digital whiteboard in the classroom, all the pictures were shown at the same time, not one after another, and what could be seen were all these children and teachers engaged in a *similar* practice (having breakfast) but at the same time it became clear that this practice could be done in a *variety of ways* showing different breakfast items, different places in the house, different people on the photos. *The board with all of the pictures displayed in this way, we came to understand, therefore made it possible for children to view and experience diversity and equality dimensions in one frame.* This affordance of the technology we consider as extremely powerful: to serve as a frame for further practices about diversity and equality *in the classroom.*

### **Easy to use & participation**

One of the requirements of the technology was ease of use for teachers in the classroom and parents at home. Although the researcher had set-up the padlet and prepared all materials (manuals, letters), to support the teachers in this process, both teachers logged in, uploaded their breakfast pictures and actively used the padlet in the classroom. Because the tool was new, the teachers had to learn navigation and use of padlet during the circle time discussions of the pictures, when the padlet was shown on the large digital board. They learned this ‘on the job’, meaning by trial and error during the discussion, and we saw many instances in which the children helped the teachers in this process (e.g. by clicking on one picture it was enlarged and could be investigated more closely with the children; one of the teachers did not know this and the children who had seen this already in the circle time discussion from the previous day, helped her discover this feature of the tool. This learning together aspect of using a new tool can be an important aspect of collaborative meaning making or knowledge creation, but at the same time a source of tension for teachers who believe they should be at any time be ‘in the lead’ in the classroom. For intercultural education to come to its full potential, however, we believe that teachers very much need a learning attitude themselves, as we have already discussed in previous results.

Besides easy to use for teachers, the tool should also be easy to use at home, for parents or caretakers and children. We can derive if this was the case for padlet from the participation rate (how many breakfast pictures were uploaded), and questions parents asked about the tool. When it comes to the number of breakfast pictures uploaded, padlet seemed to be easy to use. The question to share a breakfast picture was sent to parents in an email on a Thursday, together with a short manual on how to make an account on padlet and how to upload something on it. After only three days (the weekend) 80% of the parents/children had shared a picture. The remaining 20% followed a few days later. The researcher was contact person in case of technical questions and only received a hand-full of questions. They were mainly about where to find the mobile version of the tool, and about creating an account. Almost all parents used the mobile version to upload the breakfast picture, because of the ease to take a picture with the phone and being able to use it right away for uploading. We did see a drop in participation with the second request sent out after a week. Parents were asked to share a picture or short story about their breakfasts when they were their children's age. Only 1/3 of the parents did this. We think this drop in participation was probably not linked to usability of the tool, but could be more related to the increased complexity of the question. Parents had to do more to comply to this than to the first question. Instead of taking a picture and sharing it on the padlet, parents had to remember something about the past, find a visual image that would match it and upload this to the padlet. These three steps all involved more action, but also resulted in a greater variety of visual images that could be explored in the classroom. Parents shared images from google, a photo from a photo album, photos taken now, but displaying what they had for breakfast when they were young. Most of them included longer descriptions with the images, sharing stories from the past. Most of these shared images did not include people, except the photo from the album.

## **2.4 PART III – year 2**

### **2.4.1 Procedures**

The results from the first year of piloting were shared with all of the teachers of the school in a teacher meeting and the entire kindergarten section decided they wanted to continue with this topic, and design another intercultural project. For the second year, the procedure of designing, implementing and evaluating this project was slightly different to the first year as a result of the increased number of classrooms participating (n=9). The procedure was more in line with how projects/themes were prepared in the kindergarten section, so integrated with 'normal' practice in the school and not treated as separate from it. This on the one hand increased participation of all teachers, but on the other

hand made it more difficult to monitor if and how teachers implemented this intercultural lens in the execution of these activities.

#### **2.4.2 Project Scenario: brief description of the project**

During the second year, the breakfast project was scaled up and redesigned to become the 'welcome to all'- theme that would serve as introductory theme at the start of the school year. During six weeks, activities took place that aimed at creating an inclusive classroom in which all children would feel welcome. Sharing and discussing pictures from home through the use of Padlet, the start activity of the breakfast project of year 1, was still part of the program for all teachers and they continued to use Padlet for this. This was extended with a variety of other (classroom) activities such as interactive reading of books on intercultural themes, inviting parents in the classroom to read aloud in their mother tongue, show and tell activities with objects from home, and a lot of crafting activities (e.g., painting self-portrait with specific focus on skin colour nuances, building activities with model buildings from all over the world ). The different playing corners of the classroom were also dedicated to the theme and equipped with materials that aligned with it. The domestic corner for instance was designed as a travel agency in which children could book a holiday to countries they were related with, or became a restaurant serving food from all over the world. As it was the first theme after the holidays, a clear link was also made with the holiday and travels of the children during the holiday.

Most of the activities that were designed and executed during this year were not that different from common kindergarten activities, but what was different was the type and content of interaction that was aimed for through these activities, namely meaningful intercultural interaction in order to increase understanding of each other. Facilitating and engaging children in this interaction was seen as a deliberate task for the teachers during this theme. The focus of the observations that took place therefore also focused on understanding better how to engage children in these meaningful intercultural interactions.

Observations were made during the following activities

- Interactive book reading of multicultural and multilingual books  
The book "my colour, your colour" by Mylo Freeman was read out loud in two classes, the teachers interacted with the children about the content, underlying message of the book and related questions. One teacher also read a book in a made-up language to the children, and developed a drama-oriented activity for the children, in which the children re-enacted scenes from the book to increase understanding of the story;
- Circle time: learning about different countries

Classroom discussion led by the teacher in which the class learned about the country of origin of the family of two children (Singapore). The discussion was supported by information, pictures and food that was shared by one of the children's mother;

- (Grand)Parents tell stories in their mother tongue  
Parents or grandparents were invited in the classroom to read stories in their mother tongue. Observations were made during two instances of this activity; a mother read and sang a song in Bosnian language, and a grandparent told a story in Hindu. Classroom discussion led by the teacher took place afterwards. NB. This activity was simultaneously designed and executed in Italy and resulted in an activity on the VLE (<https://vle.isotis.org/mod/page/view.php?id=3742>);
- Activities related to skin colour  
Several activities related to skin colour were done in one classroom: e.g. finding matching skin colour cards during a dance activity, making large self-portraits in which children focused on creating the right skin colour;
- Comparing each other (small group activity)  
In a special section of the classroom (designed as a tent) two children at a time could explore each other's physical similarities and differences. Mirrors, measuring tape and skin colour cards could be used and posters showing all different shape and colour eyes, ears, hair, noses and mouths helped them in looking at each other. Children started the activity themselves, the teacher sometimes facilitated their investigations by asking several questions;
- Bear on a visit – classroom discussion about feeling welcome in school (Isotis WP2 – Child Study<sup>6</sup> activity that has been adapted for this project)  
Classroom lesson in which children discussed feeling welcome and belonging at school through a teacher led story of a bear that would visit their school. The bear came from another (fantasy) country, spoke another (fantasy) language and was used to different school rituals as the children were. Through the story of the bear children explored their own ideas and feelings and proposed actions to make the bear feel welcome in their classroom. The classroom lesson was followed up by making of a friend's book, in which children presented themselves in one page, which could be used by the bear, but also by (new) children to get to know everyone.

#### 2.4.2.1 Responsible (design) team

In the kindergarten section of the school, the school year is divided up into themes. A theme lasts for six weeks, and during that time, all curriculum domains are linked to that theme (e.g. literacy, math, motor skills, music etc.). Each theme is prepared by a small team of 2/3 kindergarten teachers and the coordinator of the kindergarten section. They

<sup>6</sup> D.2.5: Pastori G., Pagani V., Sarcinelli S., Technical report on the Child Interview study. Children's views on inclusion at school' - digital source available on Isotis.org.



specify overall goals, and sub goals for each of the domains, and they prepare all sorts of interesting activities, books and other suggestions for the other teachers to use in order to make a program for their classroom. Two weeks before the theme starts, all kindergarten teachers then receive the results of the work of this design team in the form of documents, and inspired by these documents, each teacher makes his or her own program for the six weeks. Teachers therefore have a lot of freedom to create activities that they would feel comfortable with, as long as they would still work on the objectives.

For the 'welcome to all!'- theme, the design team consisted of 2 kindergarten teachers and the kindergarten coordinator. The researcher joined this theme and participated in two of their design meetings. Further preparation was done via email, while the teachers of the design team prepared the documents for their fellow teachers. All activities of last year's breakfast project were shared and integrated in the documents, including the main lessons.

#### 2.4.2.2 Objectives

The general aim was to make sure that all children felt welcome and seen in the classroom. This was specified in four (intercultural) goals:

- Making more of the (cultural) backgrounds of the children visible in the classroom and open for investigation and interaction;
- Establishing a connection between home and school: use input from home as a starting point for activities in the classroom and share results and experiences with home in order to strengthening the relationship between home and school;
- Attention for multilingualism; recognizing (and using) the other languages that are present in the classroom through the children and their families;
- Involving the children in thinking about how everyone can feel welcome in the classroom and at school.

Besides these intercultural objectives set out for the whole period, the specific domains (e.g., literacy, math, music, motor development) also had their own objectives.

#### 2.4.2.3 Tangible outcomes

There were no tangible outcomes planned or obligatory for all teachers, as the teachers had a lot of freedom to fill in the activities during the theme. All classrooms were provided with their own padlet account to be used in making a connection with the home environment and to present accounts of activities in the classroom in order to create tangible and sharable outcomes of the theme. Besides that, the kindergarten teachers were used to work on very tangible products with the children during all the craft activities and exhibit these products in the classroom.

#### 2.4.2.4 Participants

Nine kindergarten classrooms with 17 teachers worked on the 'Welcome to all' theme. Observations took place in three classrooms, during the above-mentioned activities.

#### 2.4.2.5 Desired behaviour

Findings from the first piloting were shared with the teachers in the design team and the group discussed the topic of stimulating classroom interaction during the activities and the role of the teacher. In the classroom interactions, desired teacher behaviour would still be trying to stimulate exchange between the children, based on stories and experiences, and to reach a group level in the interactions. For children the desired behaviour was also still being able to share stories and experiences, and trying to actively link own stories to those of others.

#### 2.4.2.6 Technology

We decided to use Padlet again as tool for easy sharing and connecting between classroom and home environment, as the first experience with Padlet was very positive. Padlet updated its terms and conditions for free use, and limited the boards available, but we decided the number of boards that could be used was enough. The researcher continued to support the teachers in using this tool. For each classroom a Padlet account was created, and the teacher was the owner of the account. Instead of creating a personal login for each parent, we decided to simplify this even more by creating one parent account per classroom that could be used by all parents for uploading pictures or documents. This account was set up in a way that parents could only read and upload, but not delete items from the board. Teachers had full administrative rights. The Padlet account per classroom allowed the teachers to create 3 boards (shared spaces) during the theme. We provided teachers and parents with short manuals for using Padlet, and already created one general 'Welcome to all' board for each classroom. Teachers were free to explore and use their Padlet accounts as they wanted.

#### 2.4.2.7 Evaluation approach

The goal of this second pilot year was to collect more information on the three research goals:

- to better understand what intercultural education is about in kindergarten classroom, what it can look like and what barriers can be encountered;
- to better understand the role of the teacher in supporting and facilitating intercultural activities in the classroom;

- to better understand the role technology can play in intercultural activities, try this with existing (easy-to-use) technology and report back on workable ingredients of this technology and important processes for the design of the VLE.

The focus of this second year of piloting was on getting more insights in how teachers facilitated meaningful intercultural interaction with and between the children, during the activities in the classroom. We therefore observed in three classrooms during several whole classroom activities that were aimed at stimulating interaction with and between the children. Open observational notes were made during these activities, in which actions from the teachers were described, together with notes on how the interaction unfolded: how were children engaged and participating in the interactions, what type of interaction unfolded (e.g., group discussion, interactions between the teacher and one child), types of questions that were asked, what topics were addressed and in what way the group level was found in the interactions. Next to these observations directed at interaction, we continued to monitor the use the Padlet during the six weeks.

For a general evaluation, we interviewed two teachers after the theme ended, to look back and discuss their experiences. Besides that, we also created a short online questionnaire with six open questions that was distributed among all teachers. We also collected the preparatory documents developed by the design team.

#### 2.4.2.8 Preparation, communication, instructions etc.

The researcher participated in the design team and prepared Padlet accounts for all of the kindergarten classrooms. Parents were informed in several official school letters about the goals and content of the welcome to all theme, this was all initiated by the design team. The researcher provided the information and instruction about Padlet and a parent account per classroom.

### 2.4.3 Results and Evaluation

#### 2.4.3.1 To better understand what intercultural education is about in kindergarten classroom, what it can look like and what barriers can be encountered.

The results of the questionnaire (n=6), together with the interviews with two teachers after the project, showed us that teachers struggled to concretise these large intercultural goals that were set for this introductory theme in the classroom. They particularly found it difficult to address them in a way that made clear what this theme was about for the children. One of the teachers explained that for a theme like 'Winter' that was on the agenda for later in the year, they could make use of all the decorations in the classroom

to let this theme come to life for the children. The decorations in the classroom and the particular lay-out of the playing corners during the Welcome to all theme, however, were much too diverse to be understood as a whole. Teacher C.: *“We strive to arrange our classrooms in a way that shows instantly what it is we are working on during the theme, for this theme this was very difficult”*.

Although the activities that were suggested were found interesting by the other teachers, when trying to make their own program from it they missed a clear common thread for linking the activities to, that could also be easily understood by the children. The teachers (and the children) experienced it now as a collection of loosely related activities. To make all these intercultural activities more seen as a whole, and to fully exploit working in a theme-based way, according to the teachers, the ‘Welcome to all’ – concept had to be elaborated into a concrete story, that could be used in interaction with the children as well. Comparing this experience to the Breakfast-project from last year’s pilot work, we can see that in that (shorter) project, the activities all fell under the umbrella of *the breakfast*, which was an easy concept to relate to. In introducing a new activity (e.g., classroom lesson or craft work), the teacher always referred to it as part of *the breakfast project*, and even the children often used this term to refer to an activity or the whole project.

All of the teachers used the Padlet to collect pictures from the home environment, to be used as resources in the classroom. The teachers were suggested to start with the same question as in the breakfast project: to share a picture of the breakfast, and most of the teachers did this. But other topics were also explored: after the experience with the shared breakfast pictures, two teachers continued with another request: share a picture of your bed and a story of the bedtime ritual. Two other teachers also asked the children to share a picture of their favourite stuffed bear (or other animal), which related to the activity of Jonas the Bear (see *activities on the VLE*).

In the interviews with the teachers we talked about what happened in the classroom with these pictures. The teachers elaborated on how these pictures really opened up the world for the children. One of the teachers described how in discussing these pictures with the children, they explored predominantly in what way things were done at home. Coming to understand that there are many ways of doing things, is – according to this teacher – one of the main things young children learn in kindergarten. These resources were a great way of learning exactly that but departing from a very familiar place: that of an experience in the home environment. When asked how she choose the next topic: the bedtime ritual and sleeping arrangements, the teacher explained that – similar as the breakfast picture- a topic was chosen that all of the children can relate to, something all children do. When discussing what the relation is with cultural diversity, or how the

differences in cultural background can be addressed through these topics, both teachers indicated that they did not address this directly with the children. Sometimes a story came up in which the cultural background was talked about, but only in relation to the concrete experience.

What also came up in the interviews with the teachers, was how these shared resources supported the interaction with and involvement of children who were less proficient in Dutch. Although in the activities there was a big emphasis on creating room for classroom interaction, using the pictures and sometimes also tangible items that were brought from home to school, made it easier to involve also the children with lesser abilities to express themselves in Dutch. They could show the items or point to what was on the pictures, and in this way share their stories as well. We could call this the benefit of object-oriented work or interaction, that does not rely solely on linguistic contributions.

The activities that focused on the goal of giving attention to multilingualism in the classroom provided us with interesting insights in how children reacted to this topic. In most classrooms several parents were invited to come and read books or tell stories in their own (non-Dutch) language. The goal was to bring the children in contact with different languages and make them realize that these languages are actually close by, because they are related to their classmates. In one class children listened to stories in Bosnian, Italian, Hindu, Frisian and Canadian language. These visits were spread out through two weeks, in order to limit the new information and time of the activity, but also to allow the children to focus on one language per visit. While the (grand)parent was in the classroom, their child would sit next to them and was involved in many ways; translating some of the words, singing along, answering questions from the other children, and – very important – showing his or her relationship with this new language the children heard. These children were extremely proud to be there in front of the class, together with their parents. After listening to the story in this other language, the teacher engaged the children in discussing what they had heard, asking them how the language sounded and allowed for all kind of questions to come up and be asked to either the parents or their classmate. Relating the language to other the languages they already heard and knew was always part of the discussion. This last process not only stimulated the children in their thinking, but also remembered the children of all the languages that were present in the classroom. What was very apparent in these activities was the engagement of all children in the classroom, and in analysing the role of the teacher in these interactions we came to learn more about how to reach the group level in these activities that depart from individual experiences.

#### 2.4.3.2 To better understand the role of the teacher in supporting and facilitating intercultural activities in the classroom

While the first year of piloting gave us much insights in processes and specific teaching behaviour that were not always stimulating intercultural interaction involving all children, for this second year of piloting we also tried to understand practices that enticed meaningful intercultural interaction. From observations during several activities, we analysed what type of teacher behaviour stimulated engagement and meaningful interaction with and between the children.

**Bringing forward children's theories of the world.** One of the type of activities that we observed in a number of classrooms was interactive reading of storybooks. The design team had suggested a number of books that focused on topics related to cultural diversity and in at least two classrooms we observed the same book being read with the children. The book – My colour, your colour, by Milo Freeman, told the story of Tasha, a girl new in a classroom full of children from different parts of the world. In the book the children hear about these different backgrounds but are also presented with a problem: Tasha does not know how to visualise her background, because she has a bi-cultural background. She feels related to the backgrounds of two of her classmates but does not match either of their skin colours.

In the first class we observed during the book reading, we noticed that the teacher not spend much time to engage in interaction with the children during reading of the book, instead the teacher used the book as vehicle or preparation for the question to focus the interaction with the children around: which of the children in her class also had parents that came from a different country. The question was clearly related to the story in the book, thereby trying to make the book relevant for children. The question however also eliminated children from participating; not all children had parents or grandparents from other countries.

In the second class, a different picture unfolded during reading the same book. This teacher took the time to read the book, engaging the children in many of the storylines. An example: when a child with Chinese parents was presented and the book portrayed several items from this country, the teacher talked with the children about eating with chopsticks. This interaction was not just inventorying whether children ever tried this, she then asked children to explain *how* to eat with chopsticks, what was difficult or easy about it. Several of these interactions happened, in which children were allowed to share their own experiences, add to each other's stories, and were asked follow up questions by the teacher. When the main problem (see above) in the book was presented, we came to understand what the role of these follow up questions was. After the problem was

presented, the teacher asked the children if they understood what was going on, why Tasha could feel related to the background of two of her classmates but did not look like either of them. The children came up with some explanations. The teacher refrained from giving own ideas or reading through the storybook too quickly to find the answer there but took the time to stimulate children to investigate their ideas further and explicate them more clear. The goal was not so much finding the right answer, it was about bringing to the surface the diverse ideas of the children. In doing this, the teacher provided room for the children to investigate their own theories related to bi-culturality and skin colours. When the teacher finally continued with the book and the story revealed what was going on, this resonated with the children more and they expressed signs of real (engaged) understanding of topic (e.g., repeating lines from the book, expressions of recognition). The specific teacher behaviour we witnessed here was therefore both about not doing (e.g., *not* giving the answer) and about doing (e.g., asking further questions).

What also was very noticeable in this interaction was the absence of remarks related to order; the teacher allowed some chaos to arise as a result of engagement of children and their willingness to contribute to the conversation.

#### 2.4.3.3 To better understand the role technology can play in intercultural activities, try this with existing technology and report back on workable ingredients of this technology and important processes for the design of the VLE.

After the first very positive experience of 100% participation from parents and children in sharing pictures on the padlet during the breakfast project, we were very interested how participation would be now the project was scaled up to more classrooms. Furthermore, we were also interested if the type of pictures that were shared also were more diverse, or that the characteristics of the pictures from the breakfast project could also be seen in these classrooms.

Regarding participation rate for uploading pictures on the padlet, we saw a great diversity between the classrooms, ranging from only few pictures that were shared to complete collections of pictures from all children in the classroom on the padlet. In the breakfast project of year 1, parents were stimulated to share a picture in a number of ways: first through an official school letter explaining the project, then through the manual of padlet they received, which also included the request, again in the weekly newsletter sent out by the school and finally through multiple reminders in the WhatsApp group for parents of the classroom. This approach was not followed completely during this year, because teachers had much more freedom to design the specific activities, including the planning

of them during the six weeks. As a result not all teachers stimulated participation in parents the same way or in the same amount after the first request for sharing a picture was sent out. One of the teachers explained that after a week she noticed that not much pictures were uploaded on the padlet. The teacher then decided to show the parents how the pictures were used in the classroom by displaying the padlet board on the digital whiteboard during the morning walk in. Parents could see the pictures immediately when they entered the classroom with their children in the morning and the teacher also actively approached the parents to discuss the pictures and asking them to contribute also one for their child. The teacher noticed that the number of pictures shared for that classroom increased right away, and when the teacher sent out a second request to parents; to share pictures of the bedtime ritual and the child's bed, the teacher saw that more parents complied to this request.

When analysing the pictures of the padlet boards of all the classrooms we also see much more diversity in the images that were uploaded in and between the classrooms. For the breakfast picture, still the most frequently shared pictures consisted of children having their breakfast, but we also saw in each class a number of pictures containing only the breakfast items. In these pictures no people were displayed, and most times also no surroundings could be seen on the picture. We think that one explanation for an increase in these 'anonymous' pictures could be the increased consciousness of privacy issues from the parents as result of the GDPR.

What was noticeable was that not all teachers shared their breakfast picture this time, and the teachers that shared one almost all did this in the anonymous mode, only displaying the breakfast items. Only one teacher shared a full picture, displaying people (also her young child), and surroundings.

Besides the request for a breakfast picture, in some of the classrooms other pictures were collected as well, concerning bedtime rituals and favourite stuffed bears. In the figure below, an example of a padlet displaying pictures on bedtime rituals is shown. We can immediately see that this question resulted in more elaborate descriptive: actual stories were shared with the pictures. We can also see that in most cases more than one picture per child was shared, trying to capture the described rituals in images. We not only see the bed on the picture, but also brushing teeth, reading bedtime stories, playing with siblings or parents.

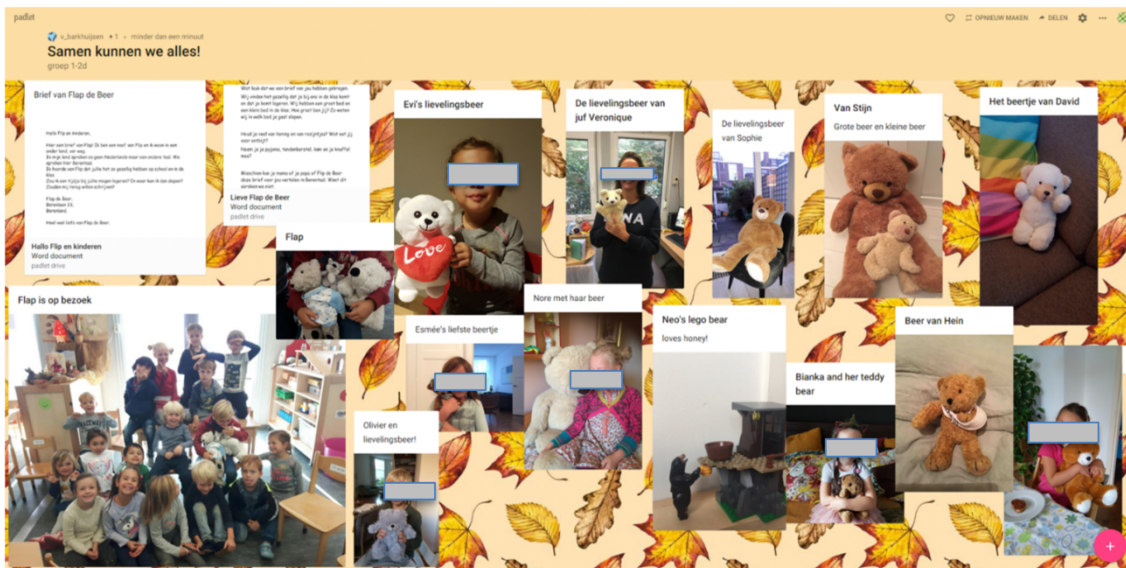


Figure 2.3 - Padlet on bedtime rituals



The padlet was also used to support classroom activities. One of the activities many classrooms undertook was Bear on a Visit. The class received a letter from Bear Flap, in which he announced his visit, but also shared his worries about how different he might feel because he did not speak their language, and was used to different rituals at his bear school. The class decided that Flip could feel more welcome if he knew that all the children loved bears and they decided to collect photos of the children with their favourite stuffed bear on the padlet to show him when he came to visit. Besides that, the class wrote a letter back to Flap, and when he came to visit, they took a class photo with him to make him feel part of the class. All these items were collected on the padlet, and resulted in a nice multimedia report of all the activities related to Bear on a visit.

Figure 2.4 - Padlet of activity Bear on a Visit



While using technology in the form of padlet to be able to collect resources from the home for use in the classroom, a number of teachers also created opportunities for children to bring items in physical form to the classroom for show and tell activities. One of the teacher used the 'story case', a small suitcase that a child took home and filled with items they wanted to show in the classroom. The teacher explained that what was brought to class differed greatly and that this was related to how involved parents were in the task. Sometimes children only took with them their favourite toys, while other times the suitcase consisted of items that related greatly to the child's background (e.g., Chinese tea, chopsticks, Chinese language examples in case of a child with Chinese parents). The teacher explained that normally children can only bring items from home the day before the holiday, and that children only play with these items in the classroom. Providing these opportunities to show and discuss these items in the class was new and seemed to result from the teacher's positive experiences with the shared pictures through padlet.

## 2.5 PART IV – Main lessons

During these two years of working with in the kindergarten section of the school, piloting all sorts of activities with intercultural aims related to diversity and equality, our research has resulted in a number of important lessons.

### The power of children's' experiences and stories

During these two years we (further) uncovered the power of using children's stories and experiences to design meaningful learning activities. Besides that they make education relevant for all children, these experiences and stories (i.e., resources) are the vehicles

for developing greater understanding of diversity and equality in the world, especially for young children. What appeared to be crucial here is to exploit daily experiences all children have, departing therefore from an equality perspective, but in understanding these experiences uncovering the diversity in them. Combining these two perspectives seemed to be the key to create meaningful opportunities for learning to understand the multicultural society of today.

There is a great need to build a *curriculum* on diversity, meaning a series of activities that build on each other and that have clear sense of direction and development. This would allow teachers to gain expertise and not have to search for relevant topics every time. It would be a great mistake to leave teachers only with a set of 'suggested activities' for them to integrate into the daily practice. The connection between the activities, and the embedding of the activities into teacher practice is a crucial prerequisite for inclusion and diversity education.

### **Meaningful intercultural interaction**

Not all teacher behaviour during well-designed activities leads to instances of meaningful intercultural interaction that allows children to better understand their multicultural world and their place in it. Crucial aspect here seems to be that the teacher behaviour should support the process from going from individual experiences and stories to meaning making on a group level. This is, especially in kindergarten classrooms with young children, not an easy task, and may involve a shift in thinking about what a teacher is and what teaching is about. Not having all the answers, and openly learning yourself appear to come with it, but also allowing children to reason, share, explain and connect ideas (correct and false). Although all the teachers of the classrooms willingly participate and designed interesting activities, in actually executing these activities and interacting with the children during these activities we uncovered many practices that countered the processes we want to stimulate, but also saw some very promising teaching practices that stimulated meaningful interaction in the classroom. Professional development of teachers should focus especially on this micro-level of classroom interaction, because through these practices intercultural competences (in all!) can develop.

### **Possibilities for technology**

Technology can play an important part in bridging the gap between home and school by being able to collect resources that can be accessed by both world. Photos can be shared digitally very easy these days and they appear to be a very rich source, and starting point for understanding complete practices. The specific technology we used in this project actually supported the process of combining an equality and diversity

perspective, because of its flat set-up. To design useful technology, the specific processes it needs to support should be clear.

Stimulating parents (or even teachers) to participate and use new technology is always hard work and a clear implementation strategy should be developed. In this project we learned that besides easy to use technology, easy to do activities also stimulated participation of parents. The question to share a breakfast photo could be met with one device and in one step. Showing parents what happens with these resources in the classroom could be a good incentive for participation. Aligning this strategy to the specific group of parents is important, but can also include a trial-and-error period in which several strategies are tried out.

## 3 COUNTRY REPORT: Italy

### 3.1 Introduction

In Italy, the VLE intervention on curriculum and pedagogy innovation to foster Global Competence and multilingualism took place in Milan (North Italy) in an urban area characterized by highly levels of cultural and social diversity. The fieldwork was carried out in a preschool class of children aged 4-5, and in three primary school classes, of children aged 7, 8, 10-11. The intervention followed a design-based approach: after an exploratory phase to gain in-depth knowledge of the school context and the four classes involved in the ISOTIS study, conducted by meeting teachers, children and parents, the researchers collaborated with the professionals to define the specific objectives and to co-design the learning experiences for each class. Learning experiences, supported by the implementation of the ISOTIS VLE, were mainly focused on the topics of Multilingual and Language Awareness Education, Education through Democracy and participatory research.

A peculiar feature of the Italian ISOTIS VLE intervention was the strong synergy of the research work conducted to foster innovation in the curriculum and educational practices (task 4.4), including aims and activities addressed to parents (Task 3.4) and the professionalization of the staff (task 5.4), because the Italian team was involved in all the three WPs. Moreover, the activity involving children in participatory research at school was conducted in synergy with the ISOTIS Child Study, for which the Italian team was the International Coordinator (see D2.4Pastori, G. et al, Technical Report on the Child interview study. Children's views on inclusion at school). This synergy allowed the coherent adoption of an ecological-systemic approach, coordinating different levels and components of the microsystems, the class and the family, and regarding the meso/exo-systems, the group of teachers (see also Report for Task 5.4, Chapter 3) and the family - school connection (as reported in D3.4)

### 3.2 Definition of the main topics addressed

The two main topics related multilingualism and Language Awareness education and the education *through* Democracy and participatory research through a children's voice based approach. The former regarded all four classes, while the latter involved just two classes (preschool and the 10-11 year olds).

**Language awareness** is one of the main plural approaches to language teaching and learning recommended in Europe (A Framework of Reference for pluralistic Approaches – FREPA, European Centre of Modern Languages). The teaching-learning activities concern all the languages present in the class (those included in the teaching curriculum and those that the school does not have the ambition to teach). It is based on a global, comparative approach between the various languages: the language of instruction, the students' mother tongues, curricular foreign languages, other languages present in the wider community and forms of communication.

Visibility, valorization and legitimation of all languages can already be started in infant-doffler centers and pre-school, expanding to primary school. In this way, the start of systematic learning of the majority language does not create a fracture with the symbolic world of the mother tongue and all children are sensitized to linguistic diversity early on.

According to this approach, what matters is not formal language “learning”, but an "education" to languages and through languages. At the preschool and primary school levels, this approach can be a first attempt to raise awareness about the multilingualism existing in a class and unveil the linguistic repertory and biography of each child.

Languages spoken by children gain visibility and legitimacy in the school context, they become objects to reflect on and tools to play with. The reflection can be progressively extended by including a wider variety of languages. It can be enriched and diversified with other codes of communication (iconic language, gestural language, braille, sign language, animal languages...) and by referring to the different forms of human communication (oral and written, stylistic registers, text genres).

The aims pursued within this approach concern:

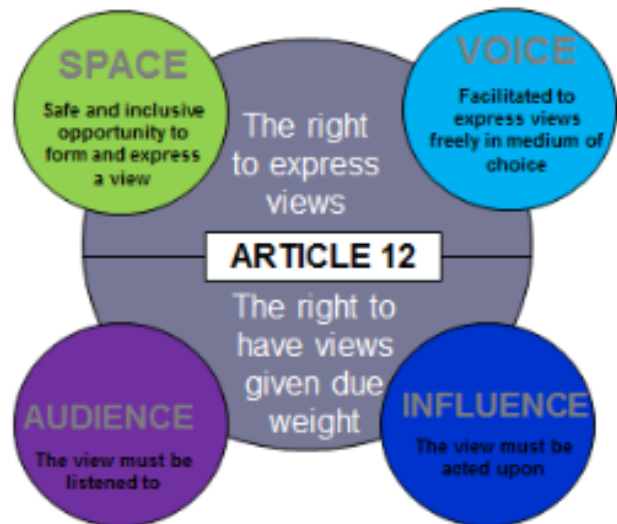
- the acquisition of awareness of the diversity of languages;
- the promotion of a linguistic culture, i.e. knowledge that contributes to understanding our contemporary multilingual and multicultural reality and to feeling part of a multilingual community;
- the development of positive representations, attitudes, interest for all languages as treasures, as tools for understanding and shaping the world, with all languages being equal;
- encouraging a harmonic personal relationship with all the languages of one's life;
- the acquisition of awareness and agency on one's own linguistic repertoires, practices, ways of learning languages;
- the development of meta-linguistic and meta-communicative skills by observing differences and similarities in the phonetic and structural characteristics of languages, by exploring different body movements, proximity and gestures linked to communication, etc.

The **children's voice theory** acknowledges how children's perspectives are essential to understand their lives from their unique viewpoint, especially in educational and school contexts where they represent one of the main groups of stakeholders (Grion & Cook-Sather, 2013; Fielding, 2004, 2012; Pastori, Pagani & Sarcinelli 2019, see D2.4). In this field of research and educational practice, there has been an important shift from a research paradigm focusing almost exclusively on children as mere research objects to a research paradigm that involves children as collaborators in the educational process and in the research process. A shift from an exclusive idea of research on children to an idea that includes research with children (Barker & Weller 2003) has occurred; as well as from a perspective of study on children to the consideration of children's perspective on the social world (Sommer, Samuelsson, Hundeide, 2010). In the pedagogical field in particular, it was highlighted that the paradigm shift requires not only an idea of research with children, but also specific attention to the educational impact and the priority of children's well-being in participating in research.

The studies undertaken must address issues of interest to children, of which they have experience, using methods of involvement strictly appropriate to the cognitive, emotional and social skills of children. Therefore, not only is there talk of "research with" children, but also of a "research for children" (Mayall, 2003; Mortari, 2009). Within both the children's rights and the research *with* and *for* children frameworks, it is crucial that *giving voice* to children is not enough (Komulainen, 2007; Mayall, 1994; Mortari & Mazzoni, 2010; Sarcinelli, 2015, p.6). Also illustrated by Welty and Lundy (2013; Lundy, 2007), to truly listen to children's perspectives and to allow children to have meaningful experience within research, it is essential to take their ideas into account and let them experience how their voices can influence the contexts they live in. Four separate factors require consideration (Figure 3.1):

- **Space:** 'creating an opportunity for involvement – a space in which children are encouraged to express their views' (Welty & Lundy, 2013: 2);
- **Voice:** recognizing children's many languages and using as many ways of listening as possible to ensure that children have the opportunity to explore and represent their perspectives in their own terms (Moskal & Tyrrell, 2015);
- **Audience:** ensuring children that their views are listened to by adults, especially by those who make decisions;
- **Influence:** ensuring that children's views are not only heard, but that they are taken seriously and, whenever possible, acted upon.

Figure 3.1 - Four factors allowing the involvement of children. Source: Welty & Lundy (2013)



This research model is similar in terms of values and the way in which participants are activated regarding the forms of *democratic education* and *active citizenship*, that have been highly valued since early childhood (OECD - Starting Strong, 2017). The transformative and participatory research process becomes an opportunity for the research participants to be actively and meaningfully engaged, experience citizenship, agency and, to all effects, it can represent a democratic education experience: education *about* democracy, *for* democracy and *through* democracy (Gollob et. al., 2010). Based on this definition, several scholars have pointed out (e.g. Dürr, 2005; Himmelmann, 2001; Johnny, 2005; Osler & Starkey, 1998; Osler, 2000) that the value of encouraging children – especially in school environments – to explore, develop and express their own values and opinions (while listening to and respecting other people’s points of view), and involving them in decision-making means recognizing their competence and their rights, and implies providing opportunities for children’s active participation and co-responsibility, thus, empowering them for their future role as citizens through direct experience of democracy as a way of life. At the educational level, therefore, the promotion of this form of research appears to be a desirable objective in order to promote school contexts that are deeply rooted in democratic values, inclusive, attentive to the well-being of all children and to the specific and unique perspective they offer on their own experience, regarding school and society.



## 3.3 PART I - SITES SELECTION & RESEARCH DESIGN AGREEMENT

### 3.3.1 Selection of sites

The selection of a school where conducting the Task 4.4 intervention in synergy with Tasks 3.4 and 5.4, followed three main and basic criteria:

- a significant presence of children with a diverse cultural and linguistic background (including some target group children from Maghreb);
- the availability of adequate ICT equipment (e.g., Wi-Fi connection, whiteboards, PCs or tablets...);
- the motivation and availability of the School Director and a group of teachers to participate in the research.

The choice fell on an *Istituto Comprensivo* (i.e., comprehensive institute, indicating a grouping of primary schools, lower secondary schools and pre-primary schools managed by a single School Director) in Milan, the biggest city in Northern Italy with one of the highest presences of immigrants in Italy. This was one of the schools contacted in an early stage (2016), during the preparation of the application that gave a letter of intent. A different *Istituto Comprensivo* (IC), located in Milan and characterized by a high presence of students of Chinese origin, was also considered and was available since the application phase. But this school was not chosen due to the cautious consideration about the possibility to support all languages on the ISOTIS VLE, including the Chinese language, the first language of a large part of the children attending this school.

The aims of the project and the selection criteria were discussed in a meeting in 2017 with the principal of the selected *Istituto Comprensivo* and two teachers in charge of coordinating the teaching staff respectively at the preschool and the primary school, where the intervention would be implemented and a copy of the ISOTIS project was shared.

After the School Director had selected and contacted the teachers of the classes to be involved in the intervention and negotiated their participation in the study, a second meeting with all the staff that would collaborate in the ISOTIS intervention was held (with the School Director, the professionals from the selected classrooms and the complete IT team of researchers) aimed at: a) introducing the research (aim, goals, methodology, timing); b) motivating the teachers by describing the work and its impact on the school-setting; c) presenting a methodological proposal for both the exploratory and the

intervention phases, and negotiate it with them if needed; d) assessing teachers' interest and motivation in taking part in the research.

### **3.3.2 Country context**

Over time, the significant presence of children and youths with immigrant origins in the Italian school system has created a complex and dynamic educational context, characterized by a plurality of languages and cultural diversity. Over 200 ethnic groups and an unknown number of languages characterize the school population (Ministry of Education, 2019).

Table 3.1 - *Non-Italian students in the Italian school system (Cesareo, 2019)*

**Table 1. NIC students in the Italian school system. 2006/07-2016/17. A.V., % incidence, increase in A.V.**

<i>School Year</i>	<i>Total</i>	<i>100 students</i>	<i>Increment in A.V.</i>
2006/07	501,420	5.6	-
2007/08	574,133	6.4	+72,713
2008/09	629,360	7.0	+55,227
2009/10	673,592	7.5	+44,232
2010/11	711,046	7.9	+37,454
2011/12	755,939	8.4	+44,893
2012/13	786,630	8.9	+30,691
2013/14	803,053	9.0	+16,423
2014/15	814,208	9.2	+11,155
2015/16	814,851	9.2	+643
2016/17	826,091	9.4	+11,240

*Source: ISMU analysis of MIUR data*

Since the beginning of *the migration phenomenon*, the centrality of linguistic issues was understood and a sequence of notices, decrees and guidelines provided by the Ministry of Education addressed several issues related to the growing multicultural and multilingual diversity of the school context, also in relation to Italian as a second language and mother tongue maintenance<sup>7</sup>. Researchers and professionals have contributed to elaborate intervention models and enact inclusive and facilitating strategies, aware that studying in Italian as second language (L2) is a complex process, in line with multilingual and multicultural needs. Nevertheless, some considerations can depict an average overall view of Italian schools, taking into consideration the fact that local, schools can be more or less engaged with multilingual and intercultural education:

- in front of growing explicit requests from the families to maintain mother language, the school system could not give adequate answers;
- the preservation and valorization of the first languages of students from different linguistic backgrounds frequently remained a background topic, not yet grasped by the school institution as a whole;
- the valorization of linguistic repertoires in the classes were present in intent declarations, without finding space in the curriculum, or was expressed in improvised teaching actions based on individual choice;
- the legal frameworks, the intent declarations and the orientations expressed in ministerial guidelines and decrees were not adequately implemented regarding

language policies (cf. e.g. Notices from the Ministry of Public Education 205/90 and 73/94; Unique Paper on Immigration [L. n.40 del 1998 e D. Lgs. del 25/7/1998]; Guidelines for Welcoming and Integrating Foreign Students issued in 2006 and in 2014 by the Ministry of Education, University and Research; New National Guidelines for the preschool and primary school Curriculum, 2012);

- the value given to multilingualism seemed to be a forgotten debate, involving only a minority of teachers; the pervasive monolingualism of the curriculum and the teaching practices, weak political endorsement and no central economic investments (Bettinelli, 2013; Cantù & Cuciniello, 2012; Luatti, 2015; Minardi, 2012; Sordella, 2015); teachers frequently did not have information and specific (pre- and in-service) professional development opportunities on the topics of multilingualism and multiculturalism, and did not know how to deal properly with the linguistic and cultural diversity that increasingly characterized Italian classrooms. They were also challenged by communicating with parents with migrant backgrounds and involving them in school life. As a result, mother tongues were generally invisible in the school context (with the sole exception of few languages considered 'valuable', such as English or French), and the richness of children's whole linguistic repertoire was often not considered and, consequently, valued. Moreover, the level of foreign language (nearly exclusively English) teaching was not supported enough (not reaching the EU 1+2), especially in the preschool and primary school segments.

A significant gap could be observed between educational practice and advances in multilingual studies and research, between Italian Legislation and the linguistic policy of the Council of Europe. Indeed, the theoretical and pedagogical coordinates of the Common European Framework of Reference for Languages (2001) and the Guide for the development and implementation for multilingual and intercultural education (2010, 2016) strongly expressed the importance of promoting multilingualism as a complex competence and in answer to the diversity of linguistic and cultural realities in Europe.

Regarding ICT competence, Italian teachers, especially in the pre and primary school sector, generally had scarce familiarity with technology and, even when they utilized ICTs in the teaching-learning process, their use was often limited to a basic level without using the full potential that ICTs may offer. This is in contrast with the National Guidelines from the Ministry of Education for early childhood and early education that indicate the need to teach technical skills also to digital natives, but above all, to offer digital education (Ministry of Education, 2018).

### 3.3.3 Characteristics of the sites

The *Istituto Comprensivo* was comprised of a preschool, two primary schools and a lower secondary school and met all the above-mentioned criteria. The IC selected was attended by over one thousand students (see Table 3.2): the preschool and the primary school (#1) were involved in the VLE intervention.

Table 3.2 - *Istituto Comprensivo organization - PTOF (Piano Triennale dell'Offerta Formativa) 2016/19*

	N. of classes	N. of enrolled children
<b>Preschool</b>	5	113
<b>Primary school #1</b>	20	525
<b>Primary school #2</b>	12	263
<b>Lower secondary school</b>	15	327
<b>Total</b>	<b>52</b>	<b>1228</b>

The preschool and the primary school (#1) involved in the ISOTIS VLE intervention were located in the same building (where an infant-toddler center is also hosted) in a culturally and highly diverse neighbourhood of Milan with a significant percentage of disadvantaged immigrant families (mainly Arabic and North African families, but not exclusively, see. Table 2)) and a few middle-class Italian families;

Table 3.3 - *Istituto Comprensivo demographic data - School Year 2018/19*

	N. of children enrolled	N. of non-Italophone children	% of non-Italophone children	Main national origins
<b>Preschool</b>	113	69	61%	Egypt, Philippines, Peru
<b>Primary school</b>	525	372	62%	Egypt, Philippines, Morocco

The school follows the regular Italian curriculum and is part of the extra-funds program of the Ministry of Education, targeting schools with a high percentage of immigrant population. In the PTOF (Piano Triennale dell'Offerta Formativa: Three-Year Educational

Plan) the school declared its pedagogical and educational offering and mission, featured by:

- the promotion of each child's potential;
- an open, constructive collaboration with families;
- the possibility for everyone who enters the school – students, professionals or parents – to feel welcome as a person and as a carrier of resources and enrichment for others;
- student development of awareness and skills in the use of the ICTs;
- the valorization of students' linguistic competences, in both L1 and in L2.

The School Director was in charge of coordinating all of the schools within the Institution, supported by one teacher per each school. There were several collective bodies that represented the IC:

- the overall institution (*Consiglio d'Istituto* – Institute Council, responsible for decisions relating to the balance sheet and the organization and planning of school activities);
- the overall teaching staff (*Collegio docenti* – Teacher Council, responsible for the educational planning, the elaboration of the PTOF - Piano Triennale dell'Offerta Formativa: Three-Year Educational Plan - and for the periodical review of the overall teaching activity to ensure that it conformed to the planned objectives);
- the teachers of the classes in the same grade (*Consiglio di interclasse* – Interclass Council);
- the teachers of each single class (*Consiglio di classe* – Class Council).

These last two boards formulate the educational and teaching plans for the classes, assess classes' teaching and discipline, organize innovation, remedial and support initiatives and carry out the periodic and final assessment of pupils.

### **3.4 Phases of the intervention workflow**

After the first meetings aimed to contact the School Director and to share the ISOTIS general goals and framework with the school staff participating to the research, the workflow followed the main phases presented in the general chapters of the report (Section A, Chapter 5, Section B Chapter 1): an exploratory phase, a co-design and implementation phase and a monitoring/evaluating phase throughout the whole process and at the end.

The exploratory phase was aimed at discovering the local microsystem and at least part of its components and features: the characteristics of the school setting and the specific classes involved in the research in relation to the teachers, children, and parents.

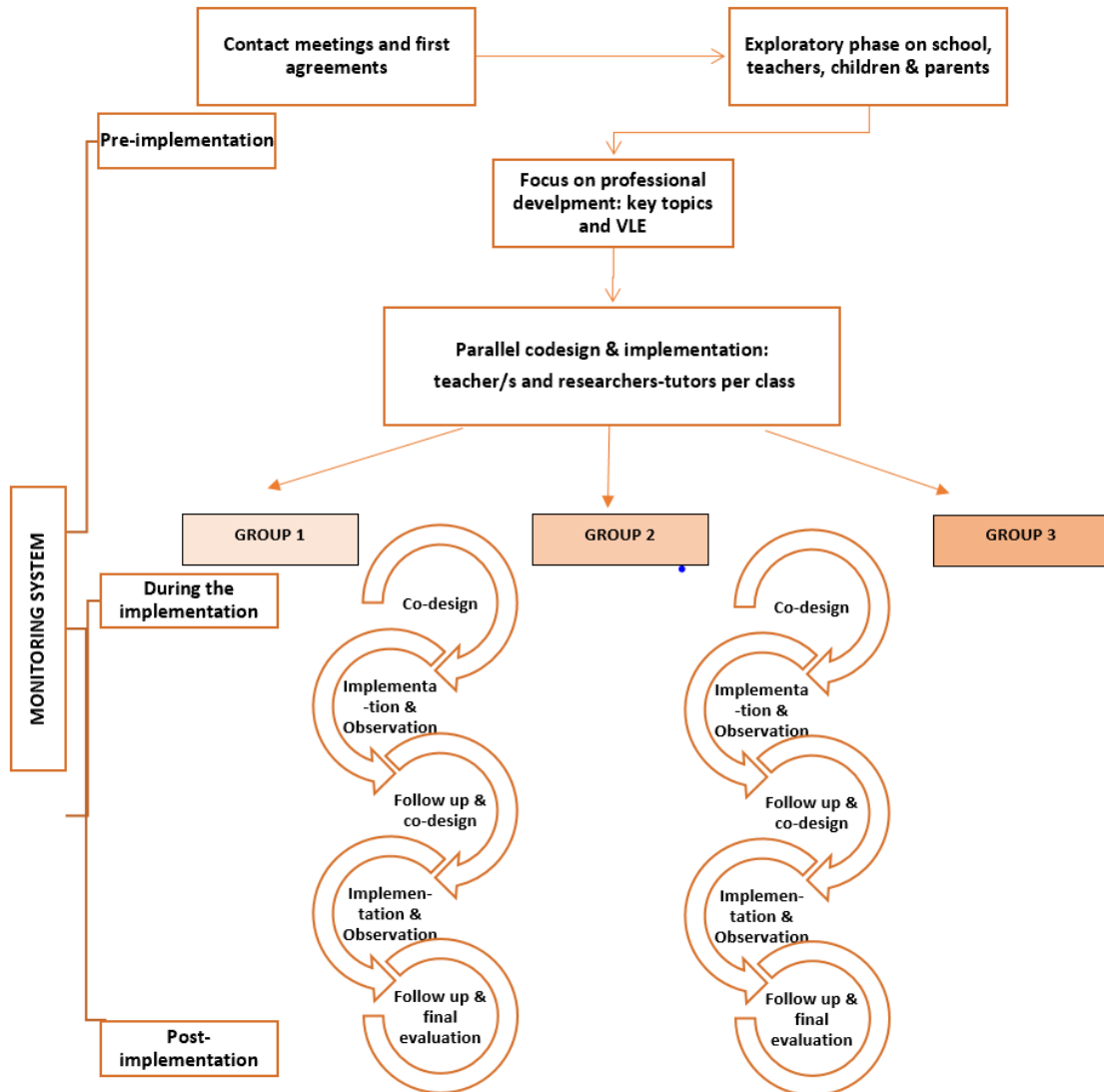
The exploratory phase ended with the agreement on the key topics for the intervention – multilingualism, language awareness and participatory research with children. It represented the foundation of the following phases and allowed adjustment of the intervention to the site characteristics, needs, interests and expectations.

In this regard, according to the local needs, a second phase, involving all the teachers, focused on professional development, aimed at raising teacher knowledge and awareness, both regarding multilingualism and strategies to approach the valorization of the languages, through a socio-linguistic approach, as well as introducing and starting to use the VLE and its functionalities, supported by the researchers.

Afterwards, the co-design and implementation phases occurred in a circular process, alternating design activities, follow up and feedback, design of the next steps and so on. This iterative cycle characterized the collaboration between the researchers and the teachers of each class: one researcher and a senior student were assigned as tutor and co-tutor of the class teacher/s. These figures were involved in collaborating in designing the learning experiences, monitoring and observing children during the experiences, collecting the documentation (visual and textual), exchanging views on the on-going activities to make decisions about the following steps give support for the VLE use with the children and parents and reflecting on the experience.

The monitoring system was part of the workflow as illustrated in the figure below.

Figure 3.2 - Overall workflow



### 3.5 Ethical considerations

All privacy and data protection requirements were met in accordance to the European regulation (GDPR) and the national regulation. During preparation for the implementation, we ensured all the research participants the protection of privacy and confidentiality of teachers, parents and children in the data collection (interviews, observations, questionnaires, pictures, videos), storage and usage, and in the use of the



VLE (see Section A, Chapter 4 and Section B, Chapter 1). Consent forms were collected from teachers and parents of all the classes involved.

Concerning teachers', children's and parents' logins, researchers provided each research participant with a password and a personal username. After the first login, the system required changing the username and password, in order to receive personal notifications and ensure privacy.

Children were asked to change only the password. The VLE allowed using images of animals to compose secure passwords, easier to remember and more "child-friendly". Many users, not only children, opted to use the animal icons.

The consent letters were collected before and after the entry into force of the GDPR, requiring considerable effort. Fortunately, in the school context where the research took place, the families did not raise particular concerns and if consent was not given to the use of photos and videos for dissemination purposes, the children were made unrecognizable in all visual documentation collected.

## 3.6 PART II - EXPLORATORY PHASE: Going in depth in the context and refining the intervention's goals and procedures

### 3.6.1 Subjects and methods

The exploratory phase required multimethod data collection, tailored to each type of subject (teachers, parents and children) in order to discover the characteristics of:

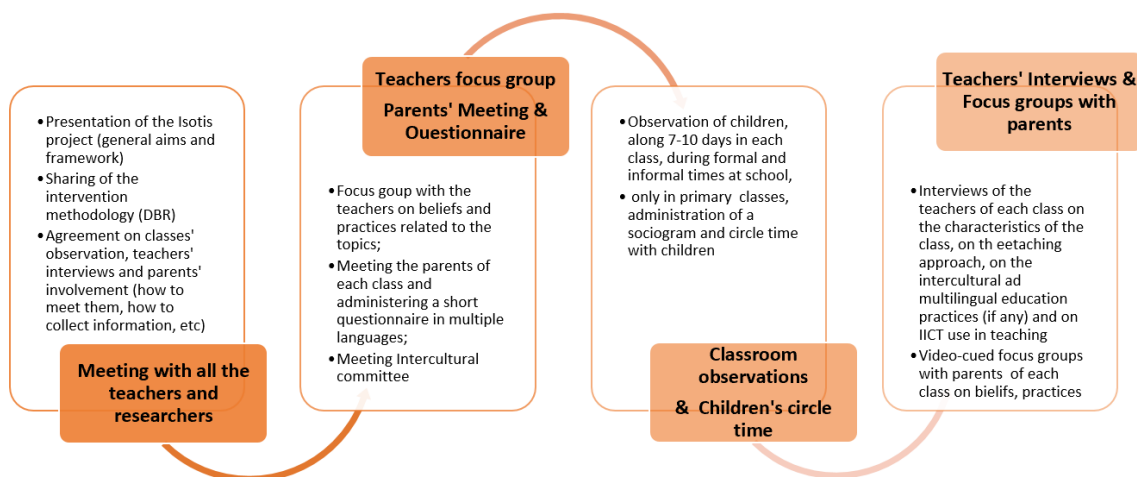
- **the school setting** was explored in relation to the educational offer and mission declared in the blueprint documents (like the PTOF), local resources (such as projects already implemented on the ISOTIS topics) and points of weakness (professional development needs, staff, ICT equipment and skills), through the analysis of school documentation, conversations with the School Director and the teacher coordinators;
- **the teachers of the classes involved** in the study, namely teacher values, beliefs, attitudes, skills, educational practices and strategies, teaching approach and relationship with the children, educational concerns and doubts, motivations and interests, in general and related to the key ISOTIS topics, elicited through interviews (one-to-one or teaching staff per class, max 3) and focus groups, as well as classroom observations;

- **the children of the classes involved:** the composition of the classes, the social climate and relationships, the children’s way of dealing with cultural, linguistic & religious diversity and talking about it, children’s linguistic practices (use of the mother tongue at school, translanguaging, language brokering), observing children’s spontaneous conversations and interactions during formal and informal times at school. In the primary school only, we also conducted stimulated conversations (circle time) and administered a simple sociogram (*The flower of friendship* ), also after the intervention (in two classes with children aged 7 and 10-11);
- **the parents of the classes involved,** meaning their language repertoires, linguistic practices, beliefs, concerns and convictions in relation to multilingualism, children’s bilingualism, and their expectations towards the school regarding language support and intercultural education. The first survey was administered using a brief questionnaire offered in 6 languages (Italian, English, Spanish, French, Arabic, Portuguese), in addition to conducting a video-cued focus groups (one per class), offering a snack and providing service to entertain children also open to siblings, in order to facilitate parent participation.

### 3.6.2 Overview of the procedures

The figure below provides the exploratory phase workflow.

Figure 3.3 - *Exploratory phase workflow*



The table below describes each step of the work conducted during the exploratory phase and the aims.

Table 3.4 - Overview of meetings, aims and tools

OVERVIEW OF MEETINGS, AIMS AND TOOLS September 2017-May 2018
<b>EXPLORING THE SCHOOL</b>
<p>(1) Meeting (n° 2) with the principal and selection of the classes:</p> <p><b>Goals:</b> collect some first information about the school and the school staff, introduce the research (aims and goals, methodology, timing).</p> <p><b>Procedures:</b> the P.I. met the School Director to negotiate the classes and the teachers to be involved in the study.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>(2) Document analysis:</p> <p><b>Goal:</b> describe the pedagogical philosophy and education mission and offer as declared in the official school guidelines</p> <p><b>Procedure:</b> Consult the <i>Istituto Comprensivo</i> PTOF (i.e., <b>Three-year Educational Offer Plan</b>), the official, public document that illustrates the school educational offering</p> <p>(3) <b>Conversations</b> with the School Director and teachers coordinating the preschool and primary school staff.</p> <p><b>Goal:</b> understand the School Director's and teacher coordinators perception of the school context, teacher motivation and competences and collect information on past and on-going projects on multiculturalism, multilingualism and ICT teaching and learning.</p> <p><b>Procedures:</b> informal conversations during the pre-intervention phase, but also during the intervention implementation.</p>
<b>GETTING TO KNOW THE TEACHERS</b>
<p>(4) <b>Meeting (n° 1) with the teachers involved in the study (WP3, 4, 5):</b> a formal meeting with the School Director, the professionals from the selected classes and the IT-team group of researchers was held on the 1<sup>st</sup> of February 2018 aimed at: Introducing the research (aims and goals, methodology, timing);</p>

Motivating the teachers by describing our work and its expected impact for the school setting; Negotiating the methodology with the teachers; Engaging them as key mediators in order to contact and involve the families.

- 

**Interviews (n° 5) with all the teachers involved** in the intervention divided per class (May-June 2018, Annex B). The colleagues from the same class took part in the interview as well. The interview was meant to elicit teacher beliefs, attitudes, strategies and doubts on the same above-listed topics. A central part of the interview was also a presentation of the children of the class. An interview was conducted also with the teacher who has the role of promoting and supporting multi-media technologies and communication in the school. This teacher was involved in the research to support the other teachers.

**Focus group (n°1) with all the teachers:**

**Goal:** to observe and describe teacher ideas and practices about: Reception; IT as L2; Valorizing L1; Uses of ITC.

**Procedure** after filling in individual questionnaires based on indicators from "Is my school inclusive and intercultural? Questions and indicators for (self)observation " (Favaro, 2013), a focus group was conducted on the following topics: reception, Italian as L2, enhancement of mother tongues, use of ITCs in teaching.

**Ethnographic field observation** (May 2018 - See Annex A).

**Goal:** to observe and describe: Pedagogical approaches; Relationships between colleagues, between teachers and students and among children; Practices in dealing with multiculturalism and multilingualism; If and how ICT was used in the teaching-learning process.

**Procedure:** Each researcher spent one week in the class. Both participant and non-participant observations were made using common observation guidelines and a template for the observation record.

## GETTING TO KNOW THE CHILDREN

**Ethnographic field observation** (May 2018 - See Annex A).

**Goal:** To observe and describe:

- The relationships between teachers and children, both Italian and from different cultural backgrounds; The practices of welcoming newly arrived students (where

possible); Children's linguistic practices using their mother tongues, in mutual support with forms of language brokering; Children's discourses about languages, linguistic and cultural diversity, and identity issues.

•

**Procedure:** We spent one week in each class to better observe: Linguistic and multilingual practices among peers or between peers and teachers (translanguaging /language brokering); Children's dialogues and conversations about diversity (language diversity, food, clothes, attitudes, ...); Relational dynamics (ethnic groups, non-ethnic subgroups, ...). As a second focus, we identified key children to observe in a deeper way, recording some interesting conversations (e.g: newly arrived children, autism case, multilingual and loquacious child ...).

#### **Sociogram (January 2018- May 2019)**

**Goal:** Identify relational dynamics (ethnic groups, non-ethnic subgroups, more and less popular children...) and their evolution before and after intervention.

**Procedure:** the children were invited to create a sociogram: each child was given a drawing representing a flower with 5 petals and was asked to write the name of their 5 closest classmates and their name at the center of the flower. The sociogram was repeated twice (before and after the intervention).

#### **Circle times:**

**Goal:** to observe and describe children's ideas and practices regarding: Reception; Italian as L2; Valorization of mother tongues; Multilingualism; Intercultural practices at school.

**Procedure:** At the end of a week of observation, each researcher involved children in a circle-time discussion about multilingualism and multiculturalism. Researchers decided whether to conduct the circle-time with the whole class or in smaller groups (6-8 children), depending on the characteristics and composition of the class and on how much children were used to discussing and sharing their ideas all together.

### **GETTING TO KNOW THE PARENTS**

#### **1) Parent questionnaires** (See ANNEX C,D)

**Goals:** The goal of the questionnaire was to collect data to create a first "map" of the languages known and/or spoken by the families, existing ICT technologies at home,

beliefs related to mother tongue maintenance and expectations about the role of school.

**Participants:** all of the families from the 4 classes selected.

**Procedure:** Parents were asked to fill in questionnaires in March-May, 2018 during an afterschool meeting (one per class) organized by the researchers in collaboration with the teachers in the primary school and organized by the teachers in the preschool. During these meetings, the study was briefly presented to the parents and the questionnaire was proposed at the end, with help to fill it in. In the days after, the teachers helped by reaching out to parents who were not present at the meeting and collected their questionnaires. Two versions of the questionnaire were provided: one for parents with migrant backgrounds, later translated in several languages (Arabic, Romanian, English, Spanish, French, Portuguese), and one for native parents, with attention paid to Italian dialects in reference to the language repertoire. The questionnaire was meant to keep track of the different language repertoires of all the family components.

(2) **Focus group (FG) discussions with parents** (See ANNEX E):

**Goals:** To explore parent beliefs and practices in-depth related to: L and multilingual experiences and resources to support children's learning of L1 and L2 at home and at school; The family-school relationship; ICT and technologies at home.

**Participants:** Parents from the 4 classes selected.

**Procedure:** With the help of the teachers, families were invited to a "snack-party at school" with the goal of getting to know each other and discuss their linguistic experiences and beliefs. Some activities were organized for the children while the parents participated in the Focus Group (using the same FG question guide for all classes). Following the video-cued method introduced by Joseph Tobin (Tobin, et. al. 2000, 2016), a short video-clip was used to provoke the discussion (a short clip from the movie "Almanya. My family goes to Germany" (directed by Yasemin Şamdereli) in order to involve parents in a discussion on the linguistic and identity challenges related to migration and the education of children in different cultural contexts.

### 3.6.3 Data collection, storage and analysis

Interviews and focus groups were systematically audio- and/or video-recorded and transcribed, and summarized in thematic reports (class by class) in relation to the following topics:

- general information (socio-demographic characteristics, n. of nationalities; represented in the school, n. of languages spoken by parents and children, % of nationalities and languages, heritage language support);
- pedagogical approach of the school & teacher-children relationships;
- parent-teacher relationships both from the perspective of practitioners and parents;
- inclusion of newcomers & L2 teaching;
- identity and multicultural challenges;
- L1 valorization & Intercultural competences in the curriculum;
- ITC access, support and skills
- Children’s beliefs and practices on languages, cultures, etc.

### 3.6.4 Results of the exploratory phase

#### 3.6.4.1 A focus on teacher profiles and classes

The School Director, after expressing great interest in participating in the research project and providing a group of teachers that would be involved in the ISOTIS study, was seldom present in the school, due to the additional load of schools under his guidance, and did not get very involved in the VLE intervention until the children in the 5th grade managed to get him involved by sending him letters, videos and materials through the VLE platform.

The VLE intervention involved 4 classes (see Tab. 3.5, Tab. 3.6).

Table 3.5 - *Classes and teachers involved in the VLE intervention*

	N. of classes involved	Children’s age	N. of Children in each class	Teachers involved
Preschool	1	4- and 5-year-olds	23	A., B.
Primary school	3	7-year-olds (2nd grade)	24	C., G.
		8-year-olds (3rd grade)	22	D., E.
		10-year-olds (5th grade)	22	F., G.

Table 3.6 - Description of the classes involved in the VLE intervention

Class	N. of children	N. of Italian children	N. of foreigners	Nationalities	Migration	Languages spoken
Preschool class	22	8	14	Egypt, Philippines, Morocco, Moldova, Peru, Sri Lanka	5 G1 immigrants, 9 G2 immigrants	Arabic (Egyptian, Moroccan), Moldovan, Spanish, English, Tagalog, Sinhalese
2 <sup>nd</sup> grade class	22	5 (2 sons of mixed couples)	17	Egypt, Philippines, Moldova, Morocco, Santo Domingo, Brazil, Nigeria, Romania	7 G2 immigrants, 2 are from a mixed couple, 12 G1 immigrants	Arabic (Egyptian and Moroccan), Tagalog, Spanish, French, English, Moldavian, Russian, Portuguese, Nigerian, Romanian, Romani  Italian dialects: Neapolitan, Apulian, Calabrese, Sicilian, Milanese,
3 <sup>rd</sup> grade class	22	5 (1 mixed couple)	17	Albania, Romania, Egypt, Morocco, Kosovo, Sri Lanka, Peru	6 G1 immigrants, others are G2 immigrants, 1 mixed couple	Arabic (Egyptian and Moroccan), Albanian, Sinhalese, French, Kosovar, Romanian, Romani, Spanish, and



						Neapolitan dialect
5 <sup>th</sup> grade class	22	5	17	Egypt, Morocco, Peru, Philippines, Ecuador, El Salvador, Sri Lanka, Romania	8 G1 immigrants , others G2.	Arabic (Egyptian and Moroccan), Singhalese, Romanian, Romani, Moldavian, Spanish, Filipino, English.

Eight teachers, all females, took part in the research. Their profiles are summarized in the table below (table 3.7).

Table 3.7 - *Profile of the teachers involved*

TEACHER PROFILES	
PRESCHOOL TEACHERS	A. was the main teacher of the preschool class involved in the research. She was among the promoters of the Mother Tongue Week in the preschool. She had also taken part in several training courses and action-research projects addressing topics such as multilingualism and intercultural competences.
	B. was a special education teacher with a supporting role in many classrooms, including A.'s. She had a close, positive relationship with A. based on mutual respect and a shared pedagogical approach.
PRIMARY SCHOOL TEACHERS	
2 <sup>nd</sup> Grade	C. was the main teacher of a 2 <sup>nd</sup> grade class. She taught Italian, History, English and PE. She had been teaching in primary school since 1997 and in the current school for two years. She had strong beliefs that cultural and linguistic variety is a great resource but did not know how to promote this resource in daily educational practice. In fact, she did not have previous

	<p>experience with intercultural and multilingual tuition, but she was open to learning new teaching approaches and acquiring new knowledge and attitudes.</p>
	<p>G. taught the Religion in two of the classes involved (2 hours per week in each class, 2nd grade and 5th grade). She was the teacher responsible for welcoming newly arrived pupils, especially those with culturally diverse backgrounds. She was also responsible for some extracurricular initiatives, such as the 'homework support service' on Saturdays. Her teaching approach valued the co-construction of knowledge through dialogues and exchanges and she considered it crucial to build on children's direct experience. In fact, in teaching the history of religions she started from children's and families' experiences and promoted mutual exchange between peers and listening to each other's opinions.</p>
<b>3<sup>rd</sup> Grade</b>	<p>D. was a Math and Science teacher in her 50s and worked in a 3<sup>rd</sup> grade class. She considered multilingualism as a resource for pupils, but also a possible obstacle to their learning. During the VLE intervention implementation, her class was also involved in another big project (focused on promoting Romani children's integration in the class).</p>
	<p>E. was a young teacher in her early 30s who worked in a 3<sup>rd</sup> grade class where she taught Italian, History, Geography and English, open to the topic of multilingualism but with not specific beliefs in this regard.</p>
<b>5<sup>th</sup> Grade</b>	<p>F. was the main teacher in the 5<sup>th</sup> grade class. She taught Italian, History and Geography. She also worked as Vice-Principal of the primary school for 3 years. She did not give great value to multilingualism, giving little consideration especially to certain languages (such as Arabic) and asking her students not to speak their native languages at school. She resigned in April 2019 due to contrasts and tensions with the School Director.</p>

	H. was a special education teacher in the 5th grade class, friendly and supportive to the children. She didn't express any specific ideas on multilingualism.
<b>Teachers with specific skills</b>	L. was the Digital Animator of the school and a special education teacher who worked with small groups of children identified by the class teachers to support the learning of Italian by foreign children.
<b>School Director</b>	I. was the School Director. After expressing high interest in the IC participating to the research project, I. was seldom present in the school we worked in, delegating many responsibilities initially to F. and then to A. and did not get very involved in the VLE intervention until the children of the 5th grade managed to get him involved by sending him letters, videos and materials through the VLE platform.

### 3.6.5 Results from the exploratory fieldwork

The exploratory ethnographic phase, realized in close collaboration with the Italian team involved in WP3/WP5, enabled us to get to know the school sites, the teachers/professionals involved and the families and collect the information necessary to plan the co-design phase. We present here the main results of the themes analyzed for the WP4 intervention:

#### 3.6.5.1 Teaching approach

The school, especially the primary school, was characterized by a dominant traditional teaching approach, while the preschool setting seemed more open to active child participation in the activities and in school life in general. Coherently with this result, parent-school communication, partnership with the teachers and the approach to multiculturalism and multilingualism within the class activities and in the relationship with parents did not reveal any particularly original traits or significant initiatives or projects, although a distinction should be made between primary and preschool.

While preschool teachers tended to enhance children's active participation, the primary school teachers' pedagogical approach was quite "traditional", relying mainly on lecture-type lessons and a "unidirectional" interaction style with students. This was especially evident in teaching the "main subjects" (Italian, History, Geography, Mathematics, Sciences); while for the "secondary subjects" (Art, Music, Religion) active approaches, class conversations and hands-on opportunities were more frequently observed. Only

one teacher, C., stood out for her consistent use of active methodologies, peer-tutoring and cooperative-learning techniques.

Overall, there were positive, warm relationships between teachers and their students and among peers. The classes were characterized by a general serene atmosphere and by collaboration and mutual support among children. Among peers, there were no episodes of discrimination or no dynamics of exclusion were observed.

### 3.6.5.2 The primary school teachers' attitudes and practices on multiculturalism and multilingualism

According to its PTOF, the *Istituto Comprensivo* considered its educational offering, investing in the promotion of non-Italian speaking children's second language learning (e.g. by organizing specific classes for newcomers who did not speak Italian or Italian courses for foreign parents) and valuing students' linguistic competences in both L1 and in L2.

Moreover, over the years the primary school participated in numerous projects on linguistic-cultural issues:

- during the year of the intervention, there was a project for the inclusion and integration of Roma, Sinti and Caminanti children<sup>8</sup>, focusing on the innovation of educational practices, relationships and teaching strategies;
- the 'Project Library' was also implemented, aimed at spreading, from the first year of primary school, interest in and the habit of reading books. In particular, grandparents, together with the teachers, managed the lending of school library books, organizing events to bring children closer to reading;
- the Project System (a music method) and the school choir, mainly involved children with different cultural backgrounds and also valued music and songs from different countries.

Noteworthy were the L2 Labs in all the schools of the institution. L2 Labs addressed newly arrived children and children who had poor language skills in Italian; they were organized during the school day, while the rest of the class attended the regular curricular

<sup>8</sup> The national project for the inclusion and integration of Roma, Sinti and Caminanti (RSC) children is promoted by the Ministry of Labour and Social Policy in collaboration with the Ministry of Education, University and Research (MIUR). The work at school, aimed primarily at inclusion and combating early school leaving, lasts three years and is aimed not only at RSC children but all children in the project class, teachers, school directors and ATA staff. It follows a global perspective that gives importance to the creation of a social network to support the target population. Info available on the web page: <https://www.minori.it/it/progetti-sperimentali-285/il-progetto-rsc>.

lessons, some children were taken out of the classes for part of the morning schedule, in groups of mixed ages and cultures.

Nevertheless, observations and interviews in the **primary school** showed that educational issues related to multiculturalism and multilingualism were not directly addressed through opportunities for dialogue between teachers and children or between teachers and parents (see also Report D3.4, Chapter 4), and the above-mentioned projects did not seem to have profoundly changed the daily teaching practice or attitude of many of the teachers involved in the project, especially in primary school, where the preoccupation to complete the 'teaching program' was predominant.

### 3.6.5.3 Multilingualism and multiculturalism are not part of the curriculum

Though in Italy there have not been 'ministerial programs' for many years, but national guidelines (i.e. guidelines that leave ample freedom to teachers to adapt teaching proposals to the class group), many teachers still use the word *program* and have a concern for the completion of the program, seeming to have quite a rigid and structured idea of it. There also seems to be a dichotomous vision: multiculturalism, multi-religiousness, multilingualism, discrimination, stereotypes, multicultural citizenship, are not an integral part of the 'program' but are interesting experiences that are sporadically proposed to children and talked about with families in urgent cases.

The teachers said that living immersed in differences was normal, everyday life at school, allowing children to learn spontaneously, even without the intervention of adults, to respect and live with different cultures and perspectives, a long-lasting learning even after the end of the primary school and outside the school context. In addition to the concern in completing the school program, teachers (especially in the first and second grades) expressed the idea that the children were still too young to understand certain multicultural concepts. Hence was quite understandable why there was an almost total absence of educational practices aimed at enhancing the histories of children and families and therefore their different cultural and linguistic backgrounds in primary school. It was rarely possible to observe the teachers talking with the children about topics concerning differences, 'acting reflectively' with the children on topics such as linguistic differences, ethnic-cultural stereotypes, not necessarily through ad hoc activities, but in everyday life at school, where the children offered many opportunities for dialogue and comparison.

One exception was the Digital Animator, attentive to the enhancement of the languages of origin and the religion teacher, careful to deepen themes about religious comparison.

Unfortunately, in some cases some teachers expressed prejudicial attitudes. This is the case of students of Muslim origin who were told things such as "*I would never come to your country*", "*In Egypt you do as you say, in Italy as we say. I'm not going to Egypt because I don't want them to tell me how to dress. Here instead we have a democracy*". The same teacher, interestingly, was also very affectionate with the children.

#### 3.6.5.4 The invisible mother tongues

In practice the school presented monolingual teaching practices and curricula and did not give particular attention to the mother tongues in the primary school. Many teachers had a positive attitude towards children with immigrant backgrounds, took multiculturalism and multilingualism for granted, considering them merely one of the particular features of the school they work in, not a valuable resource that should be enhanced. Observing the space and materials at school, there were no signs or books in different languages. Some teachers said they invited the children to sing the birthday song in different languages and asked children to say some words in their mother tongues, but those were sporadic initiatives and not part of a shared vision among the teachers or daily life at school.

Several teachers, moreover, said they still embraced the idea that native languages, once acquired, do not need to be reinforced and nourished, or, at least, that first language maintenance was not the school's responsibility. On the contrary, the maintenance of the mother tongue in the family was seen with some ambivalence and, especially when the child had some difficulties and was not supported in studying at home by the family, this practice was considered a disadvantage.

For most primary school teachers involved in the research, speaking L1 at school was seen as an obstacle or to be avoided (in some cases even prohibited at school) with a few exceptions and they shared the misbelief that speaking L1 slowed down L2 acquisition. They forbade the children to talk in L1 once Italian, even at a minimum level, could be used as the language of communication.

Therefore, even though they let bilingual children act as linguistic mediators to help newcomers during their first days at school (e.g., translating instructions or assignments, helping new children settle), this practice was intended as an initial support for the newcomers and not as a strategy to promote their mother tongues.

#### 3.6.5.5 Regarding teaching L2 Italian practices

Beyond the above mentioned L2 labs, there is individual support teaching and the project called "Project Library". The teachers stated they didn't have any specific strategy to

support language acquisition in L2, other than not taking for granted the acquisition of the words, even simplest ones. A main practice was suggesting parents not to speak the L1s at home too frequently, in order to prevent potential negative interference with Italian language acquisition. A minority of teachers (E. and F.) allowed this practice only during the first stages of a newcomers' arrival and because of their misbelief that speaking L1 slows down L2 acquisition, they forbade children to talk in L1 once Italian could be used at least at a minimum level as the language of communication.

### 3.6.5.6 The preschool teachers' attitudes and practices on multiculturalism and multilingualism: in between a multilingual and a monolingual curriculum

At the preschool, teachers generally had a more open attitude towards multilingualism and multiculturalism. The coordinator of the Preschool had participated in many projects, also in collaboration with university researchers and intercultural centers, aimed at the inclusion of children and families with migrant backgrounds and the enhancement of the mother tongue. Both the teachers involved in the intervention conveyed the idea that speaking another language was a form of cultural richness and suggested that parents be invited continue to speak their L1 at home.

In collaboration with the Milan-Bicocca University, the class of the coordinator of the preschool participated in the project *Le storie sono un'ancora*, aimed at strengthening storytelling, the enhancement of the mother tongue and Italian L2 skills, the inclusion of children and foreign families, through practical workshops for children on storytelling<sup>9</sup>.

Moreover, every year at the end of February, they also organized Mother Tongue Week. On the occasion of International Mother Language Day (21 February), the preschool teachers involved immigrant children's families in sharing traditional songs, dances, stories, rhymes, games from their countries of origin, presenting them to the classes in their L1.

Although this occasion was a precious opportunity to cherish diverse linguistic repertoires and value cultural diversity, it remained an isolated event that did not affect the daily life and the established monolingualism that pervaded the curriculum also at this educational level. In fact, despite the great experience and training regarding these topics that B. and especially A. professed to have, we did not observe them putting this knowledge into practice in their daily activities with children. And in fact, the teachers

<sup>9</sup> [http://www.centrocome.it/?post\\_type=progetti&p=952](http://www.centrocome.it/?post_type=progetti&p=952).

declared that they did not adopt real strategies to enhance the acquisition of Italian L2 in the classroom.

### 3.6.5.7 Teacher attitudes towards ICT

Despite the fact that the school offered adequate ICT equipment (e.g. the whole building was covered by Wi-Fi internet wideband access, and each primary school class was equipped with a laptop and a whiteboard), most of the primary school teachers had little familiarity with technology and their use of the whiteboards was limited to a very basic level (e.g. showing children pages of the digital version of a textbook; showing their classes images retrieved on the web...). During our observations, the teachers never used these tools except for one teacher who used the interactive whiteboard to correct the INVALSI tests. They all have smartphones and some have tablets which they also use during class hours. Preschool teachers were more familiar with and competent in their use of ICT. However, they generally did not utilize this technology in their activities with children and no ICTs were present in any preschool class.

The digital animator, a special education teacher with small groups of children identified by the class teachers to support the learning of Italian by foreign children, said the children themselves suggested using digital applications (e.g. Alpha Magic with Flash) or from the web (for example Padlet) to create digital artifacts such as 'instant books', which she used with the children. Some teachers expressed the need to be trained in the use of technologies.

### 3.6.5.8 Teacher-family relationships

Preschool teachers described parent-school collaboration as generally positive and fruitful, declaring that many families were highly engaged in the activities proposed by the teachers.

The relationship with parents was reported by most of the primary school teachers as challenging. Cultural diversity was often assumed to be the main (or the only) reason behind communication difficulties and the lack of involvement and investment in school activities shown by some families. Some teachers (for instance D., E., F.) complained about this or, in a few cases, overtly criticized parents in front of their students.

Specifically, regarding the cultural backgrounds, teachers showed that they did not know the cultural, linguistic, religious backgrounds of their students and families particularly well.

Communication with families was organized using institutional tools and modes, present in all schools in Italy, such as:



- private meetings between teachers and family. These always take place when report cards are delivered. During the year, additional meetings may be requested by the teacher or the family, generally in case of behavioral or learning difficulties;
- the school diary of each child, in which didactic and disciplinary communications are written, notices for school trips/school outings, permissions, specific requests, homework;
- the electronic register, mainly for didactic and evaluation purposes, making the children's grades accessible to parents via the web, together with notes on the didactic activities and class meetings, open to all parents;
- classroom councils, open to parents representing a specific class;
- phone calls or messages for occasional and urgent events (e.g. child illness during school hours); messaging was used by some teachers for direct communication with class parent representatives, who mediate communication using a dedicated WhatsApp group with all the other parents in the class.

To facilitate communication, two figures were presented: the "communication assistant" (a figure who facilitates communication, learning and the relationship between students with sensory disabilities and the family, school and services in the neighbourhood) and the cultural mediator, who goes to the facility only upon the request of the teacher or the family, for linguistic and cultural translation into both languages and cultures during communication, in the case of communication difficulties and linguistic understanding. The Parents' Association allowed the school to have this service available through an agreement with a cooperative. The teachers stated that they asked for the support of the mediators especially during the first meetings with families at the beginning of the school year or when a family arrives during the school year, while they said that during the school day they used Google translate or, more frequently, children, to translate some communications. The observations also showed that the majority of children were used as mediators, for example by asking them to translate a mobile message into their mother tongue to be sent to a parent or by calling their parents during school hours and asking the child to translate the teacher's request.

With respect to communication with parents from different cultural and linguistic backgrounds, the perception of the teachers, expressed by the teachers themselves in the interviews and focus groups, was that problems were mainly of a linguistic nature. They expressed the desire to have more language mediators available and that these figures be present daily at school, expanding their functions, directly helping parents to interact with the school context (secretariats, meetings with other parents) and to find useful information. In this regard, overall, the teachers seemed to have a one-way type of idea of communication with families between school and family: the teachers had the

task of providing information to the family, telling them how the school functioned, what the rules and values that characterized it were. No interest was expressed regarding the possible usefulness of using a mediator to create opportunities for exchange, dialogue and therefore also to listen to the experience of parents, their school experience in their country, which teachers imagined to be different, so they thought it was necessary to carefully explain the different organizational model of the Italian school: *"because school in Italy isn't school in Egypt, it's not school in the Philippines, so it makes us understand what school in Italy is and it's important to make these people understand what it is"*.

This unidirectional attitude recalled an assimilationist integration approach where the 'foreigner' is invited to tune in to and appropriate the host culture, while the culture of origin, of the family does not seem to be useful in the inclusion process.

This approach (rather widespread in Italian schools, especially in primary and secondary schools) was not raised as a critical aspect by parents, who instead expressed a certain satisfaction with the school-family relationship and in particular with the school as a 'protected' place with respect to a wider territorial and national context that was not always welcoming (*"Yes, the problem is outside the school, we are fine here, in this school, it's the truth, there's no problem in our school, but outside..."*). Regarding the parent perspective on multilingualism and the school, a more detailed description can be found in D3.4, Chapter 4.

### 3.6.5.9 The presence of ICT technologies at home and their use for family-school communication

The questionnaires showed that families possessed a range of ICT technologies (TV, computer, internet, smartphone and tablet)- around 84-85% of subjects for all 4 technologies investigated (see Table 3.8).

Table 3.8 - Presence of ITC technologies

	Included		Escluded		
	N	Percentage	N	Percentage	N
<b>television * class</b>	55	83,3%	11	16,7%	66
<b>computer * class</b>	57	86,4%	9	13,6%	66
<b>internet * class</b>	57	86,4%	9	13,6%	66

smartphone * class	58	87,9%	8	12,1%	66
tablet * class	57	86,4%	9	13,6%	66

Table 3.9 - *Presence of specific equipment*

Class	Television	Computer	internet	smartphone	tablet
1A	10	12	12	13	13
2C	16	16	16	16	16
preschool	13	13	13	13	12
4C	16	16	16	16	16
Total	55	57	57	58	57

Nevertheless, parents, whether they were native or Italian L2 speakers, usually communicated with teachers without using ICTs. Communication took place on a daily basis when taking children to school or picking them up, or during periodical collective or individual meetings organized by the school. During focus groups with parents in one class, there was widespread use of Skype and Messenger to communicate with families.

### 3.6.5.10 Observing the children

Observations of the children in class were carried out using broad thematic indicators as shown in Table 3.4.

#### Child-teacher relationships

In brief, in all the classes observed during a week at school (a few full days and a few half days), a good social climate was observed among children and between children and teachers.

Despite the presence of shy and more withdrawn children or more lively children, about whom the teachers themselves had spoken, no situations of particular isolation, conflict or difficulty in respecting the rules in the classroom were observed.

However, we also observed interactions on the part of teachers that sometimes were not very attentive to the cultural and linguistic dimension, and in a few cases, they were openly characterized by negative stereotypes, as reported in the previous paragraph.

The children, both in pre- and primary school, interacted without grouping into ethnic-cultural groups, although older Arabic-speaking children (10/11 years old), during recess and exit times from school, tended to stay together and speak in Arabic.

In the second grade class, during lunch in the canteen, the teacher sat the Muslim children together in order to facilitate the distribution of food. This created a daily separation of Islamic children with religious diets, giving the children the opportunity to speak Egyptian Arabic during lunch, with the exception, however, a Moroccan Arabic-speaking child who could not intervene in the conversation. This form of grouping did not seem to affect the interactions and friendships between children.

In the preschool class, teachers adopted a form of "buddy-partner strategy", assigning each "big" child (5 years old) a "small" child (3 or 4 years old) from the beginning of the year, giving priority to children with the same native language, for reception at school at the beginning of the year and for some rituals, such as going to the bathroom. These pairings were visible at times when teachers expressly asked the children to pair up (e.g. a queue to go to the bathroom), but also during free play (e.g. during free play on arrival at school before circle time that officially started the school day). However, the children seemed to interact and have friendships and relationships in an independent way.

### L1 and L2 at school: children's language practices

Both the observations and the interviews with the teachers showed that at school the children mainly spoke Italian, with the exception of Arabic speaking children who used Arabic during informal times at school more frequently than others.

The use of the mother tongue at school, as was highlighted, was not encouraged by the teachers and the absence of objects such as books, writing and notices in languages other than Italian did not offer indirect opportunities for children to speak in different languages or to compare different languages.

The use of the mother tongue was only required on two specific occasions:

- during the period of first reception of a newcomer who did not speak Italian, interrupting this practice when the child had acquired a minimum vocabulary for communication;
- to translate communications addressed to non-Italian-speaking parents.

In the fifth grade class, teachers expressly believed that children should speak only Italian in class and forbade the use of mother tongues, to prevent children of the same language from speaking to each other to the exclusion of others. From this point of view, the fear of using mother tongues at school was motivated by the fact that children might tend to group together based on ethnic-linguistic groups: *"If two or three children speak, then the others are excluded. They must all be together."* This corresponds to their practices: several times it was observed that teachers incited the use of only Italian and reproached those who used their mother tongue (specifically, Arabic, which is more common compared to other languages).

### Talking about languages and identity

Before the arrival of the researchers, the teachers themselves recognised that they had never spoken their mother tongues particularly well in class. Teachers also showed that they did not always exactly know the family's cultural origins, the languages spoken in the family and the languages known and spoken by the children. Typically a lot of confusion was made with respect to children from Roma families, Romanian and Italian speaking, or Romani and Italian speaking. The distinction between Romanian and Romani was not known. The same applies to Egyptian Coptic children, often taken for Muslim because of their nationality.

In general, the multiple languages present in the classes involved were not the object of observation, reflection, comparison and play among children and with teachers, as happened during the project. The children, on the other hand, already during the circle times conducted by the researchers with the primary school children during the exploratory phase, showed genuine interest in cultural and linguistic themes, with greater shyness in the second grade class (even earlier during the exploratory phase) than in the groups of older children, who took the opportunity of circle time to discover the linguistic and cultural knowledge of their classmates (*"How do you say this in Moldovan?"*; *"Are there monkeys in the Philippines? How do you say monkey in Filipino?"*) and showed a good level of awareness about their relationship with the mother tongue and the Italian language. Many children observed that they tended to forget their parents' language, often expressing a feeling of loss (*"I'm afraid I'll forget Romanian a little bit... because some words come to me in Italian, because I don't remember how to count in Romanian when I know Italian"*); or on the contrary, some children talked about the fear of forgetting Italian language while maintaining or learning the language of origin (*"By learning Albanian I'm afraid of forgetting Italian. (...) I am a bit Albanian, (...) I have an Albanian mother and an Italian father. I know a few words in Albanian. I don't speak it but I understand it a bit"*).

The children also said that they helped their parents to write texts written in Italian and that they helped their parents in their school and non-school conversations in their social life as little linguistic mediators.

Their relationship with the family language(s) seemed to vary: some children talked about attending the Arabic language school housed in the school building on Saturday, maintaining a strong bond with the language of origin and increasing their knowledge in a structured way; other children said they found no use in learning Arabic, they didn't use it outside the family circle and believed it was not worth it. With respect to this, they recalled the prohibition expressed by the teachers to speak Arabic at school and they did so in secret, when the teacher couldn't hear (see the observation case on VLE: <https://vle.isotis.org/mod/questionnaire/view.php?id=1539>). Other children also said that they spoke many languages at home and that they had no preferences (especially children of Pakistani and Indian origin).

It was extremely interesting to hear the children's thoughts on these issues, thoughts that probably do not always have the opportunity to be expressed and explored even in the family; thoughts that also touched the sphere of identity, closely interwoven with one's linguistic identity. For example, a fourth grader spoke with different competence and frequency: *"I am Italian because my parents have been here for 14 years and therefore my mother and sisters explained what milk meant. Then Romanian, because my mother is Romanian and my family (...) can speak gypsy. My mother, if she hadn't married my father, wouldn't know gypsy now, she would only have known Romanian. Now I have a small cousin (...) She is a gypsy like me but since she is still a little small she doesn't understand much and so I help her. Then Moldavian because my mother is Moldavian and I hear her talk with my uncles many times".*

- Researcher: *But is she Moldavian or Romanian? I don't understand...*

- Child9: *Both*

- Researcher: *And what are you?*

- Child9: *I am all three... And four! (...) I'm more Gypsy than Romanian because I don't speak Romanian well.*

- Researcher: *So if someone speaks more than one language, do they have more identities?*

- Child9: *Yes, because I didn't learn Romanian that much. I learned more Gypsy because we speak Gypsy at home."*

It was surprising to hear also from preschool children about their own multilingualism: a 4-year old Egyptian girl said she imagined she had two brains, an older one, the Arab one, and a newer one, the Italian one (see the observation case on the VLE:

<https://vle.isotis.org/mod/questionnaire/view.php?id=1725>).

### 3.6.6 Highlights

The key points that emerged in the exploratory phase were the following:

- An overall welcoming school environment and good relationships between children and teachers;
- Predominantly frontal didactics, especially in the primary school, and a sporadic use of ICTs;
- Little knowledge of cultural backgrounds, the linguistic specificities of children and families;
- The absence of structured didactic strategies to enhance the linguistic repertoires of children and the lack of visibility of the many languages present in the school, especially in primary school;
- The presence of strategies for the enhancement of mother tongues with families at preschool;
- Inattentive communication with parents regarding the possible difficulties of understanding the Italian school model, with little inclination to get to know the experiences and view of parents;
- A strong interest on the part of children for the issues of multilingualism and cultural diversity;
- A good interest of teachers to deepen these issues on the didactic level and start the experimentation.
- The analysis of training needs led to the organization of an intermediate phase, prior to co-planning, of training on the themes of bilingualism, multilingualism and language awareness education and the use of ICTs in teaching.

Some transversal objectives were defined for the four paths (such as a sense of acceptance and enhancement of families and children, favouring the serenity of the students with regard to their multiple belonging, creating opportunities for dialogue and exchange aimed at increasing their spontaneous curiosity) as well as some specific objectives for each class with respect to the co-designed learning experiences. Children, in particular in the fifth grade class, were actively involved in structuring the activities themselves, while in the second and third grade classes, children were actively involved in the activities themselves, but not in the planning.

## 3.7 PART III – Co-design and implementation phase. Going into practice

### 3.7.1 Overview of the procedures

After the phase dedicated to the teachers' professional development with the group of teachers in plenary meetings (Sept-Nov2018), the co-design and implementation phase proceeded with parallel meetings divided per class. Each class teaching staff (two teachers per class) had the opportunity to collaborate with a researcher and a senior student (senior students developed their degree thesis collaborating in the research), who assisted as tutor and co-tutor the same teachers during the project, to explore the VLE and the resource repository (also browsed autonomously) in order to define the specific goals and activities for the children in their class, carefully considering how to integrate the activities with the teaching curriculum.

All activities were designed with reference to the transversal criteria to the three ISOTIS VLE Tasks and to the specific criteria of Task 4.4, briefly reported here (see SECTION A, Chapter 1, SECTION B, Chapter 1).

Table 3.10 - *Transversal and specific criteria*

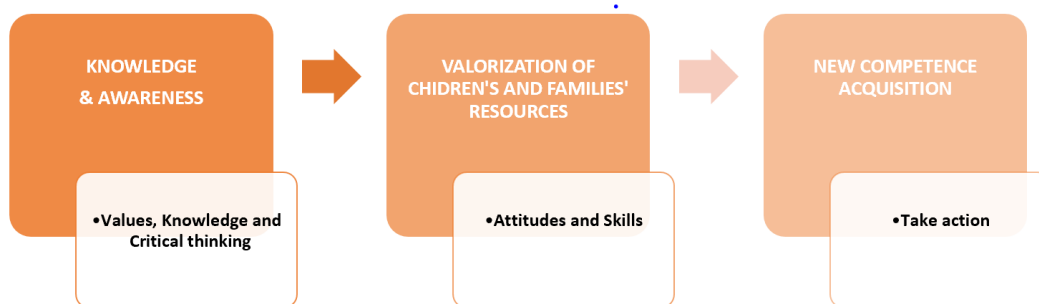
CROSS-WP ISOTIS CRITERIA	<ul style="list-style-type: none"> <li>• Referred to a systemic/bio-ecological framework;</li> <li>• Participative and resource-based;</li> <li>• Process-oriented;</li> <li>• Culturally sensitive and developing cultural sensitiveness;</li> <li>• Promoting emancipatory and inclusive processes;</li> <li>• Theory and method founded;</li> <li>• Pragmatic;</li> <li>• Blended (ICTs augmented);</li> <li>• Sustainable by the participants (without the researchers); Innovative (for the local context).</li> </ul>
TASK 4.4 CRITERIA	<ul style="list-style-type: none"> <li>• Connecting and integrating global-intercultural competence values/skills/attitudes within the learning process and the curriculum;</li> <li>• Stimulating critical thinking and deconstructing stereotypes;</li> <li>• Giving voice to children and stimulating agency, engagement and fun;</li> <li>• Stimulating sharing experiences &amp; resources between home and school and between children;</li> <li>• Stimulating co-construction and negotiation of meanings;</li> </ul>



- Balancing differences and commonalities;
- Making flexible use of ICTs;

The activities were designed taking into account three fundamental dimensions underlying the development of a Global Competence (intercultural and multilingual): the acquisition of knowledge and awareness (values, knowledge and critical thinking), the deployment of resources and the enhancement of resources (attitudes and skills) and the development of new skills (taking action).

Figure 3.4 - *The 3 phases of the Global Competence perspective*



As previously mentioned, an iterative cycle of co-design meetings, implementation of the activities, follow up and formative evaluation meeting aimed to co-design the following steps took place between January and June 2019.

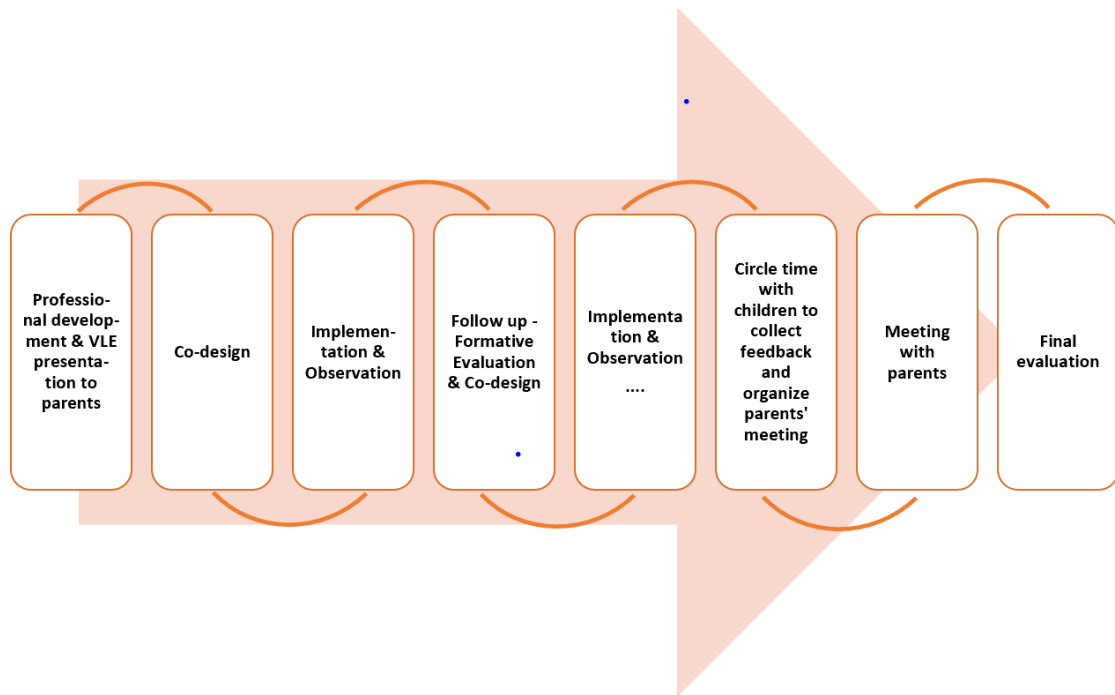
All the activities required the involvement of the parents in sharing their language competences and their knowledge through the VLE or in presence at school. In order to properly inform and involve parents, a meeting was held in November 2018 to present the VLE, to give information on the Privacy Policy and on the login procedures for teachers children and parents and to announce their future involvement in the use of the VLE also in relation to the children's activities at school.

At the end of the school year and after the realization of the learning experiences, parents from each class were invited to a meeting organized in collaboration with the children in the primary school (while in the preschool the children didn't participate to the last meeting with parents based on the teachers' decision). Teachers, children and researchers collaborated in preparing a presentation of the activities and the artefacts, some of them uploaded on the VLE, also showing pictures and videos uploaded onto the VLE. The multimedia artifact made by the 5<sup>th</sup> Grade class were made entirely by the

children, while in the 2<sup>nd</sup> and 3<sup>rd</sup> Grade classes the researchers made an important contribution.

The co-design and implementation phases are shown in the figure below:

Figure 3.5 - Codesign and implementation phases



### 3.7.2 Roles, methods and challenges

The working method was the same for all the classes involved, even though they were specifically adapted depending on the requests of the teachers.

In each class, the first co-design meeting had multiple objectives:

- to share the methodological and theoretical criteria on which the activities were based (already addressed in the previous training, see Section B, Chapter 1);
- to show teachers the resources on the platform and select possible activities of interest and progressively to adapt them to their context;
- to share the observation methods. In particular, besides observing the whole class, to choose some 'key children' (particularly passive and not very active in school activities, not very sociable, particularly aggressive and conflictual, particularly shy and embarrassed by requests concerning the mother tongue, ...) on whom to maintain specific attention during the project in order to detect any behavioral changes;

- to share a description of the characteristics of the class that emerged from the exploratory phase and from the ideas of the teachers;
- to draft a calendar for co-planning meetings and the implementation of activities in the classroom;
- to establish the roles of teachers (main conductors of the activities) and researchers (tutors, observers and assistants) during the class activities;
- to present self-assessment tools on the platform;
- to respond to any doubts about the functioning of the platform.

The objectives of the subsequent meetings were to:

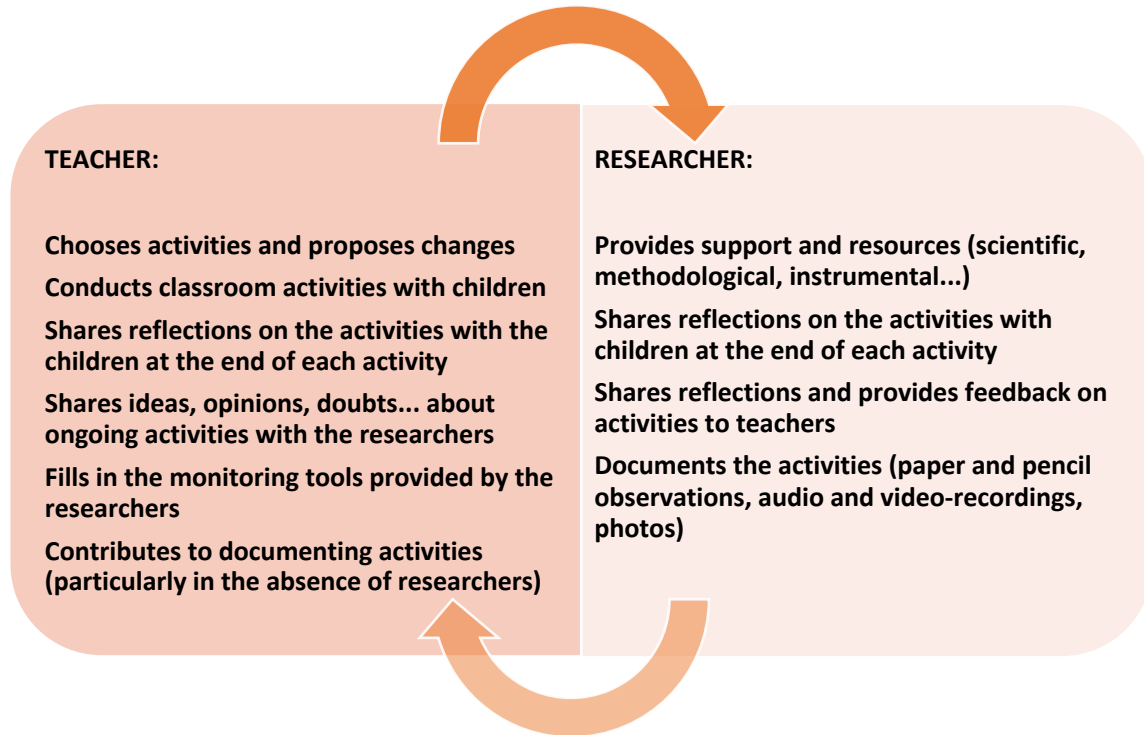
- Reflect, provide feedback and monitor the progress of activities, reactions and the involvement of children with a particular focus on the 'key children';
- Adapt subsequent activities according to observations;
- Finally, a final meeting was devoted to the final evaluation of the project.

During all the meetings, the researchers pursued transversal aims such as:

- - cultivating a relational and professional alliance, showing willingness and interest in the proposals made by the teachers;
- - Fostering teacher motivation;
- - Promoting a reflective attitude;
- - Supporting the teachers' sense of self-efficacy by providing appropriate feedback;
- - Promoting the growth of teacher skills, in addition to offering support, regarding the use of technologies and technical support activities for using the platform, providing appropriate feedback.

The collaboration was based on a precise complementarity of roles between teachers and researchers as shown in the figure below:

Figure 3.6 - Agreement between teachers and researchers



In the co-design and implementation of the activities, there were several challenges in working with teachers, some common to all classes and some specific to a class and type of school.

A general challenge was the dimension of time and the workload: all teachers, with different ways of manifesting it, experienced a work overload related to the many projects in which they were participating during the year and due in general to school activity.

To this first data, we added the difficulty in using technologies and the platform, which required constant support from researchers and that only for two teachers evolved into autonomous use. In addition, the occasional use of e-mail, which led to the creation of a Whatsapp group in each class to organize meetings and various communication exchanges.

In primary school, the teachers, although interested in the activities, showed difficulty in acquiring the socio-constructivist perspective of the activity setting and translating it into practice, because they were accustomed to leading the learning activities (with the exception of one teacher).

It was also not easy to share the idea of co-designing together: teachers in most cases tended to delegate and rely on researchers also in the choice of the activity, with the exception of the 2nd grade teacher.

Furthermore, having little experience in dealing in-depth with issues such as multilingualism and cultural differences, they expressed many doubts about their ability to carry out activities on these issues.

A third important challenge was the need to reflect several times on the connection between the intercultural multilingual perspective and the curriculum. Several times they showed difficulty in detaching themselves from the dichotomous vision (highlighted in the exploratory phase) between the 'real' curriculum and the dimensions of multilingualism and interculturalism. In many cases (with the exception of the 2nd grade class) this resulted in the difficulty to dedicate the hours for carrying out the activities, because they were to the detriment of the time devoted to curricular themes, although in all classes important links were identified with them: from narrative thinking, to exercising written and oral language skills in several languages, to using multimedia languages for the construction of artefacts, to the application of mathematical, historical-geographical knowledge and skills, and finally to an important exercise in soft-skills, central to school education.

From the point of view of the school as a whole, a conflicting climate between teachers and groups of teachers progressively worsened, most likely linked to the persistent absence of the School Director for most of the school year (because he was engaged in other schools). This impacted on the serenity of the teachers and their willingness to concentrate and devote time to co-design and ISOTIS project activities.

There were specific additional challenges in each primary school class: In the second grade class, the main teacher was very enthusiastic, but had very conflicting relationships within the class staff and coordination of the second grade teachers, as well as a long period of illness that interrupted the activities for a month; In the third grade class, concern for the programme's implementation led teachers to place much of the project's activities during children's break times (fortunately they were very involved and enthusiastic about the activities); in the fifth grade class, the main teacher in the class stopped going to school because of conflicts in the school, and the religion and support teachers guaranteed the activities were carried out, but with considerable support from the researchers.

These difficulties were not encountered in the preschool. In a less pronounced way than in the primary school, even the preschool teachers were not familiar with the

technologies, but the platform was used mostly with parents and less with children, also due to teacher resistance to propose the technologies to the children.

From a methodological point of view, the support of researchers was more supportive and for feedback, in particular compared to the less directive conduct of activities with children, which teachers gradually paid more attention to.

With regard to the children, all classes participated with great attention and commitment and there were no specific difficulties in involving them, rather they proved to be the driving force in the use of the platform with the teachers themselves and in the involvement of parents in the activities. The children treated the topics with curiosity, genuine interest and mutual respect, in a process that progressively made it more and more natural and "familiar" to talk and discuss about linguistic and cultural differences, or about stereotypes and forms of discrimination. In particular, in the older children's class, the children acted with great autonomy and initiative during all the activities, managing to collaborate on the realization of outputs, even if quite complex (creation of videos with subtitles and montages).

The second grade class had more difficulties because of the characteristics of the class group, which included the presence of particularly marked differences in levels of skills and competences (especially linguistic, but also social), due to presence of many children with DSA and newly arrived students (3); and the presence of behavioural difficulties (a child who was always struggling to sit or a child who always needed to sleep in the afternoon). The newly arrived students had difficulties in understanding Italian and struggled to understand the teacher and interact actively in class, often alienated from the activities, or they had to leave the classroom to participate in the Italian L2 Laboratory. Proceeding with the work in the ISOTIS project, the teacher, supported by the researchers, devised activities in small groups where everyone had a specific role in order to enhance their skills. The introduction of the ISOTIS platform, with different expressive channels (audio recordings, drawings, computer writing, etc.) and different languages, favoured the participation of all children, even children with difficulties and language barriers.

### **3.7.3 Data collection and storage**

Between January and June 2019, data was collected through monitoring tools compiled by teachers; pencil paper observations, audio recordings (mp3s and professional microphones were used to improve the quality and quantity of sound recorded) and video recordings (two cameras per class, usually one fixed with a global perspective and one mobile with restricted focus) collected by researchers.

Archiving criteria shared by the Italian team included: transcribing observation notes into a specific template, transcribing particularly significant dialogues between stakeholders, archiving all data in a hierarchical system of previously prepared folders. The most significant dialogues taken from the audio/video-recordings were transcribed verbatim and the observation notes were collected and organized chronologically, always keeping track of the context in which they were recorded.

### 3.7.4 The activity in action

During the first co-design meetings, teachers and researchers explored the resources present on the VLE, in particular the guidelines for action and a shared reflection on the characteristics of the class, the current teaching program, the interests of teachers in the experience to be offered to children and oriented the choice of the path to be followed. During the work, the observation, listening and exchange that took place with children and between children gave directions and ideas, accepting proposals from children, especially, as mentioned above, in the fifth grade class. In brief, the class experiences were the following:

- Preschool teachers, who already had an experience on the valorization of the mother tongues with parents, decided to involve children in activities based on the children's voice and participatory research approach (see: 'Democratic and participation life' course on the VLE <https://vle.isotis.org/course/view.php?id=203>), focusing on children's views and proposals on making their school more inclusive and welcoming, especially towards children with different linguistic backgrounds. They connected these activities also working on Language awareness, extending their experience with the parents to the children's school life in a more systematic approach;
- In the 5<sup>th</sup> grade class, teachers (mainly the Religion teacher) gave continuity to a five-year path based on the enhancement and awareness of cultural and religious diversity focusing the intervention on activities based on the children's voice and participatory research approach. Children were actively engaged in analyzing their school context, identifying inclusion factors and proposing concrete enhancements, some of which realized during the research. They focused mainly on cultural and religious diversity, stereotypes, prejudice and bullying as parts of a discriminatory attitude;
- The 2<sup>nd</sup> and 3<sup>rd</sup> grade classes, both focused on Multilingual and Language Awareness Education (see the VLE course: <https://vle.isotis.org/course/view.php?id=183>). The learning experiences implemented were aimed at valuing the mother tongues of the children, increasing their knowledge and curiosity, promoting attitudes of openness and respect, giving

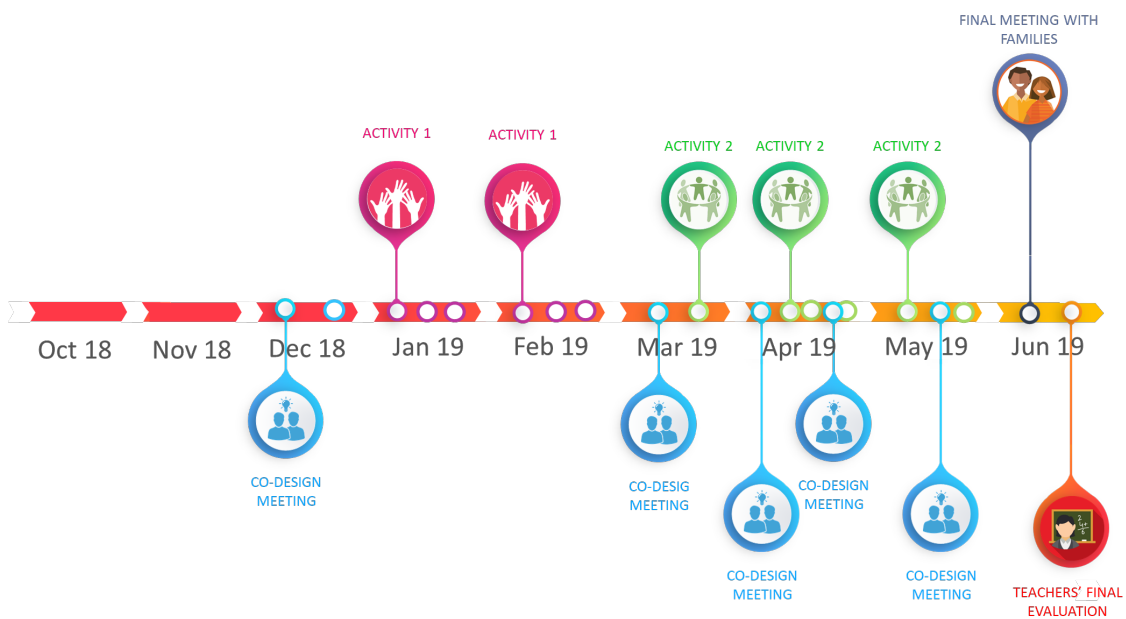
children the opportunity to speak their mother tongue through a structured approach, overcoming their concerns on the use of the mother tongues at school.

In greater detail:

### 3.7.4.1 Group 1. The preschool section

The figure below presents an overview of the meetings dedicated to co-design and the implementation of the activities.

Figure 3.7 - Overview of the meetings (preschool section)



The following table illustrates how the activities carried out were developed following the objectives of the project and the theoretical and methodological criteria defined before the start of the intervention:



Table 3.11 - Overview of the activities developed in the preschool section

	Knowledge and awareness	Involvement and enhancement of the resources of children and families	Development of new skills: taking action
GOALS	<ul style="list-style-type: none"> <li>- To support the development of a conscious and plural identity</li> <li>To discuss feelings on situations of being new in a context or feeling apart</li> <li>To promote and implement children's strategies to include everyone at school and to welcome newly-arrived pupils</li> <li>To foster children's active participation and co-responsibility</li> </ul>	<ul style="list-style-type: none"> <li>To recognize and value children's voices acting upon their ideas and implementing their proposals</li> <li>To provide children with a concrete and meaningful experience of democratic citizenship</li> <li>-To mobilize and enhance the resources and skills of children and families with regard to their languages of origin</li> <li>To involve parents in school life</li> </ul>	
ACTIVITY NAME AND VLE LINK	<p><b>"Welcome to our school"</b>  <a href="https://vle.isotis.org/mod/forum/view.php?id=3057">https://vle.isotis.org/mod/forum/view.php?id=3057</a></p>	<p><b>A multimedia &amp; multilingual virtual tour of our school</b>                      Not yet uploaded on the VLE</p>	

A specificity of the intervention in the preschool class was the synergy also with WP2 Children study. The methodological proposal was shared and negotiated with the teachers who proposed introducing some modifications. Some of these adaptations were decided beforehand (for instance, teachers suggested conducting two parallel studies: one with the 4-year-old children and one with the group of 5-year-olds); others were negotiated step-by-step, to better follow children's ideas and proposals.

While the Child Study methodology required the researchers to conduct the research work with the children, it was agreed to leave the lead to the teachers and to co-conduct

just some of the activities. The main reason for this choice was to lessen any possible intimidating effect of the researchers' presence as "strangers" and to ensure the children a familiar environment, with trusted adults, where they would feel at ease and free to express their opinions. Moreover, we considered the presence of the teachers as co-conductors crucial, especially during the opening circle-time, since they knew important information about their class that could help to better address each child individually and stimulate discussion, making reference to concrete episodes from the children's experience (e.g., how each child had experienced his/her first day of school and how they had felt; which children could speak a second language; which children had arrived at preschool without knowing Italian and how they had been helped to overcome the linguistic barrier...). Finally, we considered that the teachers could provide useful support in making children respect the class rules. On the one hand, teachers were seen as authority figures, and could address eventual misbehaviour more effectively than the researchers. On the other hand, this choice contributed to preserving the children's perception of our role as people who were authentically interested in hearing children's points of view, neither judging nor evaluating their opinions or behaviour.

All of the activities were audio and video recorded.

**Activity 1:** We spent a few days in the classroom with the children, to let them familiarize and feel at ease with us. We presented ourselves, our roles as researchers and asked



them their collaboration to do research together. Before starting the activities, each child signed a digital informed consent form, featured in a child-friendly interface, that was presented through the ISOTIS VLE.

As a starting point, we involved all 33 children participating in the study in a circle-time discussion about **how to welcome new children** that would start preschool the following year. We invited the children to consider that the newcomers would not know their new teachers, classmates and the spaces at the school, and that some of them would not even speak Italian. Following the children's leads, the researchers asked them what they proposed and what materials they could prepare to welcome the new children and make them feel comfortable in their school.

Then, two separate circle-time discussions were conducted, respectively with the 4-year-old group and with the 5-year-olds, in order to deepen the content that emerged during the first plenary discussion. From this point forward, the two groups of children followed 'parted ways'.



During the circle-time discussions, the children suggested many ways to welcome the newcomers.

To welcome the young children who would visit the school, the 5-year-old children proposed to create a poster with the words "Welcome" in different languages and hang it at child height (so that they could see it), enriched with smiley faces. They also decided to make bracelets to give each child.



To console the youngest children in moments of sadness, they decided to tell them stories, be affectionate with them, sing songs in different languages, offer suitable games chosen from those in the class (house / kitchen / space for symbolic play, puzzles, cars, duplo lego). To make non-Italian-speaking children feel at ease, they proposed speaking to them in their mother tongues.



**Activity 2:** Based on previous ideas and proposals, both groups of children were proposed a second activity as a final step of the first one: the creation of an “inclusion first-aid kit” to make the new children feel comfortable and welcome in their school.

Specifically, the **4-year-old children** created a multilingual, digital mixed-media (visual and audio) tour of their school to present the different spaces/rooms and the rules to the newcomers. Following the children’s proposal, their parents were actively involved the realization of this artefact (see Par. 10.5.1).

Parents were willing to translate the texts describing the spaces at school and the rules to be respected when using them into different languages. This work was not completed due to time constraints, so the teachers proposed completing it this school year.

The **5-year-old children** were involved in concretely welcoming children from an infant-toddler centre. In fact, the teachers told us that one of the infant-toddler centres in the neighbourhood planned to visit their school with a group of 10 2-to-3-year-old children who would start preschool the next year. They thought that this occasion could represent a unique, interesting opportunity to make the activities proposed to the class ‘real and concrete’. All the activities to welcome the little ones were proposed by the 5-year-old children and two visits were realized.



The researchers dedicated the next two meetings scheduled for the Children Study to the observation

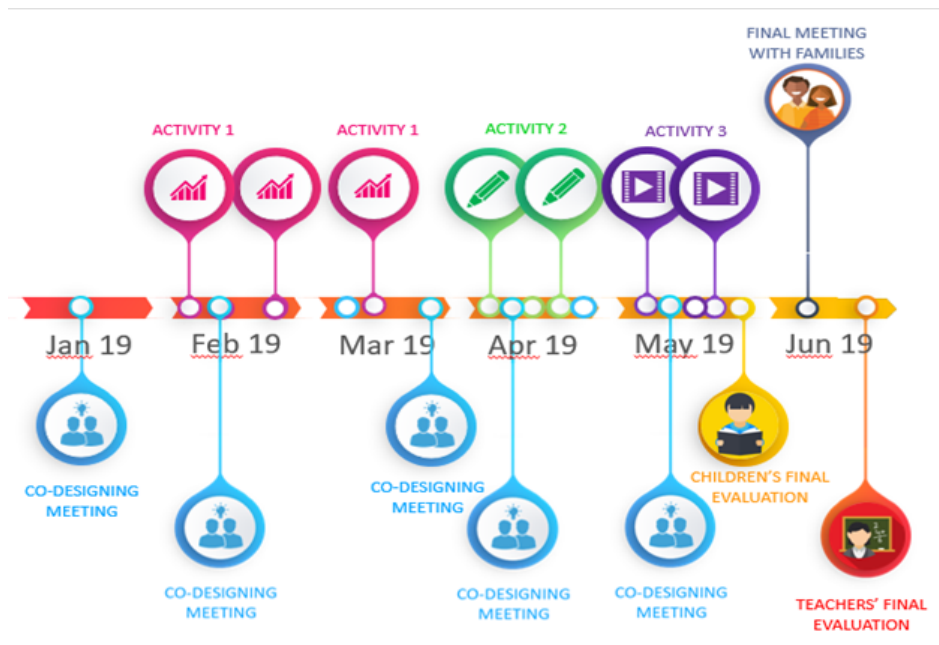
of the 5-year-old children welcoming the younger ones and how they made use of the artefacts produced in the previous step.

A final circle-time discussion was used to reflect on this experience with the children.

### 3.7.4.2 Group 2. The 2nd grade class

The figure below presents an overview of the meetings dedicated to co-design and the implementation of the activities.

Figure 3.8 - Overview of the meetings (2nd grade class)



In particular, in connection with the theoretical and methodological criteria and the dimensions stated above, the activities were developed following the objectives listed in the following table:

Table 3.12 - Overview of the activities developed in the 2nd grade class

	Knowledge and awareness	Involvement and enhancement of the resources of children and families	Development of new skills: taking action
GOALS	<ul style="list-style-type: none"> <li>• To introduce the theme of multilingualism, cultural diversity and creating interest</li> <li>• To increase knowledge of one's own and others' linguistic and cultural backgrounds</li> <li>• To increase awareness of one's own origins and the importance they have.</li> <li>• To give children the opportunity to express their ideas and opinions on languages and cultures</li> <li>• To support the development of a conscious and plural identity.</li> </ul>	<ul style="list-style-type: none"> <li>• To know and value the resources and skills of children with regard to their own languages and cultures, with particular attention to new arrivals;</li> <li>• To mobilize cultural and linguistic resources at school and in the family of all participants (teachers, children, parents);</li> <li>• To involve parents in school life in order to increase mutual knowledge between teachers, children and parents;</li> <li>• To enhance the linguistic and cultural resources of families and diminish mutual prejudices.</li> </ul>	<ul style="list-style-type: none"> <li>• To support children's involvement and interest in intercultural education through the use of new technologies;</li> <li>• To promote change in the educational and teaching practice of teachers;</li> <li>• To encourage the development of e-skills in teachers and children;</li> <li>• To promote children's intercultural and multilingual competence.</li> </ul>

ACTIVITY NAME AND VLE LINK	<p><b>“Conducting research in the classroom: interviewing each other”</b></p> <p><a href="https://vle.isotis.org/mod/page/view.php?id=2488">https://vle.isotis.org/mod/page/view.php?id=2488</a></p>	<p><b>“Tell me a story, in another language!”</b></p> <p><a href="https://vle.isotis.org/mod/page/view.php?id=1955">https://vle.isotis.org/mod/page/view.php?id=1955</a></p>	<p><b>“Creating multilingual digital storytelling”</b></p> <p><a href="https://vle.isotis.org/mod/page/view.php?id=1930">https://vle.isotis.org/mod/page/view.php?id=1930</a></p>
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The implementation of the activities and the use of the computer room took place between March and June 2019, about twice a month for a couple of hours each session. The children welcomed the proposals of the researchers and the teacher with enthusiasm, participation and interest. During the course of the project, three activities linked to each other were realized.

**Activity 1: Conducting a research in the classroom: interviewing each other:** The first activity chosen “*Conducting research in the classroom: interviewing each other*” (<https://vle.isotis.org/mod/page/view.php?id=2488>), was conducted by the Religion teacher (who was also involved in the activities with the fifth grade class). She felt that this activity allowed her to connect linguistic diversity with religious and cultural diversity in general. The aim was to increase children's and teachers' knowledge of the languages in the class and support children's awareness of their own linguistic and cultural backgrounds, also in relation to religion. The teachers decided to divide the activity into two steps that will be described below.

In the first phase of the activity, the children were asked to think of themselves as researchers. After a brief brainstorming on what it means to "do research" the children assumed the role of researchers and each student interviewed a classmate asking them:

- which languages they knew how to speak, read and write;
- which ones they spoke at school, which ones at home and which ones with friends;
- which of the languages they liked most, and which least, and why.

During the interviews in pairs, some children were amazed by the languages that their classmates knew and some asked additional questions out of curiosity. At the end of the interview, the children were given the opportunity to ask additional questions and draw their partner.

Each child wrote their answers on a sheet of paper without the name. Each child folded his or her own sheet of paper and put it in a closed box. At the end of this phase, the teacher read the interviews out loud and the children played at guessing who the description described. The children were very involved in guessing the identity of the classmates from their language profiles. The teacher was also amused and involved,



paying great attention to include the opinion and voice of all, and during the reading proposed moments of discussion on some answers to deepen the children's ideas and beliefs about languages, cultures and their identity:

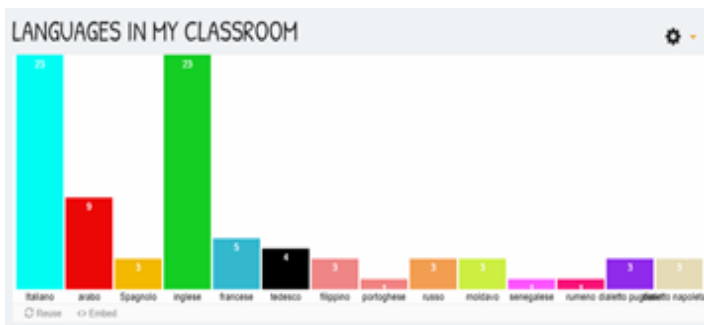


Ex. 1

- Teacher: "Why did you put Italian? Why do you like it more than Arabic?"
- Child: "I like Italian more".
- Researcher: "How come?..."
- Child: "Because Arabic doesn't help to learn Italian".

Ex. 2

- Child2: "Then there are only four Italians in class!"
- Teacher: "Well ... it's not really like that, there are so many children in class who were born in Italy ... they are also Italian".
- Child2: "I wanted to say that only four of them speak Italian at home!").



Following this activity we proposed a second step, asking the children to make a graph with the platform to see how many and which languages were represented in the classroom.

**Activity 2: "Tell me a story in another language":** After discovering the languages spoken by the children, an opportunity to expose the class to the languages discovered was created by inviting parents from the class to tell a story in their mother tongue (<https://vle.isotis.org/mod/page/view.php?id=1955>), to involve parents and give them the



opportunity to share the linguistic and narrative knowledge of the families in class, to make the different sounds of the languages heard, explore the different alphabets, reflect together on the differences and similarities between languages, support critical reasoning on their historical-

geographical origin and stimulate curiosity and intercultural sensitivity.

Children and teachers invited parents to the classroom via the ESL notice board and a diary notice. Four parents agreed to the proposal: a Moldovan mother who told two stories, one in Moldovan and one in Russian, a Filipino mother and father who sang a traditional song (using guitar and maracas) and an Italian mother who represented Italian culture by reading Article 3 of the Constitution which expresses the importance of equality between people.

Children who knew their mother tongue were asked to translate the stories into Italian. Some of them translated for the first time and, although teachers and parents were skeptical about their ability to translate, the children were competent mediators, also answering some questions from their classmates. At the end of each story, the teacher opened the conversation by encouraging the children to ask questions and asking some herself.

An Egyptian mother, who had not been able to participate because of work commitments, sent a link to an Arabic song on the VLE, which was listened to and translated in the class by the children.

Before starting the next activity, conceived of in collaboration with the children, the teacher overcame her fear that the children were too young and took them to the 'computer room' several times in order to let them access with their personal accounts. The children were able to familiarize with the computer and the platform, explore the platform and its functions, learn more about specific functions such as the use of the bulletin board, private messages, Beeba. This training on the one hand increased the children's interest in the project and allowed them to interact with each other on the platform, and on the other hand made the children 'experts' on the platform, able to help parents access the

The teacher, who until then had created only short messages, decided to make remote communication with the parents more dynamic, and started communicating home works through the noticeboard on the VLE so the children would have to use their skills to access and show their parents how to use the platform. This new feature was introduced during the Easter holidays.

The teacher sent the homework and the children started to do it, always using the notice board, as requested by the teacher: 'Many children wrote poems, short stories about their holidays, posted photos and it was possible to correct the texts in real time (...) An interactive dialogue with comments and stimuli useful for teaching was started'.

**Activity 3: Multilingual Digital Storytelling:** Thanks to using the platform for homework, more parents started to use it to respond to the requests that the children made to their parents during the third activity: *'by translating the work produced by the children into their own languages and dialects, they gave shape to the concept of promoting multilingualism, one of the objectives.'* (Teacher diary)

The last activity was conceived together with the children: to create a story by putting together some elements from the parents' stories and songs, using all possible languages known in class and a multimedia support (made simply with Power Point), creating a piece of multilingual digital storytelling (<https://vle.isotis.org/mod/page/view.php?id=1930>) to be placed on the class bulletin board.

This activity was connected to many didactic objectives of teaching Italian as it involved the creation of texts, reading and writing. It was also an interdisciplinary collaboration with the art teacher.

Organised into small groups, the children first invented a story, then told it using three different communication channels: writing, sounds and images. The teacher assigned a task to each child: 'the writers' wrote the story on the computer, 'the artists' took care of transforming it into drawings, 'the storytellers' recorded their voices.



The roles assigned by the teacher were not random but based on their skills and designed to improve their performance and self-esteem. For example: *"The speakers recorded with commitment and will to improve their reading performance. Among these, three children were chosen: two with emotional problems, who committed themselves to controlling their emotions, which normally limited the reading performance, and one, with a low level of reading skills perhaps due to problems not yet evaluated, who wanted to read his part at all costs, rereading it several times"* (Teacher Diary).

Later, the children asked their parents for help with translations via the VLE using private messages or the bulletin board. Some parents provided the translations so that the teacher and the researchers could insert them in the PowerPoint, with images, texts and voiceovers created ad hoc and then on the platform. The final products were 2 Digital Storytellings (created with PowerPoint and then transformed into MP4 format):

- a multilingual video containing scans of children's drawings, the text of the story written in several languages by the parents (Filipino, German, French and Moldovan) and the recorded voices of the children
- an Italian DS, with a text written on a computer, drawings by students and the recorded voice of children.

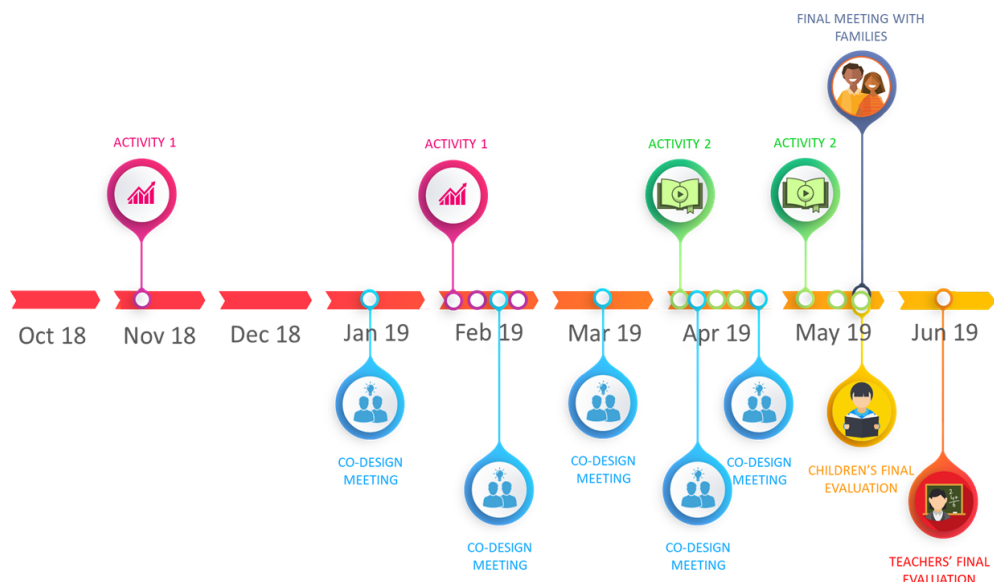
Figure 3.9 - Multilingual video containing scans of children's drawings



### 3.7.4.3 Group 3. The 3rd grade class

The figure below presents an overview of the meetings dedicated to co-design and the implementation of the activities:

Figure 3.10 - Overview of the meetings (3rd grade class)



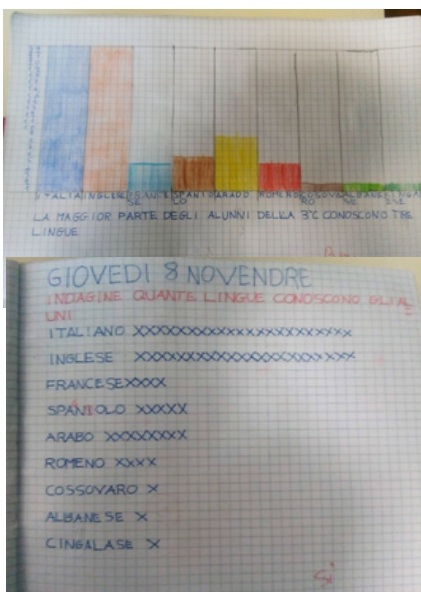
The following table illustrates how the activities carried out were developed following the objectives of the project and the theoretical and methodological criteria defined before the start of the intervention:

Table 3.13 - Overview of the activities developed in the 3rd grade class

	Knowledge and awareness	Involvement and enhancement of the resources of children and families	Development of new skills: taking action
GOALS	<ul style="list-style-type: none"> <li>• To introduce the theme of multilingualism, cultural diversity and creating interest;</li> <li>• To increase knowledge of one's own and others' linguistic and cultural backgrounds;</li> <li>• To increase awareness of one's own origins and the importance they have;</li> <li>• To give children the opportunity to express their ideas and opinions on languages and cultures;</li> <li>• To support the development of a conscious and plural identity.</li> </ul>	<ul style="list-style-type: none"> <li>• To support children's involvement and interest in intercultural education through the use of new technologies;</li> <li>• To promote change in the educational practice and teaching of teachers;</li> <li>• To encourage the development of e-skills of teachers and children;</li> <li>• To promote children's intercultural and multilingual competence;</li> <li>• To mobilize and enhance the resources and skills of children and families with regard to their languages of origin;</li> <li>• To involve parents in school life.</li> </ul>	
ACTIVITY NAME AND VLE LINK	<p><b>“Conducting research in the classroom: interviewing each other”</b></p> <p><a href="https://vle.isotis.org/mod/page/view.php?id=2488">https://vle.isotis.org/mod/page/view.php?id=2488</a></p>	<p><b>“Creating a multilingual Digital Storytelling”</b></p> <p><a href="https://vle.isotis.org/mod/page/view.php?id=1930">https://vle.isotis.org/mod/page/view.php?id=1930</a></p>	

Between November 2018 and May 2019, two activities were carried out: a survey on the languages spoken in the classes and in the other third grade classes at the school and a multilingual digital storytelling experience, in connection with the curricular study program about fables and fairy tales.

The activities were preliminarily agreed on with the teachers, although - as will be illustrated below - the degree of involvement and participation of the teachers was not particularly high.



**Activity 1: “Conducting research in the classroom: interviewing each other”:** Following one of the training meetings conducted as part of the project in which some possible activities that could be carried out on the platform were presented, the third grade class science teacher took as her starting point the activity "Conducting research in the classroom: interviewing each other" (<https://vle.isotis.org/mod/page/view.php?id=2488>) to carry out, together with the children, a survey on the languages spoken within the classroom. In particular, the teacher considered it interesting to be able to integrate the curriculum subjects that she was dealing with in the classroom at that time (proportions) with

the objectives of the ISOTIS project for the promotion and enhancement of linguistic diversity. It involved the children in exploring the languages spoken in the classroom and creating a histogram that would allow them to report, in a visual and immediate way, the great linguistic richness of the class. The histogram was initially created on the blackboard thanks to the contribution of all the children with the teacher’s supervision. Subsequently, each student copied it in their own notebook. The data emerged were then used by the teacher to start an in-depth study on the mathematical theme of proportions. At the next co-design meeting (January 2019), D. showed the researchers



the work done in class, declaring that she was very satisfied, both for the "connection" with the curriculum theme she was dealing with, and for the interest shown by the children.

The researchers then proposed that the teacher continue with this activity, for example by inviting the children to

interview each other to explore in more detail the language repertoire in the classroom or by involving other classes in the school in the survey. The teacher preferred the second option, considering the interview an impractical proposal "*because of the complexity of the questions*" (D.'s diary). In February, therefore, after having previously obtained the consent of colleagues, the children were divided into four groups (heterogeneous within them in terms of skills and cultural origin), each of which went to one of the other third grade classes to survey them (the survey involved a total of 101 children). The children, although supported by the researchers, worked in complete autonomy, preparing an initial list of languages to be surveyed and choosing which questions to their classmates (e.g., "How many children in this class speak the X language?"; "A children who speak the X language, raise your hand"; "Are there any other languages that any of you speak that we have not already asked?"). Some children wanted to use their mother tongue to ask their classmates questions ("*Can I ask "how many children know Spanish?" in Spanish?*").



Subsequently, in small groups and with the support of the researchers, the children created the histograms directly on the VLE: graphs were created for each of the third grade classes as well as a global graph to illustrate the linguistic variety of the inter-class. The material, besides being presented and discussed collectively in the classroom (a video clip of this moment was also recorded, visible on the VLE <https://vle.isotis.org/mod/hsuforum/discuss.php?d=52>), was then uploaded to the Platform (<https://vle.isotis.org/mod/hvp/view.php?id=2630>), so as to be visible not only to children and teachers, but also to parents (<https://vle.isotis.org/mod/hsuforum/discuss.php?d=52>).

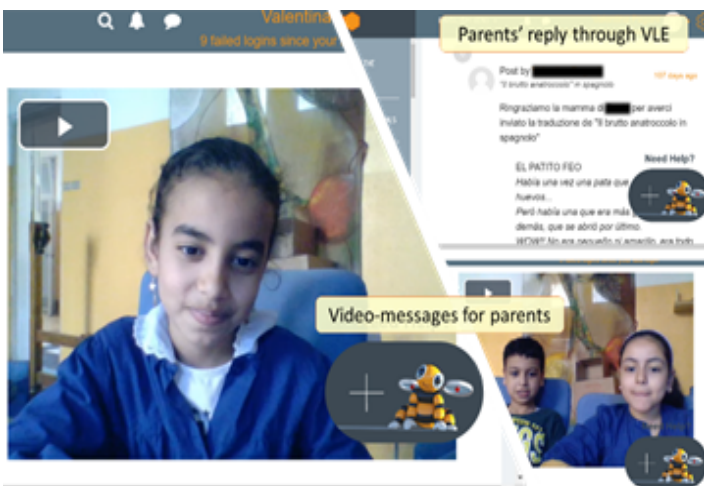
**Activity 2: “Creating multilingual Digital Storytelling”:** The second activity, carried out in April-May 2019, concerned the creation of two multilingual digital storytellings (DS). This activity was proposed to teachers during the co-design meeting at the beginning of April. The two teachers, in fact, believing they were behind with the program and already burdened by other commitments and deadlines had not yet made a decision on what other proposals to do with the class within the ISOTIS project. The storytelling activity was linked to the theme that the class was working on at that time in Italian (fairytale, fables and myths), allowing to develop and expand it in a multilingual key and including the use of ICT.



The teachers found this proposal interesting and presented it to the children, who decided to focus on two fairy tales that recurred transversally, albeit with some variations, in the different cultures in the classroom: Little Red Riding Hood and The Ugly Duckling.

Duckling.

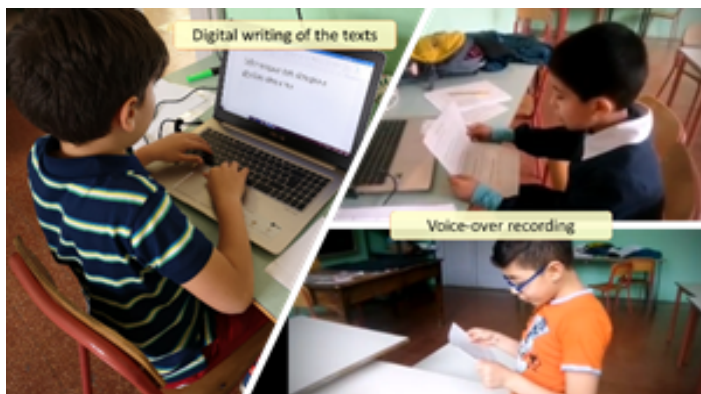
In class, the children, with the help of the teachers, divided each of the two fairy tales into six main scenes. For each scene, the children identified a short sentence that summarized it and made drawings to illustrate the characters and the main elements.



Parents were asked to contribute to the implementation of the two multilingual DS by translating the two stories selected by the children into their mother tongues. The students also uploaded, on the "Un po' di noi" bulletin board (dedicated to sharing the documentation of the activities carried out in the classroom), some video-

messages to encourage parents to participate, writing or audio-recording directly the translations onto the VLE.

Since only one family used the VLE to publish their own translation of the two stories, it was decided to use other channels to involve the parents: some parents provided a



'paper and pencil' written translation of the two stories; in addition to this, a Sinhalese mother used WhatsApp to record and send her own voice and her son's voice to researchers while they were reading the stories, and a Moroccan mother went to





school to record herself reading in Arabic. In total, 6 families actively participated in the implementation of the multilingual DS projects. Thanks to their collaboration and that of some children, it was possible to translate the stories into several languages in addition to Italian: Albanian,

Arabic, Singhalese, Spanish and Romanian.

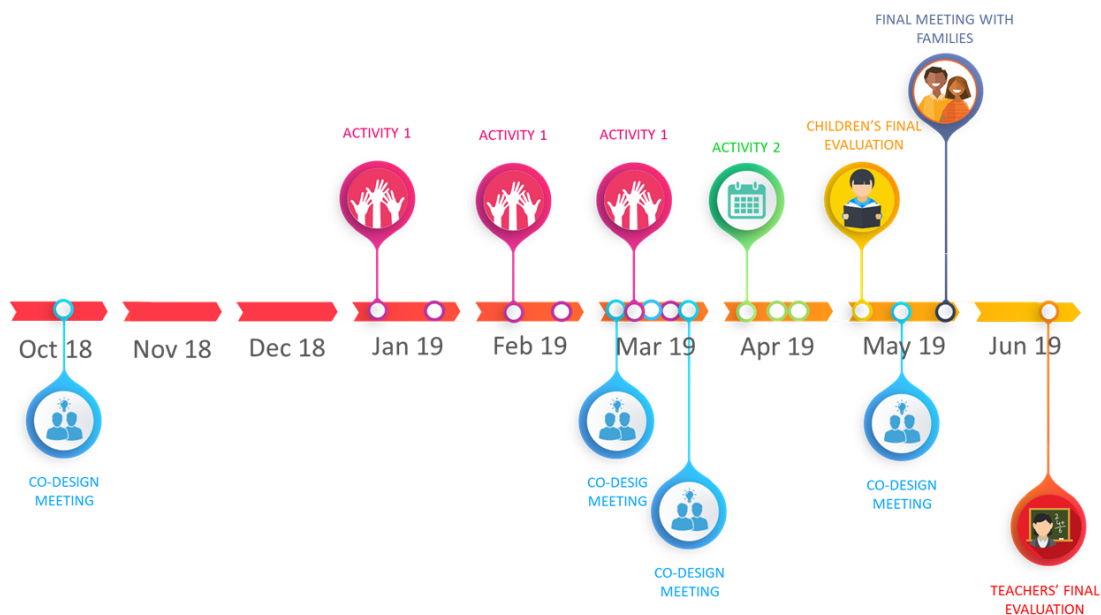
Once the material had been collected, the children, supported by the research team, created multilingual storytelling using Scratch platform (<https://scratch.mit.edu/>). All of the children contributed, recording voiceovers of the stories in the various languages or transcribing the texts collected into digital format.

The two DS created were then uploaded to the VLE on the "Un po' di noi" bulletin board to be shared with the families (<https://vle.isotis.org/mod/page/view.php?id=3576>).

#### 3.7.4.4 Group 4. The 5th grade class

The figure below presents an overview of the meetings dedicated to co-design and the implementation of the activities.

Figure 3.11 - Overview of the meetings (5th grade class)



A particular feature of the WP4 intervention in the 5th grade class was the strong synergy with the WP2 child study<sup>10</sup> (as in the preschool class). The table below shows the goals and specific features of the WP2 Child Study/WP4 intervention in the 5th grade class.

Table 3.14 - Overview of the activities developed in the 5th grade class

	Knowledge and awareness	Involvement and enhancement of the resources of children and families	Development of new skills: taking action
GOALS	<ul style="list-style-type: none"> <li>To discuss feelings on situations of being new in a context or feeling excluded;</li> <li>To promote and implement children's strategies to include everyone at school and to welcome newly-arrived pupils;</li> <li>To foster children's active participation and co-responsibility;</li> <li>To know and value children's resources and skills with regard to their own languages and cultures, with particular attention to new arrivals.</li> </ul>	<ul style="list-style-type: none"> <li>To support children's involvement and interest in intercultural education through the use of new technologies;</li> <li>To promote interlinguistic and intercultural comparison among children;</li> <li>To encourage the development of e-skills of teachers and children;</li> <li>To promote children's intercultural and multilingual competence.</li> </ul>	
ACTIVITY NAME AND VLE LINK	<p><b>“Welcome to our school”</b></p> <p><a href="https://vle.isotis.org/mod/page/view.php?id=1661">https://vle.isotis.org/mod/page/view.php?id=1661</a></p>	<p><b>“Multimedia intercultural calendar”</b></p> <p><a href="https://vle.isotis.org/mod/forum/view.php?id=2450">https://vle.isotis.org/mod/forum/view.php?id=2450</a></p>	

<sup>10</sup> See D2.4 Technical Report, paragraph 3.4.1 The research protocol for the primary school context (9-10 year olds), available at [http://www.isotis.org/wp-content/uploads/2019/05/D2.4\\_Technical-Report-on-the-Child-interview-study.pdf](http://www.isotis.org/wp-content/uploads/2019/05/D2.4_Technical-Report-on-the-Child-interview-study.pdf).

Because of the specificity of the WP2 Children study design with primary school students, the methodological proposal was presented to the teachers who were involved to propose adaptations. The teachers did not propose any adaptations, whereas the researcher and the research assistant introduced the adaptations described in detail below to use the Virtual Learning Environment. Some further adaptations were planned step by step, to better follow the children's ideas and proposals.

After the children's evaluation of school inclusiveness and factors promoting well-being at school, they made proposals on how to make the school more inclusive that led to the creation of a digital multi-religious calendar (<https://vle.isotis.org/mod/forum/view.php?id=2450>). A long process made up of several steps involved parents, teachers and children, thus empowering interconnections among subjects, family and school. It was based on a participative research approach, giving voice to children on school inclusiveness and it enabled the co-creation of blended content (a multi-religious calendar) aimed at raising sensitivity about religious diversity, thus fostering the global intercultural competences of children and teachers.

During the first part of the study, each research session lasted 2 hours, but step 3 (the preparation of the inclusion kit) lasted for 4 hours and the implementation of one proposal lasted for three 2-hour meetings.

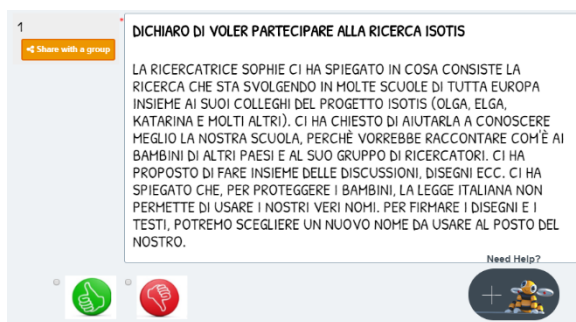
The first activities were entirely conducted by the two researchers with the presence of the support teacher (who was there for a student with a disability), while the production of the multireligious calendar (Activity 2) was carried out in cooperation with the religion teacher.

All the activities implemented took place between January and April 2019.

**Activity 1: “Welcome to our school”:** The first step was to create and introduce the class noticeboard to the students. We introduced the WP2 Children Study using the ISOTIS VLE through a notification for the class group on the VLE class noticeboard. The class met in the computer lab; each child had a personal workstation.. With the help of the research assistant, children signed up on the VLE (<https://vle.isotis.org/>) with the credentials provided by the co-tutor and changed their password, customizing it (also by combining animal icons). They were asked to choose their preferred language for the platform and received the directions to get to the class noticeboard, “Il mio spazio” > “I miei gruppi” > “5C Cadorna” > “Bacheca” where the researcher had left a short video-message asking for permission to come back for some help to better understand their point of view on their school, in order to contribute to the European Children study. It was

projected on the wall and the children answered the researcher's question "Can I come back to visit you?" and commented on the video.

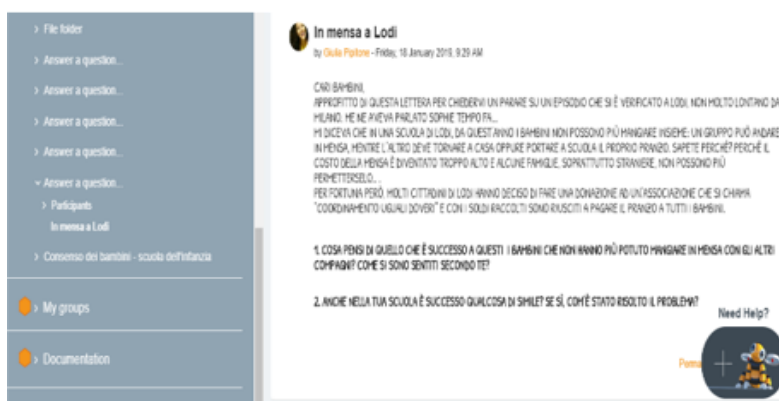
Meanwhile, in this situation, the children started to experience the possibilities offered by the platform in an authentic way: in addition to the textual response mode, other multimedia channels were shown through which it was possible to communicate on the VLE (audio, video, drawings, images and photos...); the students discovered the private chat and exchanged personal messages autonomously.



The researcher, already in the school building without the children's knowledge, waited for their response and once the children authorized her to come by answering through the noticeboard, the researcher joined them in the computer lab. There, the researchers explained the aims of the Children Study using simple

words they could understand. Before starting the activities, each child signed a digital informed consent form on the VLE.

As a starting point to engage the children in the activity, a letter from a researcher (Martine) in the Netherlands was presented through a PowToon animation on the VLE (<https://www.powtoon.com/online-presentation/edhhNAjEySt/lettera-da-martine/?mode=movie#/>), projected in the classroom. The aim of the message was to establish a collaboration with the children of 5C and invite them to respond to the letter uploaded on the VLE.



The letter was designed so that each section of the text would present a theme on which the children were invited to express their opinions through direct questions.

After watching the PowToon animation on the noticeboard, each child received a section of the letter and some questions in their personal VLE space to answer individually on the VLE using the "Answer a question" tool. The children could choose whether to answer through a video or audio message, with a written text or with a drawing realized on the VLE.

Once all children had given individual answers, children with the same topic were invited to work together in small groups and were asked to provide a group answer to the researcher who wrote the letter. The answer could take the form of a video, audio, written text or drawing. All answers were then posted on the VLE, watched together and discussed through a focus group discussion with all class members. The groups worked out their answers and agreed on which multimedia channel to use to communicate their point of view to Martine: text messages, audio and video recordings were produced.

**Re: Ramadan**  
by [redacted] - Friday, 18 January 2019, 10:39 AM



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**Re: Zuna, pelle color cannella**  
by [redacted] - Friday, 18 January 2019, 9:52 AM

Gabrielle: 1. Zuna si è sentita male perchè aveva la carnagione scura

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**Re: Zuna, pelle color cannella**  
by [redacted] - Friday, 18 January 2019, 9:55 AM

Secondo me Zuna quando la prendevano in giro per il suo colore di pelle si sentiva molto male e provava tristezza per quello che ha passato. A me è successo all'asilo, per via di un gruppetto di bambine che mi prendevano in giro, ma nella classe che frequento ora non è mai successo e credo che non succederà mai.

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**Re: Zuna, pelle color cannella**  
by [redacted] - Friday, 18 January 2019, 9:56 AM

Gabrielle: 2. non tanto ma io mi vergognavo da solo

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**Re: La paura di Engy**  
by [redacted] - Friday, 18 January 2019, 10:41 AM



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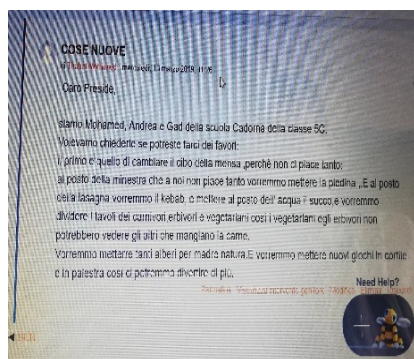
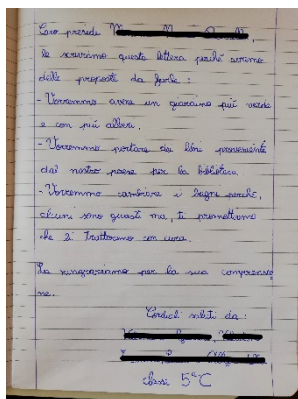
After the letter activity, an evaluation of the school context was realized on the VLE through the “Answer a question” tool: children were asked to think what were the things at school made them feel good at school (suns) and what made them feel uneasy (clouds).

Due to the lack of computers and also because some children had difficulties accessing their VLE space, children worked in pairs (each child chose their partner). They were given the possibility to answer through a video, audio, written text or drawing and, while the activity was presented in the computer lab, the children were then free to choose where to compose their answers.

In a plenary session, all of the answers were presented to the class and after exchanging some reflections on the answers, the children were first asked to think about suggestions on how to make their school more welcoming and inclusive, to send to the Dutch researcher who would be collecting suggestions from children in different European countries to deliver to the European Union in order to improve school inclusiveness in Europe. This latter activity was introduced by giving a concrete example of a letter written by another class of 9-year-old children from another neighborhood on the outskirts of Milan: these children wrote a letter to the Mayor of the city, who answered the letter and implemented one of the children's proposals in the months following. The children were encouraged to make concrete proposals that could be directly implemented in their own school.

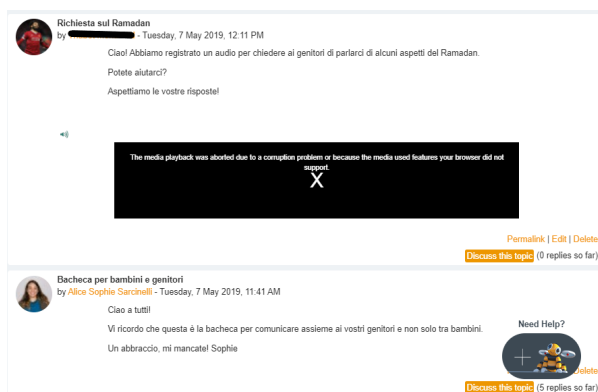
Children were free to form small groups and choose the form their proposal would take: video, letters, posters, drawings etc. Children's products were varied:

there were posters, letters to the School Director...



video clips and video interviews with other children in the class; short video clips where the children acted or simulated an information campaign; video messages to the teachers; a protocol on how to welcome newly-arrived students. The children also proposed to create a special notice board for direct dialogue with the School Director.

**Activity 2 - “Digital multi-religious calendar”:** The last phase of the work led to the implementation of one of the students’ proposals after negotiation with all the class teachers. In continuity with a video prepared by one of the groups on different religions, the children opted to create an awareness raising project about religious diversity in the school: a digital, multi-religious calendar on the VLE to be posted on the school website. The calendar was meant to contain videos, information, pictures and explanations collected among the school personnel and the families regarding special dates and celebrations for different religions.



During the first phase, the Religion teacher asked the children to hang words on a notice board (one for each letter of the alphabet) related to religious holidays. To create the digital multi-religious calendar, we started from those words, choosing some of them to deepen the meaning and then choosing religious holidays that could be included in the calendar (at least one

holiday per month). Then the children divided into groups to collect information materials and testimonies about the chosen holidays. The children asked their parents - through video and audio posted on a class parent-children notice board (<https://vle.isotis.org/course/view.php?id=827>) created specifically for this purpose featuring mother tongue letters written by the children themselves - to contribute with photos, recipes, videos and other forms of documentation of their religious holidays.

The children were asked to use an H5P application for multimedia production and learned how to use it. They explored the applications and unanimously chose to use the Course Presentation tool, considered interesting from a graphic point of view because each month was characterized by icons and particular colours, which made it easier to identify.

In order to choose the festivities to be analyzed and included in the multi-religious calendar, the children proposed some festivities from different religions, including the Catholic, Coptic, Muslim, Jewish and Waldensian religions. The festivities chosen by the children and shown on the interactive whiteboard were listed. Subsequently, the children decided how to divide up the work in order to deepen each festivity: many groups chose to carry out interviews with people belonging to the religion of the chosen festivity; to establish the questions to be submitted, they started from personal curiosity, moved by a real interest both in the activity itself and in the discovery of new religions.

After searching for information, images and testimonials using mobile phones, tablets and computers, the children produced small multimedia texts and videos and each group was then able to upload their own product(s) on the calendar during a meeting held in a computer lab. Each component helped the person using the PC to arrange the layout of the slide and all carefully followed the technical explanation of how to add their work to the calendar.

The cycle of identifying festivities, searching for information and testimonials, creating products and uploading was repeated several times: the children wanted there to be at least one holiday for each month of the year, and they repeatedly asked for the support and collaboration of parents, both through VLEs and at home.

The final product was uploaded to the ISOTIS VLE ([https://h5p.org/node/473025?feed\\_me=npse](https://h5p.org/node/473025?feed_me=npse)) and to the school's website so that it could be seen by everyone and expanded by other children after them (they were in their final year at the primary school).

#### 3.7.4.5 Restitution: Presentation to the parents and focus group

The first part of the meeting was dedicated to children, while the second part was dedicated to dialogue with parents. The students presented the activities carried out during the year, following an outline they prepared and showing their outputs on the VLE. This was followed by a focus group with the parents, led by two researchers (e, nel caso del 2nd grade class, da una ricercatrice e da un'insegnante), without the children present.

At preschool, the children did not take part in the final meeting with their parents. By the teachers' choice, after a snack with the parents offered by the research team, the children played in another room while the parents saw drawings, photos and videos of the activities carried out and engaged in a discussion about the children's experience and the use of VLE.

As far as the 2nd grade was concerned, during a co-design meeting, researchers and teachers created the schedule for the meeting with the parents and shared the outline for group discussion that would take place at the end of the afternoon with the parents. The main teacher of the class expressed her willingness to experiment co-leading the focus group, asking the parents some strategic questions. In addition, she proposed a brief multilingual presentation by the children in order to introduce the afternoon with the parents. For this reason, the children and teacher dedicated themselves to the presentation, writing down what they learned from ISOTIS and what they liked the most. Encouraged by the teacher, the most linguistically competent children translated the



most significant sentences from Italian into in their mother tongues (Moldovan, Filipino, Portuguese, Arabic, English and French).

The afternoon with the families was structured as follows:

- the children presented in several languages and told their parents about their experience with ISOTIS ("we have learned that together we are stronger" "we have learned that languages are important" "now we will show you what we have done" ...). During their presentation on the interactive whiteboard, pictures of the activities carried out in the classroom during the year collected by the researchers were played in a loop.
- Children, parents and researchers watched the multilingual Digital Storytelling together.
- The children went to play in another classroom while parents, researchers and teachers started the group discussion, led by a researcher and C.

In the third grade class, before the presentation for the parents, the researchers showed the children the final product of the digital storytelling activity (completed, due to the limited hours available to complete the activity in class, by the researchers). The children were not only able to 'touch' the result of their commitment and become even more familiar with the features of the Scratch software used to create the DS (e.g. the possibility to change language during the storytelling). This was followed by the presentation of the two activities carried out (according to a previously defined schedule by the children themselves with the support of the teachers and the research team) and a moment of discussion in which children, parents, teachers and researchers participated. Subsequently, a focus group was conducted with parents and teachers, led by the researchers, without the children present.

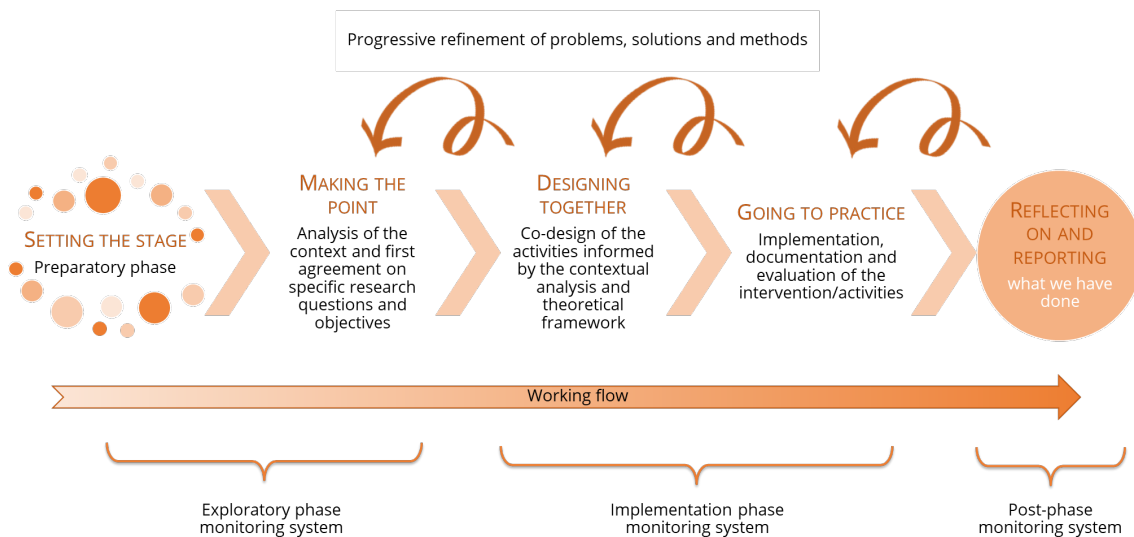
The 5th grade class followed an outline prepared by them and showed videos and posters produced on "Feeling good at school" and the multireligious digital calendar. The first group presented their reflections on bullying, sharing the video/interview edited by a classmate and the poster with parents. Afterwards, the video of the scene linking the theme of bullying to that of linguistic diversity was presented. In conclusion, time was left for sharing the multi-religious and multimedia calendar.

## 3.8 PART IV - MONITORING SYSTEM: documentation, data collection and evaluation

### 3.8.1 The Monitoring System - Perceived and observed impact

As presented in Chapter 1 of this report (Section B), the monitoring system coincided with the exploratory - implementation and closure phases of the intervention, as shown in the figure below.

Figure 3.12 - *Workflow & Monitoring system*



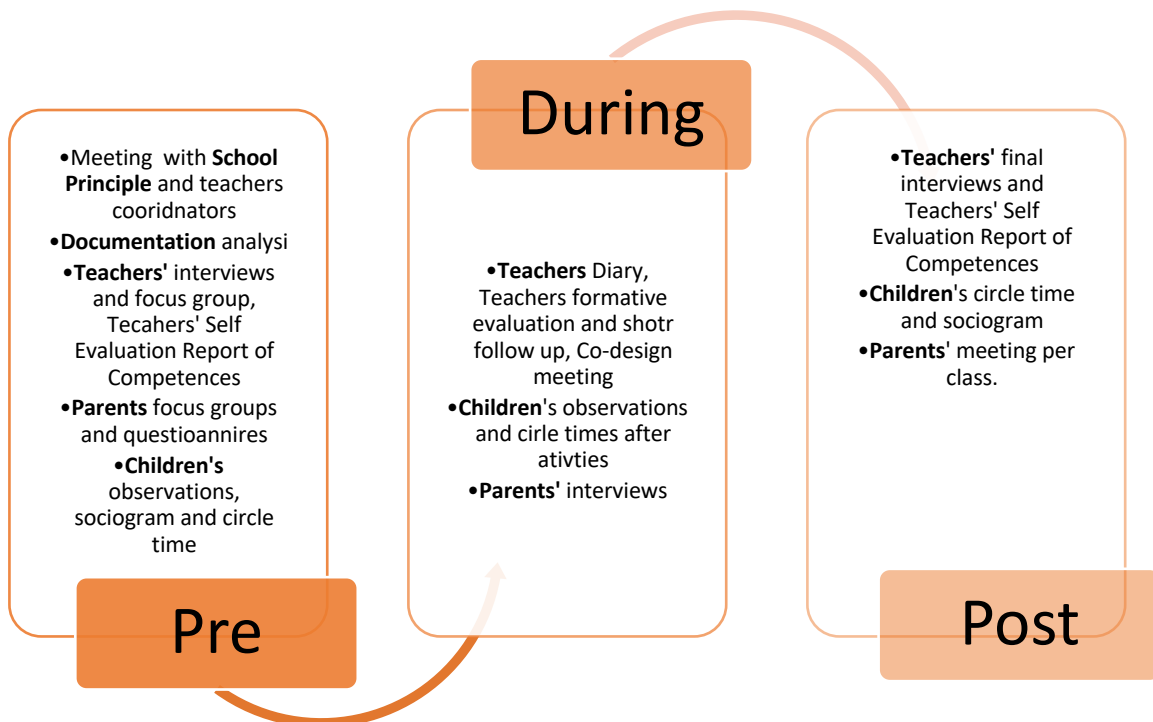
A multi-method set of instruments was used:

- Before the intervention:
  - survey of opinions, perceptions and reflections from the participants on the topics addressed and on the VLE (when presented);
  - observation of teacher's and children's behaviors;
  - analysis of official school documentation (educational Guidelines if any; School projects, etc.).
- During the co-design and implementation phases:
  - documentation of the work process of the teachers, involving them in training evaluations to refine the activity design;
  - data collection of the children's and teachers' experiences using the VLE and participation in the activities;

- data collection of parent-teacher communication and parent experience (if involved directly in activities) or opinions on the children's experience.
- After the intervention:
  - survey of opinions, perceptions and reflections from the participants;
  - evaluation of outcomes, changes, impacts related to the main aim and specific objectives of the ICT-based intervention.

The figure below provides a synthesis of all the instruments implemented:

Figure 3.13 - *Synthesis of the instruments implemented*



The many observational and survey tools used made it possible to collect a great deal of data and triangulate the information, not in order to "demonstrate" impacts over the medium- to long-term or to demonstrate causal links, as in an experimental design. It was an "exploratory" study of the use of a new digital platform, albeit guided by rigorous and well-founded methodological criteria. The aim of the survey was to describe the process in detail, to observe and listen to the subjects involved throughout, from the preparation to the implementation of the activities, to support the observation of the behavior with the perception that the subjects had regarding the experience, both with

respect to the work process, with respect to the pedagogical approach and activities, and, of course, with respect to the VLE. This extensive data collection has allowed (and will allow over time, deepening the analysis) to describe and interpret in detail the characteristics of the intervention, what facilitated and what was an obstacle as well as the effectiveness of the criteria that guided the work.

In this report, we focus in particular on the observation and point of view of teachers and children (for an in-depth analysis of the point of view of parents, see Report D.3.4) in relation to the following topics:

- Children's Participation and interest;
- Social climate and relationships in the classroom;
- Enhancing multilingualism and multicultural identity;
- Activities;
- ICT skills;
- Teacher Self evaluation report of competences.

A separate paragraph is dedicated to the use and opinions of children and teachers on the VLE.

Overall, the assessment of the intervention is positive and significant changes have been observed at different levels, although there were some critical issues. Despite the change in teachers involved in the intervention and some problems, the feedback was positive both at representational levels and at behavioral/practical levels with regard to the various aspects listed below:

#### 3.8.1.1 Children's Participation and interest:

At the behavioral/practical level, the intervention had an extremely positive effect on children who showed a high level of interest, participation and motivation, initially due to the use of non-ordinary communication channels, and certainly closer to the world of "digital natives" and, later, to the possibility of telling about themselves, both elements which we could observe the effects of at the end of the experience. This emerged from what was reported by teachers, researchers, parents and the children themselves. The work carried out on the platform was, from the point of view of the teachers, one of the strong points of the project: it fascinated and motivated the children, making them protagonists and therefore more active ["The children showed great interest in using this tool that motivated them in writing. Having a platform on which to exchange didactic works with the class is certainly a useful and motivating tool" C., final interview].

A child supported by a support teacher because of a diagnosed difficulty in reading and writing said, while writing on the computer: "*it is beautiful to write on the computer*

[...] *if I make a mistake and delete it, the 'sheet' remains clean!*"[research diary, 2nd grade class]. Also according to the parents, the children had significant involvement in carrying out the tasks assigned through the platform ("*thanks to the platform A. asked to write another essay. A child has never been seen to say: "I want to do my homework again!"*") or in communication with classmates ("*he always asked me if I could go and see if anyone had written on the platform, if there was anything new!*") [2nd grade class, final FG with parents].

With regard to the content covered, the researchers observed numerous opportunities for discussion where children felt free to share happy or unhappy episodes from their past and space was given to dialogue on the theme of diversity and inclusion. The non-judgmental moments of dialogue offered by the WP4 intervention allowed us to deepen the theme and make some reflections explicit: "*In my opinion this is also about diversity, because it made me understand that although you are a different color, you are not different from the others because you are still a person like everyone else*" [child22, final focus group, 5th grade class]. Telling about one's own culture and having space and time specifically dedicated to it was the motivation that moved some children beyond the barrier of shyness and the fear of not being accepted. We noticed this in Child1, a 5th grade child, who joined the class group the previous year and was not particularly talkative. When the time came to talk about her religion, she showed her exaltation and strong initiative.

Even the children in the preschool, despite not having used the platform, showed a considerable level of interest and participation in all of the activities proposed. In particular, during the focus groups they revealed good problem solving and decentralisation skills; supported by teachers and researchers, they tried to put themselves in the shoes of newcomers and found effective solutions to facilitate communication with them (e.g. Teacher 1 - *But if a child doesn't understand because he speaks another language, what can we do?* Child 3 - *If he speaks in a language that speaks Spanish, one of our friends who speaks Spanish can help us.* Teacher 1 - *And if someone speaks Arabic, you know Arabic, will you help him?* Child 3 - *Yes... But if he knows all the Arabic and I don't understand what he means, I can ask my mom*).

**Teacher participation and interest:** The participation and interest of teachers was uneven: while some teachers showed great enthusiasm and commitment, in other classes, the lack of commitment of teachers was the most critical element. It was difficult, especially towards the end of the year, to obtain the active participation of some teachers, who in fact left the implementation in the hands of the research team and allowed only a few hours of lesson time for it. Some of them made virtually no access to the platform or contributed to the bulletin boards set up. The School Director, initially

uninvolved in the project, was involved by the children themselves. When the School Director was asked to interact with the children from the class through the platform, he said he would gladly accept the invitation, since he was "*curious to explore the platform and to answer all the questions posed by the students*" [I., personal email to the researchers]. I. viewed all the video messages and letters from the students and responded to each of the proposals put forward by them, attaching a message for the whole class group.

The participation of preschool teachers was on the whole greater than that of some primary school colleagues. They were available and collaborative; during the design phase they suggested useful proposals to adapt the project to the characteristics of the children involved. During the final interview, although they stated that the research experience did not add anything to their knowledge and skills, the teachers admitted that the fact that they worked systematically throughout the school year made them more attentive to the theme of multilingualism, with positive effects on the children and their daily practices ("*If there had been no such project, probably, beyond the initiatives at certain times of the year, we would not always have focused our attention on the theme of bilingualism and therefore it allowed us to keep the focus throughout the year, while perhaps in previous years it was intense at the beginning, but then no... Maybe this is what we gained, that it is not a moment that starts and stops, but it can really be focal point from the start to the end of the year, to always keep in mind. And also the fact that children need this topic to be raised daily, so that it really becomes part of their lives*").

### 3.8.1.2 Parent participation and interest

Parent participation (see Report D3.4, Chapter 4) was not extended to the whole class group but to a minority group of parents in the class. In particular, in class 2, the teacher urged more use of the platform and participation in activities that required linguistic or narrative contributions from the parents. Although not everyone took part, about half of the families had used the noticeboard and some parents went to school to tell stories in their original language. In class 3, fewer parents were involved, but the parents at the final focus group expressed a highly positive assessment of the activities and opportunities offered by the platform. For some parents, the Isotis project was an opportunity to review their language choices in the family to maintain the language of origin, for some other parents it was an opportunity to share doubts about this for the first time. Beyond the accessibility limits of the platform, which represented a barrier to use, a key element was the role played by teachers in their relationship with parents and in the use of the platform to communicate. The case of the fifth class was striking, where the inclusion of parents was much more difficult: many parents had almost no access to the platform or contributed

to the notice boards set up. The poor participation of the parents was largely due to the lack of participation by the teachers (e.g. their lack of cooperation in preparing the list of parents and times to hand over passwords). In fact, many parents did not actively participate in the collection of materials for the activities and some of them were not particularly active at the meeting with the families. Once again, this was influenced by the lack of participation of the teachers: in some cases, the parent noticeboard was entirely designed by the researchers and no content was posted by the teachers and the final meeting with the families was entirely designed by the researchers and the children as far as the choice and presentation of the content, without any contribution from the class teachers. At the representational level, some teachers were not enthusiastic about parent involvement. However, many teachers did not seem to realize the fact that the difficulties in communication and the relationship with the families, confirmed at this meeting, also depended on the attitude of the teachers themselves, who, despite the great enthusiasm shown by their students to organize the meeting, did not get involved. Concerning parent representations, most of them said they experienced the project as something that mainly concerned their children and felt little involved despite requests. One mother testified the work done at home by her daughter editing a video to post on the class space on the platform: *"My daughter kept talking about it. Apart from the fact that there was the video to be edited and therefore the stress; but she was very enthusiastic (...) for her the project was beautiful and she had a lot of fun"*. (Italian mother, final focus group). A father's comment also showed their indirect participation in helping their children to carry out the collection of materials: *"we searched the Internet and she asked (...) She asked how to search and what to do, how to investigate, because more than anything she was attracted by the stories of Ramadan. Why? Why do they do it? Why don't they? How do they do it? There are so many things she asked and so many answers that I didn't have, so we looked together"* (Father from Ecuador, final focus group). Some parents confessed to the lack of time in following their children: *"I didn't try because of the work I do, but my daughter did, but the first few times she didn't manage to get in. I don't know if she got in. Now I don't follow her that much", "I haven't even tried. Then there was a sheet with two passwords, one in my name and one in the wife's name too, then with which we can enter? (...) Eh, I didn't even try it. I thought one for each family (...) I don't have time to do it and the wife... "You go, you follow everything"* (Egyptian father, final focus group). An Arabic mother, on the other hand, came in with a phone and wanted to use the platform even in middle school.

The participation of parents of children attending preschool was also generally poor. Some admitted that they did not have a good understanding of the purpose and articulation of the project, others said they were not informed about it. Some parents stated that they had encountered difficulties when accessing the platform for the first time

and that they had therefore given up (some because they were ashamed to admit their difficulties). Only a small number of families used the platform. Some parents, however, made themselves available to translate materials related to the activities carried out at school into their mother tongue to be uploaded on the platform. During the final meeting, they expressed their satisfaction with what was proposed to their children (one mother described the project as "*a turning point*", another as "*a great opportunity*"). The children's approach to the themes of multilingualism and multiculturalism was assessed as very positive by all those present.

### 3.8.1.3 Social climate and relationship in the class and students' self-esteem.

Two aspects that teachers also highlighted concerned the greater cohesion and collaboration between the children of the classes and the consolidation of self-esteem and confidence in their own abilities, especially on the part of those students who, more fragile from the didactic point of view, generally tended to emerge less within the class ("*I saw that they felt more cohesive, more authorized to... especially children who tended to speak less... to have even more confidence in themselves. For example, C6 [Romani child], who has always been a little bit... yes, strong as a personality, but in teaching it is as if he had awareness of... of his abilities, instead here [during the activity of DS], perhaps I saw him 'daring' in his own small way. So I saw them even more confident in their intervention, that's what was nice, because the class is more cohesive, and everyone has more self-esteem reinforced*" [D., final interview]). This was noticed by the children themselves: "*I learned that together you can do everything, that in the team, if you put your strengths together, you can do everything*" [2nd grade class, final FG].

The path and activities proposed allowed some children, often recognized as negative leaders, to highlight positive aspects of their personalities and thus be seen with different eyes and gave the opportunity to many children who sometimes remained on the fringes of the group to be protagonists. Regarding the most culturally and religiously closed pupils, telling about oneself had a positive effect in that it favored the establishment of a relationship of trust with their classmates, but above all with adults. This is the example of the key children Child13 of the 5th grade class, whose Muslim parents always adopted an approach of closure and protection of their cultural identity and whose teachers often expressed their negative prejudices against their religion and country of origin. Slowly, the attitude of child13 and his family changed: at the end of the project, child13 came to school with the mat to be able to be filmed while praying in order to add a video to the digital multi-religious calendar. The family also opened up to the Isotis team, offering an interview as a focal parent, and showed a more open attitude, for example, going on a



school trip for a week with his classmates. This had strong repercussions on child13 who became more and more included in the class life: "*Protagonist on the stage, for a few minutes, dressed only in a red suit, barefoot, - which for him ... even the change of dress was problematic - to speak in Italian and recite Orpheus. We can say that we have really conquered the world, with him*". [G., final interview].

From the data collected through the sociograms in the 2nd and 5th grade classes, one pre-intervention in January, and one post in June, it can be seen that, with some variations, between January and May the basic "hierarchy" was maintained with roughly the same children located in three categories: those "on the margins" (with fewer connections), those very popular and others on average popular. The most popular and least popular children remain almost always the same, however, in the second sociogram we can see an improvement. If at first the distribution of connections was unbalanced towards the most popular children, in the second, the relationships seem more distributed, homogeneous and less directed to the most popular students: among the other changes noted, we saw that at the end of the project there was a reshuffling (in 2nd grade of ethnic groups and in 5th grade between males and females (initially more separated). Even if in June some less popular children had their relationships and were named by more friends, the newly arrived non-Italophone children remained at the borders of the sociogram and were not very popular. Many of them, despite participating in the activities, did not change their position in the sociogram. Probably many extra-isotopic factors influenced this lack of change, such as the educational-didactic style of the school's teachers and the ideas and low expectations of the teachers. However, these data is not confirmed by the qualitative data collected during the monitoring, which instead showed an improvement in the relationships of these children "on the margins" of the sociogram.

Figure 3.14 - Sociogram of the 2nd grade class in January



Figure 3.15 - Sociogram of the 2nd grade class in June



Figure 3.16 - Sociogram of the 5th grade class in January

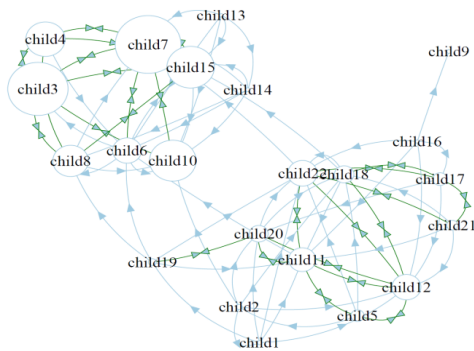
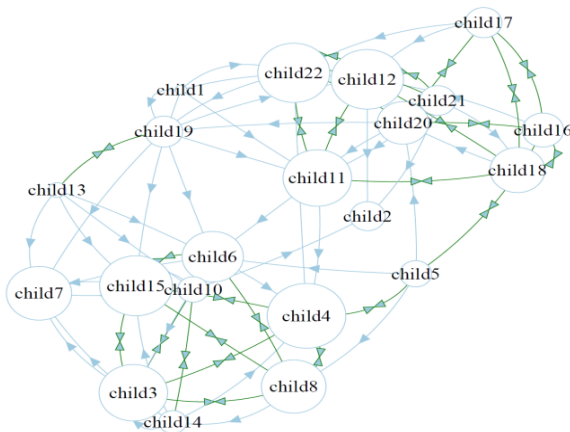


Figure 3.17 - Sociogram of the 5th grade class in May<sup>11</sup>



#### 3.8.1.4 Enhancing multilingualism and multicultural identity.

At the practical level, classroom activities provided educational strategies to deal with multicultural classes: from the observations, it was observed that some teachers began to develop their curricular activities in an intercultural and multilingual perspective, asking, for example, parents to translate texts invented by the children or deepening stories used for the lessons and from other countries with the children. The intervention contributed to give visibility to the linguistic richness present in the classroom (and in general in the school), increasing children's awareness of the variety of languages spoken and their curiosity about them. All teachers (including those who had dealt with multilingualism and multiculturalism in the past) recognized that the fact that they had worked systematically throughout the school year on these issues allowed them to

<sup>11</sup> In May the sociograms for Child2 e Child7 were not collected (they were absent that day), while Child9, who attended 1st grade, did not return to school after the Christmas holidays.

observe positive effects in everyday life that had not previously been recorded, such as the spontaneous use of the mother tongue by children during free play and a particular focus on the theme of multilingualism. Several children who were very reluctant to talk about their linguistic and cultural backgrounds before the intervention, were proud to know more languages or to be the only ones in the class who spoke a certain language at the end of the activities. The researchers found that initially there was shyness especially about their mother tongue (*Teacher: "Can you say hello in your language?"*). - *Child: "mmm..."* - *T: "Why don't you want to tell us? Are you ashamed?"* - *The child nods with his head*). At the end of the journey together, the children not only became familiar with the themes of their own cultural and linguistic identities but also acquired new knowledge about themselves and their companions and consolidated some skills. Many children did not know that they were able to translate from one language to another or had never tried it. After the activities, they said they were proud to speak another language. Parents also noticed an increase in interest in the language and culture of origin of the children; some say they saw even a "huge change", as children who were previously totally disinterested in their mother tongue or even rejected it (*"my son told me it's your fault if I'm Moldavian!"*), started asking many questions and expressed interest in learning how to write and speak their mother tongues (*"he asked me if I could teach him Russian too"*) during the project. Sometimes the change also spread to other family members, for example one mother says that "the other sister was also interested" in learning the language. The children themselves said that they learned a lot about the importance of languages, for example one child said *"it is important to listen to the languages of others, so we can learn them"* and another, referring to the arrival of new schoolmates: *"So when one of our classmates doesn't know how to say a word in Italian, he says it in his own language and we understand what he says"*; or again: C1: "I did not think they were so many! C2: "So how many different languages are there in the world?". However, there is also a critical aspect in this regard. During the last meeting where the children presented their work to the parents, there was a notably lower participation by the Italian students, who may have felt "lesser" than their peers with migrant backgrounds (*"They seemed a bit 'troubled' ... they felt left aside, because they didn't feel involved, because they weren't foreigners, there wasn't a language they could ... I don't know, they certainly participated, but ... maybe on the day we showed the work that they were a bit on the sidelines, a bit..."*. D. final interview).

### 3.8.1.5 The Activities

In general, the teachers give a rather positive assessment of the activities carried out and also some expressed willingness to re-propose some activities the following year. Some activities were criticized because they were considered excessively time-

consuming, even though they recognized the positive effects on the children, who felt very engaged and saw their own peculiarities and skills valued, but also on the teachers themselves, who were able to reflect on the importance of using less frontal methods of teaching. Overall, they believed that one of the main strengths of the intervention was the possibility to make children feel valued, not only in their role as students, but as a person "all round" ("*Doing other activities, where they feel involved, as people, in addition to being a student who must learn, but with a different experience, a different origin, this thing here certainly made them more ... certainly more rewarded*" [D., final interview]). Some parents were also positively affected by the intervention.

#### 3.8.1.6 ICT skills

Both the self-assessment questionnaires and the first interviews and observations revealed a substantial difficulty in the use of technology in daily lessons ("*Technology is a valid tool, but it is not what I prefer*" (C., initial interview). The children also started to use the computer room, who were not used to this much at first. The teachers who were most involved acquired many technological skills, increasing both their sense of self-efficacy and digital competence.

At a behavioral/practical level, through our observations we detected that the technological skills of the pupils and the confidence in using the VLE visibly increased. In fact, during the final meetings, they were autonomous both in the log-in/log-out phase and in the exploration of the platform itself, also asking us questions about the use of some features that had not yet been fully developed (e.g. avatars). This also emerged at representational level in the words of the students themselves: the ISOTIS path was an opportunity to learn "*how to turn on the computer, how to get to Google, how to upload videos, how to go and record audio; also learn to write on the keyboard*" [child7, 5th grade class, final focus with children]. The positive effect on children's ITC competences was also recognized by the teacher: "*the use of digital technologies in a positive and intelligent way*" [G., final interview] as a strong point of the intervention. Although due to the limited 'first-hand' involvement of teachers with the platform, children had only limited opportunities to experiment with the exploration of the platform and, in general, its use, they nevertheless welcomed the opportunities to use VLE at school with great enthusiasm. Even very simple operations (such as choosing one's own username and password, logging in to the platform, exploring the use of Beeba for speech synthesis and translation, creating digital charts for the first activity) aroused the children's interest and helped to increase their involvement. The use of ICTs was judged as a very positive aspect of the intervention by the children (for some, it was the main strength of the whole project). This was also partly due to the combination of two factors: on the one hand, the

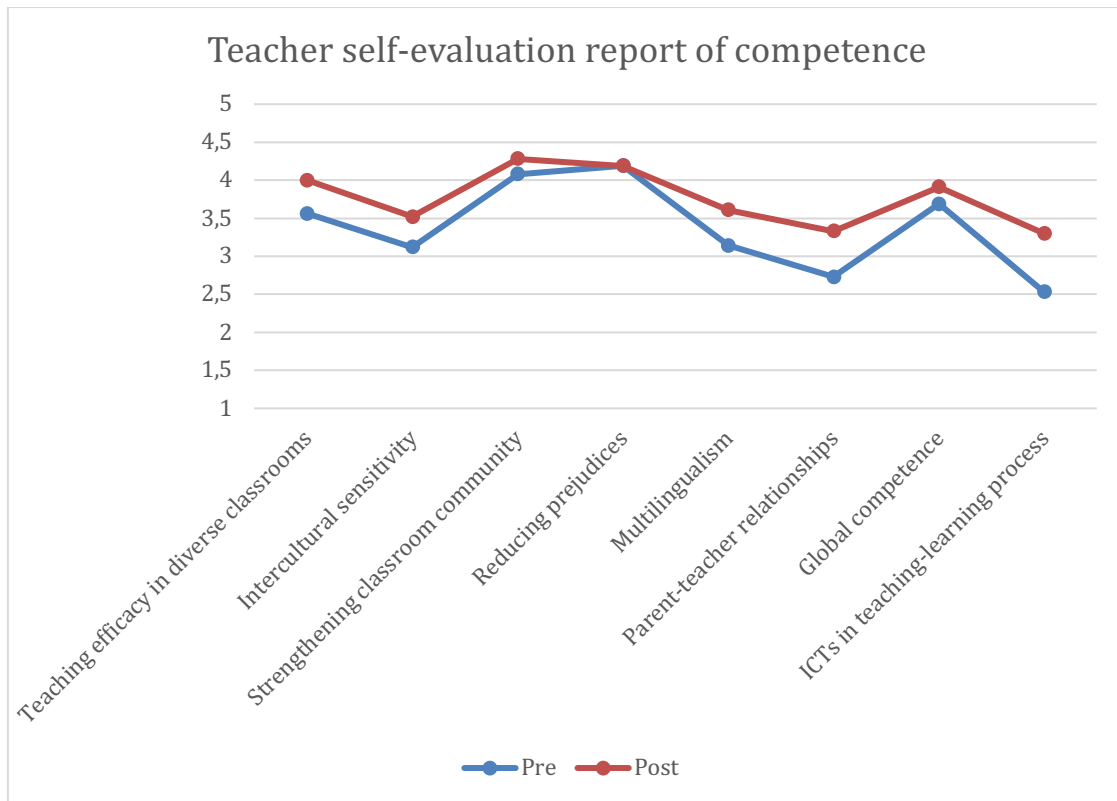
great appeal that technologies have on children, contrasted with the low use of ICTs within the school context (the class, in fact, had never used the computer lab, even outside the project, and the whiteboard is mostly managed by teachers, leaving little room for a more creative and active use by children).

Thanks to the intervention, the children experienced a constructive use of technology and the Internet and had the opportunity to reflect on religious and linguistic diversity and the theme of inclusion: "*They get the message that "X comes to school with me, is like me, does the same thing to me, and then we can live together in a beautiful and peaceful way, all together"* [G., final interview]. The platform was a great success and this was visible during the observations by adults close to them ("*he always asked me to go and see if anyone had written on the platform, if there were any news!"*). Most of the children, although they had had the opportunity to use smartphones, had never used a computer. At the end of the journey, most of the children were able to turn on their computer, access the platform and their account, write on the bulletin board, write private messages, upload videos, photos and audio files.

The digital skills of the preschool teachers were higher than those of their primary school colleagues. However, both said they were against children using digital tools in school and had never used them in class. The platform was used by them to communicate with their families and to document their activities with their children.

### 3.8.1.7 Teacher's Self evaluation report of competences

Figure 3.18 - Teachers self-evaluation report of competence



In order to take stock of the skills acquired and the learning gained through participation in the project, teachers were invited to fill in a self-assessment questionnaire before the start of the intervention and after the end of the activities. The comparison between the pre- and post-(average) scores is presented in the figure 3.19. In order to support this concise and quantitative evaluation with a qualitative analysis, teachers were offered a final interview in which the issues addressed by the questionnaire were touched upon and taken up again in greater detail. Moreover, also the digital reflective diary asked the teachers to express an evaluation at the end of the intervention, both with regard to the activities carried out and to gains in terms of professional development.

From the combined analysis of these three data sources - and as the figure 28 also shows visually - it is possible to draw an overall positive balance of the intervention. In particular, the following considerations emerged:

**Teaching efficacy in different classrooms, Intercultural sensitivity & Multilingualism:** The intervention contributed to increasing professional knowledge and

sensibility on the themes of multilingualism and interculturalism (D.'s questionnaire: *"For a long time I underestimated linguistic issues; it was thanks to the PD training that I re-evaluated my preconceived ideas on the subject of multilingualism"*), while increasing their awareness of the limits of their educational practices. It has also enabled them to acquire greater sensitivity towards the students in the class, recognizing the importance and need to acknowledge and value them not only in their role as students, but as "all-round" people. D. reflected during the final interview: *"I don't think I'm a bad teacher who never takes their origin [of the children] into account, on the contrary I think I do, but more consideration on the fact that maybe I could value more, add more elements that recall their origins... it's certainly something I hope I can do... and not get caught up in: 'I have to do that...' [the curriculum activities planned] I hope to be able to give more space to the children, and grasp more messages that perhaps, at times, they send and that we, preoccupied by what needs to be done, miss..."*.

- This has resulted in an increase in the sense of self-efficacy in dealing with the challenges posed by classrooms characterized by diversity. In fact, before the intervention several teachers admitted to having limited knowledge on these issues, which resulted in uncertainties at the level of educational practices (*"My knowledge on the subject is restricted. Some say that children shouldn't speak their mother tongue at home (...) I don't know how to behave and what advice to give to parents who ask me"* - C.'s pre-intervention questionnaire). At the end of the path, they found that they were enriched in terms of knowledge and operational ideas. For example, E. stated in her diary: *"[the intervention] aroused [our] curiosity by acting as an input or generator of ideas for future educational activities"* - E.'s diary). G., on the other hand, commented on the progress achieved with Child13: *"We can say that we have truly conquered the world, with him"*. C.'s words also go in this direction: *"Studies on multilingualism have tranquilized me with respect to old taboos according to which, in order to learn Italian, children mustn't speak in their mother tongues. This has led me to a series of assessments on the importance of valuing the children's native languages"*;
- **Strengthening classroom community & Reducing prejudices:** these two dimensions received the highest scores in both the inbound and outbound questionnaires. This is in line with the observations made by the research team during the exploratory phase, which found that peer relationships within the class were generally positive and constructive, without particular episodes of discrimination or prejudice. At the end of the intervention, the teachers confirmed that these were among the greatest strengths of their classroom experience. At the same time, especially during the final interviews, they found that the activities carried out produced a further improvement in peer relationships and in the level of inclusion and cohesion within the class;
- **Global competence:** no significant changes were found, as the teachers confirmed after the intervention the rather positive perception of their skills and competences at



this level;

- **ICTs in teaching-learning process:** the use of technologies in the classroom represented one of the main 'critical factors' recognized by teachers at the beginning of the intervention, mainly due to their perception of a poor sense of self-efficacy in their use. This data, on the other hand, confirmed the picture, indicated by the literature, of general 'digital illiteracy' which afflicts a large part of the teaching staff in Italian schools. At the end of the intervention, a variegated picture emerged in this regard. Some teachers, also because of their lack of personal involvement in the project and in the first-hand use of the platform for the implementation of the activities, did not notice a significant improvement in their attitudes and competence in the use of ICTs. However, at a representational level, they stated that the use of ICTs in the teaching-learning process represents an innovative element that helps the teacher to renew themselves, as well as being of great interest to children. Where teachers showed a greater interest and desire to put themselves to the test in the use of the platform, the final balance was much more positive and there was a significant improvement in their digital skills and, consequently in their perception of self-efficacy in the use of ICTs;
- **Parent-teacher relationships:** The relationship with families was also considered to be a particularly critical dimension before the start of the intervention. In the final evaluation, persistence of critical elements emerged, mainly linked to the limited participation of parents in the activities carried out; on the other hand, the satisfaction linked to the level of involvement and improvement in communication with families who participated in the proposals addressed to them by children and teachers was evidenced. The participation of parents also contributed to stimulating reflections on the importance of recognizing the cultural identity of families with a migrant background. C., for example, in the final interview stated: *"Parents were very sensitive showing the need to be recognized in their social identity, in feeling welcomed and in finding a place to express themselves without prejudice. This (...) accelerated the involvement of families, leading to a more immediate cultural and human contribution that made the class into an extended, more united group, parents and students, despite the many cultural and social differences"*.

### 3.8.2 The ISOTIS VLE in the intervention: use, opinions, challenges and role

#### 3.8.2.1 What did the research participants explore?

The exploration of the VLE was guided and supported by the researchers. Specific training meetings were dedicated to introducing **teachers** and **parents** to the VLE and discovering together its functionalities. During the meetings the overall structure of the VLE was presented through its three main sections (MY SPACE, CONTENTS, and TOOLS) and the main functions offered. Each participant received personal login

credentials at the beginning of the intervention, in order to continue the exploration on their own.

The **teacher** profile allowed them to have access to all the VLE sections and explore all the resources, functionalities and applications. Teachers explored the platform together with the researchers and autonomously.

They mainly browsed the resources related to the topics of the intervention in which they were involved (“Promoting multilingualism in the classroom” and “Participation and Democratic life”), although also some other resources were also available, provided in English and in Italian.

In the scope of WP5, teachers also accessed descriptions of activities and materials uploaded by ISOTIS partners in other countries.

To deepen the exploration of the VLE, some VLE specific activities were presented to the **teachers** and used as a joint ‘class exercise’ also during the face-to-face thematic plenary meetings.

The **children** had access to the platform and were invited to explore resources and functionalities autonomously, even more than teachers.

The VLE sections available in the child profile were ‘My Space’ and ‘Tools: Explore the resource’, and during the interventions, all the ISOTIS videos were also made available in the child profile.

In ‘My Space’, children were provided access to several resources, such as ISOTIS videos or other videos embedded in the VLE; H5P applications useful to develop tasks; a questionnaire tool connected to videos. These resources and applications were sent to children by the teachers or the researchers through the Noticeboard system.

Children participated in forums and explored the communication functions provided by the Noticeboard system that allowed them to send messages through different media languages (text, audio & video-recording, drawing) and in different languages (multilingual keyboards and Google translator) using Beeba.

Students (especially children in the 5<sup>th</sup> and 2<sup>nd</sup> grade classes) also had the opportunity to explore the instant message system, and they explored and used a page to create a personal avatar profile.

The participation of **parents** was not particularly high, and specific meetings with parents were held for each class to present the VLE and to support their engagement.

In addition to the resource section, key focus was dedicated to presenting the Beeba functions and the MY GROUPS section, where, during the intervention, teachers in

collaboration with the researchers used the noticeboards to communicate and exchange materials (teacher & parent noticeboard, student & parent noticeboard, in the second grade, teacher & student & parent noticeboard and, in 5<sup>th</sup> grade student & School Director).

### 3.8.2.2 What did they use?

Due to the nature of the VLE intervention in Italy and the close synergy among WPs, the participants used different features of the VLE, mainly in the MY SPACE and CONTENT sections.

The use of the VLE varied according to the level of autonomous access (also for exploring the resources), the technological equipment in the classes and the digital skills of the teachers.

In general, **teachers** did not take full advantage of all the functionalities present in the VLE.

To increase teacher awareness, knowledge and skills in dealing with multicultural/multilingual classes, to experiment new ways to communicate with parents and to increase critical reflective skills, **teachers** used

- The CONTENT section:
  - ISOTIS VIDEOS in the sub-section “DID YOU KNOW?”: to increase knowledge regarding some key topics (language awareness, bi-/multilingualism, intercultural competence...) (e.g.,
  - ACTIVITIES in the sub-section “WHAT CAN YOU DO?” to get ideas/inspiration for some possible activities to be used in class;
  - CASES in the sub-section “OBSERVE AND REFLECT” to sustain teacher reflectivity;
- NOTICEBOARDS and FORUMS:
  - to send notices to parents and report homework assigned to the children;
  - to share documentation related to the activities implemented and the products (plurilingual stories, multilingual digital storytelling, multireligious calendar, ...) with the parents;
  - to exchange experiences, practices and reflections with professionals from other countries (in synergy with WP5 purposes);
  - to engage parents in school activities;
- The REFLECTIVE DIARY:
  - to keep track of and document the activities carried out;
  - to report personal reflections throughout the intervention;

The **children** used:

- The MY GROUPS function to carry out the activities.
  - Materials (answer a question tool with videos, drawings, and writing and languages in my classroom)
  - Noticeboards between students, teachers and researchers/students and parents/students and the principal to exchange videos, didactic and multilingual materials and to ask questions.
- AVATAR
- The MESSAGE function to communicate with other students, the researchers, parents and teachers (also to send video and audio messages)
- BEEBA to translate content

**Parents**, encouraged by children, teachers and researchers, used:

- The CONTENT section (videos), to get informed about bilingual language learning in children and to increase parent awareness, knowledge and skills in raising multicultural/multilingual children.
- The NOTICEBOARD to contribute to the Multireligious Calendar, read teacher notices and class documentation, contribute to the realization of the digital storytelling activities by providing written translations of the stories and experiment new ways to communicate with teachers; enhance family-school dialogue and collaboration.

### 3.8.2.3 What resources and functionalities were interesting and most liked?

The Italian **teachers**, besides storage space, considered the opportunities for communication and sharing between children, teachers and families provided by the noticeboard interesting. Teachers judged the VLE to be a promising tool to build 'community' for learning purposes, for sharing and communicating. In the WP5 experiences, it also facilitated the dialogue and exchange among professionals from different schools and different countries.

The **children** appreciated the opportunity to interact with peers and communicate with parents between home and school, receiving songs, stories, words in different languages from parents. Looking at the noticeboard to see if any news was on it was exciting.

They appreciated the participation of the parents in the activities and on the VLE: "it was nice when the parents came because they told stories and sang in their own languages" "it was nice to hear new languages so that we can learn them" "so that we can recognize them and by travelling we can understand the language of the place where we go" "with the new words we can discover the world!" b).

The aspects of the VLE that **parents** appreciated the most were:

- fostering communication among parents, with teachers & with the school, using a communication system that was inclusive, more rapid, easier for non-native speakers (though it needs to be simplified);
- the possibility to have access to documentation for activities realized in class by their children and get messages from the teachers;
- the possibility to strengthen the collaboration between school and home contexts as complementary learning environments,
- the possibility to increase their awareness about the school system and learning activities and to improve their participation in school life of their children and support them in learning activities and homework;
- the way the VLE was used by children (constructive, formative use, different from the most popular social media)

They also appreciated the follow resources/content on the platform:

- multilingual messages and contents;
- translation tools (Beeba);
- video communication with teachers through novel audio-visual resources;
- visual content of a didactic nature (e.g. on multilingualism).

#### 3.8.2.4 What did they like the least?

The **teachers** criticized the VLE mainly because it was perceived as unintuitive, excessively complex and fragmented in its functions. All of these aspects made it quite difficult for the professionals to use – far less master – the platform in complete autonomy without the assistance of the researchers. Moreover, also its graphic interface was considered esthetically unattractive.

In general, the **children** appreciated the VLE, but they did not like the fact that they could not easily use the VLE via mobiles. A few children did not like having to upload video, because it stressed them and made them anxious.

**Parents** said that the VLE was not user-friendly (they encountered problems with passwords), not easily accessible (“too nice”/“too many things”, difficulty or impossibility to find specific materials and documents among the wealth of resources provided), not smartphone-friendly and difficult to access without an internet connection. Some Italian parents found the videos not very interesting and the theoretical contributions of little use.

Some pitfalls, related to the multilingual interface and social communication system, were raised by a few parents: for instance one parent expressed the risk of discouraging immigrant parents from learning the language of their immigration country; others stressed the similarity with other tools that are already available (e.g. Google translator). Women observed the risk of feeling overwhelmed in using digital tools for communication, already using Whatsapp chats.

### 3.8.2.5 Do you think that the platform fostered any innovation in your practice? What (if any) potential do you see in the platform?

Teachers acknowledged how the VLE worked to motivate students in engaging in complex tasks, how it increased the participation of children not always willing to take part in activities, and how students were responsive to using it. All in all, they considered the ISOTIS VLE an asset and that it enhanced learning experiences. Both teachers and parents considered the VLE to be a powerful tool to enhance family-school communication and collaboration. In fact, the use of the VLE contributed to defining more symmetrical relationship/negotiation modalities between teachers and parents and enhanced parent levels of engagement and participation in school life. The sharing of some of the activities at school and/or at home through the VLE contributed to creating a more symmetrical relationship/negotiation modality between teachers and parents: teachers could make some examples of "activities" or "educational interventions" done at school visible, parents contributed to making their linguistic and (inter)cultural competences visible. In this sense, not only activities at school but also stories from the cultures of origin and other cultural traditions were shared through physical presence, the artefacts of each class and on the platform, so that knowledge flowed in both directions. Communication between school and migrant families, often complicated by problems of linguistic misunderstanding, was also facilitated by the visual languages used (videos-photos) and by the greater presence of the languages of origin at school and on the VLE. This kind of communication was also particularly useful to parents who did not participate in school life very much, or who were not in a position to participate because they did not have a voice (in the broadest sense: excessively fragile, vulnerable, isolated, or bearers of an idea of school as an independent context from the family which they should respect without intervening). The interaction between school and family, often unidirectional (school to family), also developed in the opposite direction: family to school.

Moreover, the teachers considered that the VLE had the potential to build a community of learners and to favour/scaffold dialogue and exchange among professionals from different schools/countries. These strengths made the School Director decide to extend

the use of VLE to the whole school, starting from the following year; while C. proposed to use the VLE to the Director of her new school.

### 3.8.2.6 What changes would you suggest?

**Teachers** suggested transforming the VLE structure and its functions to make it into a more immediate, intuitive and overall user-friendly platform. In concrete terms, they proposed:

- Making the interface more attractive;
- Enhancing and improving the opportunities for communication and exchange that the VLE can offer at various levels (between teachers and students, teachers and families or between professionals);
- Developing the translating functions further.

**Children** suggested:

- making the VLE a platform accessible to everyone: "you can publish it so it is not only for classes, but also for everyone, because virtually everyone can use it, all over the world, so that you can go to classes and you can say that we are asking for information on how to improve this even more and that you can use it worldwide and...". (Final FG, 5th grade class);
- making the platform usable without the internet through an App ("I think it would be nice to enter the platform without having to use the link, wi-fi, like child14 who can't enter the platform because s/he doesn't have Internet" Final FG, 5th grade class)
- introducing the possibility to video call classmates.

The **parents** suggested:

- separating the translation functions from those for communication and the content;
- to increase usability via smartphone with an easier interface (e.g. highlighting the sections for frequent and immediate use (translations) from those for consultation).

### 3.8.2.7 What role did the VLE play during the work process and the activities?

The VLE played a positive role in the class:

- Promoting children's motivation and interest to learn more about the topics addressed by the project, but also towards other curricular topics;
- Promoting active student participation and interactions between peers and working groups, also at a distance;
- Promoting learning through play and usage of ICTs;

- Promoting multilingual communication and the exchange of multilingual materials
- Promoting teacher-child communication and exchange through the Noticeboard-based communication system (i.e. children asked more questions and clarifications on homework, they talked to the teacher about the life at home, on holidays during the Easter Break, etc.);

In relation to collaboration with professionals, the VLE facilitated sharing by inspiring examples of work created in schools, featuring concrete examples of the activities conducted and materials produced by children.

With parents, on one hand, the use of the VLE contributed to enhance family-school communication. On the other hand, it contributed to making teachers find and experiment new modalities to engage and communicate with families (one of the sore points they pointed out during the exploratory phase) and acquire a more critical and reflective stance regarding their way of valuing families (e.g. use of the digital reflective diary; opportunities for international exchange).

### 3.8.2.8 What were the main challenges in the use of the VLE and what were the main advantages in using it?

The main challenge was to make **teachers** explore and use the VLE in a more autonomous and deliberate way. Although they experienced the opportunities offered by the VLE first-hand at various levels (PD, teaching-learning process, family-school communication), they often relied on the technical support of the ISOTIS researchers. The lack of familiarity of the teaching staff with ICTs and the time constraints played a role in this. Moreover, involving the teachers who were very busy with other projects and curricular planning, especially from April onwards, has been challenging.

One of the biggest challenges with regard to children was access to the platform from home, as this was closely related to the parent's interest in the project and the family's willingness to have children use the platform or electronic devices (in fact, not every child could interact in the same way and some never had access from home).

Another challenge concerned the storage of the password and the possibility of having internet connection or computer at home.

Even in the case of access from school, the problems were essentially the same:

- Lack of technological equipment for the entire class
- Forgetting passwords
- Use of the platform was not autonomous, but connected to the interest of the teacher in the project.



In addition, unfortunately, during the experimentation of the VLE, some functions changed position within the VLE (messages were moved during the implementation) and the children were no longer able to send messages.

The advantages identified:

- Increased teacher-child communication
- increased communication between children
- sharing of multilingual material and translation possibilities
- possibility to review materials made in class and comment together on the notice board

Involving **families** in school activities was another challenge because of the limited time available, problems in accessing the platform, lack of participation and the cooperation of some teachers. Moreover, almost all parents received the credentials to access the VLE associated with their e-mail address. This type of registration allowed the user to receive an email alert each time a message was written or a resource was uploaded to a forum/message board in one of the subscribed groups. It was possible, therefore, that some parents, seeing the alerts and communications from teachers directly by email, did not feel the need to enter the platform to read the same communication.

#### 3.8.2.9 How findings were shared with participants

In all classes, feedback was given with all the different actors involved in the intervention (teachers, parents, children) in different ways:

- Feedback on the activities to parents by the teachers (preschool) or by the children themselves (primary school). In the second case, the parents were invited to class by the children, who used the whiteboard to show the products made during the various activities carried out in class and on the VLE;
- Feedback of the outputs to the parents through the VLE ('Un po' di noi' Bulletin Board);
- Feedback for the School Director by the researchers. In the specific case of the fifth grade class, there was feedback from the children to the School Director through a specifically created notice board featuring their proposals and the products made by them.

#### 3.8.3 Overall evaluation of the intervention according to the adopted criteria

In the Roadmap document, we declared some general goals (adjusted and selected in

each local context according to agreement made with the local research participants), some quality criteria provided by previous WP4 Deliverables, namely D2.2 and D.2.3 and some specific cross-WP criteria.

#### 3.8.3.1 Goal achievement

According to the feedback collected from all the stakeholders, the main goals shared in Task 4.4. seemed to be at least partially met. An important limitation of evaluating the impact and the effect of the intervention regarded the lack of medium- and long-term impacts and effects due to the limited duration of the intervention and the monitoring system because of the timeline of the research project. The results could be evaluated only in the short-term, right after finishing the implementation of the activities.

The first objective focused on children - 'Connecting and bridging home and school children's linguistic and cultural experience, making visible (hence legitimizing, valuing) all of the multilingual repertoires and profiles of children (L1 - MT; L2-LOI; FL; Dialects), so that children explore, reflect on, practice different languages and cultures at school and feel part of a multilingual and multicultural community' - seems to have been achieved at a good level in the limited time of the intervention. The experiences carried out - based on active pedagogical approaches and centred on the children and their experiences - gave rise to very significant involvement of the children. Researchers, teachers and some parents observed general interest and enthusiasm of the children, some behavioral changes of both key-children (usually in the shadows because they were shyer and more passive or negatively labeled) and a sense of well-being of the newly arrived non-Italophone students in sharing with their linguistic competence in their mother tongues with classmates, shifting their image of 'children who cannot speak Italian' to 'children who can speak another language'. The similarity of perspectives between the different observers allows us to state that - at least with respect to the short-term - there were positive effects as regards the linguistic experience of children between home and school and the enhancement of all languages (including Italian dialects) which allowed children to explore languages, play with the words from different languages, question each other and experience a multilingual community of adults and children.

Contrary to the high participation of the children, there was not a high level of involvement in all teachers. In the self-assessment, they found an overall improvement in awareness and skills in dealing with diversity and multilingualism, but some of them maintained concerns about the possibility of integrating the issues of multilingualism and global competence into the school curriculum, particularly with regard to the time devoted to this. From this point of view, the intervention did not allow all teachers to overcome the

perception (found in the exploratory phase) of a dichotomy between curriculum and intercultural and global issues.

No precise measures were used. We collected multiple accurate feedback from the children and it seems likely that during the project the children acquired greater intercultural competence, understood as greater awareness, curiosity and respect towards each as an individual, towards differences and similarities with others, as stated in the second objective (Promoting teachers' and children's intercultural competence in dealing with diversity, in terms of respect for the uniqueness of each person, curiosity and appreciation of differences and acknowledgment of commonalities). Teachers also noted an increase in self-awareness (also in children): for some of them, the project confirmed some of their already implemented beliefs, values and approaches. This allowed them to adopt a more comprehensive vision of the educational proposals aimed at children, as in the case of preschool teachers or the primary school religion teacher; for other teachers, the project was an opportunity to reorient and review their ideas, or integrate (at least in part) the experiences and activities into their educational practice, as well as to question what the educational priorities and teaching in their teaching activities were. In a few cases, it was not possible to create a significant change of values and beliefs, misaligned respect to the project, in a such a short time.

The exploration of languages and the sharing of knowledge, narratives and life stories, had the aim of creating symmetry between cultures and languages, bringing to light, in a structured and legitimate way, an enormous linguistic richness that was suffocated, not expressed or reserved for 'clandestine' communication between children who did not want to be understood by other children or teachers. The intervention rebalanced the inevitable dominance of the Italian language, which is still central in the children's learning process and a crucial tool for school success, creating space for the 'other' languages present at school, as suggested by the third objective (Promoting good attitudes/ideas regarding all languages and cultures, soliciting the acknowledgement and deconstruction of the power relationship between cultures, ethnicities, races and languages (i.e. deconstructing the hierarchy of languages; dominant vs minority languages/ethnicities...)).

In particular, the children in the classes involved in participatory research (in synergy with the WP2 - Children Study) – the preschool and 5th grade classes - acted as co-researchers within the school and proposed and discussed possible initiatives to improve the school environment in order to make it more welcoming and inclusive. The work process- negotiating points of view, identifying possible proposals to take care of the 'common good' (i.e. the school), the letters addressed to the head teacher or the actual reception of children from the infant-toddler center, the construction of artefacts made

available to those entering the school- made possible a path of active citizenship, the acquisition of democratic values with a view to welcoming everyone, the recognition that differences were not an obstacle, but that the context opposed obstacles to differences, producing discomfort. This experience responded to the third objective: soliciting the acknowledgement of equal rights and social justice and promoting democratic values, attitudes, skills and behaviors. With respect to this objective, even the most language-focused paths allowed for the introduction of important issues, such as social justice and equal rights as an object of shared reflection among children, including the right to speak one's mother tongue without fearing feeling mocked, the right to think that one's own language, whatever it may be, has as much value as those with a dominant social status (or, as Bourdieu said, are at the top of the social market).

Finally, in reference to the objective 'Enhancing digital competence and increasing the use of positive technology', the use of the platform was innovative in a school context where technologies were used sporadically and in a basic way (showing videos or other material with the interactive whiteboard in the classroom). On the other hand, it was extremely challenging for teachers to use the platform, since the distance between their consolidated experience and the new experience we proposed was excessive for many of them. However, the experience allowed them to glimpse at the enormous potential offered by ICTs in general in improving the school learning environment, in particular with respect to multilingual and multicultural contexts and to reflect on more articulated didactic strategies for the use of ICTs, integrating off and online activities.

### 3.8.3.2 Coherence of the intervention with the adopted quality criteria

As a general statement, we can affirm that the design of the intervention in Italy and the implemented work process, in collaboration with teachers, children and parents, was coherent to the general criteria and general aims adopted in the cross WP VLE framework: **raising awareness and knowledge; promoting agency; valuing resources** and **sustaining collaboration and communication**. To what extent these aims were reached is harder to say, as the intervention had a limited time for implementation and the impact in the short-term was quite different, considering the different stakeholders involved: teachers, children and parents.

In the short-term, we had similar evaluations among researchers, teachers, parents and children (self-reporting their own experience during the final circle times and, for the primary school children, answering a questionnaire), regarding a higher level of awareness and knowledge reported by the children of the four classes involved. Their awareness was exemplified in the children's spontaneous conversations at school, not necessarily during the activities, as they had gotten used to talking about languages,

exchanging knowledge on words in different languages, or in the 5th grade class, discussing what could be the most effective way to sensitize the school to religious diversity and reduce discrimination (they created a multireligious multimedia calendar), etc.

Children responded promptly to the activities, going frequently beyond the request (in the 3<sup>rd</sup> grade class they accepted to work on the project activities also during the breaks) and making many proposals: *taking action* was exciting for them, and many children kept asking if the project would continue the following year, or at secondary school. Some parents asked about the possibility to continue the project, considering their children's increased motivation to go to school and involve parents themselves in school activities.

The key mediator in the collaboration and communication among children, teachers and parents, was the VLE, but children played also a *bridging role*, with their enthusiasm to use the platform and involve their parents, and, for the 5<sup>th</sup> grade class, the teachers less involved and the school principal. They unfortunately didn't always receive prompt responses from parents, in part due the low investment of some teachers in encouraging communication with the families, also due in part to the complexity of VLE use and the lack of time for familiarizing with a new tool.

Regarding teachers and parents, reaching all the four goals was challenging . The teachers were characterized by their highly varied levels of participation and motivation, as well as alignment in terms of values and beliefs. These were hard to be change in a short time, especially considering the absence of the School Director for almost the entire school year and a growing conflictual atmosphere among the teachers during the last months of the school year (for more details, see D.3.4 in the IT Country report on professional development). Positive aspects regard the acknowledgment from the teachers, even the ones more upheld the idea that the school curriculum did not allow for much time to dedicate to 'peripheral' activities, that the ISOTIS intervention led them to a more global vision of children, no more seen solely as 'students' but as 'people', each one with a story, a cultural and linguistic background, a personal view on school, on life, on themselves, and a stronger conviction of the positive effects of including in the school life also this overshadowed side on children's motivation and enjoyment.

Regarding parents, several factors played a role. Overall there was low investment by the teachers (especially in the Primary school) on teacher-parent communication and collaboration and a diffuse sense of impotence of the teachers in raising parent collaboration, as well as the difficulties encountered in using the VLE and having not much time to dedicate after work (for more details, see D.XX in the IT Country report on WP3 intervention). Positive aspects regard the fact that we had the opportunity to involve parents who usually did not participate at school, such as immigrant parents, in sharing

knowledge and resources and, on the other hand, to be informed about school life and the experiences of their children thanks to multimedia documentation, shared through the VLE. Even if we could not reach the majority of parents, we received significant positive feedback.

### 3.8.3.3 Coherence with the Task 4.4 framework: key principles and successful features

Regarding the **key-recommendations** drawn from the Inventory comparative study conducted for task 4.2, some of them were incorporated in the Task 4.4 design framework and implemented in the intervention. A focus on these key principles allows to deepen the analysis on the process and the results of what was done. Although it is important to underline that the key principles regarded longer interventions, programs or projects to target inclusion in school settings, we think they provide some guidelines to evaluate the intervention carried out.

Table 3.15 - *Values And Priorities Guiding Decision Making*

Values and Priorities Guiding Decision Making	
CRITERIA	Highlights
1. Start early.	The intervention also targeted a preschool class, in synergy with WP2 Children Study, elaborating and testing methodologies aimed at involving very young children in having an active role in their school to promote inclusion through participatory research processes.
2. Develop intervention within a coherent theoretical framework and based on strong empirical evidence.	<p>The theoretical and methodological framework was coherent and shared with the professionals involved and, when needed, with the children as well. The exploratory phase represented a foundation of the process and helped in familiarizing with the context, collecting data and then adjusting the intervention, in collaboration of the teachers.</p> <p>The <b>main challenge</b> on this point regarded how to find the most opportune ways to share evidence we collected on the school context, the teaching practices, the social climate observed, when particularly different from the representations and perceptions expressed by the teachers. For instance, teachers were convinced that they</p>

	<p>were already attentive to value the cultural backgrounds and promoted intercultural dialogues among children, while the researchers observed little attention paid to these aspects and no practice dedicated to valuing multilingualism. We opted for presenting part of the results to the teachers (for example we highlighted the dominant monolingualism, including examples, and this was acknowledged) when presenting the intervention as a chance to further enhance and develop their values, beliefs and skills that were already present. Thanks to the close collaboration with each teacher, the coaching relationship that was possible to develop in some case helped in gaining awareness and observing their children and their educational practice in a different way.</p>
<p>3. Target a balanced set of skills, considering cognitive, academic, and socio-emotional outcomes.</p>	<p>The whole pedagogical approach and the activities proposed were aimed to promote new knowledge, awareness, critical thinking and socio-emotional skills. The <b>main challenge</b> regarded how to help teachers in connecting the activities to the ‘school curriculum’ and realize how many cognitive achievements were involved in the activities in order to increase socio/emotional interactions. In communicating through the VLE noticeboard and creating artefacts, children wrote, read and communicated in several modes. Some of them faced their weaknesses in these actions (like reading aloud to record their voice for digital storytelling, or writing a text in two languages, especially in the 2<sup>nd</sup> grade class), motivated by the use of ICTs, the use of their mother tongue and the active role assigned to them, as highlighted in the results. Children also elaborated solutions, thought critically on complex topics and took action, demonstrating they were eager to feel competent in using their knowledge. It was hard to reflect with some of the teachers and to make visible the virtuous interplay of the social-emotional interactions and cooperation enacted by the pedagogical approach with the cognitive work required and with the motivation to learn, improve and overcome limits.</p>
<p>4. Actively identify, explicitly value and intentionally acknowledge the</p>	<p>The intervention took those two principles into great consideration, as a core part of the aims and efforts put into play, striving to engage families and children to share their linguistic and cultural resources.</p>

resources of all children, families and communities.	
5. Value all languages and cultures equally and consider them as resources for teaching, learning and succeeding in life.	<p>The <b>main challenge</b> regarded the involvement of many families, while the ones who participated expressed significant comments. During the final focus group with parents, after the children's presentation, even mothers with a low proficiency in Italian talked and expressed in a few words the idea that the project made a difference in valuing all the cultures, languages and all the children: 'you jumped over an invisible wall, you made children jump the wall. Here it was already a nice place, but you made it moreso!', or 'my daughter felt she was valued because she was able to speak Arabic, and not just the one who didn't speak Italian' (referring to her newly arrived daughter).</p> <p>A <b>second challenge</b> in a project valuing multilingualism was to engage Italian children equally, who realized they were less skilled in languages than their immigrant or second-generation classmates (usually perceived as the ones who have to learn Italian). A strategy we tried to implement was to include Italian dialects in the activities all the forms of languages (art, digital creation, music), and to value any kind of skills/resources that could be put into play (e.g. in the 5<sup>th</sup> grade class, an Italian student was strongly involved in recording and editing video interviews carried out during the intervention). But still at the end of the project it was a concern to observe the minor involvement of the Italian children in one of the classes in some activities.</p>
<b>Intervention Approaches/Strategies</b>	
6. Provide language supports for students with immigrant backgrounds concurrent to teaching the age-appropriate curriculum.	<p>We did not have the opportunity to address second language support, though several activities were uploaded on the VLE ready to be explored and negotiated. In our original intention, we proposed teachers implement a balanced approach, combining the valorization of the mother tongues and the support of the second language learning, also including the English curricular language. English was included, even if teachers were actually also interested in second language learning and teaching, the time dedicated to the intervention did not allow targeting both sides of the language support.</p>
7. Explicitly value and intentionally support the development of the	<p>This was the main goal of most of the activities. Despite our expectations to be more challenged by resistances, shy and hiding attitudes, after a brief icebreaking time, in all the</p>



language and cultural heritage of immigrant and minority students.	classes we had the opportunity to explicitly address all languages, cultures, religious traditions and beliefs as equal, valuable and included in school life, legitimated in the public arena of the school.
Actively promote positive contact between minority/majority and advantaged/disadvantaged students through joint learning activities based on positive interdependence.	Activities were all based on a cooperative and interactive approach. It was important to make the teachers aware of the criteria guiding cooperative learning and different strategies, far from simply being group-based work. The heterogeneity of the group members was a main basic principle (avoiding level-based grouping), but others regarded how children were involved, their roles, what intra-group and inter-group collaboration was organized.
8.1. Use cooperative learning to support the development of social skills, the reduction of prejudice, and the academic achievement of all students.	A <b>main challenge</b> was to provide teachers with a full understanding on what socio-constructivism entails and the strategies to organize cooperative learning based group work. We dedicated a session of training in the first part of the project, and subsequently the co-design meetings helped to discuss in greater detail strategies referred to specific characteristics of each class.
8.2. Use heterogeneous grouping to support positive contact among diverse students.	
9. Use interactive socio-cognitive training approaches (e.g., role-playing, simulation games and group exercises) to support the development of anti-bias/anti-prejudice attitudes.	This principle was not addressed by the activities proposed to children, but children in the 5th grade class took the initiative to make 'video-vignettes' to present typical situations in which a child could feel discriminated against and humiliated by other children (bullied or jeered for their accent or poor language skills, mother tongue use in a public space, their religion or the skin color). They produced videos on these little dramas to sensitize all children in the school about prejudice and discrimination and to combat them.
<b>Involving And Supporting Key Actors</b>	
10. Actively support family participation (e.g. through	The activities involved parents as key informants and resources for the realization of the activities. Moreover, the communication supported by the multimedia and

bidirectional communication strategies, meaningful learning at home activities, active involvement in decision making processes at school, etc.).

multilingual noticeboard was supposed to activate bidirectional communication (from school to parents to share documentation of the school activities and information, from home to school to provide translations, stories or songs in different languages). Parents were not involved in decision-making processes, but the feedback that we obtained from parents highlighted an increase in collaboration with teachers, understanding of the school context and feeling they were part of it. Families were involved through several strategies and it was a big **challenge** to find adequate strategies to involve them actively. We tried to establish a sort of pattern called 'The ISOTIS snacks': we invited the families three times over an 18 month period, always providing food for snacks, allowing them to bring their children, including brothers and sisters. At the first meeting, we had such great success in all the classes that we could barely cover looking after the children after the snack, with part of the team proposing games and activities to the children, and part conducting the meeting with the parents. The second meeting didn't attract such a large turnout, while the third one had numerous participation in some classes and in others a more limited one. But we still think that the strategy suggested by the teachers – namely to provide food (considering the poor condition of many families) and children's entertainment - facilitated their participation which would have otherwise been much less numerous, as teachers observed.

11. Provide appropriate support and training to classroom teachers.

Teachers were trained during a first phase and received the tutorship of two team members to support the design of the activities, the use of the technologies, the implementation of the activities, the observation of the children, the collection of documentation and the collection of feedback. All these efforts provided a great results in some cases, establishing a strong relationship of trust and authentic exchange; in other cases, teachers tried to delegate and avoid spending too much time sharing and thinking together, but they asked for time saving 'solutions' (though they also received a monetary remuneration for the extra hours dedicated to the project).

	<p>We think that more effort should be put into the 'collaboration agreement', setting the foundation in a crystal-clear way, defining roles, work style, methodology and times. At the beginning of the intervention, we tried to establish a clear agreement, but several factors entered into play: beyond the personal characteristics of the teachers, the climate among teachers and with the School Director degenerated during the second part of the school year, and this had an impact on teacher motivation.</p>
<p>12. Use the potential of information and communication technology to actively engage children in learning, support teachers, establish bidirectional communication channels with families, etc.</p>	<p>As highlighted, the use of ICTs was a core-part of the intervention. The platform managed to actively engage children in learning and communicating with peers, parents and teachers and introduced innovative ways to communicate with the families. Though the VLE was not easy to use, the multimedia and multilingual communication system triggered some interesting reflections both in teachers and parents, acknowledging the high potential of this tool.</p>
<p>Monitoring, Evaluation, And Dissemination</p>	
<p>13. Monitor both student learning and sense of belongingness in the classroom and in school.</p>	<p>We could not monitor student learning. We had considered administering language proficiency tests before and after the implementation, but decided to not do this, considering the characteristics of the study and the limited implementation time.</p> <p>In two classes (2<sup>nd</sup> and 5th Grade) we used the 'The Flower of friendship' sociogram in the pre- and post phases, without the ambition to measure social relationships, but just to add a data source to be treated very cautiously, considering the limited time of the intervention.</p>

<p>14. Use high-quality research designs to evaluate the effectiveness of the intervention/approach/strategy.</p>	<p>The monitoring set of instruments addressed several dimensions and topics, but, overall, we cannot evaluate the effectiveness of the intervention, while we can describe the process in-depth and discuss the criteria and circumstances in a design-based intervention approach and on the perceived impacts in the short term. This principle can be applied to medium-long term interventions or programs. If we had had a longer time, we would have implemented some measures specifically related to language proficiency, social climate, sense of belonging and well-being.</p>
<p>15. Make information about the intervention/approach/strategy readily accessible.</p>	<p>The report and the VLE, including publications and seminars, will go in this direction. Moreover, multimedia documentation of the implemented activities is under construction and will be uploaded onto the VLE.</p>

The intervention also confirmed some of the **successful features** elaborated in the in-depth case study comparative analysis (D.4.3) included in the research design framework.

At the **microsystem level**, a cornerstone of the success of the intervention was the *children's social role and interpersonal relationships* promoted through actively involving children in decision-making and sharing their resources. *Equity pedagogies*, such as cooperative learning to support positive and meaningful contact and non-directive activities, was used as the main pedagogical framework, which fit the Global Competence framework well. Although we faced some challenges in coaching teachers, the activities involved experiential learning activities such as acting-out, video and multimedia production. Children's creativity and imaginations were supported and guided reflection about their experiences was stimulated (regarding multicultural awareness, language awareness, stereotypes and discrimination).

Coherently, **at the school/institutional level**, the intervention promoted a *strengths-based curriculum* and pedagogical approaches that built on the resources of all stakeholders, including children and families with diverse racial, ethnic, cultural, linguistic and social class backgrounds. *Language support* was provided mainly by giving visibility to the children's first languages, not focused on learning a second language. We tried to co-design activities that were relevant to the children, teachers and parents despite several challenges mentioned above.

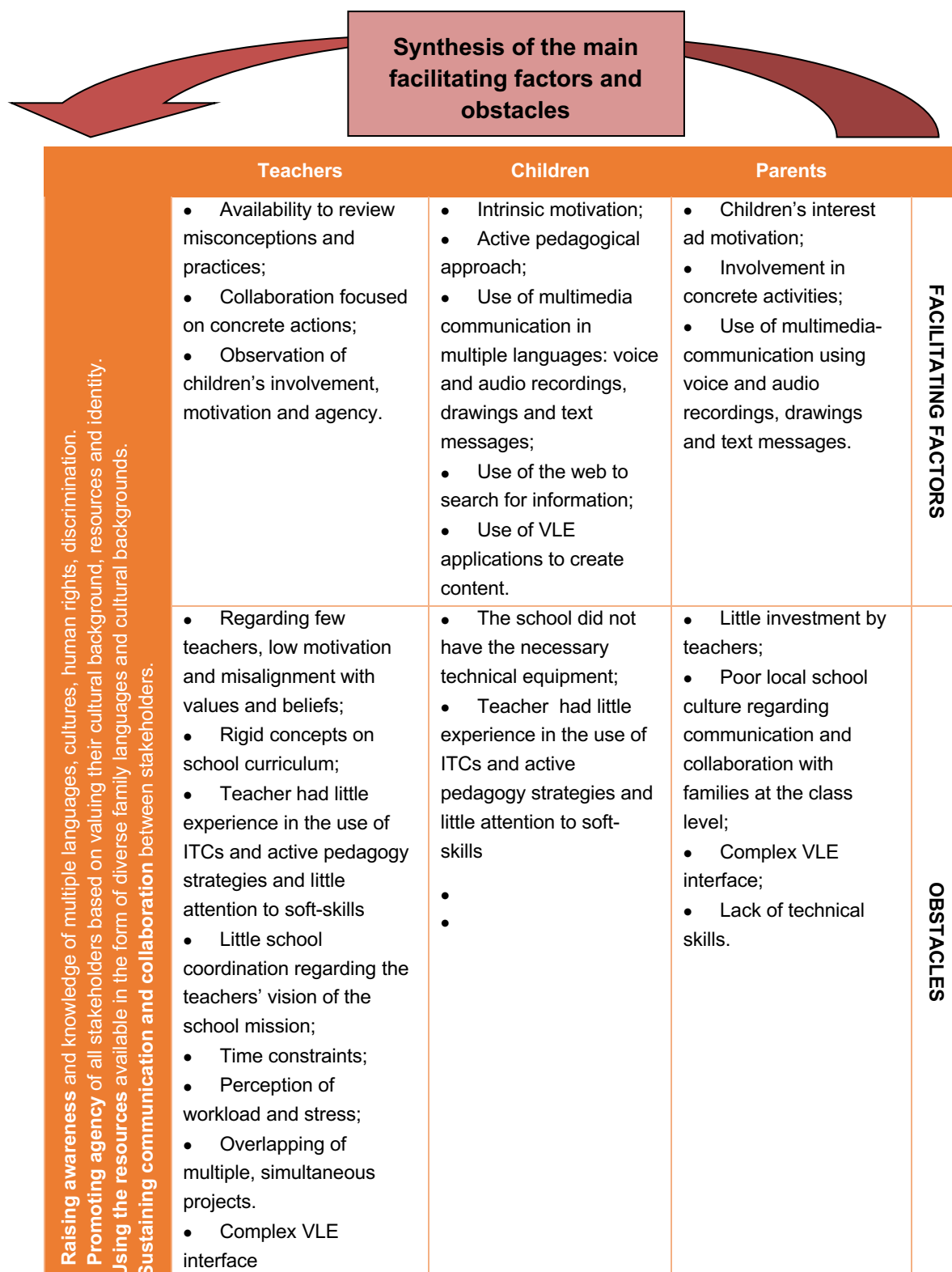
At the **mesosystem**, teachers were involved in a collaborative research process, also aimed at building group collaboration among the teachers (though not as a main goal). Parents were involved as well, enhancing *communication with parents to convey information* regarding school life, activities and the children's experiences, providing textual and visual documentation through a multimedia and multilingual communication system embedded in the ISOTIS VLE. Parents were also involved *in selected classroom/school activities* (i.e. exhibitions and performances), sharing personal and traditional stories in the home language at school and their language competences, and in the final restitution of the activities where children contributed to preparing the meeting and presenting part of the activities.

At **the exosystem level**, the collaboration of the research team with the teachers included efforts to support professionals, striving to reinforce teacher knowledge, values, beliefs and *commitment* to the respectful inclusion of children (and families), viewing themselves as agents of change towards inclusion.

Though we encountered several challenges, we confirm that these aspects were key successful features and some of the most appreciated aspects of the intervention according to the research participants.

From the analysis conducted, we can summarize the main facilitating factors and obstacles as follows:

Table 3.16 - *Synthesis of the main facilitating factors and obstacles*



	Teachers	Children	Parents	
<p>Raising awareness and knowledge of multiple languages, cultures, human rights, discrimination.                      Promoting agency of all stakeholders based on valuing their cultural background, resources and identity.                      Using the resources available in the form of diverse family languages and cultural backgrounds.                      Sustaining communication and collaboration between stakeholders.</p>	<ul style="list-style-type: none"> <li>• Availability to review misconceptions and practices;</li> <li>• Collaboration focused on concrete actions;</li> <li>• Observation of children's involvement, motivation and agency.</li> </ul>	<ul style="list-style-type: none"> <li>• Intrinsic motivation;</li> <li>• Active pedagogical approach;</li> <li>• Use of multimedia communication in multiple languages: voice and audio recordings, drawings and text messages;</li> <li>• Use of the web to search for information;</li> <li>• Use of VLE applications to create content.</li> </ul>	<ul style="list-style-type: none"> <li>• Children's interest and motivation;</li> <li>• Involvement in concrete activities;</li> <li>• Use of multimedia-communication using voice and audio recordings, drawings and text messages.</li> </ul>	<b>FACILITATING FACTORS</b>
	<ul style="list-style-type: none"> <li>• Regarding few teachers, low motivation and misalignment with values and beliefs;</li> <li>• Rigid concepts on school curriculum;</li> <li>• Teacher had little experience in the use of ITCs and active pedagogy strategies and little attention to soft-skills</li> <li>• Little school coordination regarding the teachers' vision of the school mission;</li> <li>• Time constraints;</li> <li>• Perception of workload and stress;</li> <li>• Overlapping of multiple, simultaneous projects.</li> <li>• Complex VLE interface</li> </ul>	<ul style="list-style-type: none"> <li>• The school did not have the necessary technical equipment;</li> <li>• Teacher had little experience in the use of ITCs and active pedagogy strategies and little attention to soft-skills</li> <li>•</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Little investment by teachers;</li> <li>• Poor local school culture regarding communication and collaboration with families at the class level;</li> <li>• Complex VLE interface;</li> <li>• Lack of technical skills.</li> </ul>	<b>OBSTACLES</b>

### **3.8.4 General reflections and Highlights**

After this discussion on the achievement of goals, connections to key principles and successful features, we summarize the main assets of the intervention and the main lessons learned in reference to three levels of reflection:

- the innovation of inclusive curricula and pedagogies;
- the use of ICTs to innovate teaching and learning practices and communication;
- the methodology and process of the intervention.

#### **The innovation of inclusive curricula and pedagogies**

- The essential centrality of the experience and resources of children and families to create an intercultural curriculum and the enhancement of multilingualism that was meaningful for children and families, closely linked to the reality of people's lives;
- Closely linked to the first point was the importance of involving families in sharing resources and knowledge in a systemic way for positive effects on the families and children;
- The value of involving children actively, supporting their active roles in building intercultural and multilingual knowledge, eliciting creative elaborations and interpretations and supporting their collaboration in decision-making processes, in order to motivate participation and to combine the exercise of soft-skills with the development of socio-emotional skills and the acquisition of knowledge;
- The importance of building strong integration between the curriculum and intercultural multilingual values and activities, in order to link the main learning at school with an intercultural and multilingual perspective, transversal to all disciplines and not a brief experience limited in time and disconnected from the rest;
- Widespread attention throughout the school day regarding relational and discursive modalities with children, the use of words, to create a coherent social climate;
- Widespread attention to spaces and materials present at school, to the visibility and presence of languages, in order to create a coherent and fair context able to facilitate the socialization of knowledge and reflections connected to them;
- An approach that carefully balances the enhancement of differences and similarities, while promoting the discovery of the specificity of each individual and the sense of belonging to the local community.

#### **The use of ICTs to innovate teaching and learning practices and communication**

- The great potential of using a multilingual, multimedia digital support to improve communication and bi-directional exchange between family and school, to increase

communication among children, between children and teachers, children and parents, children, teachers and parents, children and School Director;

- The symbolic value of a multilingual digital tool such as the VLE as part of the school experience, providing visibility of languages and legitimating them;
- The great potential of ICTs to engage children, increase their participation in accomplishing typical school activities such as reading and writing;
- The importance of providing simple, easy digital tools to lower the skill requirements, both in reference to teachers and parents, to favor more active, gratifying and autonomous use;
- The importance of dedicating time so that professionals & parents can familiarize with the adopted digital tools, the VLE, by providing some demonstrations/tutorials to show them the possibilities that the ICTs provide and let them explore the functions at their own pace;
- The key role potentially played by children by involving them in the use of ICTs to help teachers approach and see the potential offered by new technologies.

#### **The work process (research methodology)**

- The relevance of starting from the in-depth exploration of the context as a key foundation of the intervention in order to gain familiarity with the local environment, collect meaningful data and address problems and topics relevant to the local stakeholders;
- The relevance of proximal tutorship and coaching in supporting teacher professional development;
- The importance of combining references to a clear theoretical framework and concrete proposals;
- The great potential of involving teachers in research-oriented processes to provoke change in beliefs and attitudes;
- The key role of the School Director as part of the intervention and collaboration during the process, valuing efforts and supporting the coordination of the teachers;

The importance of 'mapping' the local school culture related to inclusion, diversity, multilingualism, progressively letting the contradictions and the implicit different views (when present) emerge, to highlight the gap between the declared pedagogy and practice and the actual situation.



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## 4 COUNTRY REPORT: Portugal

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### 4.1 Introduction

In Portugal, two schools were involved in implementing innovative curriculum and educational practices, focusing on two different topics: (1) economic inequalities and social justice and (2) multiculturalism at school. First, an exploratory phase allowed to examine the schools' pedagogical practices, structures and projects and establish a common shared agreement with teachers. Then, following a design-based approach, teachers and the ISOTIS team collaboratively co-designed and implemented learning experiences with students. The process of implementation included the development and usage of a Virtual Learning Environment (VLE) by students and teachers to foster the achievement of the shared goals for the intervention. The process was assessed by children, teachers and researchers, considering the aims, impact and key features of the intervention.

### 4.2 Definition of the main topics

Two different settings were involved in the VLE intervention, with two distinct topics and approaches, according to the specificities of each setting.

On site 1, the main focus of the intervention was economic inequalities and social justice. On one hand, given that the school puts a strong emphasis on democracy, responsibility and autonomy, with an active student participation in school life, school practices regarding social justice and democratic education would be documented and shared through the VLE. On the other hand, activities with children would be co-developed and implemented with teachers, taking advantage of the VLE platform. These activities aimed to introduce the concepts of fairness, justice and interdependence, recognizing global and local, social and economic inequalities and providing students with a pathway to action towards a just world.

On site 2, multiculturalism at school was addressed. As children and teachers were not involved in any form of intercultural education at the moment, activities with children would be co-designed and implemented with teachers. The work in this setting aimed at increasing children's and teachers' cultural awareness, valuing children's and families'

unique characteristics and making everyone visible in the school community, while constructing a sense of belonging and providing a pathway to action to favour inclusion and value multiculturalism at school. The ISOTIS intervention at this site seemed particularly relevant if one takes into account that this school hosts several children from the Portuguese Roma minority, the larger and most discriminated ethnic minority within the Portuguese context.

## **4.3 PART I - SITES SELECTION & RESEARCH DESIGN AGREEMENT**

### **4.3.1 Presentation of the sites**

#### **4.3.1.1 Selection of sites**

After document analysis and expert consultation, several schools were contacted to participate in the project, namely for their student population (i.e., for having Roma students). Then, when schools showed interest, the project and its tasks were presented to school directors and, in some cases, to teachers. The ISOTIS intervention aims and scope and the procedures of work were presented. Some schools or teachers didn't show interest in participating and being involved in the project; others had little diversity (namely, very few Roma children) and were not considered for the intervention. The two sites were selected by expert consultation, based on their characteristics and student population, as well as through the analysis of school documentation (school reports and plans).

Site 1 was selected for being a highly considered school in what concerns their democratic practices and innovative pedagogy in the Portuguese context. The first contact with the school, in May 2018, was mediated by an expert. A meeting was held at school with the expert, the ISOTIS team, a member from the school administration and two teachers. In this meeting, the ISOTIS project aims and scope was presented, the purpose of collaboration was discussed, and teachers shared some school practices on social justice and democratic education. The school agreed to participate.

Site 2 was selected due to its student characteristics, specifically for the number of Roma students in the school cluster (2.25% considering the entire school cluster population). Although there is no data available for the percentage of Roma students in this particular primary school, this percentage is certainly higher, considering that, in 2016-2017, 45% of Roma students in Portugal were in primary school (Direção-Geral de Estatísticas da Educação e Ciência, 2017). The school cluster administration was first reached by the

ISOTIS team in June 2018, by e-mail and telephone, in which the project was presented and information about the intervention aims and procedures was given. The contacts were followed by a meeting in August with the school cluster's administration, the school cluster's psychologist and a school coordinator, in which they expressed the desire to participate in the project. In October it was decided that the intervention would occur in a pre- and elementary school, chosen by the school director to participate in the intervention.

It is important to note that the two sites were also involved in ISOTIS T5.4, concerning primarily the development of a VLE to promote teachers' professional development.

#### 4.3.1.2 Characteristics of the sites

Site 1 is a Portuguese public school, located in Porto District, with approximately 165 children. Founded in 1976, the school covers education for children from 3 to 15 years old, from preschool to ninth grade. The school's educational project is based on an inclusive and cooperative school philosophy, inspired and oriented by values of autonomy, solidarity, responsibility and democracy. Students are responsible for managing their learning experiences (namely, planning, learning and evaluation), but also school spaces, resources and materials, contributing to decisions with impact in school life, through different school structures. These school structures and their functioning will be described below (cf. Results of the Exploratory phase).

Instead of traditional classes organized by grades and ages, the school privileges project methodology and is organized in three nuclei, pedagogically coherent and articulated units of learning and development: Initiation nucleus, usually composed of children between 6 and 10 years (1st to 4th grade); Consolidation nucleus, usually composed of children between 10 and 12 years (5th to 6th grade); and Deepening nucleus, usually composed of children between 12 and 15 years old (7th to 9th grade). The transition from one nucleus to the other occurs when they acquire a set of competences defined in a profile for each nucleus. Profiles include skills such as autonomy, creativity and responsibility, specified in terms of desired behaviours and attitudes.

The school follows the Portuguese regular curriculum, but the school schedule isn't organized (as typically) around discrete disciplines with different time spaces. Instead, students organize their work in different disciplines autonomously and always supervised by their teachers. It is worth mentioning that this school signed in 2005 an autonomy contract with the Ministry of Education, that allows a flexible management of the curricula. The dynamics of learning at school are also explained with more depth below (cf. Results of the Exploratory phase).

The school team is composed by different professionals, who are named educational supervisors. Educational supervisors have the role of tutors and contribute to the co-construction of students learning path, facilitating and supporting learning experiences with a clear attention to the students' individual needs. The educational path of each student is individually and systematically supervised and supported by one tutor, who is also responsible for supervising the student's individual evaluations and mediating the relationship between the student's family and school.

Site 2 is a Portuguese pre- and elementary school, with 410 children from pre-school to fourth grade. This school belongs to a Portuguese school cluster, a group of public schools, located in Porto District. The school cluster is composed by seven pre-schools, three elementary schools (also with pre-school education) and one middle school, that includes vocational education as an option for older students. It is worth mentioning that with a few exceptions, Portuguese public schools are organized in school clusters, namely due to its geographical proximity.

The school cluster is targeted by the national compensatory education programme from the Ministry of Education, the TEIP Programme ("Territórios Educativos de Intervenção Prioritária", meaning Educational Areas for Priority Intervention), a nationwide programme designed to reduce the effects of socioeconomic disadvantage on school outcomes and to promote equity and social inclusion from an early age<sup>12</sup>. In 2013-14, approximately 45% of students' families from this school cluster benefited from School Social Support ("Ação Social Escolar"), a measure from the Ministry of Education that provides a financial contribution for meals, school insurance, transportation or other specific needs of eligible families. The school cluster includes students from Roma communities, living in social housing and self-build slums covered by the school cluster geographical area.

The school cluster' staff is composed by approximately 150 teachers, predominately with ages between 40 and 50 years old, operational and technical assistants, professionals focused on social mediation and sociocultural animation and one school psychologist. The school follows the regular Portuguese curricula, organized in different subjects (i.e., Portuguese, Mathematics). Usually, the primary school teachers follow the group of children from 1st to 4th and are responsible for delivering the curriculum across main curriculum areas (25 hours per week).

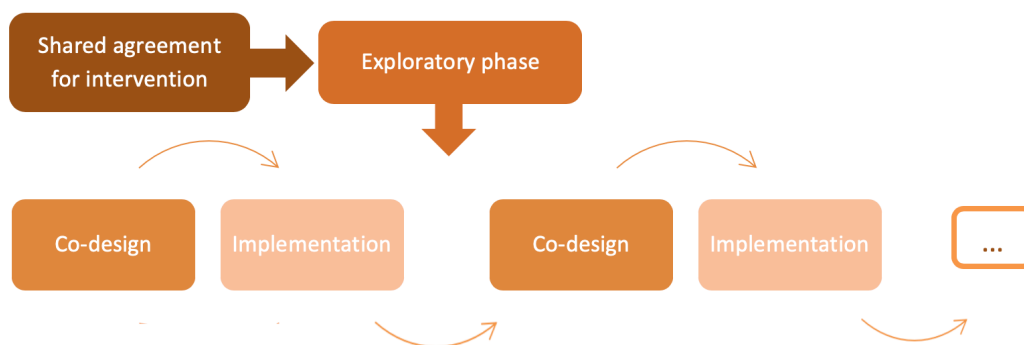
<sup>12</sup> School clusters covered by the TEIP Programme benefit from extra financial and human resources, such as more teachers, assistants and specialized staff (e.g. social workers, psychologists). An external expert advises school clusters based on their needs and then schools develop their own strategies, actions and set their goals to address the specific needs of students and families.

### 4.3.1.3 Phases of workflow

First, meetings with the school administration and teachers were held to share, adjust and agree on common ground principles for the intervention: namely, the focus of the intervention (social justice and multiculturality), the principles of co-design and collaborative work with teachers, and school idiosyncrasies that should be valued and respected. Then, the exploratory phase was conducted with the aim to discover and describe the school's overall functioning and characteristics and highlight school activities around social justice and multicultural education. The shared agreement for the intervention and exploratory phases enabled us to adjust the intervention to the site characteristics, requirements, expectations, and assessed opportunities and needs.

After the co-exploratory phase, on both sites, the process of co-designing and implementation was simultaneous and phases of co-design and implementation went hand in hand: the first activity was co-designed and implemented, followed by a second activity's co-design and implementation, and so on, in an iterative cycle (illustrated in figure 28). In this way, the first two phases influenced the co-design and implementation phase. Moreover, the results of one activity influenced the next one, based on children's and teacher's participation, interests revealed, and feedback sought.

Figure 4.1 *The phases of the process: an iterative process*



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#### 4.3.1.4 Ethical considerations

A written protocol and agreement between each school and the ISOTIS team was signed by both parts. On both sites, teachers signed consent forms. On site 1, written consent forms were sent to parents regarding the participation of children on the activities and the permission for photographic registry. On site 2, the school administration considered the ISOTIS activities as part of the school's plan of activities. Considering this, the school already had written authorization by parents to photograph children in school activities and no further consent request was needed.

### 4.4 PART II - EXPLORATORY PHASE: going in depth in the context and refining the intervention's goals and procedures

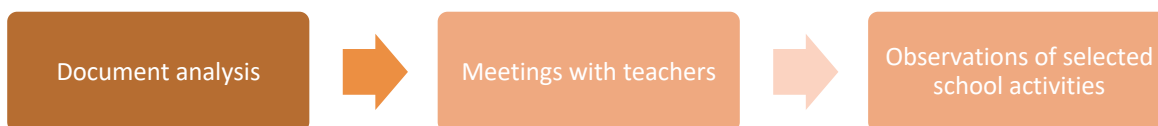
#### 4.4.1 Procedures of the exploratory phase

During the exploratory phase, on **site 1**, after document analysis, two meetings with teachers and eight fieldwork visits were conducted. An initial meeting was held with teachers to introduce the ISOTIS project, to get to know school structures and the overall school functioning, and to discuss the shared agreement for the intervention. Then, documentation from school (available on the school's website)<sup>13</sup> was analysed to extract significant information about the context, regarding the school's educational principles, school structures, regular activities, as well as described challenges and opportunities. Thus, the analysis of the available documentation was conducted with a particular focus in the T4.4 intervention's scope (in this case, democratic and social justice education). Based on document analysis, a second meeting was held with teachers to collect information on school's activities, confronting data collected with teachers' perspectives, particularly focusing on school activities or strategies that explicitly aim or indirectly can promote social justice within school. Then, eight fieldwork visits were planned for observations of school activities that were deemed relevant and linked with the ISOTIS' intervention: school assembly meetings (three visits), regular routines and activities of children from 7 to 10 years old (two visits), regular citizenship activities with the older aged-group (two visits), and the group of responsibility focused on solidarity (one visit). In some of these visits, more than one member of the ISOTIS intervention team was

<sup>13</sup> The following documents were analysed: Internal Regulation (Site 1, n.d.), Autonomy Contract (Site 1, n.d.), Educational Project (Site 1, n.d.), and Improvement Plan (Site 1, n.d.). The references were anonymised as they may lead to the schools' identification.

present. Following every visit, a meeting between the ISOTIS team was held in order to share and discuss the conducted observations.

Figure 4.2 - Procedures for Exploration phase on site 1



On **site 2**, the context exploration was based on document analysis and meetings with the school cluster's administration, the school coordinator and teachers. After an initial meeting with the school administration to get to know the school cluster's overall functioning and characteristics, significant information was extracted from school documents<sup>14</sup>, regarding the school cluster's educational principles, structures, planned activities, and described challenges and opportunities, particularly in what concerns the T4.4 scope (in this case, multicultural education). After document analysis, a meeting was arranged with the coordinator of the school chosen for intervention by the school cluster's administration. In this meeting, the main activities developed by the school, as well as the main challenges and opportunities, were discussed with the school coordinator. After this meeting, the Ministry of Education's national curricula for Portuguese, Mathematics, Environmental studies, Citizenship and Development and Information and Communication Technologies (ICT), from first to fourth grade, was analysed to establish links between the described goals and contents of the curriculum and the ISOTIS proposed activities. A document was created linking the ISOTIS intervention with the school project, and specific references to the elementary school curriculum throughout the description of the activities. Then, a third meeting was held, in which the document created was discussed, to consider which group of teachers would be involved in the project. In the fourth meeting, the specific objectives of the ISOTIS collaboration and possible challenges were discussed with the teachers involved in the project, the school coordinator, and members of the school administration.

<sup>14</sup> The following documents were analysed: Educational Project (Site 2, n.d.), Plan of Activities (Site 2, n.d.), Internal Regulation (Site 2, n.d.), Final TEIP Report (Site 2, n.d.), Annual Progress Report (Site 2, n.d.), and Multiannual Improvement Plan 2014-17 (Site 2, n.d.) and "Acamp'Arte" Project blog.

Figure 4.3 - Procedures for Exploration phase on site 2



On both sites, the fieldwork visits to schools occurred between May 2018 and January 2019. During observations and meetings with teachers, comprehensive fieldnotes were written including both descriptions of activities and conversations with children and school staff. The search and collection of school documents (in school websites) was followed by an exhaustively reading of the documents. Both in fieldnotes and documentation, information regarding the ISOTIS intervention scope (i.e., social justice and democratic education and multicultural education) was systematically searched. Relevant content that (directly or indirectly) followed these topics was extracted and documented from fieldnotes (based on meetings with teachers and observations) and document analysis.

Recent Portuguese legislation in Education was also consulted to contextualize the project intervention with national policies currently shaping education settings, namely the Decree-law 54/2018 (concerning Curricular Autonomy and Flexibility and Citizenship and Development Education), Decree-law 55/2018 (regarding Inclusive education) and Regulation 6478/2017 (concerning the Profile for students leaving mandatory education).

#### 4.4.2 Results of the exploratory phase

##### 4.4.2.1 Characteristics of the research participants

On **site 1**, the main participants were two teachers: one teacher of children between 7 and 10 years old (second to fourth grade) and one teacher of children between 12 and 15 years old (seventh to ninth grade). All are from Portugal and speak Portuguese as a first language. The first teacher was present in all meetings with the team, since the beginning of the project. She is 40 years old, has a degree and post-graduation degree in Teaching Mathematics and 11 years of experience as a teacher (overall and at this school). The teacher of older students joined the project by suggestion of the other teachers involved in the third meeting. He is 36 years old, has a degree in teaching Physics and Chemistry and 11 years old experience (overall and at this school). As he leads learning activities concerning citizenship and human rights education, he was interested in joining the ISOTIS project. In this case, the ISOTIS activities occurred during a particular time and curricular frame. Also, a member of the school board,

responsible for elementary school grades/ages, was present in the initial meetings and continually supervised the process. The member of the school board has 61 years old, a degree in Early Childhood Education and a masters' in educational sciences, 40 years of experience as a teacher and 22 years of experience at this school. All teachers feel comfortable in using ICT and use ICT platforms/tools in their practice (e.g., Khan Academy).

One hundred and twenty-six children were involved in the activities: 59 children from 7 to 10 years old; 47 children from 10 to 12 years old; and 19 children from 12 to 15 years old. Children are mainly Portuguese, although there are a few children with a migrant background.

On **site 2**, participants were four fourth grade teachers. Teachers are all female and Portuguese that speak Portuguese as a first language. Teachers' ages ranged between 40 and 60 years old. They all have around 20 years of experience in teaching and have been in this school cluster for around 10 years. All of them have a Degree in elementary (3 teachers) and/or middle education (2 teachers). Teachers shared that they feel relatively comfortable with ICT, although in different levels, with two of the teachers being more at ease with technologies (according to them). In addition, it is worth to consider that the school coordinator was present in some co-design meetings and together with some members of the school administration participated in the shared agreement and exploratory phases.

Eighty-four fourth grade children, with ages ranging between 9 and 10 years old, from four different classes were involved in the activities. Classes have a few children from migrant families and Roma children. The fourth-grade classrooms and teachers were chosen, due to the children's age, (supposed) higher level of autonomy (comparing with other grades) and opportunities in the curriculum to explore multiculturalism.

### **4.4.3 Qualitative characteristics of the context**

#### **4.4.3.1 The Portuguese context regarding multicultural and social justice education.**

Multicultural and social justice education in the Portuguese context is framed by educational policies that, to some degree, influenced the co-design and implementation of activities in both settings. Citizenship education and student's active participation received a new attention in past years through recent legal and curricular diplomas. The Profile for students leaving mandatory education (Despacho nº 6478/2017) includes a set of values and skills, that schools and teachers should actively promote in students. These include values as citizenship and participation, freedom and responsibility, and

skills related to, for example, critical and creative thinking, reasoning, and problem solving. Aligned with this new emphasis, recent changes in the curriculum, set in 2018 (Decreto-lei nº 55/2018), have requested that elementary school teachers include Citizenship and Development Education as a cross-curricular component, that should be integrated with other subjects (as Portuguese, Mathematics, or Environmental Studies). In middle and secondary education, schools can choose if they provide Citizenship and Development Education as an independent curricular component or concerted with other contents and subjects. Although the legislation indicates content domains (such as interculturality and human rights), it doesn't include specific topics and contents to consider in each age. In addition, a new emphasis on inclusive education emerged also very recently (Decreto-lei nº 54/2018) that clearly highlights the importance of responding to the diversity of needs and potential of each and every student (and not only those with a disability), considering therefore also students from diverse socioeconomic or cultural backgrounds. It is also worth mentioning that, although the Portuguese education system is highly centralized, recent shifts towards school autonomy have been also putted into place, namely through Decree-law 55/2018, giving the opportunity for schools to manage the curriculum up to 25%. However, there is a lack of clear, intentional and sustained pedagogical guidelines with clear links with curriculum contents to support teachers' work and adjust to these recent changes in legislation, that can constitute both an opportunity and a challenge to schools. The articulation between the legislation and the intervention in both settings is mentioned bellow.

#### 4.4.3.2 Site 1

The description of results for Site 1 will be more extensive due to the specificities of the setting and disparity with typical practices within the Portuguese educational context. Actually, as mentioned above, this school was chosen for these special features, particularly concerning democratic and social justice education. According to school documents, the active participation of students in decision-making processes, concerning both learning and school management, reinforces the idea of democracy and respect for their interests as core principles of the school's project. In table 1, school practices will be discussed to illustrate how children actively live school as a democratic learning space and how this school can be considered in itself a democratic organism, with its own set of rules and structures, in which students are invited to actively contribute and participate, with responsibility and autonomy. Then, school strategies that can contribute to promote social justice within the school and wider community are presented.

Table 4.1 - *Analysis of school practices focused in democratic and social justice education*

Promoting democracy and student's participation in school life	
<b>Work space and learning dynamics in elementary school</b>	<p>The dynamics of the learning space with children from 6 to 10 years old were observed. Students work in an open space in round tables of 3 to 4 children. The open space is divided in three spaces, all interconnected: in one part, 6 to 7 year old students (the equivalent to 1<sup>st</sup> grade) are having more traditional classes, learning with two teachers basic competences that (according to teachers) will provide them with the autonomy needed to develop their work according to the school philosophy; in the two other parts, around 40 children (20 in one side and 20 in the other side) are working independently, supervised by four to five teachers. Other students from elementary school are in artistic, scientific or physical education ateliers, rotatively. Despite this division, students circulate freely through the whole space. Also, older children are called by the teacher to help younger children who are acquiring basic competences. There are different corners in this common space, with materials concerning each specific subject (Portuguese, Mathematics, or Environmental studies).</p> <p>Every two years, in each morning, students plan what they will work on. This plan is supervised and signed by a teacher and follows the national curriculum. Then, independently, children start working on worksheets or projects that they have in hands. They ask teachers for help by raising their hand or they can ask their peers for help by writing (their name and topic in which they need help) in a sheet exposed in the wall entitled "I need help". Next to that sheet, there is one called "I already know", in which children write what they have learned (and now master) and one called "I dislike", in which they write their complaints or issues/problems (usually, children write peer conflicts). Children stand up freely and use classroom resources autonomously (as books, dictionaries, information sheets, material). There are also four computers available that children can use to search online.</p> <p>Teachers provide children individual and specific feedback and support and closely supervise their work. Teachers also promote cooperation between peers, by telling one child (older or more advanced in the contents) to help the other. While some children work more diligently, other students are less involved and can be more passive. Silence is a prominent feature. Teachers ask for the group attention by raising their finger and waiting for them to be silent. As soon as children notice teachers are asking to speak, children tell each other to be quiet. This also can happen with children: if children want to make an announcement or ask a question to the whole group, they stand up and wait with their finger lifted to ask to speak, waiting for the group to pay attention and listen. There can be some music playing in the background, that is chosen by children (based on a pre-selection of music made by the teachers). Breaks are at the same time for</p>

	<p>all students and students monitor when it is time to leave through a classroom clock. In breaks, students circulate freely throughout the school.</p> <p>Every two weeks students meet with their tutor. The tutor meets with his/her group of students (that can have different ages) and they collaboratively plan and assess their participation and state of work on different contents. Every two weeks there is a common story or book to be read and a common challenge of the week related to curricular contents. In this way, students seem to have a clear picture of their tasks and schedule, stating, for example, if they are behind on what they had planned for these two weeks. This strategy seems to reinforce autonomy and responsibility, but also value students' active participation and individualized work. Tutors develop a closer relationship with students from their tutorship group (and with their parents), but teachers, overall, declare to and seem to know all students' names and peculiarities, being involved in their learning paths and development.</p>
<b>School assembly</b>	<p>The school's assembly is a main structure composed by all students, from pre-school to 9<sup>th</sup> grade, providing and ensuring their right to democratic participation in decision-making processes concerning school's organization and functioning. The school's assembly meets weekly and is led by a group of students, elected annually by other students. In the beginning of the year, students organize themselves in lists of candidates, ensuring gender parity and presence of students from every age. A photo of children that compose the list and the lists' electoral promises is exposed on the school's entrance. This year electoral programmes included the development of leisure activities at school (e.g., "organize an origami workshop"), proposals to enhance school functioning (e.g., "improve meals at the cafeteria"), and relationships between the school and wider community (e.g., "invite the president and members of government to visit the school"). The election is conducted by secret ballot and mandates are distributed by Hondt method (mimicking the National Assembly's electoral process). In the students' swearing-in, it was clear how students seem to be learning what living in democracy is: for example, they politely congratulated elected members and all that applied, but also expressed that even if these weren't the ones they have voted for, they were sure that the elected members would do their best. Students ask to speak at the assembly and also vote by raising their hand. To ask for silence, students raise their finger and wait for all students to be in silence to speak up. Teachers are present in all meetings (but usually don't intervene) and parents can come to the meeting if they want (for example, during observations, when their children were going to present a work, some parents were present). Despite their presence being allowed, they can't vote on decisions. The school's assembly meetings occur every Friday and typically last 1-hour. Meetings are entirely led and managed by students, always beginning by reading the minutes from the last meeting (and approving them) and finishing with a time for teachers, parents and visits to intervene. In between, students discuss and reflect on school functioning and vote on decisions, present school works or activities and</p>

	<p>read a story or poem. For example, observed voting has included if students wanted to celebrate Christmas/Halloween and asking for suggestions to be delivered in how they would do it (which activities were preferred by students). There is a students' code of rights and duties, that includes rules for work and interactions at school. Students discussed, voted and approved it at the school's assembly, in the beginning of the school year. Also, at the school's assembly meetings, students have presented school works (for example, a presentation on Human Rights) or videos with pictures of an activity that occurred (for example, a football tournament). Every week a student reads a story or a poem (of their own authorship or chosen from a book) and challenges another student to do the same in the next meeting. Students leading the meeting always invite students to provide feedback or make comments. Usually, several students (from younger to older) participate and share ideas or provide their opinion. It is interesting to note how students articulate their ideas (according to age) in a very polite and positive manner, even when they disagree with each other (for example, stating that they have a different opinion or starting to expose their arguments by referring "in my opinion"). Also, students congratulating each other for an intervention is very common. These aspects contribute to building a very positive climate during meetings. Students' level of engagement throughout the meeting varies according to age: younger students tend to be less focused or involved. A computer, a projector and a microphone are always used during meetings.</p>
<p><b>Groups of responsibilities</b></p>	<p>The management of students' intervention in school life is organized through the work of groups of responsibilities. At the beginning of the school year, students and educational supervisors, according to their preferences, are organized into these groups. Each group involves a specific topic. For example, there is a group responsible for waste, recycling and ecology; a group focused on managing work spaces and that can choose the music that students listen to when they work; a group focused on school events; a group responsible for managing books and organizing the school's library, etc. A map of responsibilities is created at the beginning of the school year and is continually supervised by the school's assembly. Groups often make announcements at the school's assembly (for example, instructing students on how to organize books, asking for students to don't throw waste in school spaces or to participate in a solidarity campaign). The group of responsibility focused on solidarity will be described below for its specific aims, since these directly relate to social and economic justice at school and beyond.</p>



<b>Solidarity group</b>	<p>There is a group of responsibility composed by 12 children of different ages, from 6 to 15 years old, and focused on solidarity. As other groups, they meet every Friday and promote actions within the school with social purposes. One main action of the group is to collect and provide donations to the families and children in need from the school. Tutors and the parents' association continuously assess students and families' social needs and the group organizes donations in school (of food items, clothes and shoes, toys, etc.). Then, the teacher who leads the group introduces to children the specific needs of families. Given this information, children collectively prepare a bag with the items they need. This work is done with absolute discretion and no one receiving support is identified. Children are involved in thinking about the preparation of the donation. For example, as observed, the teacher asked children: "So, what to do you think a family of four needs in terms of food items? What should we prepare to them?". Then, children select food items to include and are advised to keep an eye on expiration dates. Also, this can involve discussions about if they should include an item (e.g., "Should we include jelly?", "But that it's not a basic need", "But we have it, don't you think it would be nice to include it?"). Goods donated are stored in a room at school. If a particular item that was asked by families (for example, shoes of a certain size) is not available, children can announce this request at the school assembly and collect it. No one that requested help is ever identified. Other actions of this group include supporting external campaigns or donations. The support or participation in a donation from another institution or association can be proposed by students or by the teacher and the final decision is voted democratically in the group. For example, students proposed that they should help a local association that helps animals in need. After voting if this would be an action of the group, children announced in the assembly that they would collect in the school entrance cat and dog food, blankets and toys. Then, children organized the donations and older students delivered it at the association. Although this group is involved in actions promoting social justice at school and wider community and children actively participate in these actions, discussions around the causes of poverty and inequalities were not reported by teachers or observed by the ISOTIS team.</p>
<b>School materials</b>	<p>School materials are provided by the school to all students. This action is two folded: (1) students can use materials stored in the school (e.g., paper, coloured pencils, staplers) and (2) students are given personal equal materials to use during the school year (e.g., a backpack, a pencil case, a file to store sheets). Families also don't need to buy schoolbooks; they are available at the school for all children to consult. This is intentionally thought by the school to attenuate socioeconomic differences between students<sup>15</sup>. Holiday decorations and</p>

<sup>15</sup> Although there are recent trends to change to current status of the school books, usually parents are responsible to buy and pay all the needed materials (including schoolbooks) and it is common that each

	presents are also built in school by students for the same reason. Students can request books or tablets to bring home.
<b>Food</b>	Healthy snacks (i.e., fruit and milk) are provided during breaks in a table for children from 1 <sup>st</sup> to 4 <sup>th</sup> grade. This is organized by the city council and young children (from pre- and primary school) can pick food whenever they want.

These examples actually depict how values mentioned in school documents (namely, autonomy, solidarity, responsibility and democracy) are expressed and articulated in all-school practices. There are activities implemented at school-level (namely, the school assembly and groups of responsibilities), which demand the active participation of all students, promoting cooperation and reinforcing the idea of school as a democratic learning community.

Teachers view education for social justice as embedded in the school's everyday life, through school actions and responses to the needs of students, as the common and equal materials, debates at the assembly or the solidarity group. For older students, there is a specific Citizenship Education unit, where students debate human rights and social issues, as proclaimed in the Portuguese legislation (Decree-law 55/2018). As observed, in these meetings, around twenty students get together with the teacher (weekly, during a school term). The teacher provides a stimulus for discussion (usually a video) and students debate a topic (for example, human rights, racism, gender inequalities) with mediation from the teacher. If they want to learn more about a specific topic, they can conduct individual or group projects throughout the week(s). For younger (elementary school) students, there is not a specific time and place planned to discuss and learn about social justice contents. Discussing social justice contents can spontaneously happen depending on children's interests or questions. According to teachers, there is a weekly moment at the beginning of the week where children can talk about global or local news and social justice topics can arise in the conversation. There have also been debates at the school assembly about social justice topics (namely, the refugee crisis). However, although teachers considered exploring social justice at school important, topics related to economic inequalities, equity and fairness seem not to be discussed at

child has their own materials; there are financial subsidies for families in need to buy the materials, but it is a parental responsibility rather than of schools.

school. Furthermore, topics related to social justice (in the wider sense) are explored more deeply depending on children's interests and motivations.

The specificities of this context, in terms of pedagogical approach and development of all-school strategies and activities, and the observed results from the exploratory phase, related to social justice education, bring additional specificities that shaped the ISOTIS intervention and will be described in the next section – 3.3. *Highlights (Summary)*.

#### 4.4.3.3 Site 2

In the exploratory phase, the school cluster's administration showed interested in promoting activities related to multicultural education, especially given the new policies that arose in the last year in Portugal (namely, Decree-law 54/2018 and 55/2018). The school cluster administration continuously reinforced their interest in participating in the project for the pertinence of its focus on multiculturalism given the political context of change in Education in Portugal. Moreover, the school cluster has a percentage of Roma population, who should be positively acknowledged, and mentions citizenship as the main theme of their school's educational project. Despite the positive emphasis on citizenship education and inclusion at the school cluster-level, it resulted from the exploratory meetings that teachers felt unprepared to introduce contents related to multiculturalism and citizenship in their classes.

In 2012-2013/2013-2014 and 2013-2014/2014-2015, the school cluster was awarded with a recognition as intercultural school by the Ministry of Education and the Portuguese High Commission for Migration<sup>16</sup>. This recognition was based on the work of an intercultural project, developed by the school cluster, named "Acamp'Arte". On one hand, the project included festivities and events at school with children and families to share and celebrate Roma culture (i.e., International Roma Day, activities focused on sharing Roma culture with the school community in the School Cluster's Day) and sessions to value Roma culture in partnership with local institutions. On the other hand, the project also intended to mediate the relationship between children/families, school staff and local institutions, whenever necessary. Although in the first years the project included more intensive activities at school to share and celebrate Roma culture, as stated, it now comprehends exclusively mediation by the school psychologist between families and school in specific cases of school absenteeism.

<sup>16</sup> This initiative distinguishes schools that in their school projects and practices value cultural and linguistic diversity as a learning opportunity for all.

At the moment, children and teachers were not involved in intercultural education or citizenship education. The school coordinator revealed that she would have difficulties to involve elementary school teachers in training, professional development and different projects that required their active participation. Namely, she shared how teachers were feeling pressured to cover and deliver curriculum contents in the required time frame. Regarding the Roma population at this school, the coordinator shared a positive evolution in the involvement of Roma students in school activities. According to her, school absenteeism and drop-outs, especially in what concern Roma students, had a positive evolution in the last years, with students attending school more regularly. When students are absent, the school psychologist can intervene, but this is happening less frequently. Moreover, the school has a new generation of Roma students who are children of former students and, thus, have a closer relationship with the school. Although the school performance of Roma students was still a concern, no major needs were identified by the coordinator. She stated that, due to the specificities of these children and families, attending school is an important achievement itself.

Regarding ICT facilities, elementary school children have ICT classes at school (1-hour weekly classes), conducted by their main teacher, with limited resources (few computers, outdated and slow, with battery problems). However, within the school cluster, there is a school, very close to the target-school, with an ICT room with more recent computers and video production materials. This room is managed by a teacher who teaches ICT to children from 5<sup>th</sup> to 9<sup>th</sup> grade. Although this room and materials are available for teachers from other schools to request them, teachers from the target-school usually don't conduct activities there.

Teachers chosen to be involved in the project didn't reveal additional needs or concerns with their practice, unless an overall concern with delivering fourth grade curriculum contents within the required time frame. Due to teachers' concerns with covering the curriculum, an analysis of the fourth-grade curriculum was made, that revealed several opportunities to introduce multicultural issues in different subjects:

- Portuguese - reading and writing;
- *Mathematics* - organizing and processing data;
- *Environmental studies* - migration fluxes and world geography;
- *Citizenship and Development* - interculturality and human rights;
- *ICT* - digital citizenship, investigating, searching, communicating, collaborating, creating and innovating.

#### 4.4.4 Highlights

**Site 1** was first selected for being different in what concerns their innovative practices in the Portuguese context, which brought additional challenges and opportunities. As reported by all sources (documentation, observations, meetings with teachers), the school structure was aligned with democracy and social justice, through the different strategies and features highlighted in the results. Thus, children lived and actively contributed to equality within the school context, for example, by participating in the assembly, using equal materials or being responsible for providing goods to disadvantaged families in the school community. Thus, a first shared goal was to raise awareness of these practices and share them on the VLE platform. On the other hand, although there existed very valuable and consolidated school practices and structures focused on social justice, there was not necessarily a focus on social justice education contents. In this current functioning, children might or not learn about social and economic inequalities, as the intentions behind those actions were not always made explicit to children. Thus, the second goal was to address social and economic inequalities and issues of social justice with children, taking advantage of the VLE platform.

During the exploratory phase, it was made explicit by the school administration and teachers that the ISOTIS intervention would have to respect the school's workflow and pedagogy, which meant, among other things, the involvement of more students (and teachers) in the co-design and implementation phases. Also, although teachers thought it could be relevant to approach social justice contents, this would not suffice for them to introduce the topic to children. Instead, children themselves would have to be inquired of their interest to explore these contents. Children's feelings, interests and their sense of ownership of the project activities were main concerns expressed by teachers. Therefore, they suggested the creation of a stimulus situation to assess children's thoughts, ideas and interests and to learn if children also felt motivated to pursue this possibility. In a nutshell, teachers emphasized the importance of the ISOTIS activities being aligned with the overall school culture, project and workflow. Older students would also be included in the intervention under the same premises. The project intervention transformed itself: (a) from discrete actions and activities to two projects concerning social justice education with both younger and older students, taking advantage of the VLE platform; (b) from activities co-designed with researchers and teachers to activities co-designed also with children, respecting the school's workflow and children's ideas and interests.

On **Site 2**, the school cluster's administration showed interest in the project and pointed to a specific school to co-develop and conduct the activities. In this school, teachers and

students were not involved in intercultural education at that moment. Also, the school coordinator shared difficulties in engaging school staff as, according to her, they would see their collaboration in the project as extra work in an already full teacher agenda. On the other hand, they felt pressured to deliver curricular contents and were faced with a new request to introduce Citizenship and Development topics (such as interculturality and human rights), transversally, throughout the curriculum. Thus, an analysis of the curriculum was found useful to foresee potential connections between the proposed activities and curriculum' goals and contents. In this way, to promote teachers' interest and engagement, very specific references to curricular contents throughout the proposed activities were established. Additionally, there was a small percentage of culturally diverse students (students from Roma communities and migrant students) that weren't raising concerns to teachers, but whose experiences and perspectives should be acknowledged and valued at school. Finally, it was important to learn that there was a room available with updated ICT resources in a school from the school cluster (near the target-school) that children and teachers could use in the implementation phase. Hence, experiences in the VLE platform were implemented there. In short, the global aims of the collaboration between the ISOTIS team and the school were to bring intercultural education into classroom activities and to value multiculturalism at school, by supporting teachers on the delivery of (multicultural) contents, involving children in activities focused on multiculturalism, and taking advantage of the VLE platform to enrich the learning process and document it.

## 4.5 PART III - CO-DESIGN & IMPLEMENTATION PHASE –

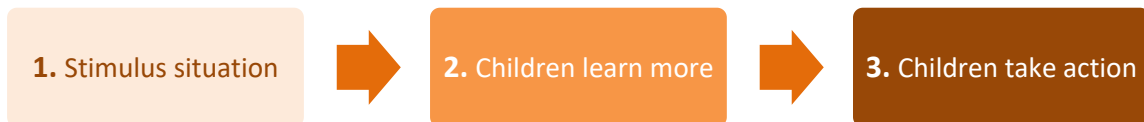
### Going into practice

#### 4.5.1 Overview of the procedures of the co-designing and implementation phase

The **co-design and implementation phases** followed a general common approach in both schools. Activities were in both cases foreseen as part of an overall meaningful project for children and teachers that included three common steps. First, a stimulus situation was used to encourage children to learn more about a certain topic, related to social inequalities in context 1 and multiculturalism in context 2. In the next phase, based on children's overall response to this stimulus situation, they would investigate about a topic with guidance, related to social inequalities or multiculturalism. Finally, children would take action and share what they had learned, as described in the figure below

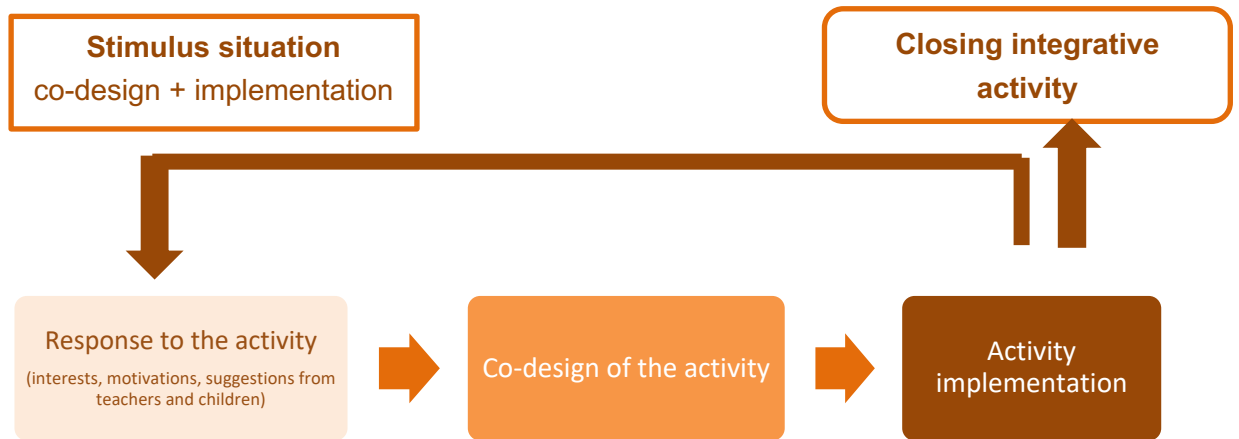
and recommended by the Asia Society and OECD global competence framework (Asia Society/OECD, 2018).

Figure 4.4 - *Common workflow for children and teachers' project*



Following a design-based approach, in both settings, a first proposal of the project was overviewed and discussed with the teachers. Then, each activity was co-designed, discussed and planned with teachers and implemented with support of the ISOTIS team. Both children's and teachers' response to the activity (interests, motivations, suggestions) was subsequently acknowledged when co-designing the next step, while always keeping in mind the main focus of each process: in site 1, economic inequalities and social justice education and, in site 2, intercultural education. The iterative process, illustrated in figure 32, was repeated as many times as the number of activities implemented, while also considering the common structure in three steps (described above), the dimensions of global competence (Asia Society/OECD, 2018) and the global aims of the intervention.

Figure 4.5 - Common workflow for co-design and implementation phases



Throughout these steps, the VLE platform would be (a) updated through the upload of several materials (e.g., videos), resources and activity templates, (b) used as a facilitator of search, organizing information and exchanges among actors, who would directly engage with the platform, and (c) enriched with inspiring examples of the work conducted in schools, with concrete examples of the activities conducted, materials produced and of children's and teachers' views and perspectives.

In relation to **site 1**, two initial meetings for co-design with all teachers were held. Then, brief meetings with each teacher occurred after the implementation of each activity to get feedback and plan the next step. Learning experiences were co-designed and implemented with younger children (7-10 years old). Older children (12-15 years old) co-designed and implemented joint actions with children between 10 and 12 years old. The process of co-design and implementation occurred from October 2018 to June 2019.

Regarding **site 2**, six meetings for co-design were held between all teachers and the research team to co-design the activities. In these meetings, the four teachers involved in the intervention were present. One meeting per classroom with children was held for co-designing the second phase of the project (*Children learn more.*) The process of co-design and implementation occurred from December 2018 to June 2019.

During meetings and activities with children and teachers, comprehensive fieldnotes were written, namely regarding children and teachers' participation and involvement in the activity, interests and motivations, peer interactions, ideas for future steps, and reflections on the activity (strengths and weaknesses, implications). Learning experiences and materials produced by children were photographed. Then, relevant



content on children's and teachers' participation and feedback was extracted and documented from fieldnotes and photographic record.

In both sites, the main challenge when co-designing and implementing the project with teachers were related to the time constraints felt and frequently referred by the teachers. Teachers struggled with time for meetings with the research team and for planning, implementing and extending the learning experiences. To overcome this challenge, close support and assistance were given throughout the process.

#### 4.5.2 Implemented Activities and Description of the experience

The structure of the common workflow in three steps (*1. Stimulus situation; 2. Children learn more; 3. Children take action*) will be used to describe the implemented activities and experience in each setting. Accordingly, experiences for enrichment of the VLE platform were also described following this structure. The process of implementation, the experiences and materials described below for each site, class and age group were systematically uploaded on the VLE (for links please see 3.3. *Summary of VLE development and usage in both settings*).

##### 4.5.2.1 Site 1

In the first co-design meeting, a proposal from the ISOTIS team for the overall project with children was discussed with teachers. The proposal involved children sharing their favourite meal and searching where some food items come from, followed by an activity to discuss feelings in an unjust situation and the organization of a Fairtrade market. The first reaction to the overall project was positive, as teachers appreciated the idea to explore inequalities in trade with children. However, the activity to introduce the concepts of fairness and justice got a negative response by teachers. The proposed activity would involve teachers delivering unequal amounts of rice to randomly created groups of children, with the objective of discussing feelings on situations of injustice. Teachers argued that they wouldn't feel comfortable in delivering unequal amounts of rice, as this would provoke feelings of distrust towards teachers and be prejudicial to their relationship. Moreover, teachers were very concerned with the coherence of the introduction of these activities and project with the overall school's approach and dynamic. According to teachers, children themselves would have to feel interested and have a sense of ownership of the project activities. Therefore, teachers suggested that they would prefer to present a stimulus situation to children (e.g., a video) and then co-design the overall project with children, based on their reactions, ideas and suggestions. This process happened both with the younger students (7-10 years old) and the older students (12-15 years old). As the intervention in each *nucleus* unfolded in two separate

ways according to the children’s age range and interests, each process will be described separately.

#### 4.5.2.2 Children between 7 and 10 years old

The table below comprehends the global aims that guided the intervention. The learning experiences were co-designed and implemented, according to those goals, while also acknowledging children and teachers’ interests.

Table 4.2 - *Goals and learning experiences in site 1, with children between 7 and 10 years old*

1. Stimulus situation	2. Children learn more	3. Children take action
<p><b>Goals:</b></p> <ul style="list-style-type: none"> <li>• To introduce the topic of social and economic inequalities;</li> <li>• To introduce the concepts of justice and fairness;</li> <li>• To incite children to learn more and research about the topic of inequalities;</li> <li>• To gauge children’s interests and knowledge about the topic of inequalities;</li> <li>• To promote children’s expression of ideas and perspectives.</li> </ul>	<p><b>Goals:</b></p> <ul style="list-style-type: none"> <li>• To enable children as researchers and informants;</li> <li>• To promote family involvement and value families and children’s resources;</li> <li>• To discuss feelings on situations of injustice;</li> <li>• To promote children’s understanding of the interdependence of people and countries throughout the world;</li> <li>• To promote children’s acknowledgment that profits are not divided equally among those involved in trade.</li> </ul>	<p><b>Goals:</b></p> <ul style="list-style-type: none"> <li>• To foster discussions on human rights, human dignity, social justice and equity;</li> <li>• To develop agency and provide a pathway to action towards a just world.</li> </ul>
<p>Discussion of videos about economic inequalities</p>	<p>Research at home about the food trade, building world map and sharing searches</p>	<p>What can we do about the food trade?</p>

#### Stimulus situation

The ISOTIS research team compiled and shared various suggestions of videos and activities that could be used as a stimulus to discuss social and economic inequalities with children. This was the first opportunity to exchange materials and resources with

teachers. These materials were then discussed in a teachers' regular team meeting, in which teachers collectively chose two videos.

All children from this age range were present during the visualization of the videos and the discussion. Five teachers were observing, and one teacher was leading the activity. The first video was developed by UNICEF and was available in Portuguese. The video focused on the 2030 Agenda for Sustainable Development, with an emphasis on the goal of reducing social and economic inequalities. During the discussion, the teacher approached children's views and thoughts on: (i) inequalities, in general; (ii) countries with more inequalities; (iii) school's mechanisms to reduce inequalities between students; and (iv) causes of poverty. The second video by the Fairtrade foundation was about the journey bananas undertake from Columbia to the supermarket. Children discussed the origin of food and the banana's farmers life conditions. The videos, uploaded on the VLE, were thought as pedagogical tools to motivate and incite children to investigate more about the topic of inequalities and represented an opportunity to assess children's interests, ideas and knowledge on the topic. The discussions were shared on the platform to serve as an inspiration to other teachers from other countries and as an example of how a teacher can elicit discussions and prompt children within this age range, with concrete examples of children's initial thoughts and perspectives. At the end, it was outlined with children that they could search more about the origin of different food items and the farmers' conditions of living to get a deeper understanding of the interdependence between countries and inequalities in trade.

After the stimulus situation with children was over, a brief meeting occurred to get feedback on the activity and plan the next steps. The teachers shared that children responded very positively to the activity and that they seemed curious and interested about the topic. The stimulus situation also represented a useful opportunity to document children's background knowledge on social and economic inequalities. One teacher commented that it was useful to understand that children still had some difficulties in world geography, namely, in distinguishing countries from continents. For the next phase, children would take home a proposal to investigate the country of origin of a food item of their choice and the journey it had undertaken until it reached their home, considering if the farmers' who produced the food were justly paid for their work. Then, all children's searches would be presented, and the food items would be connected to the countries where they are produced in a world map, exposed in the classroom.

### Children learn more

Following the stimulus situation, during a week, children took home a sheet with the proposal to search more about the origin of a food item, while also investigating if the

person who produced it was paid fairly. This phase of the research project was designed to introduce the concept of trade in the current globalized world. The world map could provide a clear picture of the interconnectedness of people (and nations) throughout the world, while also being a playful way to explore inequalities and social justice at a global level. Children would be invited to express their own ideas and perspectives and exchange them with their peers. The activity encouraged family involvement by asking children to develop it at home with their family's collaboration and thus resorted to families as researchers and informants.

Then, a whole group discussion was implemented for children to share the results of the home challenge. This discussion was divided into three different moments, so all children could present the search they conducted and exchange ideas with their peers on the topic. Repeatedly, a child would go near the teacher leading the activity and presented his research to the class. Then, the drawing or picture of the food item would be exposed and linked to the countries where it was mainly produced in the classroom map, using a wool yarn. Based on the children's comments about the farmer's economic conditions, the teachers would elicit some discussion on social and economic inequalities. The main objective of the discussion was to foster reflections on human dignity, equity and social justice, while increasing children's knowledge in the topic of inequalities in trade.

At the end, teachers and researchers met and discussed the next steps. Children would be asked to divide 30 coins among 5 workers involved in the trade process, from the farmer to the supermarket, according to what they thought it was fair. The goal was to provide children the opportunity to think and discuss what was fair according to their perspectives. Conducting the activity in small groups would provide a path for children to be able to put their ideas in words, listen to the others' perspectives and negotiate their decisions. Children would engage directly with the VLE platform, registering their answers online. In this way, the answers would be safely organized and stored online, and the platform would provide immediately a global picture of the answers given, by calculating the average of the responses. Thus, results could be easily delivered to children for further discussions about the different perspectives and pathways to action.

### Children take action

In groups of two or three, after discussing aloud how they would divide the 30 coins between those involved in the process of trade, children would write, in an online questionnaire in the VLE platform, their final answers and the reason for their distribution of the money. It is important to consider that to facilitate children's reasoning, physical coins were distributed among five different cards, with each card representing one of those involved in the trade process.

After all children completed the activity in the VLE, the ISOTIS team presented a summary of children’s responses concerning the distribution and reasons for that distribution and confronted it with actual distribution of money in the banana trade according to values available in Fairtrade International. As foreseen, the usage of the VLE represented a clear advantage, as it was possible to efficiently collect children’s answers and easily showing them their responses. Children were invited to express their ideas and perspectives on the justice of this reality. Children’s distribution was much more egalitarian than the real distribution, which was viewed by children as unfair. Thus, a discussion was held about what could be done to tackle inequalities in trade. This part of the discussion was intentionally thought to develop children’s sense of agency and provide pathways to action towards a just world. Examples of actions discussed with children were shared as concrete examples and inspirations for future interventions.

#### 4.5.2.3 Children between 12 and 15 years old

The learning goals for this age range were equal to those included in Table 4.2. Nevertheless, the actions developed with children were different and can be found in Table 4.3.

Table 4.3 - *Goals and learning experiences in site 1, with children between 12 and 15 years old*

Stimulus situation	Children learn more	Children take action
<b>Goals:</b> <i>Please consult Table 4.2</i>	Goals: <i>Please consult Table 4.2</i>	Goals: <i>Please consult Table 4.2</i>
<b>Discussion of a video about economic inequalities</b>	<b>Discussion of data about inequalities</b>	<b>Co-designing and implementing actions with younger peers</b>

#### Stimulus situation

As previously mentioned, the process with older students occurred in the scope of a specific Citizenship Education unit. In this unit, the teacher commonly uses videos as prompts for discussion. Thus, the ISOTIS video (in Portuguese) on Social Justice was watched by students through the VLE. The video was produced by the ISOTIS team and was uploaded on the VLE, and serve as a starting point to discuss globalization, the interconnectedness of human actions and the pervasive and increasing inequalities all over the world.

Then, in a whole group discussion, prompted by the teacher, students discussed topics such as (i) globalization and interdependence between countries; (ii) if interdependence is beneficial to all countries; (iii) inequalities at school and school mechanisms to reduce inequalities; (iv) what being poor means and causes of poverty; (v) how poverty can be reduced; (vi) examples of social and economic inequalities and (v) Fairtrade. These discussions were shared to illustrate the reflections that can arise with older children by watching the video and how the teachers can elicit an initial discussion about the topics of globalization, interdependence and social justice.

At the end, feedback from the teacher was obtained through a short meeting with the team. As mentioned by the teacher, more than half of the students actively participated in the discussion, showing high levels of involvement. The research team introduced the idea of providing students with concrete data and information to discuss inequalities, to deepen their understanding of the topic. The teacher responded very positively to the suggestion and thought it would add value to the discussion.

### Children learn more

In the second moment, students discussed charts, that were presented via VLE. The first chart was related to economic inequalities between countries (Wilkinson & Pickett, 2009). Students reflected on their pre-conceptions and expectations related to inequality levels, on the fairness of that level of inequalities and causes of inequalities. They concluded that inequalities could be reduced through “political and social action”. More specifically, they referred to “laws that protect workers”, such as the “minimum wage”. Then, students analyzed three charts on the evolution of inequalities over time in different world regions and countries retrieved from the World Inequality Database. Students discussed that inequalities were increasing at the global level, but also pointed out that the evolution of inequalities was different according to the country. The teacher highlighted that inequalities are dependent on historical and political events. Finally, a chart on social mobility was discussed (OECD, 2018). The professor explained the case of Portugal and compulsory schooling until 12<sup>th</sup> grade was mentioned by students as a way to promote social mobility. Finally, together with students, the teacher summarized the last two sessions and what students had learn.

At the end, the teacher discussed with the research team that it could be interesting if students divided themselves into groups, according to their interests, with each group developing a project or action to share with their younger peers. Thus, students would take action by further investigating the topic and by raising their peers' awareness of the current increasing and global inequalities.

## Children take action

### **Co-designing the actions with younger peers**

Following this purpose, in the next session, the teacher, research team and students co-designed the next steps. Three main proposals were introduced to students: (1) to prepare a joint action to raise their peers' awareness on social and economic inequalities; (2) to research about local and global social inequalities (within or between countries); or (3) to investigate how their school mitigates social inequalities.

A group of students showed interest in sharing an action with younger peers (10-12 years old), about the distribution of coins between those involved in the trade process (similarly to the one developed in the VLE with children between 7 and 10 years old). Students would divide coins as they thought the real food distribution was across the continents in the world and then they would discuss differences with the actual distribution and the fairness of it. Finally, following the suggestion of one group member, an experiment and debate would be held asking students if they would prefer to buy a more expensive chocolate bar but assuring that its production did not involve children labour or a cheaper chocolate bar but produced at the expense of child labor. Hence, students would have the opportunity to discuss human (and children's) rights' issues, social justice and equity in trade, while considering possible paths towards a more just world.

Then, the teacher introduced to students between 12 and 15 years old another action presented by the ISOTIS team to teachers in the first meetings and available in the VLE. After explaining the procedures, the teacher invited these students to experience it to later discuss the possibility to implement this activity with their younger peers. The action involved children distributing themselves in five groups, each group representing one continent, according to that continent's population. This allowed children to have a real perception of the inequalities that exist, as human beings (among different continents) have very different access to resources (such as food). Then, using the VLE, the correct answers were revealed, and children discussed the results. Thus, it was critical to have the procedures available online to consult the values in real time. In the next phase, students had to distribute between continents 30 pieces of paper, with the total amount of papers representing the food available in the world. Students were then involved in discussing how many pieces of paper (i.e., food available) each continent would have access to. After the real values were revealed using the VLE, students showed their surprise and discussed the fairness of the world distribution of food. The teacher stressed how the activity allowed to highlight world inequalities. A group of students was interested in replicating this activity with their younger peers with ages between 10 and 12 years. In this way, students would take action towards social justice by: (a) sharing, with their

younger peers, information on global or local inequalities in engaging and playful ways, raising their awareness on the topic and (b) cooperatively debating what could be done to reduce inequalities.

Finally, a group of students showed interest in preparing a presentation on how their school mitigates social inequalities. Students discussed that they could inquiry students, teachers and other school staff regarding the mechanisms used by the school to reduce inequalities and that this could be presented to their peers and shared on the VLE to inspire other schools that function differently.

In the next two sessions, divided in groups, students defined the next steps and started producing the materials needed. The research team proposed to the teacher a worksheet to help groups co-design the next steps. Together, they reflected and registered in a table their ideas considering the following points:

- Target-group: who are we involving?
- Key-messages: what messages do we want to convey?
- Procedures – the activity in steps: what are we going to do?
- Materials needed: what materials do we need?
- Documentation: how are we going to document what happened?
- Schedule: when will this be implemented?

Overall, all groups were very committed with the task. Teacher and researchers rotatively engaged with all groups, facilitating the team work, contributing with ideas and helping structure their plans. The co-design of actions with the students was conceived to promote their responsibility and autonomy, by requiring them to plan and work cooperatively, communicate with other peers and consider different perspectives.

### **Implementing the actions with children between 10 and 12 years old**

Following the co-design, students implemented the different actions with their younger peers, aged between 10 and 12 years old. Both groups of children were very engaged in discussing how they would represent the world population and the food available and were very surprised to find out the real distributions, which they thought were very unjust. The teacher helped the group of older students to mediate the whole group discussion with their younger peers. They discussed the (un)fairness of the distribution and how these inequalities could be mitigated.

Secondly, a group of older students led the activity about the distribution of money between those involved in trade, from the farmer to the supermarket. In small groups of four to five members, younger students discussed how they thought the distribution occurred and later were confronted with the real values. Once again, it was possible to



discuss the (un)fairness of the distribution and possible ways to mitigate inequalities. The teacher helped to mediate the discussion in this activity and made clear its connections with the first one, as farmers could produce food in continents with less food available to be sold in continents with more food available. Students were finally presented with the dilemma of buying either a more expensive chocolate bar with no child labor or a cheaper chocolate bar with child labor. Through this challenge, students could understand how their actions can have consequences across the globe, highlighting their role as part of change towards a more just world.

Finally, in the last session, a group of older students presented their research on school mechanisms to reduce inequalities. They completed a Power-Point presentation introducing the mechanisms that they identified at their school: (i) the food corner; (ii) the group of responsibility focused on solidarity; (iii) the library that provides children books and tablets to bring home; and (iv) the common, equal and shared school material. Students conducted interviews with other children and school staff to inform themselves on each mechanism and resorted to that information to develop the presentation.

#### 4.5.2.4 Site 2

The proposal of building a welcome kit to receive students from different cultures and approach multiculturalism at school<sup>17</sup> was first presented to teachers in a meeting with the school cluster administration and a school coordinator, who had previously agreed with this suggestion, during the exploratory phase. This was the first opportunity to discuss the proposed activities and inquire teachers about their opinions and motivations. As mentioned in the exploratory phase, the project's workflow and activities were presented by the research team with clear links with the national curriculum. The teachers expressed that, to their knowledge, children would be interested in contents and topics related to multiculturalism and emphasized that the proposal was very aligned with the curriculum. Teachers thought it would increase the children's motivation to have different persons leading the activities and introducing the project to them (instead of the regular teacher). Thus, after co-designing the activity with teachers, in a prior meeting to the implementation, the ISOTIS team was present and actively participated in the sessions with children.

<sup>17</sup> The proposal of building a welcome kit for newly arrived and culturally diverse children was inspired on the activity of the *WP2 Child Study*.

The table below includes the global aims that were intentionally considered while planning and co-designing the different actions of the intervention, throughout the three steps of the project.

Table 4.4 - *Goals and learning experiences in site 2*

<b>Stimulus situation</b>	<p><b>Goals:</b></p> <ul style="list-style-type: none"> <li>• To increase children’s cultural awareness, personal knowledge and knowledge of each other;</li> <li>• To discuss feelings on situations of being new in a context or feeling apart;</li> <li>• To gauge children’s interests and knowledge about the topic of multiculturalism at school;</li> <li>• To promote children’s expression of ideas, values and perspectives and the respect of others’ ideas, values and perspectives.</li> </ul>
<b>Migrant children arrive to school: how can we make them feel welcomed?</b>	
<p><b>Children learn more</b></p> <ul style="list-style-type: none"> <li>• Class A: Our school and different languages!</li> <li>• Class B: Languages and skin colors</li> <li>• Class C: Our school and the world</li> <li>• Class D: Refugees are welcomed at our school!</li> </ul>	<p><b>Goals:</b></p> <ul style="list-style-type: none"> <li>• To value children’s and families’ unique characteristics, making everyone visible in the school community;</li> <li>• To value the uniqueness of each individual and culture in the classroom and school;</li> <li>• To value the families and children’s resources and enable children as researchers and informants;</li> <li>• To foster discussions on inclusion, human rights, dignity and equity, despite of children’s country of origin, culture, language and skin colour;</li> <li>• To explore the concepts of inclusion and interculturality at school.</li> </ul>
<b>Children take action</b>	<p><b>Goals:</b></p> <ul style="list-style-type: none"> <li>• To share resources and strategies on how to include everyone at school;</li> <li>• To construct a sense of belonging to a multicultural community;</li> <li>• To document learning experiences and communicate views, perspectives and an assessment of the overall project;</li> <li>• To develop agency and provide a pathway to action to favor inclusion in intercultural communities.</li> </ul>
<b>Production of a video with all children about the process</b>	

#### Stimulus situation

In a meeting with teachers, a proposal for the stimulus situation was discussed with teachers. The proposal included a whole group activity, followed by a cooperative small group activity. A story of a migrant child coming to school would be presented to children, prompting a discussion on: (a) what the migrant child felt; (b) connection to their own

experiences (i.e., if children had previously felt like that); (c) suggestions for actions to make the migrant child feel more welcomed and happy at school; and (d) what they would like to learn more considering the situation. First, a whole group discussion covering the four questions was held and then a small group activity followed this same structure with children registering their answers in a cardboard. The main intention of the activity was to introduce the topic of multiculturalism at school, using challenging but familiar situations of migrant children at school. Reflecting upon these multicultural encounters would allow children to discuss feelings and share their own experiences, while developing empathy and cultural awareness.

Children responded very well to the stimulus situation. They were very curious, motivated and enthusiastic. They contributed to the activities with various and pertinent interventions, stating their personal experiences (e.g., one girl talked about her identity, sharing that her friends thought she was not Brazilian, when she actually is) and background knowledge (e.g., one child knew the meaning of the term “refugee” and shared with others). Furthermore, they were full of suggestions on how to make migrant children feel welcomed at school and on what they wanted to learn more.

Afterwards, a meeting between the research team and the teachers was arranged, to get feedback on the stimulus situation and discuss the next steps. Teachers mentioned that children seemed very interested in the topic of multiculturalism and that they noticed that it was well aligned with contents from the Environmental Studies curriculum (namely, contents on migration flows, geography, and Portuguese speaking countries). Teachers also emphasized the importance of having different adults leading the activity to foster children’s motivation and highlighted that the materials produced by children were now exposed in the classrooms.

To define the next steps, the content of children’s suggestions (i.e., “how can we make him/her feel more welcomed and happier at school”) and interests (i.e., “what we want to learn more”) was extracted from their group works and presented to teachers in a meeting. Following children’s interests and ideas and considering the overall aims of the next phase (*Children learn more*), the project could follow two intertwined directions. Children could investigate more about (i) their school (namely children and their life stories, school spaces, languages spoken and the school wider context) and/or (ii) cultures and traditions in different countries (more specifically, childhood and schooling in different countries). Several options and resources were then presented to teachers as a basis to co-design the next steps. Teachers shared the ones they and/or their students would be most interested in. The presentation with the content analysis of children’s responses on the stimulus situation with the options and resources for the next phase was shared for (other) teachers to consult.

A week later, in each class, children and teacher got to discuss and share with the research team the next steps. Involving children in planning the next steps would promote their engagement and ownership of the overall project, while keeping them aware of the objectives for this phase. Although there were some common steps, each teacher and respective class followed different paths, under the overarching purpose of increasing children's intercultural competence and building a welcome kit for newly arrived and culturally diverse children. Thus, the next steps of the children's project will be described for each classroom separately. To foster the coherence between the actions, the meetings between teacher and the team continued to involve all teachers so that teachers could stay aware of the others' steps and actions.

### Children learn more

#### **Class A – Our school and different languages!**

As children were interested in building signs translated in different languages for their school, the teacher proposed that students, at home, selected different school spaces and different languages. Also, they were invited to draw maps of the school. Then, children shared what they had developed to the whole group. One at the time, each child read the words and their translations, pointed out the reasons for the choice of languages and the method of research. Children shared that they chose the languages out of curiosity or because they had relatives who speak the language. Eventually, children shared that some languages should be added to the list of the translated signs for their school, because they were spoken by some children at school. Following this idea, children thought that there was a need to learn more about the languages spoken at school. It was then decided to develop a questionnaire to be fulfilled by all children at school in order to identify the languages and nationalities present at school so that the signs of the different school spaces could be designed and translated in those languages.

Therefore, in this class, students were able to explore their own school context and gain awareness of school as a multicultural and multilingual community. Moreover, by developing and building signs in the most spoken languages of the school, children took an active role in promoting inclusion at school, by valuing linguistic and cultural diversity. These signs were shared as inspiration for other schools and children<sup>18</sup>.

After developing the questionnaire and collecting data in the school, as co-designed and planned with the teacher in a meeting, children used the VLE to build the charts. The

<sup>18</sup> For more about valuing and promoting multilingualism in the classroom, please consult the VLE section [Promoting multilingualism in the classroom](#).

charts could provide an attractive and clear view of nationalities and languages present at school, raising awareness of multiculturalism and multilingualism and relating the topics with students' immediate environment. The teacher used this opportunity to explore mathematics curricular contents with children, who were very excited and motivated during the activity. Students were also very agile using the VLE, showing no major difficulties. Children direct engagement with the VLE aimed to contribute to their ICT skills and related curricular contents, considering children as digital citizens.

### **Class B – Languages and skin colors: Everyone is different and welcomed here!**

As described by the teacher, children were very interested in multilingualism. Thus, the teacher first explored with the whole group the vocabular area of the word 'school'. Students were invited to propose words that composed the vocabular area and the teacher wrote them on the classroom's whiteboard. Then, at home, students translated those words to three languages of their choice. Thus, children would have the opportunity to explore and get in contact with languages different from Portuguese, while being enabled as researchers and informants. Some students mentioned that they searched for the translations with the help of their parents, highlighting how parents were involved in the process. Following this, a group of students developed a booklet in different languages (Romanian, Spanish, and German) with translations of words useful to school life (e.g., school materials and spaces) or useful to social interactions (e.g., "hello", "sorry", "see you tomorrow"). This booklet was designed by students as a tool to promote inclusion at school. Children explored different languages and words and developed a final product, intentionally thought to assist the inclusion process of a migrant child coming to school. Children's idea was that not only could the migrant child learn words in Portuguese as other students could learn some words in his/her home language.

On the other hand, both the teacher and students showed interest on raising awareness of different skin tones. As a first step to the activity, in one session, children were presented to an artistic project developed by a Brazilian artist<sup>19</sup>, Angelica Dass, and invited to search for more information and reflect about what was the inherent message and meanings of the project. This session was developed through the VLE. Children were invited to explore some links, embedded in the VLE, to search for more information about the artist and the project. Links included the project websites and Portuguese news. The main purpose of this session was to explore the diversity of skin tones, while reflecting upon the concept of race and discussing racism. The teacher and researchers

<sup>19</sup> The Humanae project, developed by the Brazilian artist Angelica Dass, was presented to all teachers in the co-design meeting and involves discovering the beauty of diversity through art, while standing against discrimination in the classroom.

were guiding children in their exploration, facilitating the searching process and cooperative group work. Afterwards, all children watched a TED talk by the artist of the project, available through the VLE, in Portuguese. Then, each group wrote or audio-recorded a comment on the VLE, sharing what they had learned with each other. Children's ICT skills and ICT-related curricular contents were being developed throughout the activity via VLE.

Comments made by children emphasized different skin tones (e.g., "There are not just two skin tones [black and white]") and values of respect (e.g., "we have to respect each other"), and friendship (e.g., "what matters is that we are all friends, all around the world"). Multiple comments also depicted how children viewed how everyone is different and equal at the same time (e.g., "we are all the same but also all different"). One group included in the comment their positive feedback to the activity: "we've learned a lot from this video and want to learn a lot more." They were able to use the VLE with no difficulties and particularly enjoyed reading each other's comments.

The week after, children from class A joined this class to do the artistic activity. After drawing their self-portrait, children were invited to mix and explore colours to find the colour of their own skin and paint their portrait with that colour. This engaging experience allowed children to actively explore their skin tone and appreciate the diversity of all the existing skin tones. Thus, children were prompted to value the uniqueness of each individual at school, promoting anti-racist beliefs and attitudes. It is also worth mentioning that the paintings were exposed in a wall at the entrance of the school to receive new students, with a message in different languages ("Different colours make the rainbow"). This actually depicted how a school can assert itself as a multicultural community, in which everyone is visible, and all skin tones are celebrated. This activity was shared with the artist Angelica Dass by e-mail, who sent a video with positive feedback, which was watched by children and included in the VLE.

### **Class C – Our school and the world!**

As described by the teacher, class C was interested in learning about schools around the world. First, they started by exploring and learning more about their own school. Each student made a written description and a drawing of a school space of their choice. Then, students voted for the best descriptions and drawings and built a PowerPoint. The teacher highlighted that this was a proposal made by students and that they worked on this very autonomously. On the other hand, students searched for pictures from schools in different countries and included them in the PowerPoint. In the presentation, they compared their school with the others. As the other schools had scarce resources, students concluded that their school had all of what they need to be happy and learn. This experience was designed to enable children as researchers and informants, linking

their immediate environment with a more global approach, while also discussing differences and commonalities with other schools and children's universal right to quality education.

Then, one VLE activity was co-designed with the teacher and implemented with children, following their research about schools around the world. The VLE activity aimed at promoting children's awareness of themselves as global citizens, part of a multicultural global community of schools and learners. Divided in groups, children searched on Google Maps the location of the countries to which the schools in the Power-Point they developed belonged. Then, they connected the picture with the country in a map. These maps were photographed and shared in a VLE forum. As a final step, each group wrote a comment about what they had learnt from that research. Comments included that children had learnt new information about countries and schools (e.g., "we learnt to locate new countries, new schools"). Also, children included the positive impact of the activity, in their perspective, namely in promoting peer cooperation ("we learnt to work better in a group"). Finally, children included very positive feedback on the activity (e.g., "we loved this new experience and hope to repeat it again"). Children were able to use the VLE with no difficulties, while practising their ICT skills and promoting learning related to ICT contents.

Following these activities, the class was also involved in building a multicultural box, where they included multiple products they developed: (1) a book with a story about "moving out of the country", based on an individual essay each child wrote placing him/herself in the position of a child moving to another country and describing his/her feelings; (2) a book with the rules of the school, that a small group of children wrote; and (3) a multicultural domino, with children of different cultures, considering that it is a non-verbal game and it could be played by children who speak different languages and may not understand each other verbally. These products were co-designed and developed with children, who cooperatively thought of resources and strategies on how to include everyone at school. Hence, children played an active role in promoting inclusion, building a sense of belonging to a multicultural community.

### **Class D – Refugees are welcomed at our school!**

When planning the next steps after the stimulus situation, several books covering interculturality were shared with teachers. The teacher from Class D chose a book to read and explore with the class. The book "O caminho de Marwan" ["The journey of Marwan"] (written by Patricia De Arias, illustrated by Laura Borrás, and translated by Roseana Murray) narrates the journey of a refugee boy towards a new country. After reading the book, the concept of refugee and the difference between a migrant and a refugee were discussed to promote children's knowledge on the topic of migration and

interculturality, connecting it with their immediate experiences. Children knew many migrants, but no refugees. Then, as in the book it is described what the boy carried in his backpack, children were invited to write what they would carry in their backpacks, if they needed to flee their country and share their answers with the class. This was intentionally thought to develop children's empathy and understanding of others' feelings. This activity was followed by a debate about whether countries are morally obliged (or not) to receive refugees and which were the major world countries receiving refugees, emphasizing human rights, dignity, equity and interdependence, throughout the discussion. The description of these discussions was also included in the VLE. Finally, children cooperatively wrote a letter to either Marwan or another refugee child in the world to be shared in the VLE.

Based on this activity, a VLE activity was co-designed with the teacher and implemented accordingly. The whole group watched a video of a boy, named Hamze, from Iraq, living in a refugee camp in Greece. The video was watched through the VLE platform, to deepen children's understanding and knowledge on the topic in an engaging way. Thus, it was useful to resort to a video narrated by a young child, with simple and familiar language, that children could understand. In groups of three (each group sharing one computer), children wrote comments about the video, sharing what they learnt and what they would like to communicate with Hamze. Comments included questions to Hamze (e.g., "How do you feel?"; "How old are you?"), children displaying empathy about his story (e.g., "it must be very hard to not have your mother and sister around") and wishes for his future (e.g., "we hope you get to see your mother and sister"; "se hope you can get to Germany"). After it was exemplified to the whole group how to write and post a comment on the platform, children used the VLE to write comments with no major difficulties. Then, children watched a second video, available on the VLE, that included the story of two girls living in Australia, a refugee from Iran and an immigrant from New Zealand. At the end of the video, the whole group discussed about the difference between being an immigrant and a refugee. Children were very involved and motivated, especially when writing and reading their peers' comments. The feedback from the teacher was also very positive.

### **Children take action**

In addition to products developed by each class that were described above (i.e., signs in different languages, booklet of different languages, paintings, multicultural box, and letters to refugee children), all teachers and children were involved in producing a video illustrating the process, the activities and the products that were developed. The video worked both as a way to communicate and affirm the school as multicultural community, where every culture is respected and valued, and as a way to document and share the



process of implementation and the diverse learning experiences. Children were filmed describing activities, displaying messages to welcome newly arrived children and presenting the products they prepared to welcome them. The video was shared in the VLE and children and teachers watched the video together.

### 4.5.3 Summary of VLE development and usage in both settings

In the following table, we present the main actions conducted to develop/enrich the VLE, considering the VLE functionalities with the respective links<sup>20</sup>:

Table 4.5 - Summary of VLE development and usage in both sites

Project steps	VLE development and usage	Group of children
<b>Site 1. Course: Social Justice and Human Rights</b>		
<b>1. Stimulus situation</b>	<ul style="list-style-type: none"> <li>• Upload of <a href="#">videos</a> (a)</li> <li>• Development and upload of <a href="#">ISOTIS video</a> (a)</li> <li>• Description of <a href="#">discussions with children</a> (c)</li> </ul>	7-10 years old 12-15 years old
<b>2. Children learn more</b>	<ul style="list-style-type: none"> <li>• Upload of <a href="#">pictures of materials</a> (c)</li> <li>• Description of <a href="#">discussions with children</a> (c)</li> </ul>	7-10 years old
	<ul style="list-style-type: none"> <li>• Upload of <a href="#">charts about inequalities</a> (a)</li> <li>• Description of <a href="#">discussions with children</a> (c)</li> </ul>	12-15 years old
<b>3. Children take action</b>	<ul style="list-style-type: none"> <li>• Implementation of <a href="#">activity online</a> (b)</li> <li>• Upload of <a href="#">presentation to children</a> (c)</li> <li>• Description of <a href="#">discussions with children</a> (c)</li> </ul>	7-10 years old
	<ul style="list-style-type: none"> <li>• Upload of pictures of <a href="#">materials and activities</a> (c)</li> <li>• Description of <a href="#">discussions with children</a> (c)</li> <li>• Upload of <a href="#">presentation</a> about school mechanisms to reduce inequalities (c)</li> </ul>	12-15 years old 10-12 years old
<b>Site 2. Course: Participation and democratic life</b>		
<b>1. Stimulus situation</b>	<ul style="list-style-type: none"> <li>• Upload of <a href="#">pictures of materials</a> (c)</li> <li>• <a href="#">Description of activity</a> with children (c)</li> </ul>	Classes A, B, C, & D

<sup>20</sup> (a) VLE updates – upload of materials (e.g.) videos and activity templates; (b) VLE usage – direct interaction with the platform; (c) VLE inspiring examples – inspiring concrete examples of children’s and teachers’ experiences in the scope of the intervention developed in both sites.

<b>2. Children learn more</b>	<ul style="list-style-type: none"> <li>• Upload of <u>pictures of materials and activity</u> (c)</li> <li>• <u>Description of activity with children</u> (c)</li> <li>• Implementation of <u>activity online</u> (b)</li> <li>• Upload of <u>signs in different languages</u> (c)</li> </ul>	Class A
	<ul style="list-style-type: none"> <li>• Upload of <u>pictures of materials and activity</u> (c)</li> <li>• Description of <u>activity with children</u> (c)</li> <li>• Implementation of <u>activity online</u> (b)</li> <li>• Upload of <u>booklet in different languages</u> (c)</li> <li>• Upload of <u>feedback video by Angelica Dass</u> (c)</li> </ul>	Class B
	<ul style="list-style-type: none"> <li>• Upload of <u>pictures of materials and activity</u> (c)</li> <li>• Description of <u>activity with children</u> (c)</li> <li>• Implementation of <u>activity online</u> (b)</li> <li>• Upload of <u>Power-Points</u> about own school and schools around the world (c)</li> </ul>	Class C
	<ul style="list-style-type: none"> <li>• Upload of <u>pictures of materials and activity</u> (c)</li> <li>• Upload of <u>videos</u> (a)</li> <li>• Description of <u>activity with children</u> (c)</li> <li>• Implementation of <u>activity online</u> (forum) (b)</li> <li>• Upload of <u>list of children's books</u> (c)</li> </ul>	Class D
<b>3. Children take action</b>	<ul style="list-style-type: none"> <li>• Upload of <u>final video produced with children</u> (c)</li> <li>• Upload of <u>drawings with feedback by children</u> (c)</li> </ul>	Classes A, B, C, & D

## 4.6 PART IV - MONITORING SYSTEM: documentation, data collection and evaluation

### 4.6.1 Overview of the procedures adopted for monitoring and assessing of the intervention:

Below it can be found a table with the monitoring and evaluation procedures undertaken before, during and after the intervention. Although the monitoring process followed a common approach, some procedures were distinct for each site. These particularities are specified on the table.

Table 4.6 - *Monitoring procedures*

	Pre-phase <i>Exploratory phase</i>	During <i>Co-design and implementation phase</i>	Post-phase <i>Monitoring phase</i>
TEACHERS	<ul style="list-style-type: none"> <li>• Meeting with school administration and teachers</li> <li>• Observations of school activities (only site 1)</li> </ul>	<ul style="list-style-type: none"> <li>• Observations and field notes in meetings and activities</li> <li>• Pictures and audio-records</li> <li>• Conversations collecting feedback on each activity, children participation, VLE interface and use</li> <li>• Documents and final activities</li> </ul>	<ul style="list-style-type: none"> <li>• Focus-groups to obtain feedback on VLE and process of co-designing and implementation</li> <li>• Self-evaluation report of competences</li> </ul>
CHILDREN	<ul style="list-style-type: none"> <li>• Observations of school activities (only site 1)</li> <li>• Conversations during the day at school (spontaneous or elicited by researchers)</li> </ul>	<ul style="list-style-type: none"> <li>• Observations and field notes in meetings and activities</li> <li>• Pictures and audio-records and products made by children</li> <li>• Short conversations collecting feedback about activities and VLE</li> </ul>	<ul style="list-style-type: none"> <li>• Informal collective interview to obtain feedback on activities and VLE (only site 1)</li> <li>• Drawings and written materials (only site 2)</li> <li>• Comments on the VLE (only site 2)</li> </ul>

#### 4.6.2 Analysis of the perceived experience and of the educational-formative impact in a short term

##### 4.6.2.1 Site 1

###### Children between 7 and 10 years old: Experience and impact

**Children perspectives:** From the beginning of the implementation, children seemed interested, motivated and curious about learning new contents related to social inequalities. At the end of the project, through oral feedback, children highlighted that the experiences were fun and interesting, allowing them to learn new contents (e.g., “it was

fun”, “[the activities] all were interesting”, “I learned a lot of things that I didn’t knew”), related to the origin of food (e.g., “about food, where it comes from”) and inequalities (e.g., “sometimes people aren’t well paid for their job”). Moreover, the intervention seemed to have contributed to the children learning and perception of inequalities (e.g., “banana producers are badly paid and work a lot”, “producers usually work more and earn less”).

Regarding the characteristics of the experiences, children highlighted cooperation and sharing as important parts of the process (e.g., “seeing my friends’ researches”, “the map [was my favourite activity], because we did it all together”), and valued the opportunity to share their own voice (e.g., “because we can give our opinion”, “we can give our responses”). This seems to be particularly relevant given the context of implementation of the activities, a school context that clearly values children’s active participation and accordingly provides several opportunities for students to contribute with their own perspectives.

#### **Teacher perspectives:**

According to the teacher, children would not be interested in the topic at the beginning if not prompted with the video materials, as they were more familiar with other topics (e.g., “I would see them much faster choosing the issue of gender inequalities or social minorities”). The teacher highlighted the topic of economic inequalities was new and not familiar to young children (e.g., “in terms of contents it was new for all”). However, according to her evaluation, it was positive and beneficial to introduce the topic to children, as they got to explore contents that otherwise they would not explore (e.g., “although the evaluation that I make of it is quite positive and it brought them gains”). Hence, even though it is quite important for the teacher to take into account students’ perspectives and motivations throughout the process, she also thought that it had been beneficial to have a strong and clear awareness of the goals and contents to be introduced to children, as this was key to maintain the focus of the intervention and increase the opportunities for learning a new topic.

From the perspective of the teacher, although students acquired knowledge and skills, she felt that contents, topics and discussions still needed reinforcement and the project to continue throughout longer time for a greater impact on children (e.g., “I also think that things would need to be further developed, I think the impact of this would be greater if there was still a next step”). The teacher referred that she also gained interest and awareness of the topic (“this made me more aware and alert to this topic, even in

everyday life”)<sup>21</sup>. Moreover, the teacher felt that the content had the potential to be further explored with children in the scope of other curricular areas, but that time and managing other projects/activities were major constraints during the process (e.g., “we needed more time”, “we had a year completely full of projects, numerous projects”).

### Children between 12 and 15 years old: Experience and impact

#### **Children’s perspectives:**

Children’s participation and involvement in the process changed during the course of action, being also heterogeneous among the group of students, as some children participated more actively and frequently than others. Through oral feedback, at the end of the project, students shared that they learned new contents and changed their perception about the topic (e.g., “I didn’t think that Oceania and the United States had so much food”, “I never thought the supermarket would have so much and the farmer so little”).

Some children shared that they at first felt unsecure about sharing their opinion on the topic (e.g., “I didn’t know how to give my opinion”). Then, they felt that, as the discussion progressed and students heard each other’s perspectives and comments, they started to get into the topic (e.g., “I was embarrassed to participate in the beginning, then I got interested, started to get into the project”).

The opportunity to discuss and debate perspectives was pointed out as one of the features most appreciated by students (“we were there not only to listen; we were discussing with each other”). However, not only was the topic new and less familiar to them, as they were not used to debate a topic without reaching a consensus on the solutions. As a student referred “I wasn’t used to this kind of debate, that we study a theme and we don’t reach a consensus (...) there is not only one way to solve the problem”. Nevertheless, the same student also pointed out that this “helps us to accept others’ opinions, to learn that we don’t always have the same opinion”. Other students seemed to agree. Thus, the project facilitated joint reflection and students’ active participation, by promoting the development and expression of their own ideas and perspectives and encouraging the respect towards others. By claiming that there is not only one solution to the problem, students seem to have understood the complexity of economic and social inequalities worldwide.

For these students, taking action was also an important part of the experience, as they clearly appreciated implementing actions with their younger peers. Students noticed that

<sup>21</sup> For more on teachers’ professional development (PD) please consult *D5.4. Country Report: Portugal*.

their peers actively participated in the discussions and enjoyed taking part in the activities (e.g., “It went very well, we could clearly see the discussions between them in the groups”, “I think they liked, because of the comments I overheard after the activity”).

**Teacher perspectives:** The teacher’s perspective was very aligned with students’ views, as he felt that students were a little hesitant to participate at first. Hence, he found useful to brainstorm and discuss the topic freely with students, connecting the contents of the discussion with the children’s daily experiences (“at first, they were a little bit ‘I don’t know what this is, I don’t understand this topic’ (...), so that initial discussion of ideas helped them to understand ‘this is really my daily life’, ‘this is related to my daily life, I recognize these concepts’”), pointing out the relevance of the debates (“there were very interesting debates”). The teacher highlighted the presence and support from the ISOTIS team in the process, contributing with ideas and specific resources about the topic, based on students’ comments and observations (“I think that it was very important the question of, your presence during the sessions, that input that you were giving, ‘I know this or have a graph or even know a video that might be useful, starting from what they [the students] have already brought to the discussion’). Overall, the teacher thought that the students have learnt more about economic inequalities (e.g., “they really started reflecting about the topic”). The teacher emphasized one particular activity: he pointed out how effective was the strategy of asking both younger and older children how they think that the distribution was and then showing them how it was in reality to promote reflection. As he mentioned, “I think it works really well with them, doesn't it? That shock between their idea and reality really makes them think”. In this way, students got to explore and examine issues of global significance, contrasting their subjective and superficial perceptions with concrete information on inequalities worldwide. It was interesting to find out that this opinion was also shared by the teacher regarding himself (“There were several things that were presented there [during the sessions] that I had a notion, but didn’t have a [clear] perception of the reality (...) [about the topic of economic inequalities]”)<sup>8</sup>.

The teacher also mentioned that the exchange between older and younger students was very valuable (“it was also thanks to this project that came the opportunity to make a connection between nuclei”, “it went really well, that was the assessment that they [students] made and we teachers”). The teacher also highlighted that the younger group of children had new insights about the topic of inequalities (e.g., “the kids left really with a clear perception and I think that it is something that they will remember for a long time”).

Although children from 10 to 12 years old had a very brief participation in the overall project, they were very engaged and actively engaged with the activities designed and implemented by their older peers. Children from this age group expressed that the

activities were fun and interesting (e.g., “I thought it was fun”, “it was very interesting”) and that enabled them to learn new contents (e.g., “I learned some things that I didn’t know”), namely concerning the distribution of population and food between continents (e.g., “I didn’t know that there was so much food for some and so little for others”) and inequalities in trade (e.g., “I didn’t have so much notion that the farmer received so little”). In addition, some children mentioned that the activities allowed them to get in touch with the real world (e.g., “we get to know our real world”, “have a notion of happens in reality in our world”).

#### 4.6.2.2 Site 2

**Children’s perspectives:** since the beginning of the project, children responded very positively, always showing curiosity, motivation and enthusiasm. At the end of the project, two of the four teachers asked children to freely write and draw their feedback on the project. Overall, children included very positive feedback on the project (e.g., “we had a lot of fun”, “I loved doing this experience”). They also discussed the overall aim of the project, i.e., building a welcome kit for newly arrived children (e.g., “what we are doing is basically a welcome kit for peers that come to the school and speak different languages”) and to foster multiculturalism and inclusion (e.g., “the ISOTIS project is to improve inclusion in schools, concerning children from other countries and races”). This illustrates how children were clearly aware of the overarching purpose of the activities. Actually, some children were conscious that their own action could actively contribute to the inclusion of culturally diverse children (e.g., “this project is for new kids that come to school don’t feel excluded and for that it is needed to show words in different languages, (...), emotional support, friends”, “if a child comes to my school, I will know to receive her well”). All children also wrote some meaningful messages representing what they had learnt during the process, namely focusing on equality (e.g. “we are all equal”), diversity (e.g., “everyone has a different skin colour”, “there is not only our culture and white colour”), anti-racism and discrimination (e.g., “it teaches to not be racist”, “we also learn to not discriminate people”), respect (e.g., “respect everyone with no difference”, “all continents deserve to be respected”) and friendship (e.g., “we should play and work with everyone, be friends with everyone”, “it doesn’t matter the skin colour, what matters is that we are all friends”). These messages are very aligned with the contents that were explored and with the goals of the intervention.

**Teachers’ perspectives:** Teachers also highlighted children’s high motivation and engagement throughout the project. In the focus-group after the intervention, the teachers shared that not only the topic was interesting but also that children’s motivation was perhaps a reflection of teachers own’ motivation as well (“what we like, they

[children] end up by liking it, with no doubt"). According to teachers, learning experiences that are different than the regular ones, out of the classroom routine, also usually contribute to children's enjoyment and satisfaction ("they get out of the routine and they are always waiting for different things, new things, different people"). The teachers pointed out that, in an active and playful way, it was possible to explore and enrich the curriculum, valuing the links established across disciplinary areas ("we did so many things related to all disciplinary areas; that was very interesting"). Teachers also appreciated joint activities with children from different classes, with children learning side by side with peers from other classrooms. Moreover, the teachers foresee that children's involvement and participation in the project will have a long-term impact in their valorization and acknowledgement of cultural diversity ("this was an experience that I think that they will take across their lifetime").

It is important to highlight, though, that teachers didn't think that the project particularly impacted the sense of belonging of Roma children or children with a migrant background. On one hand, teachers shared that these children were already well received and included at school. On the other hand, teachers felt that the inclusion of Roma children is still a challenge, but, in their opinion, Roma parents' perceptions of the school need to be considered ("we want him [Roma student] to belong, to integrate the group, to be like us, but they [referring to Roma parents] themselves continue to withdraw, I feel that"). This should be considered in future interventions, as teachers' beliefs towards Roma families should directly be addressed, while promoting parental engagement, throughout the process.

Moreover, all teachers emphasized strongly the close support of the research team throughout all the phases as an essential feature of the intervention, critical for its success ("your systematic presence was very important, your stop overs, working with them, here in the activities, that was crucial, because otherwise, maybe, we wouldn't get any result"). This was accounted by all as particularly relevant when considering the (lack of) structural support that teachers have, namely in terms of (lack of) time and work overload<sup>8</sup> ("that was very important, because in the quantity of work that we have to do (...), one really needs someone around that says 'look, let's do this'"). Finally, highlighting its positive results, both teachers and coordinator manifested the desire that the intervention would continue and be extended to the whole school (T1: "I think this is a very rich work, that can be extended to more", T2: "to the whole school").

#### **4.6.3 Children and teachers' evaluation of the VLE**

Participants mainly resorted to the VLE section "What can you do?" (in the courses *Social justice and human rights* – site 1 – and *Participation and Democratic life* – site 2).



Students were involved in the VLE online namely, by watching and commenting videos, participating in forums, writing answers in a questionnaire or developing charts through the H5P application (for more information on VLE usage and development, please consult Table 6). Learning experiences online were developed in co-construction with teachers and uploaded by the research team. Teachers and children always accessed the VLE with the presence and assistance of the research team, during the co-design and implementation phases. Consequently, the feedback about specific functionalities and resources of the ISOTIS VLE was somewhat vague.

#### 4.6.3.1 Children and teachers' perspectives in site 1

As younger children (7-10 years old) were the only group to directly and actively engage with the VLE, feedback was obtained only from children of this age group. Some of the younger children mentioned the VLE online activity in which they directly engaged with the platform as their favourite. Overall, children thought that the activity was fun and playful (e.g., "it was like a quizz and it was fun", "it was fun, it was like a game"), while also being interesting and educational (e.g. "it is fun and we can also learn", "because we can learn more"). This combination between fun and learning was most mentioned in children's feedback, as a reason for enjoying the VLE activity and ICT activities in general (e.g., "there are apps that can teach things"). Some children highlighted the importance of the visual information, namely images, illustrations and animations, to turn the experience more attractive ("orally it is not as cool as in the computer, because it has images", "because we can see better", "because it has more animations and drawings"). As in the overall activities, children valued their active participation (e.g., "because we can give our own answers", "because it was fun to click on the numbers and see how it works").

Overall, the teachers felt that digital tools and platforms can be an attractive way to enrich learning experiences and that, nowadays, children are very sensitive to technologies' usage (e.g., "it brings information there immediately, attractive, because from the children's point of view, children are very sensitive (...) to digital stuff"). However, teachers felt that exploring the VLE wasn't a priority for them, given the amount of time they have available (e.g., "it was not a priority"). Nevertheless, one of the teachers voiced that he could see himself resorting to the platform in the future to search for ideas and resources related to the ISOTIS topics (e.g., "I imagine myself in the future resorting to the [ISOTIS] platform, not being with you in the project, if a discussion on a related subject arises"). The teachers mentioned that, while it was key to have the direct support from the research team, that probably made them not use the platform as much to search for new ideas and activities (e.g., "your presence, your proximity here, made me feel that

I didn't need to explore the platform that much"). In line with this argument, teachers felt that the usage of the platform by itself, without the support from the research team, wouldn't be as fruitful to implement sustainable practices ("I think that this initial work is also necessary, isn't it? It's the first approach", "Imagine that you would tell us consult the platform when you have difficulties (...) the response wouldn't be by far the same, for sure").

#### 4.6.3.2 Children and teachers' perspectives in site 2

On top on developing products to upload on the VLE platform, children from all classes engaged directly with the platform and were involved in activities online. As observed, children showed enthusiasm and motivation while directly interacting with the platform, especially when writing and reading comments in forums. In their comments to (some) activities, children were invited to provide feedback. Their evaluation was very positive. Not only children enjoyed engaging in those activities (e.g., "we loved this experience", "we liked this activity a lot"), but also expressed willingness to experience it again (e.g., "we hope to repeat it again", "we want to learn a lot more").

Several children included in their free written feedback on the overall project that their favorite activity was the online VLE activity (e.g., "the part which I liked more was to go to the school in [name of the municipality], enter the room, the learning lab, and working in the ISOTIS platform"). Almost all children highlighted the place where the activity took place, a room in which they had never worked before ("the learning lab") and in the school where most of them are going to study in the next school year. This may have been a very meaningful part of the experience, as most children didn't seem to detach the activity from the place where it occurred. It was interesting to find out that (at least some) children were aware of the platform as a repository of resources to share (e.g., "we are going to make a video about the school to be posted on the ISOTIS platform"). In their written feedback, some children (spontaneously) drew a computer, highlighting the ICT component as a relevant part of the ISOTIS experience.

Overall, the teachers consider that today students are "digital kids" and that digital tools, such as the VLE, can enhance learning experiences. Teachers accessed the VLE always with the presence and assistance of the research team, namely in co-design meetings and in the implementation of activities online with children. Even though teachers were encouraged to explore the platform and its functionalities on their own, their feedback pointed out to time as a major constraint. Although teachers consider that a platform as the ISOTIS VLE can be an asset, they don't think that they have the time to use it and take advantage of it (e.g., "I needed more time to use, but I think it is an asset", "we don't have time"). The coordinator of the school also foresees the VLE as added value to the

intervention but feels that there should be some continuity of the work developed over time.

#### 4.6.3.3 Reflections/Highlights

**Advantages and points of strength of the VLE:** The VLE was considered by children a positive and meaningful part of the ISOTIS experience, who clearly enjoyed interacting with the platform. Active participation in the platform, interaction with peers, and learning through play were valued by children. Their motivation and interest about the topic and the overall project seemed to be promoted through the direct usage of the platform. In both sites, the VLE played an important role in:

- Facilitating search, organizing information and exchanges among actors;
- Enabling children as researchers and informants;
- Promoting students' active participation and interactions between peers;
- Promoting learning through play and usage of ICT;
- Promoting children's motivation and interest to learn more about the topic;
- Sharing inspiring examples of the work conducted in both schools, with concrete examples of learning experiences and materials developed by children.

**Challenges and points of weakness of the VLE:** Although teachers consider that the VLE can enhance and enrich children's learning experiences, according to their feedback, they would need more time to explore its functionalities, resources and activities. Moreover, adequate support and structural conditions seem to be key to promote autonomous usage of the platform by teachers and children and thereby ensure sustainable changes in classroom practices.

#### 4.6.3.4 Overall evaluation of the intervention according to the adopted criteria

Common general criteria were established based on values and principles drawn from previous ISOTIS work. These criteria are detailed in the general T4.4. framework and guided the T4.4. intervention throughout the countries involved. In Portugal, some of these general criteria were especially taken into account when planning and conducting the intervention: (1) to raise awareness and knowledge of multiple languages, cultures, human rights, discrimination mechanisms and promoting skills in critical thinking and establishing shared understanding; (2) to promote agency of all stakeholders based on valuing their cultural background, resources and identity; (3) to use the resources available in the form of diverse family languages and cultural backgrounds to innovate learning practices of children and professionals and to create rich learning experiences;

and (4) to sustain communication and collaboration between stakeholders, encouraging and supporting networking. Moreover, as detailed in the general criteria, the intervention was developed within a coherent theoretical framework (Asia Society/OECD, 2018), targeting a balanced set of skills in children (cognitive, academic, and socio-emotional), while actively and intentionally acknowledging and valuing all languages and cultures equally, considering them as resources for teaching, learning, and succeeding in life. Based on these general criteria, more specific criteria were also established for developing the intervention in Portugal, in both sites: (1) to provide a safe environment where children feel confident to express their ideas and perspectives and respect the ideas and perspectives of others, (2) to provide engaging and playful ways to explore interdependence, inequalities and social justice (site 1) and inclusion and interculturality (site 2), nurturing motivation and enjoyment, (3) to value the uniqueness of each individual and culture in the classroom/school, to connect any proposal to the children's personal experiences and perspectives, (4) to value families and children's resources and enable children as researchers and informants, and (5) to foster discussions on human rights, human dignity and equity.

The intervention enabled teachers to integrate topics related to economic inequalities and social justice (site 1) and cultural and linguistic diversity (site 2) in their classes/schools, with links to the national curriculum, across disciplinary areas. Therefore, children were introduced to new concepts and contents and gained a deeper understanding of economic inequalities (site 1) and (multi)cultural awareness (site 2). Thus, the intervention was aligned with the general criteria of raising awareness and knowledge of multiple languages, cultures, human rights, and discrimination mechanisms. The introduction of these new concepts and topics related to social justice and interculturality occurred in close collaboration and communication with teachers, as detailed in the general criteria of promoting agency, communication and collaboration between stakeholders.

In site 1, both younger and older students were enabled as researchers (as detailed in the specific criteria in Portugal) and debated ideas and perspectives related to issues of social and economic justice, considering the interdependence of individuals in the current globalized world. The discussions were based in concrete information/data on the topic, with an emphasis on equity, dignity and human rights. On the other hand, school structures and practices aiming to promote equity between students were discussed with all children as well as documented and shared by older students. In site 2, students learned to value the uniqueness of each child and his/her resources, in different ways (e.g., by exploring skins tones in the artistic activity or cultures and languages through questionnaires and charts), as conveyed in the specific criteria. Additionally, the

experiences were always connected with children's personal experiences and perspectives. The activities were also always accompanied by discussions focused on equity, dignity and human rights. Those discussions, as included in the criteria, promoted critical thinking in children and established a shared understanding regarding those issues, based on values of respect and equity.

#### 4.6.3.5 Assets of the intervention

**Close collaboration:** As described in the criteria of involving and supporting key actors, all teachers emphasized the close collaboration with the research team, and how they could rely on the team for new ideas, information, and even support while interacting with children. It was interesting that teachers felt that the team acted as an additional resource for the classroom, possibly because teachers and the team were aligned in terms of the overall goals of the intervention and possibly because the team was able to respect and acknowledge teachers' will and address specific constraints throughout the process.

**Learning processes:** The close support from the research team fostered the implementation of innovative practices in the classroom, as the ones conveyed in the criteria related to intervention approaches/strategies, such as cooperative group work, playful learning, and learning through a VLE (especially on site 2, as site 1 already used collaborative group work and project-based learning in their daily practices). Learning experiences were designed to privilege students' active participation and critical thinking, contributing to develop in students informed opinions and supporting them in positioning themselves about global and intercultural issues. Thus, students were involved in whole group discussions, in cooperative small groups and took action by jointly developing products and sharing perspectives with peers. As mentioned in the criteria, motivation and enjoyment were nurtured in children by providing engaging and playful ways to explore the key topics in both settings. What seems interesting to highlight is that, regardless of the extent to which this kind of activities was already implemented in each site, the overall approach emphasising active participation and critical thinking were highly valued by teachers and felt by them as critical for the overall success of the intervention. The intervention favoured such approach not only by co-designing activities aligned with these principles but also because the support of the team resulted in extra human resources in the classroom, enabling, for instance, that small group activities were facilitated by one adult each and that information was continuously systematized, helping to plan the next steps and ensuring coherence across the process, as the intervention unfolded.

*Concrete, factual and reliable resources on the topic*

Besides being thought in close collaboration with teachers, each step of the children's project was based on children's (and teachers') motivations and interests, while always accounting to the specific aims of the intervention and the contexts' characteristics. Teachers seemed to appreciate the resources the team shared with them, not only by favouring active participation of children, but also because resources provided concrete and factual evidence on the topic, rather than being either highly abstract (theoretical stances) or opinion-based.

#### 4.6.3.6 Challenges of the intervention

**Family involvement:** The criteria concerning active support families' participation was only partially addressed. In both settings, family involvement was to some degree promoted by proposing to develop specific activities or searches at home but could be potentiated. In case of site 2, according to teachers, the intervention had no impact on the few minority children included in those classes, as they already felt valued at school. However, teachers highlighted that the intervention contributed to all children's cultural awareness, which can ultimately favour the inclusion and sense of belonging of minority children. In future interventions, these children's cultural heritage and language ought to be more explicitly addressed, as defined in the general criteria, combining this with support, training and PD opportunities for teachers.

**VLE:** As established in the general 4.4. criteria related to intervention strategies/approaches, the potential of ICT was used to actively engage children in learning and support teachers. Experiences in the VLE were designed with the same principles as the offline activities, with positive results. Accordingly, the VLE experiences were outlined based on children's and teachers' interests, a clear focus on learning contents and goals, and involving children's active participation and interaction with the platform, in small cooperative groups. The close support and collaboration of the research team with teachers enabled the usage of the VLE, as teachers struggled with time and an overloaded work scheduled. The potentialities of the VLE platform seemed to contribute to raise students' motivation and interest in the contents and overall process, while allowing the development of digital competences and contributing to the intervention goals' achievement. Thus, the VLE was an asset of the intervention, but it also posed challenges in terms of its autonomous use, both by the teachers and children. The VLE usage was always supported by the research team, which was considered by teachers a necessary initial step. Teachers would need more time and support to actually start to use it autonomously.

**Time:** Throughout the intervention, teachers highlighted several times the time constraints for developing and extending the activities. Even though, at each step, they

could see several potential pathways for in-depth learning of the topic and its links to other curricular areas, they struggled with time, both in terms of within week schedules and in terms of continuation over time. It appears that although the intervention brought countless benefits, all teachers highlighted that even more time would be needed to provoke sustainable changes in children's learning.

#### 4.6.4 General reflections and highlights

Considering the development of the intervention in both sites, the following features of the intervention can be highlighted:

- The exploratory phase was the foundation of all the process. Thus, learning about the context and its specificities (in terms of pedagogy, curriculum, school structures and projects) and the commitment to an adjusted shared agreement was crucial to establish a true collaborative partnership with stakeholders and a meaningful intervention in each site. Even though it required time and led that to the implementation only starting in the middle of the school year, this phase seems critical to allow for meaningful interventions. It is important to mention that it was the first time the team was collaborating with both schools and that the exploratory phase served not only for setting the ground in terms of the overall principles and goals of the intervention, but also for researchers and teachers to get to know each other and develop trustful and respectful relationships.
- Teachers valued close support and collaboration, both in the co-design and implementation phases and for using the VLE in the intervention. During the process, it was relevant both to share resources and ideas when co-designing and to provide direct support, side by side with teachers, during the implementation of (online and offline) learning experiences. Even though, in terms of sustainability, it would be desirable that teachers could rely more on the VLE and less on the team, it seems that the support and mediation of the team was crucial for the overall success. Also, the true collaborative work would always imply a research team who is available and responsive to teachers' needs and to children's interests – a flexible approach that can be harder to implement through a platform. Even though interventions following such collaborative design – active, continuous support and collaboration from a team – can be costly, they appeared to be a necessary first step so that schools, teachers and children are able to engage in innovative changes at varying levels. For more on teachers' needs for structural conditions for implementing pedagogical and curricular changes, please consult *D5.4. Country Report: Portugal*.
- Children's interests and active participation was always considered when planning and conducting the intervention. Nevertheless, following children's interests and

motivations was combined with a clear and strategic focus on contents and knowledge related to social inequalities and multiculturalism, aligned with a coherent theoretical framework (Asia Society/OECD, 2018) and with the national curriculum. According to these considerations, intentional and specific goals for each step were established to guide the intervention. The interventions were successful in combining local/specific needs and interests with theoretical/learning goals, providing several examples of possible avenues through which children can be highly interested while learning about topics that are relevant for the curriculum. The intervention didn't consist in discrete activities, but in an overall project, with different phases, in which children's active participation in small cooperative group activities and whole group discussions was privileged. Additionally, children and teachers found fruitful sharing activities between peers from different classes and ages;

- Economic inequalities and social justice were new and unfamiliar to both children (and to some extent to teachers), who had superficial perspectives on the topic. Concrete content and data were made available for children to explore and examine, aiming to confront their personal and subjective perspectives with clear and developmentally appropriate information. Further continuation of the process would be needed to promote globally competent students, with an informed opinion and a sense of agency to respond to the challenge of increasing and pervasive inequalities.
- Learning experiences focusing on cultural diversity were complemented with discussions about racism and inequalities, with a clear positive emphasis on equity and human rights. As reported in the assessment, multicultural education can have a positive impact in all children, who can foster inclusion in the school setting. However, addressing and valuing Roma and migrant children's cultural heritage without harmfully putting them in the spotlight can be a challenge. Thus, family involvement can be key to promote equity at school. These actions are recommended to have continuity over time to be sustainable;
- ICT tools, such as the VLE, can foster children's motivation and interest. The same criteria used in offline activities is relevant for VLE activities: valuing children's active participation, playful learning and cooperative group work, while also focusing on contents and knowledge. Exchanges in the VLE, such as writing comments to reflect on the experience, were appreciated by children. It is important to state that teachers need structural support to use tools such as the VLE in their daily practices. Time, professional development and continuity of the collaboration over time seem to be important components of a sustainable and effective ICT intervention with teachers to implement digital meaningful experiences with children.



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## 5 COUNTRY REPORT: Greece

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### 5.1 Introduction

In Greek case study we focused in activities that promoted critical multicultural thinking and promoted multicultural sensitivity and developed a set of skills that enables students and whole school community to learn about and understand people who are different from themselves, thereby becoming better able to serve them within their own communities. We organized several meetings with teachers and parents to engage them and to better understand and facilitate with Isotis educational goals and practices.

Activities were conducted in 3 classrooms. Two of them were from primary school in approximately 44 students and one in kindergarten that had 21 children.

### 5.2 Definition of the main topics/problems

The main aim of ISOTIS research project is to comprehend and contribute to solutions on how education can tackle social and educational inequalities.

Viewing classrooms and schools as stages for social change, providing the appropriate framework to promote and accelerate new ideas, we strongly believed that teachers can play an important role in helping students develop critical thinking, collaboration and self-reflection skills so that they can become political actors able to 'change the society'.

The main theoretical background adopted in the Task 4.4. Intervention in Greece, layed in critical multicultural citizenship and acknowledged that education has long been regarded as a key institution for the development of democratic citizens, particularly through citizenship education. Critical multicultural citizenship education encourages the contestation of existing knowledge and critical thinking (Banks, 2008; May, 1999; Nieto, 1999). Critical multiculturalism pushes beyond traditional multiculturalism in that it promotes democratic programs and lesson plans to be used in curriculum, pedagogy, and social relations in school settings (McLaren, 2003).

Critical multiculturalism fosters empathy and active participation in a diverse society supporting sociocultural and emotional accord. It promotes pluralism, an appreciation of diversity, and provides teachers, students, and learners with tools to critique relationships between power, knowledge, and other oppressive discourses. The

connection between knowledge, power, re-examination, and transformation is explicit in critical multiculturalism (May & Sleeter, 2010; McLaren, 2003; Sleeter & Grant, 1994).

The first way to achieve this aim and encourage students to become 'political actors for social change' was to ensure that we created a safe, encouraging place and 'a community of conscience' Durkheim (1966 [1894]). That meant that we ensured the creation of that kind of educational environment where students'-voices, opinions and ideas were valued and respected by instructors, peers and other members of the school community (e.g. parents).

Using a range of ecological levels of analysis: individual, microsystem (including patterns of activities, social roles, and interpersonal relations), mesosystem (focusing on connecting school and families as well as professionals), and exosystem (focusing on mobilizing external resources to support schools and professionals) we also aimed at describing and providing key features and facilitators that were both useful and meaningful so that we could achieve our goals (classroom practices, school and classroom climate, educational and pedagogical approaches).

### **5.3 PART I - Sites Selection & Research Design agreement**

In this part, we present the sites, the phases of workflow, ethics, the procedures and the collected data in each phase, the monitoring system, the method of analysis.

#### **5.3.1 Selection of sites**

Greece is a country with an already high percentage of immigrants who experienced a shift from a traditionally sender country to a main destination country for immigrants from Central and Eastern Europe and the former Soviet Union. According to a combination of statistical data derived from the 2001 census (NSSG, 2001), the Migration Policy Institute (Kassimis & Kassimi, 2004) and ELIAMEP (Gropas & Traindafyllidou, 2005) the percentage of immigrants is estimated to be 10%. The percentage contribution of immigrants to the total population is 17% in the Municipality of Athens and 7% in the Municipality of Thessaloniki (Baldwin-Edwards, 2005). It should be noted that immigrants in Central Northern Greece come mainly from the Balkan states, which constitutes the main reason for focusing on this area when studying Greek national identity in the context of the so-called 'new' migration (Xenitidou et al., 2007).

Since 2015, more than 1 million people arrived in the EU, most of them fleeing from war and terror in Syria and other countries. 167,000 people have arrived in Greece in the period between January and 3 October 2016 of whom 147,000 had arrived in the period 1st January till 20 March 2016 (Triandafyllidou, 2016).

In 2015 alone, over 800,000 displaced people reached Greece via the Mediterranean, most of whom while moving to other European destinations. Although the numbers of incoming migrants are smaller nowadays, the trend of reaching Europe via the Mediterranean continues to date, and it is estimated that over 60,000 refugees are going to stay in Greece for a long term. (European Union 2018).

Another report from the Greek Council for Refugees indicates that 29,718 persons arrived in Greece by sea in 2017, compared to 173,450 sea arrivals in 2016. The majority of those having arrived in 2017 originated from Syria (42%), Iraq (20%) and Afghanistan (12%). More than half of the population were women (22%) and children (37%), while 41% were adult men.<sup>2</sup> In addition, a total of 5,651 persons have been arrested at the Greek-Turkish land borders in 2017, compared to 3,300 persons during in 2016 (Greek Council For Refugees 2017 14).

The refugee population that entered the country is not homogeneous. According to data from the General Secretariat for Media and Communication on refugee arrivals in 2016, 46% came from Syria, 24% from Afghanistan, 15% from Iraq, 5% from Pakistan and 3% from Iran. In addition, 64% of them were men and 36% were women. A characteristic feature of the refugee population, which was of crucial importance in designing an education program was the fact that there is a very high number of people under 18: 24.5% of men and 31.9% of women are in this category (Scientific Committee in Support of Refugee Children, 2017)

The selected sites are from western Thessaloniki. We selected these sites due to:

- the high percentage of immigrants and ethnic minorities that reside in this region (which has been increasing in recent years due to the high migration waves that Greece faces);
- the socio-economic inequalities (working class area, with a majority of population facing the effects of economic crisis);
- to the fact that these specific sites are hosting refugee families moving from camps to urban sites established for hosting vulnerable families and asylum seekers.

Additionally, in order to be able to cope with any difficulties / challenges in the implementation of the ISOTIS program, the two schools/selected sites chosen, were those in which the researchers of ISOTIS Greek Team worked.

We selected two classes from the 16th Primary School of Evosmos. The two classes had children in Year 1. We also selected a kindergarten class, the 14th Kindergarten in Sykies.

We opted for these classes due to the positive response of the teachers that had had previous experience working in diverse classes and the kindergarten as one of the researchers of the Greek team also taught/worked in it. The procedure we followed focused on several formal and informal meetings among teachers in order for them to have a clear understanding about ISOTIS' main aims and scope.

Also, we had several meetings with the parents of each school in order to explain the rationale of the ISOTIS program and we received their written consent for children's participation.

Furthermore, the parents were invited to actively participate in the VLE Platform. After sending them notes for invitation letters, we finally had several of them that wished to have accounts in the VLE platform.

The main issue we faced was the limited culture of active participation that parents have and a lack of ICT use skills /competence.

Table 5.1 - *The sites and main characteristics*

Selected site	Population of immigrants/refugees	Population of low income	Profile of community
14 <sup>th</sup> Kindergarden in Sykies	20%	35%	High percentage of immigrants and refugees and low-income population
16 <sup>th</sup> Primary school Eyosmou	5%	34%	High percentage of immigrants and refugees and low-income population

### 5.3.2 Characteristics of the sites

In the selected sites two researchers of the Greek team were and still are working in. The teachers, committed to implement the program, had teaching experience working with diverse groups (family and children). Additionally, these schools provide a clear intercultural policy and support a model of a school that promotes the principles of equality and respect in all aspects of education and encourages/fosters the concept of equal access to full education for all pupils.

In the selected schools a clear school policy exists. The policy of the school is determined by the educational legislation and the planning reflects the decisions of the Director and

the Teachers' Association that were shared with parents, guardians and students of the school organisation. The school policy aimed to establish a learning community, constantly evolving, so that all members of the school community acquire the necessary life skills and readiness to meet the challenges posed in everyday life<sup>22</sup>.

According to the school policy the students are expected to work collaboratively in teams on projects, and there is a substantial focus on projects work interdisciplinary across traditional subjects.

Classrooms are typically described as learner-centered. The teachers have pedagogical autonomy in the classroom and are considered as pedagogical experts. They also:

- are entrusted with considerable independence in the classroom;
- have decision-making authority as concerns the school policy and management.

The contradiction encountered is that according to the National Curriculum for primary schools, teachers have limited responsibility for the choice of textbooks and teaching methods. Nowadays, efforts are underway so that teachers and schools have more autonomy in planning and using different pedagogical approaches and methods.

In the kindergarten the school policy has a more collaborative and interactive character, according to the preschool settings (small group of professionals that cooperate very closely) and to the age of the children. We mostly refer to the school climate, rather than the school policy, that reflects the needs of the children and their families. In the Greek preschool context children develop their personal identity and autonomy, while teachers design programs, choose teaching strategies and organize learning experiences to meet their different needs. Preschool teachers organize the classroom in order to support co-operation but also individual work. Teachers take into account the fundamental role of the family and the wider community in children's learning, but communication with parents is critical to the implementation of such an approach.

Moreover, through the preschool's policy and the school climate, in collaboration with parents and students, teachers focus on building a climate of trust between educators and the community and collective school responsibility for learners who are struggling.

<sup>22</sup> School policy of 16<sup>th</sup> Primary School in Thessaloniki, <http://16dim-evosm.thess.sch.gr/?cat=106>

Table 5.2 - *Schools pedagogical approach and educational characteristics*

Characteristics of the sites						
Site	Typology	Existing School policy	Pedagogical approaches	No of teachers	Total No of students	Characteristics
16 <sup>th</sup> Primary school	Public	Yes	Learner-Centred Pedagogy	30	278	Students diverse population/low income
14 <sup>th</sup> Kindergarten	Public	Yes	Learner-Centred Pedagogy	2	21	Students diverse population/low income

### 5.3.3 Phases of workflow

We focused on pre, during and post-intervention, qualitative and quantitative-structured data that will be collected from teachers, children and parents. As described in table 3 (timeline of the procedures) we focus in addressing the principals and main goals of Isotis Intervention to teachers and at second time to introduce to engage them in planning the activities with researchers.

Pre-intervention work focused on collecting data through both informal and formal meetings with the teachers/practitioners involved in VLE and activities in classes.

More specifically, the teachers filled a questionnaire “A self-evaluation report of competences” before the intervention.

During the intervention, we used Teachers Diary in order to record their comments and reflections about co-designing activities and their comments/reflections about them.

During the implementation, the teachers kept a record of observation of how children responded to the activities, especially considering their participation and interest, their interaction with their peers and changes in their behaviour.

After the implementation, the teachers focused on the strengths and weakness of the activities, and evaluation.

For children and parents, we intend to have a conversation after presenting the VLE and at the end of the implementation.



In Greek case researchers had the advantage to work as teachers in schools where the implementation of activities were taken place, and gave them the opportunity to daily observe and be in contact with teachers, students and parents.

A pilot implementation of the activities that took place in two schools by both the researchers and the practitioners was used as a guideline for the materials and educational methods we had to use in our co-design activities. Two activities, one for each school, were implemented in classes. The findings from the observation of children's reactions and interpersonal relations were used as guidelines for the co-design of the activities

These activities' findings can be generally described as below:

- they challenged children's beliefs (some of them with stereotypes and prejudices) and made them experience 'cognitive conflict' that, ultimately helps them build their own knowledge to interact in peaceful ways, to respect each other and find ways to live in a peaceful world. There were 'underlying beliefs' about 'others', viewing the 'other' as 'stranger', 'an annoying person', 'a different person that has to learn', 'a scary one';
- through the creative use of the multilingualism of the class and its potential, the intercultural cooperation amongst the children, the participation of the families and their communities, we raise the children's "bilingual awareness" as they discover the various advantages of bilingualism for all. The activity aims at promoting multiculturalism and utilizing linguistic and cultural diversity tools in the kindergarten and raises and challenges different aspects of the matter at hand.

#### **5.3.4 Ethical considerations**

Following ethical considerations, the identity of all participants taking part in this study was kept confidential and anonymous. Furthermore, the participants were not asked to give their names or contact details when completing the questionnaire. All participants were required to give their consent before being allowed to complete the questionnaire, to secure the trust and confidence of those involved.

Furthermore, ethical and institutional clearance and permission was obtained from the University to complete the current study.

The parents were informed about ISOTIS, by the school leaders and teachers. Also, the innovating activities were incorporated as an official program of the School following relevant national and educational ethical requirements.

## 5.4 PART II - EXPLORATORY PHASE: Going in depth in the context and refining goals and procedure

### 5.4.1 Procedures of the exploratory phase:

In reference to the primary school system, as mentioned in the description of the sites, the weakness of the Greek Curriculum regards the educational goals and school programs in Greece consist of a core or “mainline” subjects. ‘Mainline’ subjects, such as Language, Math’s and History are ‘highly prioritized’ as they are considered to provide a ‘worthwhile knowledge’ and ‘career preparation’.

The National curriculum in the primary school provides a teacher-centered approach to the learning processes and leaves minimal space for teachers to develop alternative pedagogical approaches. As one of the teachers mentions: «I have to find time and change a lot of things in order to implement these activities. How will parents react if we don’t follow the mainstream syllabus? » (Teacher A)

Another problem to face is that ‘The ideological and political frame of reference for the curriculum is ethnocentric’ (Furlis & Passias 2003, 79). As a teacher mentioned ‘We have to face parents’ stereotypes also’ and their arguments that ‘all these are not included in the curriculum’ (Teacher B).

In order to counteract these arguments, the researchers encouraged the teachers/practitioners to make use of the educational legislation and school policy that advocates school democratic identity, integrated and inclusive education.

The conditions are quite different in the kindergarten, where the teachers are used to designing original practices and the curriculum in early childhood settings is flexible and not strictly structured. They seem more confident with the approach, as they both have a Master’s degree in intercultural education. They have the flexibility to correspond to the time needed, as they are used to developing alternative pedagogical approaches. They seem to be equipped with self-esteem, required to address the interactive character of the practices in the kindergarten. As this teacher mentioned: *“I feel free to use these practices, it’s so close to the work in the kindergarten”* (Teacher C). According to the “self-evaluation report of competences” they seem to have intercultural sensitivity and efficacy in diverse classrooms. They value parent-teacher relationships a lot but they both expressed their fear that parents don’t have the necessary skills to use the VLE platform, due to lack in ICT use.

Our main principle was and will be to develop strong collaborative practices between researchers, teachers as practitioners and all the members of the school community that were engaged in the educational goals of ISOTIS.

In the first meetings the main goal of ISOTIS, regarding the teachers/practitioners, was to build a strong relationship of trust and common goals.

Adopting the principle that ‘collaboration begins with adopting a new mindset of openness and working out loud’ we agreed upon making ourselves open to criticism and correction. That meant that we strongly believed that teachers need space to act as ‘creators’ and not simply as ‘executers’

In the first meetings a need to build this collaborative relationship became evident and we agreed on some basic principles of collaboration: recognized and accepted the need for partnership, developed clarity and realism of purpose, ensured commitment and ownership, developed and maintained trust.

We agreed to have multiple meetings also through skype, if teachers and researchers from the two school/sites had to collaborate together. In fact, we had two groups working together with researchers in these two sites/schools and that made collaboration more flexible and ‘on time’.

The researchers presented the ISOTIS main values and aims and the VLE related critical points about technical issues as well as the usefulness of VLE. The teachers were asked to provide their views and points of interest about the kind of activities to be implemented that met these goals.

In the table below we present a clear overview of the procedures involved in the collaborative exploration of the context. We have to mention that as researchers working in these two schools, where the implementation have taken place, the collaboration was continuing, and some meetings with skype were arranged so the two schools to be able to collaborate and share ideas and practices.

Table 5.3 - *Timeline of the procedures (exploratory, co design, and monitoring phase)*

<b>Period of fieldwork visits/collaboration</b>	<b>Aim of each fieldwork visit</b>	<b>Type of fieldwork visits/collaboration</b>	<b>Methods</b>	<b>Period of data acquisition</b>
<b>May 2018</b>	Introduction to ISOTIS goals	Meeting (all)	Dialogical conversation and analysis	

	Build common base in collaborative principles		of ISOTIS main goals.	
<b>October 2018</b>	Planning and evaluating activities for VLE	Meeting (all)	Exploration of practices that meet the goals agreed	By the end of October
<b>November 2018</b>	Selection of main activities meet the criteria/ Trace teachers respond before implementation/ Children needs	Meeting (each site)	Analysis of activities that respond to children's needs	Mid of December 2018
<b>December 2018</b>	Introduction of ISOTIS program to parents	Skype	Analysis of ways to collaborate and engage parents and children. Use of school site, notification letters to inform parents	
<b>January 2019</b>	Monitoring activities	Meeting (all)	Use of teacher's diary	Before and after the implementation

<b>February 2019</b>	Monitoring activities	Meeting (each site)	Feedback received from students and parents upon first activities implementation	
<b>March 2019</b>	Monitoring activities	Meeting (each site)	Evaluation and on-going process	
<b>April 2019</b>	Monitoring activities	Meeting (each site)	Teachers interview and diary.	

#### **5.4.2 Previous ISOTIS work that helped to design the intervention and/or to explore the context or to take decision for the local intervention**

Innovation is more than merely using technology. In a field such as education, it's just as important to focus on innovations in areas such as child psychology, learning theories, and teaching methods.

As highlighted in the Case studies Report (D.4.3), “what is important and innovative in the program is that it involves the children’s identity, it builds on experience, backgrounds and interests of their children and their families and it creates incentives. It supports learning in today's multimodal communication environments while it aims to reduce educational and social inequalities focusing on curriculum, pedagogy, and school climate” (Final Report: Case studies on curriculum, pedagogy, and school climate interventions, 2018).

According to the lessons learned from previous work in ISOTIS packages, some main arguments (subjects or themes) guided the design and the implementation of the activities for VLE, in order to promote coexistence with other cultures and interaction, brought together with self-esteem and self-confidence, The aims of the activities we drawn from these lessons are:

- to equip the children with the qualifications and the perspectives needed to enable them to become citizens of the world;

- to enrich the curriculum and change from monocultural to intercultural, with an extended view and critical stance;
  - to develop children's and parents' critical thinking;
  - to raise the importance of sharing knowledge on different languages and cultures and the equal importance of all languages;
  - to recognize and show respect for similarities and differences across the curriculum;
- to learn about identities and the things that contribute to our identity, including our membership of different groups;
- to learn about their languages and the importance for them, so as to recognize themselves, their culture and their language in the program;
  - to develop strategies to deal with prejudice, including racism, and to support others who encounter it.

It is also important to mention and take into consideration that innovation requires openness and interactions between systems and their environments (OECD 2016). As education is perceived in most countries as a means of enhancing equity and equality, innovations could help enhance equity in the access to and use of education, as well as equality in learning outcomes.

As highlighted in the first draft Final Report (2018), in teachers' views: 'The role of families is considered to be very important for the program since parental involvement is shown to be among the factors that improve the educational process and to function as a link between the school and the community' and connect innovative programs that support the aims listed above: 'help parents too, to change their attitudes.

The teachers also mentioned that group-work, during the exploratory field work among them, fostered collective responsibility, strong interpersonal relationships and a stable pedagogical staff. They referred to language support and sensitivity to the local context and culture among the success factors. An intercultural perspective, to an extended view and a critical stance, through contact and interaction with languages and cultures was also considered essential.

Parents found the innovative activities very important, especially through the use of ICT: "it gives parents the opportunities to participate without the need for their physical presence". The parents state about the use of ICT "to inform children and give food for thought and reflection on important issues".

According to WP4 deliverables that were highlighted, it was considered useful to design the intervention and explore the contexts before the planning of the following steps in

order to negotiate the specific goals and aspects of ISOTIS Innovation program to the teachers/practitioners and parents involved.

### 5.4.3 Results of the exploratory phase

#### 5.4.3.1 Characteristics of the research participants

Table 5.4 - *Characteristics of research participants*

Role of Professional	Teaching experience	Specialty	language background	Cultural Identity	Experience in innovated educational programs
<b>Researcher 1</b>	21 years	Phd, Med	Greek	Greek	Yes
<b>Researcher 2</b>	21 years	Phd candidate, Med	Greek	Greek	Yes
<b>Teacher 1</b>	25		Greek	Greek	Yes
<b>Teacher 2</b>	14		Greek	Greek	Yes
<b>Teacher 3</b>	22	Med	Greek	Greek	Yes

Several meetings were organized with the practitioners focusing on creating a common understanding for ISOTIS program.

The basic idea and rationale of the program was explained and the team focused on collaborating together in planning several activities meeting the criteria for ISOTIS.

More specifically we addressed our activities so that they would meet the following criteria of ISOTIS Values and innovative methods:

- Building on and empowering interconnections among subjects, systems (e.g., family, school/organization, extended community...);
- Process-oriented: activities should not be intended and designed as isolated-segmented activities, rather they should be part of a meaningful process including several steps, connected to the local systems of life of the participants;
- Culturally sensitive and developing cultural sensitiveness;
- Innovative;
- Pragmatic (offering examples) and open to local adjustments.

The common perception that arose from our meetings focusing on the activities we planned, can be succinctly described below:

- To create a flexible space that can easily be adjusted to provide support for the learning activities;
- The activities would allow for various groupings and curriculum integration, including Arts;
- The activities and pedagogical approaches would support social interaction and development as cognitive skills;
- To further support the integration of technology;
- To provide opportunities for students to learn through examples.

It is important to mention that practitioners and researchers were working together in all schools. For our planning we take into consideration the classes' profile. Table 5.5 shows the children's characteristics:

Table 5.5 - *Characteristics of classrooms*

16 <sup>th</sup> Primary school	No of children	Cultural background	Linguistic backgrounds	Age	No of children with diverse background
Class A1	22	Greek, Albanian, Russian, Arab	Greek, Albanian, Russian	6-7	2
Class A2	20	Greek, Albanian, Russian	Greek	6-7	2
14 <sup>th</sup> Kindergarten					
Class 1	21	Greek, Albanian, Russian, Nigerian, Irak	Greek, Albanian, Russian, English, Arabic	4-6	5



#### 5.4.3.2 Qualitative characteristics of the context, classes, group of teachers, children (and parents)

16th primary school, besides having a crucial percentage of low-income population and children and families from diverse backgrounds, provides ICT support. Every class is equipped with PCs with internet access and a projector, additionally, there is an ICT class Laboratory with ten PCs with internet access.

The teachers have developed several projects over the years having a lot of teaching experience and were inspired to implement innovative practices. As it results from the teachers records, their profile and analysis of their suggestions, points of interest and interaction during the meetings, the teachers had worked several times on projects - concerning intercultural education and practices that foster intercultural competence and Multicultural Citizenship.

More specifically as one teacher said: "it is very important to plan activities that use the language in a communicative way. Also, all of the activities must meet the criteria of using their cultural and linguistic background making connections between what they already know and new concepts we are presenting" (Teacher A). Additionally, 'we have to plan and implement activities that challenge children's stereotypes and prejudices, in order to change them'. (Teacher B). The teachers show a great interest in strategies to integrate cultural and language context: 'Through the activities, we have to empower students to share their thoughts" (Teacher B). And as Teacher A added: 'One of the main things we have to take into consideration is to understand and figure out our students' needs and different styles of learning'.

The teachers in the primary school use a daily report-communication sheet that informs parents about their kids. In the primary school the use of the school website is a tool to communicate with parents. Also, both the teachers and the school as a whole use e-mail to inform parents on latest news. The parents seemed to be very satisfied with this communication: "I know what is going on with my kid in school. Teachers and school administration make a lot of effort so that the parents are informed on time and responsibly. (Parent of school).

According to the school policy, *'The public, free of charge, democratic and open school in society, the school of equality and quality constitute our objectives, that, with the collaboration and the contribution of all, we can attain a school that will respect diversity and will aim at the growth of personality of students from all sides/three, your children. As teachers, we put considerable effort into achieving these objectives always working according to the principles and the arguments of modern pedagogics. In light of these, our school, as an institution that functions with rules and values, develops cooperative*

*practices for the planning and optimization of educational work and it seeks the collaboration with all the members the school and wider community*<sup>23</sup>.

Also, the main principle of the school profile is a democratic one that provides active participation, decision making practices and encourages members of the school community in collaborative actions<sup>24</sup>

The 16<sup>th</sup> primary school also encourages collaborative actions that focus on the community as a whole: it supports disadvantaged populations, empowering families, working with other schools, introducing innovative practices<sup>25</sup>.

The 14<sup>th</sup> Kindergarten in Sykies is a small school hosted in a complex of buildings, at the same site as other schools. However, it is an autonomous school, with two teachers as permanent staff, one of them an ISOTIS researcher. With a high percentage of low-income population and families from diverse backgrounds it met the ISOTIS aims. Additionally, it is convenient for ICT use, as the classroom is equipped with two pcs, internet access and a projector.

One of our main purposes is to enrich the educational process, the cognitive skills and the horizon of values of students through the promotion of diversity and universal human principles, needs and characteristics. For this reason, a positive school climate is a priority. For these purposes we utilize or make use of the culture and cultural differences of our pupils in the educational process. Elements of pupils' religion, culture and language, aiming at improving integration and acceptance, are often incorporated into the lessons. According to Cummins: *"If the teachers do not learn many things from the students, then it is very likely that even the students do not learn many of them"* (Cummins, 2005: 29).

We also believe that students should not compete with each other but start at their own level and enrich their knowledge in the process in co-operation with each other. According to Banks (Banks, 2004: 67) when teachers have acquired knowledge of cultural and ethnic diversity of their students, they take action to make societies more sensitive culturally. They will then have the knowledge and the ability to make the necessary changes in the educational process, as well as to the minds and hearts of their students.

<sup>23</sup><http://16dim-evosm.thess.sch.gr/wp-content/uploads/2018/11/School-Policy16.pdf>

<sup>24</sup><http://16dim-evosm.thess.sch.gr/?p=3522#more-3522>

<sup>25</sup>See school site <http://16dim-evosm.thess.sch.gr>

### 5.4.3.3 Highlights

In summary, the main issues that arise from our exploratory phase as challenges to our innovation program, are:

- Parents' stereotypes: as many parents were accustomed to one way of being educated, that made new learning processes confusing for them. Additionally, most of them were not familiar with ICT for educational purposes;
- Another point that arose had to do with the 'intercultural context' of the program, that made some parents, who were politically against immigrants and refugees, to ask to 'make surface approaches' talking about these 'things' (two parents requests);
- Another issue that arose had to do with the curriculum that is so fragmented in elementary school. Teachers were concerned about the other subjects, considering the time for the activities needed. We agreed to implement ISOTIS activities on 'Flexible Zone<sup>26</sup>' framework. The researchers made suggestions to integrate these activities into curriculum subjects as language and art;
- According to children's needs data that we collected in December, we had to plan and organize activities that both met ISOTIS criteria and respond to children's needs: collaboratively, based on their experience, based on dialogue, challenge stereotypes and build healthy relationship with others.

In the Greek context the main issues that we face are:

- The Greek curriculum is not flexible and limits teachers' efforts to promote and implement innovative practices. The curriculum is highly structured. According to Flouris and Passias (2003: 77-78) "school programs in Greece consist of a core or "mainline" subjects'.... '...The curriculum is characterized by internal incoherence concerning educational goals, curriculum content, and textbooks". On the contrary, the curriculum in early childhood settings, namely, in years 4-6, is considered flexible and not strictly structured. It is considered as "a dynamic tool in the hands of the teacher, describing not only the content and the goals to achieve but also the appropriate pedagogical practices for an inclusive education for all" (Revised curriculum for the Kindergarten , 2017: 7);
- We faced a lack of 'culture of participation' from parents. This means that parents do not actively participate in educational programs and school activities. As Lazaridou and Kassida stated, parental involvement in schools "tends to be less than satisfactory" even if latest school reforms emphasize "the notion of parental involvement as a significant factor for the effectiveness of the Greek schools";

<sup>26</sup>For Year 1 class is 3 hours per week

Additionally, parents are not familiar with ICT (technology) and a lot of efforts is needed by schools to engage them in communicating and interacting using technology for educational purposes.

## **5.5 PART III – CO-DESIGN AND IMPLEMENTATION PHASE – Going into practice**

### **5.5.1 Overview of the meetings dedicate to the co-design of the activities**

As we highlighted above, the researchers tried to engage all members of school community to co-design the main activities to be implemented in ISOTIS program.

Viewing teachers as social actors, we presented the main goals of ISOTIS focusing on the aims of the activities and on general criteria so that the activities could:

- promote dialogue that raises and challenges different views about identity, stereotypes;
- increase the knowledge of other cultures and deal with multilingualism and multiculturalism;
- teach students to act as critical citizens and to deal with multiculturalism.

The researchers had an interesting conversation with teachers who showed a great interest for the activities. As one teacher said: 'in our children's education we must focus on how they can become critical citizens that respect difference and work to make their environment a better and safer place to be and work in' (Teacher A). Another teacher argued that: '...to increase children's knowledge and skills we first have to focus on creating a safe environment in class and in the family so that everyone can have a feeling of worth and value' (Teacher B).

A parent in the meeting that represented the parents of one class fully agreed: 'what I want for my child is not only to get a basic education but for them to be valuable members of the society, with their family, friends, and people who they will work with in the future' (a member of the parents' committee).

The researchers pointed out the basic axes of activities and the teachers had to focus on the materials and educational tools that address the criteria agreed.

The teachers' general agreement was that: 'we feel valuable, we feel that our opinion matters when we are asked to have a critical and active role in the activities' (Teacher B). Another teacher pointed out: 'I know my class very well. Not everything is for everyone, and we must be flexible of what to use and how to use it' (Teacher A).

As indicated above, the Greek team of ISOTIS had an advantage, in that the researchers worked together with practitioners having a double role as both researchers and practitioners. This meant that they had a daily observation of the context and a direct daily contact with the field.

An overview of the co-design activities is shown in the following Table 5.6.

Table 5.6 - Overview of the co-design process

<i>Period of fieldwork visits/collaboration</i>	<i>Aim of each fieldwork visit</i>	<i>Type of fieldwork visits/collaboration</i>	<i>Methods</i>	<i>Period of data acquisition</i>
<b>Early September</b>	Meetings practitioners' views	Meeting (all)	Conversation and content analysis of teachers (vignette identity)	On time
<b>Late September</b>	Implementation of pilot activity	In class (researcher, practitioner and students)	Informal observation	By the end of pilot implementation (late October)
<b>November 2018</b>	Co-design activities/ focusing in criteria/methods and educational tools	Collaboration with parents' committee and practitioners	Analysis of data selected from the pilot activities	Late November
<b>December 2018</b>	Selection of main activities	Meeting (all)	Context analysis	On time
<b>January April 2019</b>	Implementation of activities	Meetings every 15 days	Content analysis	

<b>May 2019</b>	Meeting with parents	Share findings of the program		
<b>June 2019</b>	Meeting with practioners	Final evaluation	Interviews	

The following table 7 highlights the main principles and shared ideas that arose from meetings according to ISOTIS criteria, teachers experience and children’s needs.

The ‘Identity’ of activities highlights the process of activities to be implemented and lies on our theoretical approach of Multicultural Citizenship Education.

Our aims and learning outcomes main idea was to work with feelings, attitudes and possible stereotypes and prejudices and to transform them though the life experiences that children and teachers bring into class.

It is also important to acknowledge that this work was to be used as a guide in order to develop and decide the materials to be used.

Table 5.7 - Overview of the activities

Identity of the activity	Aims	Main procedures	Learning outcomes
<b>We belong to wider community</b>	<ul style="list-style-type: none"> <li>- To learn about different communities, including family and school</li> <li>- to discuss and communicate their feelings and opinions about their communities</li> <li>- to recognize and respect diversity within their communities</li> <li>- to work in pairs or small groups to share their views</li> </ul>	<ul style="list-style-type: none"> <li>- children announce what they like or dislike about school community</li> <li>- they write down small texts or words, or drawing pictures that describe how their school likes</li> <li>- they found out different members of their school community, activities, rules and members of the wider community (neighborhood)</li> <li>- make a list of members belong in different communities recognizing that some are members of some communities and some not but also the links to each community</li> <li>- they make a portrait or picture of their home and write down words that describe it (in different languages)</li> <li>- Invite parents and members from different communities and cultural backgrounds to talk about their home</li> <li>- Visit places from different culture</li> </ul>	<ul style="list-style-type: none"> <li>- recognize and respect diversity within their local community</li> <li>- understand that they belong to different groups and communities, including school and family</li> <li>- discuss and express their feelings using different language</li> </ul>
<b>The world we live in</b>	<ul style="list-style-type: none"> <li>- to learn about different places, drawing on their own and others' experience</li> <li>- to devise an enquiry into life in another type of community that there are similarities, as well as differences, between communities in other parts of the world and our own</li> </ul>	<ul style="list-style-type: none"> <li>- children identify on maps different places they have visited, been on holiday to, lived in, or where they have relatives.</li> <li>- They discuss what they think the similarities and differences are between living in those places and living in their own locality. Encourage them to talk about their experiences of visiting other places.</li> <li>- They made a 'story tell' about their place and explore the relationships they had there.</li> <li>- Role play: they put themselves in another place and consider how to react being there</li> <li>- They bring art crafts, pictures and other material from the place they had been</li> </ul>	<ul style="list-style-type: none"> <li>- develop a sense of empathy and commonality with people from other places</li> <li>- begin to consider the feelings and points of view of others, both in their own community and the wider world</li> <li>- recognise and respect the similarities and differences between people in different places</li> </ul>

		<ul style="list-style-type: none"> <li>- Invite parents and members of community to talk about their experience</li> <li>- Use video material about living in different places and the everyday life of people being there</li> </ul>	
<b>Moving front</b>	<ul style="list-style-type: none"> <li>- promote empathy with others who are different</li> <li>- raise awareness about the inequality of opportunities in society</li> <li>- understanding of possible consequences of belonging to minority group</li> </ul>	<ul style="list-style-type: none"> <li>- children imagine being someone else give possible situations and ask children to make a front step if the situation suits the character they imagined</li> <li>- they take a look about their or others after each step</li> <li>- finally, they talk about their character and explain why they are in that position</li> <li>- Invite parents or members of the wider community to talk about their life experience</li> <li>- Ask children to make a list of possible questions for interviewing them</li> <li>- Further discuss: what can we do to support people with less opportunities to succeed in their life</li> <li>- Address the inequalities and possible solutions</li> </ul>	<ul style="list-style-type: none"> <li>- minimize stereotypes and prejudice</li> <li>- empower people from disadvantage groups</li> <li>- recognize inequalities and how to reduce them</li> </ul>
<b>Real world issues</b>	<ul style="list-style-type: none"> <li>- Connecting school with broad community</li> <li>- Improve dialogue through members of the school community and beyond</li> <li>- Understanding real world issues</li> </ul>	<ul style="list-style-type: none"> <li>- Provide a video with real world issues (poverty, immigration, inequalities between genders, stereotypes etc)</li> <li>- Start a dialogue based in questions like <ul style="list-style-type: none"> <li>- What happened?</li> <li>- Who are the actors?</li> <li>- How the act or react.</li> <li>- Where?</li> <li>- Why?</li> <li>- What is the solution? Find possible solutions.</li> </ul> </li> <li>- Ask members of the community to share ideas and give their opinion.</li> </ul>	<ul style="list-style-type: none"> <li>- connecting people from different socio-economic and cultural backgrounds</li> <li>- empower people to share their voice</li> <li>- understanding social problems that we all face</li> </ul>



## 5.5.2 Overview of the meetings dedicate to the implementation of the activities:

The researchers worked with the practitioners in the same site. That means that they had had an everyday contact and could receive feedback from practitioners and children and also from parents.

As we all decided (researchers and teachers as practitioners, we arranged meetings every 15 days in order to have a better overview of what is going on, if there are any difficulties or any adjustments to be made in order to achieve the aims, we set.

Unfortunately, although we invited parents to participate in these meetings, we had no one involved. In general, all the information we have from parents is based in our informal conversations with the teachers/ practitioners and researchers work in the field.

### 5.5.2.1 Description of the Implemented activities and of the experience in the classes

According to table 2 we planned and focused on the activities to be implemented.

The Identity of activities described above lead as to focus on two core issues:

Recognizing diversity – for a more equitable world

Recognizing diversity - for a better world.

The main ideal relied on the principal that: *"The creation of conditions for the development of an "intercultural" or "culturally responsive " education is constantly in search of tools, on a theoretical and applied level, in order to play an active role in the harmonious coexistence of different ethnic groups within the same classroom, neighborhood, even in the same family".*

The researchers and practitioners agreed to use story books that focus on diversity and issues that arise from diverse worlds.

The materials, activities and procedures are highlighted in the following table 5.8. It is important to mention that all the two sites (primary and kindergarten used the story books according to their needs.

Table 5.8 - Description of activities

Book title	About the story	QUESTIONS FOR REFLECTION
<b>The Black Mockingbird and the White Gull</b>	Why is everybody looking at me strangely?" asked Jacobs, the mocking bird. " But it is the first time they have seen a black bird like you," said Jimmy, the seagull. In the village of the	How do the seagulls react when they meet the mocking bird? Why?

	<p>white gulls, the black mocking bird is a stranger, no one wants him. By the time they find out how great this weird stranger is ... A fascinating story for preschool children and young readers, referring to real friendship, xenophobia, racism.</p> <p>How will the gulls behave towards the 'stranger'?</p> <p>What problems will it face? What is the role of true friendship?</p>	<p>How do you think Jacob feels like?</p> <p>How does his friendship with Jimmy help him?</p> <p>Finally, how do they accept Jacob and why?</p> <p>Who could be the mocking bird in real life?</p>
<p><b>Little Reddy and the red star</b></p>	<p>Little Reddy is the only red star among the thousands of gold stars in the sky. However, what is different is often not immediately accepted even in the star world. How will Little Reddy react to the rejection he receives and how will he ultimately manage to integrate into the group of stars?</p> <p>How will Little Reddy react to the rejection: What will his feelings be?</p> <p>Finally, can the different one survive?</p>	<p>What makes Little Reddy different?</p> <p>How does he experience rejection?</p> <p>How does he react?</p> <p>Will he ultimately be able to join the group of stars?</p> <p>What would you advise him to do?</p>
<p><b>"Irini" (Peace) - The story of a refugee child</b></p>	<p>The story refers to a young girl who is forced to leave her home, to experience insecurity and rejection until she finds warmth, protection and affection in a new home.</p>	<p>Who are the heroes/heroines of the story?</p> <p>Where do you think this story takes place?</p> <p>What do you think happened and made Irini (Peace) leave alone?</p>
<p><b>«Welcome Magpie» Author: Kostas Magos, published by: Kaleidoscopeio</b></p>	<p>A magpie comes to the forest, while the owl loses its colorful necklace. How can these two events be related and how do the fox, the hare, the bug, the woodpecker and other animals of the forest react? A story to get to know the way prejudices are created and reproduced, and the consequences they have in everyone's lives.</p>	<p>What's wrong with the magpie?</p> <p>Did the rest of the animals welcome her?</p> <p>Why not?</p> <p>Where did they rest upon to form an</p>

		<p>opinion?</p> <p>What could be different in the story?</p> <p>What do you find annoying in the story?</p> <p>Do you find anything unfair?</p> <p>How do things change in the end?</p> <p>Are you happy with the end of the story?</p> <p>Have you ever heard of anything similar?</p>
<p><b>«The island beyond the sea »</b>  <b>Author: Eleni Agrostathti,</b>  <b>published by: Psychogios</b></p>	<p>Beyond the sea there is an island with green trees and blue waters. Its name is not known in the marshland, while everyone calls it "The island beyond the sea " and everyone knows that, it may be beautiful from afar, but it hides terrible secrets. No one can say what exactly these secrets are, but nobody wants to know. One day, the more daring and the dreamiest animal of the marshland, the hare, decides to discover them.</p>	<p>What about the hero of the story?</p> <p>Why didn't they visit the island across the sea?</p> <p>Why did everyone have this estimate?</p> <p>How had they shaped this opinion?</p> <p>What was really happening on the island beyond?</p> <p>What would you do if you were in the hare's place, would you dare?</p>

Furthermore, in kindergarten, the researcher and practitioners developed and implemented some additional activities:

Table 5.9 - Description of additional activities in Kindergarden

Name of activity	Activity in steps
<p><b>Welcome, wherever you came from!</b></p>	<p>Starting: We divide the classroom chairs in two rows facing each other. We ask the children to sit wherever they want. They usually sit next to their friends, but we could surprise them by forming pairs with children sitting opposite to them. 5 experiential activities follow:</p> <ul style="list-style-type: none"> <li>• Ping Pong: We play a game called "ping pong" with words and we ask children to observe the child sitting opposite them and to continue the phrase: "you have ..." One child speaks after the other and they describe themselves, for example "you have long hair" or "you have blue eyes" or "you have a beautiful face" etc.</li> <li>• Your portrait: We give a piece of paper to each of them with their name on it. We ask them to exchange papers with the child sitting opposite and to draw each other as the music plays. When the music stops, they give the portrait to the child they drew.</li> <li>• Group portraits: Then we ask the children to leave their chairs and we place a paper with a face outline and a marker on each chair. The children move alongside the chairs while the music plays and when the music stops the children should stop in front of any chair they face and we ask them to start drawing a portrait they imagine. The music starts and they move and when it stops again, they continue the portrait that happened to be on the chair they face. The process ends when the portraits are completed. Then we all observe these strange portraits together, the faces that are none of us but they express all of us as they have elements and drawings from all the children. We exhibit the portraits in a common view.</li> <li>• The burning chair: We remove a chair and ask the children to move with the music. When the music stops a child doesn't find a chair to sit on and he/she tells us his favorite color, his favorite game, activity or favorite animal. We repeat it as many times as we want. If some children do not have the chance to play, we ask them the same questions, so that they do not feel excluded.</li> <li>• Catch me: We play the traditional game "blind man's buff" in a variation. A child closes his/her eyes and the other children are guiding him/her by making misleading noises. When the blindfolded child manages to catch them, he/she has to recognize them only by touching them and then it is their turn to wear the blindfold. They get familiar with the difficulties of blind or visually impaired people.</li> <li>• The children listen to the 1st story while they are watching the narrative in the sign language from the link: <a href="https://www.youtube.com/watch?v=vhyrycazOEI">https://www.youtube.com/watch?v=vhyrycazOEI</a>, familiarizing with this language. They are experimenting to decrease or turn off the volume to experience the difficulty of people with a hearing loss.</li> <li>• The children watch the 2nd story in a puppet-theater or a theater with objects</li> </ul>

where the teacher takes a role (theatre technique: a teacher in role) and actively participates in the narrative by raising questions.

- We raise a discussion about differences and similarities, diversity and the creation of stereotypes and the gradual transformation into bias. We negotiate with the children the terms «reputation" and "ignorance".

Afterwards we deal with visual representations of the stories or theatrical performances of some scenes of the story. Children listen to the song "There are hands"

[https://www.youtube.com/watch?time\\_continue=43&v=m9FbLCtWeC0](https://www.youtube.com/watch?time_continue=43&v=m9FbLCtWeC0) and they write their own songs respectively for the kind of hands they prefer and the actions they prefer.

We find links to actual historical events where diversity was targeted and ignorance and prejudice led to crimes against the human species, such as Nazism.

In all activities children as students were encouraged to express their opinions, experiences and thoughts, discuss and ask questions.

They were asked to bring their own experiences into contact with people with different languages, origin, sex, etc. They were encouraged to observe, talk, paint, imitate, disguise and use their imagination, based on the figures in the booklet, the books and the animated film.

Furthermore, our concern was to meet our aims and criteria of ISOTIS Program so that students would develop empathy for the heroes/heroines of stories, express questions, thoughts and concerns and would be encouraged to suggest solutions and express their own views on what needs to be done: "not to discriminate against the other", "to respect diversity", "to develop the concept of social- personal responsibility".

They formed their own worldview about how our world can be better and they were involved in a process of reflection and decision making for this purpose.

They put themselves into each other's shoes through role-plays. They were encouraged to resist opinions that involve generalizations, to support their own opinions and to resist injustice. They gradually realized that ignorance generates prejudice and bias and that these thoughts often transmit from generation to generation. They were encouraged to propose solutions to similar issues.

## **5.6 PART IV - THE MONITORING SYSTEM: Documentation, data collection and evaluation**

### **5.6.1 Overview of the procedures adopted for monitoring and evaluating the intervention:**

Based on feedback and agreements of meetings with practitioners, children and parents we proceeded to informal interviews of all members engaged in intervention that were related to monitoring and evaluating the intervention.

As shown in Table 5.10, we focused on classroom observations that guided us to design our activities and their implementation according to their needs and the ISOTIS criteria.

Table 5.10 - Overview of phases and procedures of implementation

General overview			
	Pre-Phase (exploratory phase, co-design)	During (Implementation phase)	Post phase
<b>Teachers</b>	<ul style="list-style-type: none"> <li>✓ <b>Individual interviews and/or focus groups on pedagogical approach, multiculturalism and multilingualism, use of ICT etc.</b></li> <li>✓ <b>Observations in classroom.</b></li> <li>✓ Co-design meetings feedbacks on VLE interfaces, activities &amp; usability test</li> </ul> <p><u>Optional additional tools:</u></p> <ul style="list-style-type: none"> <li>✓ <b>Reflective self-evaluation questionnaire</b> on sense of competence (efficacy) in promoting global-intercultural competence and multilingualism + group discussion;</li> </ul>	<ul style="list-style-type: none"> <li>✓ Qualitative documentation of the process of co-designing and implementation into practices:                             <ul style="list-style-type: none"> <li>- <b>teachers' diary</b></li> <li>- observations and field notes,</li> <li>- short interviews/conversations (opinions, formative evaluation on activities, children participation, parents participation, VLE interface and use...),</li> <li>- pictures &amp; audio/video-recordings (<i>if feasible</i>),</li> <li>- documents of the project and the final co-designed activities</li> </ul> </li> <li>✓ VLE:                             <ul style="list-style-type: none"> <li>- quantity and quality of use;</li> <li>- feedback on the interface</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>✓ Individual or focus group interviews: feedbacks on VLE (interface), activities, process of work.</li> </ul> <p><u>Optional additional tools:</u></p> <ul style="list-style-type: none"> <li>✓ Reflective self-evaluation questionnaire on sense of competence (efficacy) in promoting global-intercultural competence and multilingualism + group discussion;</li> </ul>
<b>Parents (optional, if involved)</b>	<ul style="list-style-type: none"> <li>✓ <b>Questionnaire</b></li> <li>✓ <b>Focus groups</b></li> </ul> <ul style="list-style-type: none"> <li>✓ Focus Group discussion during/after the presentation of the VLE.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Individual Interviews</li> <li>✓ Observation in the VLE of the use of the VLE (forum, noticeboard...)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Individual or focus group interviews (depending on involvement): feedbacks on VLE, activities and process of work</li> </ul>
<b>Children</b>	<ul style="list-style-type: none"> <li>✓ <b>Classroom observations</b></li> <li>✓ Conversations during the day at school (spontaneous or elicited by teachers/researchers with open questions) and/or focus group</li> </ul>	<ul style="list-style-type: none"> <li>✓ Focus group discussion after the implementation of each activity.</li> <li>✓ Conversations (spontaneous or elicited by teachers/researchers with open questions)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Focus group discussion in presence and on the VLE: feedback on on VLE, activities and process of work</li> </ul>

Evaluation of implementation is based on teachers/ practitioners' diaries and on informal interviews with children and parents.(see 5.6.2.2 and 5.6.2.3)

At the end of implementation phase, researchers and practitioners conducted a meeting that allowed them to share and highlight the main impact that activities had on their classrooms and parents.

### 5.6.2 Analysis of the perceived experience and of the educational-formative impact in a short term

Our analysis is based on teachers' self-evaluation reports of competences, on teachers' diaries and on informal interviews with them and also with parents-

#### 5.6.2.1 Analysis based on Teachers self-evaluation report

Table 5.11 - Teachers self-evaluation report of competences

Teachers' self-evaluation report of competences		
Dimensions		
Teaching efficacy in diverse classrooms	PRE	POST
Intercultural sensitivity	Medium to High	High
Strengthening classroom community	High	High
Reducing prejudices	High	High
Multilingualism	High	High
Parent-teacher relationships	Medium to High	High
Global competence	High	High
ICTs in teaching-learning process	Medium to high	High

As it is mentioned above, teachers were highly experienced in dealing with multicultural classrooms and they also possessed high professional development.

We used teachers' self-evaluation report of competences and analysed the data using the SPSS statistical package.

The questionnaire had 44 questions divided in eight (8) dimensions:

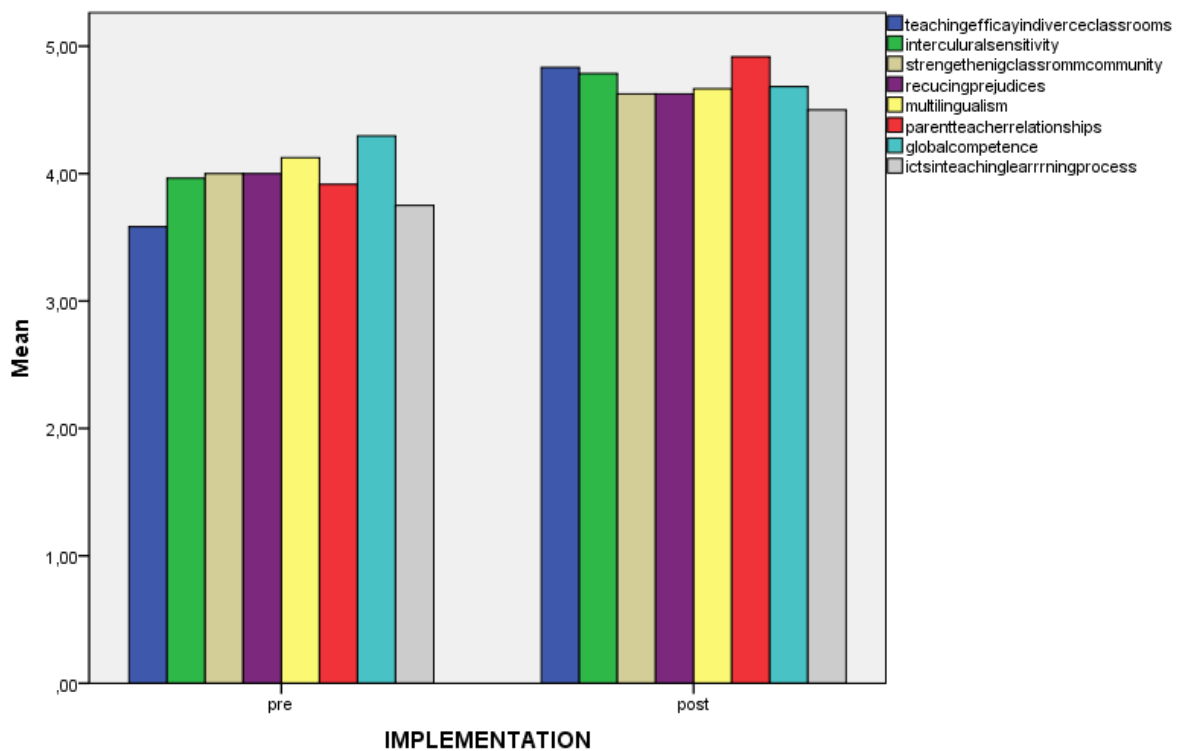
- Teaching efficacy in diverse classrooms;
- Intercultural sensitivity;



- Strengthening classroom community;
- Reducing prejudices;
- Multilingualism;
- Parent-teacher relationships;
- Global competence;
- ICTs in teaching-learning process.

Our analysis in SPSS shows the pre and post differences, which are presented in the following graph:

Figure 5.1 - SPSS analysis of pre and post differences



According to the graph teachers perceived to become more capable of managing and coping with multicultural classrooms and dealing with challenges in diverse environments.

We have to mention that we have a great positive difference in factor, describing teachers and parents' relationships.

According to teachers, the implementation of ISOTIS Program gave them more confidence and strength to deal with immigrant parents and to communicate with them.

### 5.6.2.2 Analysis based on teachers' diaries

The analysis of teachers' diaries highlights, describes and gives information at three times of implementation: before, during and after the implementation.

The analysis will be based on the two sites: a primary school and a Kinder garden.

#### 1st site (kindergarten)

As teacher 1 stated about the process of co-designing and implementation:

*"The text we used as a key for reflection was the one proposed "WHAT DID YOU BRING WITH YOU TO SCHOOL" (by Vasilina Kourtis Kazoulis, Cummins, 2001) which describes an incident that happened to her when she was a kindergarten student in a foreign country. It describes in a characteristic way the great importance of the teacher's attitude in accepting the language, the culture and the identity of the pupils and how this may affect their personality and their integration process.*

*We chose these three introductory activities to record the perceptions that the children had already had about their school and the intercultural communication competence they feel that exists or not, in their group. It was the children's proposal to present our school, the group of the children and their interests in the platform.*

*We made changes to take into account the interests of the children. We wanted to accomplish their goals within the activities and stay focused on the task. So, the changes made, also had to do with their attachment to the project".*

Teacher 2 commented the activities as:

*"...focusing on pedagogy and the school climate includes activities aiming at utilization of linguistic and cultural diversity in the kindergarten and of course connect to the curriculum. They can be easily applied to any kindergarten class, whatever its composition is, so we didn't go on making changes but we went even further engaging to the culture of the class and to our newcomer, a student with Syrian origin that spoke Arabic. The special aims of the activities, as the acquaintance of children with the neighboring Arab culture and language and a meaningful communication with children from an Arab background were for us a big opportunity.*

Teacher 1 argued that:

*"The activities helped the children to understand the way they behave towards a 'stranger'. To understand their feelings and be able to manage them, to realize the feelings of the others and be able to help. To develop empathy and to recognize and respect diversity and to develop strategies to tackle racism.*

*The stories gave us and the children the opportunity to get deeply involved in the way that stereotypes are formed and the representations people rest upon to form an opinion and estimate a situation.*

*In order to make connections with real life we designed a book to describe an event (on part B) that happened while they were playing in the school yard, when some kids discriminated some others at the instigation of a child. We tried not to incriminate the child who was the protagonist in the event but to emphasize on the role of true friendship and to describe the reactions of the children towards this event.*

They described the activities and the implementation phase according to feedback received from meetings. Their answers emphasized that the activities presented and implemented have a great positive impact and followed the aims and targets of ISOTIS Program.

Teacher 1 stated that:

*“In the three activities the children were expressed through their drawings about their school, what they like and what they consider as the most important thing for someone to know, they draw their thoughts and explain their drawings. Then they spoke about themselves, what they bring with them in school, what is the best part of them (at first related on physical appearance) to find out about differences and similarities. Then to talk about their dreams and what they want to be when they grow up. Eventually, links to curriculum were traced according to: CIVIC EDUCATION, LANGUAGE, IDENTITY TEXTS & ARTS”.*

Teacher 2 emphasized the real experiences that students brought in school:

*“The main purpose of the activities was to build knowledge through real experience and to learn about the students ‘languages and the meaning for themselves. Every child talked about his origin while we were preparing to welcome our new student, a refuge from Syria. We read “My first book on bilingualism” and we learnt words and phrases in Arabic. The next step was to read stories about refugee children, especially those called: Unfair Tales, like the story: “Malak and the boat” and “Mustafa Goes For A Walk” created from UNICEF. We named the co-activity: “An unfair story with a fair ending” and co-created our own story and uploaded it to ISOTIS platform (links follow). The project led to an art exhibition with the name: “...With a small crazy boat” (photos of the exhibition here) in which we invited the other classes to exhibit with us their paintings and installations about the refugee issue. A famous artist was invited to cooperate/participate in that action. Eventual links to curriculum: Multilingual education, identity texts, cooperative learning.”*

Teacher 1 emphasized also process of activities and interaction among teachers and children:

*“We emphasized on the questions: What do you find annoying and unfair in the story, are you happy with the end of the story and what would you change in it. The children were very interested in the stories and we, as teachers, wanted to familiarize them with real life events. Eventual links to curriculum: multicultural education, appropriate intercultural practices, responding to the literacy needs of the children. In the meantime, a real event drew our attention during their play in the school yard. all the kids that were not wearing “orange shoes” were excluded from the game. This happened because three girls found*

*out that they had the same pair of shoes, in the same color and brand name and with the support of one of them, they started excluding everyone else that didn't have this kind of shoes. So, they discriminated some others who, of course, were not happy and when they found out this reaction, they came to us to state their arguments about the three girls' attitude. So, based on their reactions, we asked them to bring the conversation to the whole class, express their feelings and find out more things about it. We ended up making a story called "The shoes with the orange color" that we uploaded with the children in the platform. We wanted the children to acknowledge through inclusive practices the challenges they face in everyday events like the one described".*

From teachers' diaries in kindergarden we reached some conclusions regarding the impact of activities to children as students and to teachers also.

As teacher 1 mentioned:

*"...gave us the opportunity to find out what teachers' actions mean for our students and to consider about the consequences that the teachers' attitude towards children from other linguistic and cultural environments may have, as they realised that we pay attention to the group of the children but also to each student and their special interests...."*

Teacher 2 believed that the activities raise children awareness and develop their multicultural and multilingual skills:

*"We think that the various activities of the Greek-Arabic project functioning/working as a means of developing multilingual skills and critical literacy were accomplished. The children showed respect and interest to learn about the Arab world. They wrote down similarities and differences in the languages they share in class and they discovered the different way of writing Arabic, the typology of the letters, the sound of the language. They welcomed the newcomer with the best way, knowing about his life, his identity, his language".*

Teacher 1 said:

*It was an interesting procedure that kept the children's attention active, they used their creativity and flexibility and made the necessary connection with real life and managed to balance the activities reforming the bad attitudes.*

About the impact that activities had in students from diverse background, the way they responded in activities and changes occurred by them teacher 1 stated that:

*"He was really interested to interact with the other children talking about his two origins that was responsible, as he said, for his special color of skin.(about a child from Nigeria). For another child that shows interest in the refugee and migrant identity the teacher argues that: "she was the one insisted that we should write that our school is very friendly and we love immigrants and refugees. She made the proper distinctions between the two terms,*

*saying that refugees are forced to live their country, while immigrants are also trying to find a better life, but they don't live in war conditions'.*

Teacher 2 from kindergarden described the changes in the behavior of a child that her family was not friendly to people from different backgrounds and origin:

*"The first child was a girl that her family, her father especially, was not so friendly towards refugees. Very religious (a Christian orthodox) had caused problems at school insisting on doing the Christian prayer (not only for his child but for the whole class). We stood towards his reactions with understanding, as we shall do with any parent, whatever his demands are, but also strict about the pedagogical purposes of choosing a prayer that represents all the children. This prayer is the one proposed "Καλέ Θεούλη" [Kale Theouli] as an activity for the VLE, written by the famous Greek poet Giannis Ritsos. His daughter, on the contrary was the first child that approached our student from Syria, she chose to play with him during the free play and she was very supportive and open to the language, the culture and the identity expressed"*

Another child had the opportunity to express his language and culture through the activities:

*"The second child that we can refer to was the refugee student that came on April to our school from Syria. He was talking to us in Arabic and we used all the languages we could as teachers, using phrases we learnt in Arabic (e.g. using "musefir," a small guide for the Arabic language my Polydromo Group, Greece) and the children introduced themselves in his language, sang for him in Arabic and play games with words in Greek and Arabic. Quite soon our student communicated with us in some Greek, but the most important thing was that he seemed very happy and acclimated".*

Children's changes in behavior toward people from diverse cultural and linguist backgrounds highlighted in the statements of teachers:

*"The first child was the one that wore the shoes with the orange color and started this reaction, more like a kind of "game" . When she realized the consequences she was embarrassed and tried to defend herself, saying that she didn't want to make her friends unhappy and that she knows how they felt"*

Another child recalling stories and poems they read in class recommended:

*"We should end our story with a message to everyone on the platform. We should write it in English".*

When we asked what he would propose he told us to write a message we found about how we must choose our friends and what true friendship should be. The message, to which the whole class agreed, was the one:

*“Because we must choose our friends by their character and our shoes by their color. If we do the opposite...it is at least unthinkable” (Teacher 1)*

The changes that teachers made during the implementation was in the way to adjust the activities in students' needs and to take into account interests of the children.

According to the impact that the activities had to them teacher 1 says:

*“Reminds us to pay attention to the children’s identity, to emphasize on identity issues of both the person and the group, in order to utilize their knowledge of their cultural and linguistic capital, to make visible their own identity texts and to talk about their interests”.* Teachers 2 argues that: *“Reflecting to the changes made, I can comment on the empathy and the competence created to our class, no matter the resistance from some parents. Our beliefs, as teachers, our knowledge on multilingual/intercultural education and inclusion strategies and the safety that the specific activities provided as with, strengthened us and gave us self-confidence”.*

About the points of strength and the points of weakness teachers highlighted are:

The activities gave the opportunity to:

- raise children’s awareness and representations on the plurality of languages and cultures
- realize the important role of teacher's actions for the students and to consider about the consequences of the teacher’s attitude towards children from other linguistic and cultural environments.
- deal with diversity and promote children’s intercultural competence, making visible the language repertory of children (languages) and reflecting on different languages and cultures, as the Arabic.
- make visible the way prejudices are created and reproduced and the consequences they have in everyone's lives.
- Improve the sensitivity that children can show in every day events, helping them recognize stereotypes that are hidden in words, phrase, actions.

## 2<sup>nd</sup> site Primary school

In the primary school two teachers, as practitioners, argued that meetings for the co-design phase helped them a lot so that the implementation ‘run smoothly’ and gave them a plan for their work.

According to their diaries and informal interviews with researcher, teacher 1 described the co-design phase before the implementation:

*” The program was developed in three months. Children showed great enthusiasm and responded very positive to the activities. The connections to curriculum, through language, arts, math’s, music, helped them and me to develop our personality as a whole: both cognitive and social-emotional skills. I think that is the point of education”.* And continued:

*'children played roles, write poems and short stories, they felt free to express their emotions, opinions and create various multimodal texts'.*

Teacher 2 emphasized the prospect of the program that lies to her beliefs and professional development and experience:

*"The prospect to conduce to the adoption of a program to shape the citizens of a society without inequality and exclusion, I am deeply interested and, since in the past I have implemented programs on interpersonal relationships, I decided to follow it'. " I followed the guidelines, adapted at to the level of the students of my class needs, and linking the goals of the program curriculum I contributed to the design of the implementation of the proposal with a series of activities.....The proposed activities were implemented on the basis of team working, teaching in teams of four children, but also at the individual level. Studied and organized according to the objectives relating to the promotion of multiculturalism and social diversity, the development of empathy, of critical thinking, acceptance and respect for diversity, in building positive attitudes and behaviors of students to become future active citizens in a world fairer, more caring, more peaceful, more harmonious ..."*

During the implementation, the students showed a great interest and actively participated in all activities>

*"Their emotions were intense, as many children identified with the heroes. They expressed a huge 'why' there are these negative reactions of people across different groups and shared their own personal experiences" (Teacher 1)*

Teacher 2 argues:

*"During the implementation of the program, and after observing the reactions of the students in the classroom, is worth mentioning the riveting interest when viewing a video about peace and the girl from Syria. It is worth noting from the event the emergent emotions of support and solidarity from children."*

However, the success of the implementation of activities, for teacher 1, is that they helped the children and gave them the opportunity to become active citizens. As she stated:

*"some children reported that adults are those who do not accept diversity and they will try to make them change their minds».*

For teacher 2 the emotional awareness played an important role:

*"The emotional awareness prompted them to the manifestation of their feelings and showed very good participation in all activities. They expressed concerns about social problems such as foreclosures and racism in some people's moods and demonstrated positive and considerate attitudes towards diversity. They showed curiosity and*

*indescribable enthusiasm when they came in contact with different ways of writing and they also wrote foreign words”.*

The positive impact of activities is mentioned by teacher 1 as she underlined the ‘raise of voice’ among the children that usually were silent. As she states:

*“‘silent’ children seem to be more emotionally affected by the stories. But very soon they show their dynamism and start talking about their experiences, as some classmates seem to keep distance from them, upon their origin or the different way they act’. Teacher 2 emphasizes group work: ‘Through the activities the students demonstrated good collaboration, creativity and team spirit. In their discussions they looked excited and eager to correct the evils of the world. They realized and appreciated the values of love, mutual help, friendship and peace”.*

*“I notice that the children from different origin, started to feel members of the class community. There was a huge change in their behavior. They felt happier, carefree and active members of their school community” (Teacher 1)*

Teacher 2 added:

*“Anna and Chris showed up with facial expressions and feelings demonstrated by creativity in their artistic creations. The distribution of roles in group projects cooperated effectively. However, each time I engaged them, I turned to them in personal, expressing their opinion with confidence. These children rarely express their viewpoints in the classroom, they are out of the silent children in general and that is why I reported”.*

Teacher 1 summarized the activities through keywords, that highlighted the aims of the implementation.

These keywords are in the table below:

Table 5.12 - Teacher 1: keywords

<b>keywords</b>	<b>Context</b>
<b>emotions</b>	Express and manage their emotions
<b>Wishes</b>	Wish for a more equitable world
<b>Hope</b>	Hope to make the world better
<b>friendship</b>	Build strong relationships
<b>Active</b>	Feel strong and responsible to change the world I live in

For teacher 2 keywords that summarize the activities are in the table below:



Table 5.13 - Teacher 2: keywords

Keywords	Context
<b>Emotions</b>	Express and manage their emotions
<b>Problem solving</b>	Identify problem, decision making, solution
<b>Teamwork, cooperation</b>	social feelings, develop social awareness
<b>Offer, hope</b>	Develop personal and social responsibility
<b>Peace</b>	Working for a peaceful world
<b>Human rights</b>	Know and defend human rights

Teacher 1 emphasized the positive impact of activities on the children’s behaviors and attitudes.

*‘A great change has taken place. The children felt like a team, that they belong. The activities gave us the starting point so that children can be active members of the class, to show respect to others, to deal with diversity. It strengthens also me as a teacher, so as to understand the children’s behavior and to find ways to communicate with them more effectively. It also helped me with the communication with parents from different cultural and linguistic backgrounds. I notice that they also felt that they belong to school’.*

For teacher 2:

*“The emotional initially charge from listening to the story that evolved in the course of activities in reflections and later to raise awareness on the part of children, led to the emergence of progressively their own theory progressively for the creation of a better peaceful world which accepts diversity”.*

*“the students developed relationships of trust and they started to deeper know each other. The program helped eventually to create a positive climate in the classroom, the children acted as a team and it is more tied up. The program led to a deeper contact with students and helped me to better understand them”. (Teacher 2)*

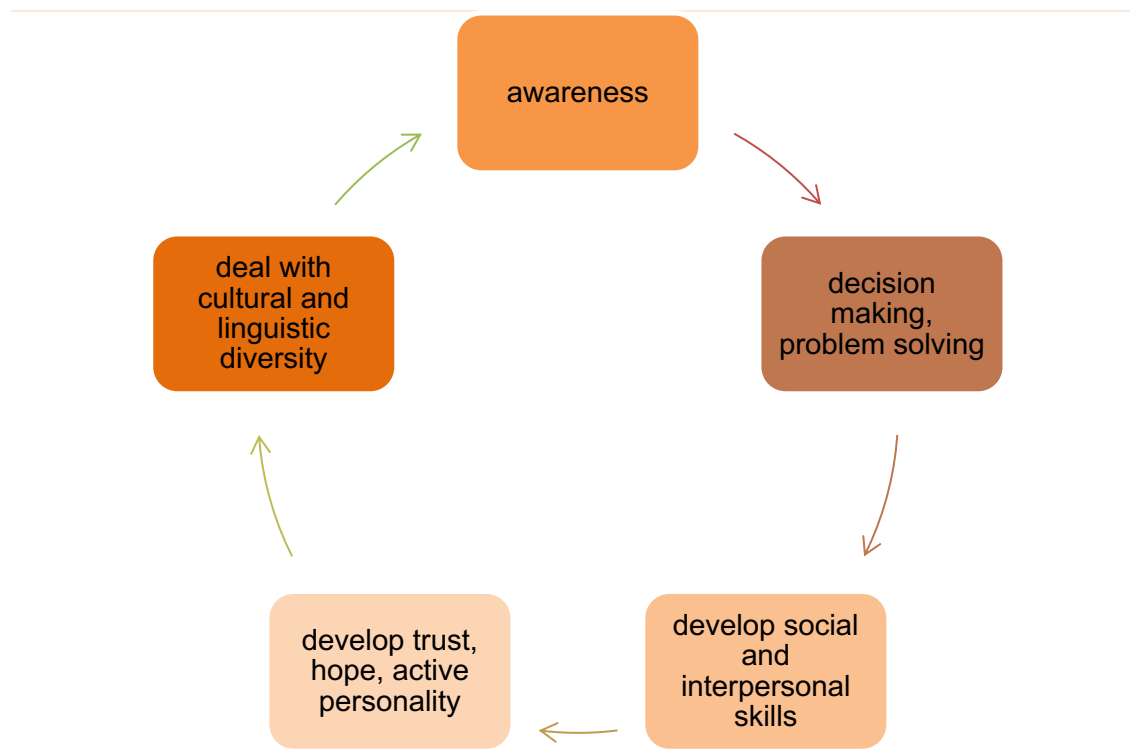
As teacher 1, teacher 2 emphasized the importance and the positive impact of the program on children’s attitudes and behavior. Teacher 2 believed that more time is needed, as the Greek curriculum is very strict.

Summing up, all teachers found the positive effect to children’s attitudes and behavior.

They found similarities in both two sites, according to the aims of the program and final conclusions and findings from teachers.

The following graph shows the main “perceived impacts” of the program for all members involved:

Figure 5.2 - *The effects of activities*



### 5.6.2.3 Children's, teachers' (& parents') evaluation on the VLE

Although parents and children found the ISOTIS activities 'real strong' and 'very interesting' that had a 'quite positive impact to our children behaviour' (parent comment), there wasn't a satisfactory interaction and use of VLE platform. Parents' limited involvement in the VLE activities may be due to their poor digital literacy/skills, restrictions in time available to help children with their study and in some cases their different beliefs regarding the pedagogical role of school.

Children had the opportunity to see their work as it was upload on VLE from home and from school.

28 parents from primary school and 20 from kindergarten got their passwords to log in to VLE.

As it is shown in the following table just a few of them logged in and only one of them interact.

Table 5. 1 *Members log in rates*

School	Members logged in	Teachers & researchers		Parents & Children	
		N	Actions	N	Actions
<b>16<sup>th</sup> Primary of Evosmos</b>	<b>28</b>	<b>4</b>	<b>Announcements/ Noticeboard</b>	<b>4</b>	<b>none</b>
<b>14<sup>th</sup> Nipiagogio Sykeon Kindergarden</b>	<b>20</b>	<b>2</b>	<b>Announcements/ Notice board</b>	<b>9</b>	<b>1</b>

### 5.6.3 How were findings shared with participants

For 16th Primary School, as described above to our school policy, we aimed to share findings and work procedures of the school with the school community.

According to this we created a page on our school website so all the work for ISOTIS to be visible to everyone. (link to website:<http://16dim-evosm.thess.sch.gr/?cat=114>)

Furthermore, both two sites arranged a final meeting with parents to share the findings of the program.

### 5.6.4 Overall evaluation of the intervention according to the adopted criteria.

On June 2019 researchers and teachers as practitioners had a final meeting, to proceed to the final evaluation of the activities and the intervention in general.

As the researchers are already members of the same site as teachers, they have a very good point of view about the implementation of the intervention.

We summarized the final evaluation in the following themes:

- DESIGN AND REALIZATION OF THE ACTIVITIES
- CHILDREN'S PARTICIPATION AND INTEREST → OBSERVED AND PERCEIVED IMPACT ON THE CHILDREN
- PARENTS' PARTICIPATION AND INTEREST → OBSERVED AND PERCEIVED IMPACT ON THE PARENTS
- PERCEIVED IMPACT ON THE TEACHERS (SELF-EVALUATION)

#### 5.6.4.1 Design and realization of the activities

As we emphasized above, the researchers made several meetings with teachers in order to find a 'common place' for work and to engage teachers to feel their program as theirs and to share their ideas and knowledge.

The researchers found this approach completely democratic and useful as the teachers' contribution to the design and implementing of the activities was very important.

As we all agreed we chose the activities as they promote multiliteracy and multilingualism, as we try to use practices that take maximum advantage of culture of our classes, who are always multicultural, even if this seems dormant at first glance. Acknowledging the variety of languages and cultures, finding the bridges connecting the school language with the parents' home languages and strengthening of Greek as the target one. Furthermore, the activities highlight the important role of teacher's actions considering the impact of teacher's attitudes towards children from other linguistic and cultural environments.

As stated, we made changes to take into account the everyday events and the interests of the children. We wanted the children to accomplish their goals within the activities and stay focused on the task or conversation at hand. So, the changes had to do with their interests and their engagement in the project.

The teachers agreed that the steps and methodology were very clear. We attempted to develop the activities by enhancing work in groups of combined skills and various scaffolding activities. The extension of the teaching time outside the class by using ICT facilitated our pursuits for collaboration, motivation and knowledge-sharing.

The good management and design of any project can also reduce any potential resistance. Raising children's awareness and representations on the plurality of languages and cultures was our main goal.

Both the Primary and Kindergarten sites developed the activities in common. The teachers accepted and shared ideas and a very good collaboration took place.

#### 5.6.4.2 Children's participation and interest-observed and perceived impact on the children

As teachers and researchers concluded, the children were committed to the process; they kept asking if we could upload various activities in the ISOTIS platform. The children remembered well the activities that we did and those uploaded and they often asked us to watch them on the platform. There was positive influence on decision-making by expressing their thoughts. Mutual understanding and encouraging trust built healthy relationships.

We could therefore argue that if the process is well-structured and organized, the children show striking competence.

They showed interest, participated throughout the project orally and visually. They often returned to the topic and they remembered previous steps of the project, while we as teachers provided the required elements through creative activities.

The students through storytelling made their own connections with real life which assisted them in managing change and diversity of interests in terms of gender, class and ethnicity.

A non-typical investigation of perceptions and behaviors towards children that are culturally different showed us that they were better acclimated. The children participated with great attention; they perceived the meaning of the stories.

They compared it with real life events. Although they did not easily recall similar incidents, they had experienced, they recognized the events happened at school and they recalled some memories.

The children overall participated with great interest and their interest grew up when we logged onto the platform and interacted with the uploaded material.

The students showed a great interest in multiculturalism: they showed interest in the refugee and migrant identity in general, they expressed their own identities in their texts and pictures. They became aware of the benefits of being bilingual.

We realized that they all state that they are in favor of the use of technologies in class, and they consider it a joyful practice, however they express reservations regarding the possibility of implementation at home, out of lack of resources.

#### 5.6.4.3 Parents' participation and interest observed and perceived impact on the parents

The parents were interested in the project and they interacted with their children at home on their worksheets, pictures, booklets, but they did not use the platform as we would like to. Even if we encouraged them not just to look at the activities but also to discuss them and comment on them, they did not do it actually. We already know about the 'Lack' of using ICT for pedagogical purposes, as it was mentioned above.

The parents have understood the way that the school has been reformed in the last decades and they are trying to cooperate, paying attention to the importance of the relationships among school and home.

This should be encouraged and accepted. Therefore we, as teachers, chose projects emphasizing schooling's fundamental purpose. This project showed them a modern way of

interacting they were not familiar with but appreciated a lot. They showed trust and acknowledged the practices.

The ISOTIS project promoted collaboration and interplay and helped relishing the common care and the relationship on an equal basis. This is also very important to promote learning and improving parent’s perceptions about school. The relationship between parents was empowered in cooperating and dealing with school issues through the project and also in parent meetings.

#### 5.6.4.4 Perceived impact on the teachers (self-evaluation)

As it was mentioned above, the activities had a great impact on the teachers and a positive effect on their professional development in promoting children’s intercultural competence and empathy, taking advantage of the opportunities the activities give for the children to discover their “complex” identity, since cultural identity is and influenced by the cultures with which they coexists.

It was an excellent opportunity for the whole class to discuss those elements that compose the cultural identity. It was also for the parents to be informed and to interact with their children on the activities and projects we did at school, emphasizing the fundamental purpose of education.

The teachers conclude that raising children’s awareness on the plurality of languages and cultures was an important goal. Furthermore, conceiving of the important role of teachers’ actions for the students and considering the consequences of the teacher’s attitude towards children from other linguistic and cultural environments.” There is nothing that we disliked, on the contrary we found it a tempting and promising project”.

#### 5.6.4.5 Goals achievement

Summarising and conducting a final analysis of the goals achieved, we can conclude that the ISOTIS project was very helpful in order to deal with diversity (cultural and linguistic) in class and beyond.

We present the goals and the final evaluation in the following table:

Table 5.14 - Degree of goals' achievement

Goals	Degree of achievement
building on and empowering interconnections	High
Participative and cooperative activities	High
Culturally sensitive and developing cultural sensitiveness	High

Promoting emancipatory and inclusive processes	High
Raising awareness	High
Innovative (for the local context) and enriching/renewing local practices	High
family engagement with language resources in the home	High
Parents involvement	Medium
Flexible, allowing and facilitating engagement with all languages present in the family life	High
Develop critical thinking	High
Transform behavior and attitudes	High

#### 5.6.4.6 Coherence with the adopted quality criteria

Table 5.15 - *Criteria from D2.2*

Values And Priorities Guiding Decision Making	
CRITERIA	Likert Scale
1. Start early.	5
2. Develop the intervention within a coherent theoretical framework and based on strong empirical evidence.	5
3. Target a balanced set of skills, considering both cognitive, academic, and socio-emotional outcomes.	5
4. Actively identify, explicitly value, and intentionally acknowledge the resources of all children, families, and communities	5
5. Value all languages and cultures equally and consider them as resources for teaching, learning, and succeeding in life	5
Intervention Approaches/Strategies	
6. Provide language supports to immigrant background students concurrently to teaching the age-appropriate curriculum.	
7. Explicitly value and intentionally support the development of the language and cultural heritage of immigrant and minority students.	5

8. Actively promote positive contact between minority/majority and advantaged/disadvantaged students through joint learning activities based on positive interdependence.	5
8.1. Use cooperative learning to support the development of social skills, the reduction of prejudice, and the academic achievement of all students.	5
8.2. Use heterogeneous grouping to support positive contact among diverse students.	5
9. Use interactive socio-cognitive training approaches (e.g., role-playing, simulation games, and group exercises) to support the development of anti-bias/anti-prejudice attitudes.	5
<b>Involving And Supporting Key Actors</b>	
10. Actively support family participation (e.g., through bidirectional communication strategies, meaningful learning at home activities, active involvement in decision making processes in school, etc.).	5
11. Provide appropriate support and training to classroom teachers.	5
12. Use the potential of information and communications technology to actively engage children in learning, support teachers, establish bidirectional communication channels with families, etc.	5
<b>Monitoring, Evaluation, And Dissemination</b>	
13. Monitor both student learning and sense of belongingness in the classroom and in school.	5
14. Use high-quality research designs to evaluate the effectiveness of the intervention/approach/strategy.	5
15. Make information about the intervention/approach/strategy readily accessible.	5

Consistently with the table 5.14 criteria WP4 interventions adopted also the criteria of Table 5.15 (those criteria were also shared by task 3.4 and 5.4).

Table 5.16 - *Criteria of VLE-related tasks 3.4, 4.4., 5.4*

CRITERIA	Likert scale
<b>Raising awareness and knowledge</b> of multiple languages, cultures, human rights, discrimination mechanisms and promoting skills in multiple languages and in critical thinking and establishing shared understanding.	5
<b>Promoting agency</b> of all stakeholders based on valuing their cultural background, resources and identity.	5
<b>Using the resources</b> available in the form of diverse family languages and cultural backgrounds to innovate learning practices of children and professionals and to create rich learning experiences.	5
<b>Sustaining communication</b> and <b>collaboration</b> between stakeholders, encouraging and supporting networking between stakeholders.	5



### 5.6.5 General reflections and Highlights

The proposed and final activities were relevant to our target group as its main characteristics were: its diverse cultural and linguistic background and the high percentage of low-income families. The researchers and practitioners have taken into account these findings so that the activities could have a high relevance to the students' and their families' needs and also to the practitioners' and teachers' needs and purposes.

From the feedback received and the subsequent analysis, we could conclude that the proposed activities:

- Included individually and culturally diverse backgrounds into the school and class
- Promoted feelings of value and worth of every member
- Motivated and stimulate each member
- Ensured that the learning content is related to everyday life and take into account different learning styles
- Facilitated the learning process to become research- driven
- Boost self-awareness, empowerment and experience of individuality through the students' engagement in the learning process
- Promoted a school climate that everyone feels safe in and has a 'voice'.

The feasibility of the proposed activities focuses on actively engaging students, parents and teachers in an ongoing process of interaction and challenge of the different points of views.

The following table 5.16 offers an overview of feasibility of proposed activities:

Table 5.17 - *Feasibility overview checklist*

Learning objectives and domains of activities	Teaching learning methods	Material and human resources	Time	Relation to institutional mission	Students and families demand	Activities structure
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<b>Integrate different areas of curriculum (language, arts, geography etc)</b>	Learner centered approach  Dialogical, group based,	Teachers as practitioners with high experience in implementing innovated educational programs	About 3 months of implementation (January-March 2019)	highly	High expectation of increasing intercultural and human rights-based education	Critical multicultural citizenship based  Deals with school philosophy and main outcomes (create a friendly and safe environment, increase intercultural sensitivity and empathy
<b>Increase analysis, evaluating and critical thinking of participants</b>		Students play an active and participatory role in their own learning				Engaging participants in planning activities
<b>Challenge previous knowledge and applying new in new content</b>		Parents lack of participation/ not familiar with ITC and use for educational purposes				

The intervention took place in schools located in the Western district of Thessaloniki with a large number of students from low-income families, but very few with foreign origin. Schools were chosen based on criteria of accessibility. This means that using another sampling method results may have been different. Accordingly, sampling method may also explain parents' limited involvement in the VLE environment/intervention. In other words, although positive experiences regarding parental participation in activities using digital applications are limited in Greece, results may have been different in case of a larger population of foreign students in the schools chosen for the intervention.

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## 6 COUNTRY REPORT: The Czech Republic

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### 6.1 Introduction

In this case study, we focus on activities conducted as part of the WP4 Task 4.4 “Multilingualism and technologies: a design-based approach model to innovate ECEC and primary curricula” within the larger ISOTIS project in the Czech Republic. The study consisted of several activities focusing on multilingualism in school environment. Activities were conducted in five classrooms attended by approximately 100 children in three primary schools at two locations. Two classrooms in the city of Brno were attended by 20-30% of pupils with minority ethnic background with only a low percentage of Roma pupils, and one classroom in another school in Brno was attended by 99% of Roma pupils, which means ethnically segregated. The two classrooms in Ústí nad Labem included 40% on average of pupils with Roma background. In this country report, we reflect on data collected during the exploratory, co-construction and implementation phases of this study. We present a detailed characterization of the context, participants and methodological as well as ethical issues we dealt with. At the end, we outline the findings of the study. In the Appendix, we provide templates of activities co-designed and implemented within the WP4.4 VLE.

### 6.2 The main topics addressed

In all the three primary school settings selected for the Task 4.4. intervention in the Czech Republic, the main topics addressed, within the general Global Competence framework, related to language and culture awareness, sensitivity and learning, and to valuing cultural and language resources of the children and families: Multilingual and Language awareness education provided a pedagogical approach to design innovative interactive learning experiences/activities using the ISOTS VLE, also guided by the common set of criteria and general aims of the Task 4.4 presented in Chap 1.

The exploratory phase within the school contexts but also the results from the WP5 survey with educational professionals gave evidence of a weak model of enhancement of multilingualism in the school system in the Czech Republic as in many European countries, leading to preference of monolingualism even in very multicultural schools and ECECs. To contribute to solve this problem we decided in collaboration with the school teachers to focus on activities supporting multilingualism, raising awareness and knowledge of multiple languages and cultures, also emphasizing their equity.

## 6.3 PART I - Sites Selection & Research Design Agreement

### 6.3.1 Presentation of the sites

#### 6.3.1.1 Selection of sites

We selected three schools two in the city of Brno and one in Ústí nad Labem. These sites were selected in line with the general selection criteria for localities defined for the whole ISOTIS project - urban areas, with higher composition of ethnically diverse populations and different social policies. Brno and Ústí nad Labem both have higher percentage of populations with minority background and the biggest populations of Roma minority which was the main target group for the Czech Republic in the ISOTIS project. The criterion of increased ethnic diversity was crucial as the Czech society is predominantly ethnically homogeneous (the population of minority background constitutes less than 5%).

There were two sub-teams within Masaryk University working on WP4.4 VLE activity in these two different locations who firstly contacted two selected schools in these respective cities. The first contacts with school directors at the beginning of 2018 were very “smooth”, however, the cooperation with the school in Brno (School 1) became complicated soon because of the informed consent forms (see below, Ethical considerations). That is why we decided to involve another school located in Brno in autumn of 2018 (School 3). The collaboration with the School 2 in Ústí nad Labem was very successful as ISOTIS researchers cooperated with this specific school on many projects in the past and this school has good reputation of a “community” school which encourages Roma pupils’ ethnic self-awareness and pride. In the Czech context, this is a very rare approach.

#### 6.3.1.2 Characteristics of the sites

School 1 located in the Brno inner-city comprises approximately 20-30% pupils from ethnic minorities per classroom. We selected this school as it is a typical urban school with a slightly higher number of pupils with minority background. The school neighbourhood is affluent and it is located in the middle of the city’s historic center; however, socio-economically disadvantaged families live not so far away from here. This localization brings a specific social mixture of pupils which is characteristic for this school. The school typically doesn’t address with an intentional and visible educational approach issues connected to the multicultural context. While diversity among pupils and families is apparent and visible, the school looks rather neutral or “colour blind” on this regard. There are no clear signs of presence of diverse pupils on the school websites, notice boards or the walls, despite the fact that the school is indeed attended by pupils with Roma, Vietnamese, Ukrainian, Moldavian or other backgrounds. In this particular school, we visited classrooms on the primary level of education; in spring 2018 two classrooms from second grade, in autumn 2018 and spring 2019 the same classrooms in third grade. Pupils were 8 to 9 years old

on average. Considering the school's projects and support measures addressing pupils with SEND (pupils with special educational needs and disabilities), the school can be described as an "average" school in the Czech context. Ethnic minority pupils are considered as SEND, teachers often work together with teaching assistants and the school provides out of class-tutoring aimed on pupils with low performance in any subject. This tutoring is facilitated by the Faculty of Education as many tutors are pre-service teachers from the teacher education programme. The school states Dalton plan principles in the School Education Programme, which is an official school-level curriculum document. However, it is not very often applied in first grade on primary level. The same is true about the multicultural education which is a cross-sectional topic in the Czech curriculum system, however again much more applied on lower-secondary level than on primary.

School 2 The school is situated at the edge of Ústí nad Labem agglomeration with a direct connection to the biggest highway in the Czech Republic. The school comprises approximately 40% of Roma pupils per classroom on average, however there was a higher number of Roma pupils in one classroom involved in the VLE study (70%), while there were about 30% of Roma pupils in the second classroom. These were third to fifth graders on primary school level, being 9 to 11 years old. School 2 is an ethnically mixed school with a relatively high percentage of pupils with Roma background and an extraordinary level of support measures targeted on this specific minority group. The commonly used languages at this school are Czech, and the so called Roma "ethnolect", a mixture of Czech and Roma languages which is widely used in many Roma families living in the Czech Republic. The school is involved in various social projects provided by different actors (state, NGOs etc.), such as "Colourful planet", "Integra Jam", "Between Fences Festival", "Supporting Competences, Literacy, and Executive Skills of Pupils from a Socio-Economically Disadvantaged and Culturally Different Environment" etc. The names of these projects refer to the proactive stance of the school director as well as the teachers in dealing with the issues diversity represents in their daily teaching practice. The head teacher received Alice Garrigue Masaryk Award for Human Rights because the school has been succeeding in inclusive education under her leadership.

School 3 is located in Brno in a socially disadvantaged neighbourhood with a high concentration of Roma inhabitants. Roma pupils compose more than 90% of the school population, thus the school can be categorized as ethnically segregated. Despite this fact, the school is involved in many projects focused on supporting socially disadvantaged pupils and some years ago it received the "Fair school" certificate of the human rights NGO League of Human Rights for extra-inclusive schools. Thus, the school can be considered extraordinary in providing support measures to socially disadvantaged Roma pupils (e.g., teachers often use the so called "centres

of activities” which are part of the Step by Step educational programme<sup>27</sup>). Nevertheless, the efficiency of support measures in highly segregated conditions remains questionable.

### 6.3.1.3 Characteristics of research participants

School 1 - We started to cooperate with two novice teachers (one male, one female) in spring 2018. The female teacher started her maternity leave at the end of the school year (June 2018) and therefore we continued with another teacher Černý<sup>28</sup> who became the class teacher of one of the involved classrooms (2.C, later 3.C). However, this new teacher got injured and left the classroom for two months. For this period (September-November 2018), he was represented by another teacher who used to work in this very same classroom as a pedagogical assistant in the school year 2017/2018. In the second classroom (2.B, later 3.B), we cooperated with one male novice teacher Procházka. In spring 2018, there was one pedagogical assistant primarily assigned to a pupil with Ukrainian background who was diagnosed with ADHD. The two main male novice class teachers were recommended for the project by the school director at the beginning of our activity in early 2018. We stress the gender of these teachers as it is not very common that a male teacher works at primary school in the Czech context. We perceived both of them as very enthusiastic, cooperative and willing. We also appreciated that they were more or less fresh graduates of teacher education programme as this was promising with regard to their digital competences in relation to the WP4.4 VLE activity. All of the teachers were of majority ethnic background.

School 2 -We cooperated with two teachers. The main teacher of the classroom 4.B, later 5.B Svatošová uses numerous teaching methods (frontal teaching, group work, peer work, games etc.). She supports active teaching so that pupils do not sit only in the benches, but they move around the classroom and often sit on the carpet in the back of the classroom. Discussion is a crucial method used by the teacher – definitely, pupils are not only passive receivers of information; they are actively encouraged to think about various topics, share their feelings and ideas. Pupils who are slower have enough time to come up with solutions of individual tasks. The second class teacher Krátká (the classroom 3.A, later 4.A) also uses many different teaching methods, however frontal teaching is the most prevailing. Despite that, the teacher encourages pupils to stretch or even dance the class dance. Several working groups were established in this classroom. These groups had different names and pupils could move from one group to another during the year with regard to difficulties they faced when dealing with specific curricular themes or tasks. Discussions are an important part of the group work and pupils love to present their opinions. Pupils who have already finished their work help their slower mates.

<sup>27</sup> See <https://www.issa.nl/>

<sup>28</sup>. All names are anonymized using invented nickname invented



School 3 - the director of this school recommended two primary-level teachers for project cooperation, one of whom (Jasná) was a teacher assistant in fifth grade, while the other class teacher of fourth grade Nováková was in her middle age. All of these teachers were of majority ethnic background, although the younger teacher from the fifth grade mentioned that pupils thought that she was of Roma background when she started to teach. Later on, we conducted the activities only in the classroom 4.A because the parents in the fifth grade did not sign the informed consent forms which were necessary to conduct this activity.

### 6.3.2 Phases of workflow

At two schools (School 1 and School 2), after several meetings with the teachers and the school vice-principal, we started the exploratory phase in spring 2018. We conducted the exploratory phase as a common phase for the WP4.4 VLE and the Child interview study (see Chapter 6 L. Kissová & J. Obrovská in D.2.4, Pastori, G. et al, Technical Report on the Child interview study. Children's views on inclusion at school)<sup>29</sup>. As the School 3 was not involved in Child interview study and as we did not have access into the classrooms (we waited for the final version of the Privacy policy document, see the Ethical considerations section below), the exploratory phase at this particular school could not be realized in its full span.

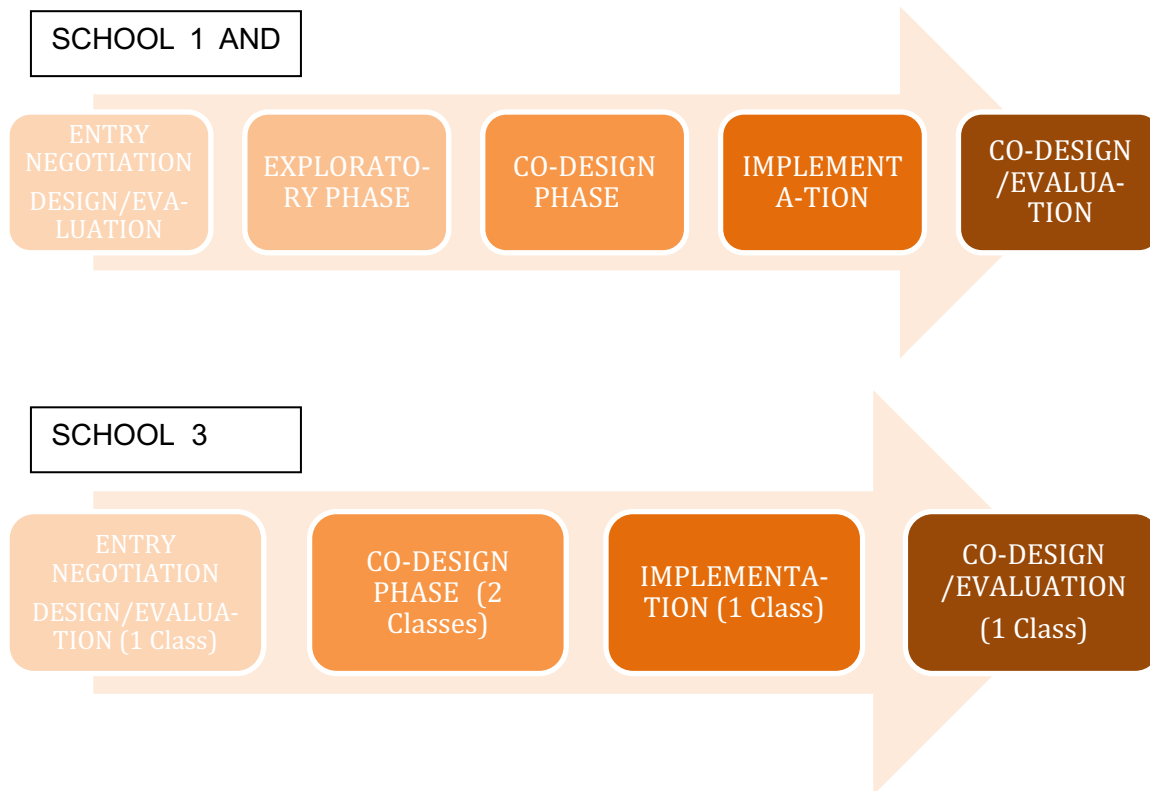
We continued with the VLE co-design and implementation phase starting in December 2018. It involved presentation of the activities inventory, teachers' feedback, re-designing the activities the way they would fit the class context, implementation and the overall feedback, including suggestions. At the School 2, implementation involved also inviting people who experience migration and multilingualism into the class as a form of a Living Library<sup>30</sup>. As the School 3, the bilingual school assistant with Romani background took part in the implementation, talking about the Roma culture, language and history.

The time flow was a dynamically evolving aspect of the activities procedure with regard to the complex developments concerning the informed consents and privacy policy for the WP4.4 VLE activity - e.g., we wanted to start with the co-design phase of the VLE activities much earlier, however as the legislative documents were not prepared and the structure as well as the content of the VLE web-page were still a work in progress, we had to shift the start of the implementation phase to the later months (March-June) of 2019.

<sup>29</sup> Web source: [http://www.isotis.org/wp-content/uploads/2019/05/D2.4\\_Technical-Report-on-the-Child-interview-study.pdf](http://www.isotis.org/wp-content/uploads/2019/05/D2.4_Technical-Report-on-the-Child-interview-study.pdf)

<sup>30</sup> For more information see: <https://www.coe.int/en/web/youth/living-library>.

Figure 6.1 - *The phases of the process*



### 6.3.3 Ethical considerations

The realization of these activities was affected by the problems with parental informed consents at School 1 and complex development of privacy policy related to the VLE website following the GDPR legislative changes in EU countries in May 2018. The class teacher and our gatekeeper from one of the classrooms involved at School 1 did not communicate properly the main information about our research project to parents. Therefore, some of them rejected to sign the informed consent forms and one parent complained to the Ethical Committee of Masaryk University. In May 2018, we had a meeting with small group of parents who did not want to sign the consent forms. Some of them required specific modifications of the consent form and we also established together a rule that they will be informed at least one week before each activity will be conducted in the classroom about the planned activities and the data to be collected. After many consultations with lawyers from the Ethical Committee of Masaryk University, we submitted the final informed consent forms to these parents during parent meeting held in September 2018. All of them gave us their approval with the exception of one father from the second classroom who was disappointed with the inclusive character of the ISOTIS project because he was against any kind of projects supporting Roma children. Finally, he agreed with the participation of his daughter under the condition that any data will be collected about her during the activities.

Another profound obstacle in our fieldwork were the negotiations of VLE website privacy policy. We exchanged dozens of emails with different versions and modifications of the privacy policy document with Masaryk University lawyer as well as within the ISOTIS consortium. These negotiations culminated with the problem of personal data controller versus processor which resulted in the proposal of a new processual agreement with University of Bicocca, which should store and process the data uploaded to the VLE webpage. However, these procedures resulted in profound delays in our fieldwork and substantial impacts on the “implementation phase” of the VLE activity.

The long-lasting process of the privacy policy and the extended informed consent approvals lead to changes of the phases workflow at the School 3 too. As the school was not involved in the Child interview study and in 2019 the new extended informed consents were needed already, we were not able to gather signed informed consents from the parents on time. This forced us to leave the exploratory phase out. Thus, after we collected the consent forms, we started immediately with the co-design phase. Unfortunately, in the end this was possible only in one classroom out of two we had started the cooperation with. In the second classroom, due to the approaching end of the school year and difficulties to reach significant number of Roma parents, we conducted the activities and evaluation only in one classroom at the School 3.

## **6.4 PART II - Exploratory phase: going in depth in the context and refining the intervention’s goals and procedures**

### **6.4.1 Procedures of the exploratory phase**

At School 1 in Brno, we had 15 appointments/visits within the Exploratory phase of the project between March and June 2018. The first appointment was conducted with the school director to present her the whole ISOTIS project and VLE/Children study activities specifically. The second visit was realized with two teachers recommended by the school principal, the third one with another teacher who led one of the selected classrooms before her maternity leave. The main goal of these introductory visits was to present the main principles of ISOTIS activities. We conducted further 8 fieldwork visits to observe the two selected classrooms (4 in each of them). During these observations, we focused on peer relationships among pupils, the social climate of selected classrooms, teachers’ practices in working with diverse classrooms etc. Other 4 meetings were planned with all involved teachers to conduct individual interviews.

At School 2 in Ústí nad Labem, many meetings were organized during the course of this activity. The first one was designed to meet the director and two other teachers of the 3. and 4. grades who were invited to take part in the project. We conducted other 8 fieldwork visits to observe the two selected classrooms (4 in each of them) during the Exploratory phase. During these observations we focused on peer relationships among pupils, the social climate of selected

classrooms, teachers' practices in working with diverse classrooms etc. Other meetings were organized to conduct the interviews with teachers.

At School 3 in Brno, the Exploratory phase was shifted to autumn 2018 and was restricted to the first appointment with the school director, introductory meeting with two recommended teachers and individual interviews with the two class teachers. We could not conduct any observations in the classrooms at this school as we wanted to distribute informed consents for observations together with privacy policy document among pupils' parents. However, this could not happen with regard to the complex development of privacy policy documentation. Finally, we were allowed to implement VLE activities only in one of the classrooms, however without previous observations.

The data from all three schools had the form of fieldnotes and audio recordings. The fieldnotes were pseudonymized and stored in a password protected repository. The audio recordings of interviews with teachers were transcribed and pseudonymized and stored in a password protected repository. The original audio recordings are saved at another protected Masaryk University server and will be destroyed shortly after the end of the ISOTIS project.

#### **6.4.2 Results of the exploratory phase.**

The following results presented in this part of the report were led by the following research questions. These key-research questions guided the exploration of the school settings therefore we consider presenting them important. These were:

- What is the level of intercultural awareness and competences (including ICT) by teachers in the selected schools?
- What kind of approaches and activities do they implement within the school curriculum?
- In what ways (if in any) is the classroom diversity reflected in the curricular contents and activities already used by teachers in the classrooms? Is the diversity approached by the teachers as a resource, or rather as a barrier?
- What are the specific needs and problems the teachers face?
- What is the level of social cohesion among pupils in observed classrooms?
- What is the level of ICT competences of the pupils?
- What is the level of intercultural awareness and competences negotiated on everyday basis in the classroom by pupils?

#### 6.4.2.1 Characteristics of the research participants: school contexts, teachers, classes and children

##### School 1

#### **Characteristic of the school/classrooms regarding educational programme, alternative educational approaches and methods and multilingualism**

The school cooperates intensively with the Faculty of Education and it takes part in different educational projects. Also, it has adopted the Dalton plan<sup>31</sup> which some of interested teachers apply in classes they teach. However, none of the teachers involved in the ISOTIS project applied this programme on a regular basis. According to the school web page, projects they are involved in are organised in the form of excursions, school trips, cultural-education programmes and thematic projects (Day of World Religions, Healthy Lifestyle Day, English Week etc.). Relevant to the ISOTIS WP4 VLE focus, the school is involved in several projects:

- Czech and Brno emigration and exile between 1914-1989 (the aim of the project is to bring the topic of 20th century emigration closer to students. Pupils should make sense of concepts such as justice, honour, heroism and they should also be able to differentiate between democratic and authoritarian regimes, nazi and communist regimes).
- We assist success at schools (the aim is to support teachers in individual communication with pupils and to develop the skills needed to recognise children's individual and special needs).
- On the way to innovative school (the project supports teachers' mobility and opportunity to visit methodical courses abroad and courses focusing on the CLIL educational method).

Our teachers tried to embed inter-curricula topics to the prescribed curricula if they had enough time and when they felt it is needed or potentially interesting to children. Unfortunately, they admitted that the time constraints are tight. They did have much to teach and had not enough space to vary the contents or to spend more time with a particular topic (such as multicultural education, environmental education etc.). For instance, the teacher Černý tried to add some activities to prescribed topics (one of the examples he provided was discussing neighbouring states and matching flags to them when they were studying about the Czech Republic). It was also teacher Černý who showed us a children's book he wanted to use in his class. The book was issued by a Czech human rights NGOs and captured topics of global justice. At the end of the academic year he also assigned projects to students. They were free to choose a topic (in his previous class an Iranian girl prepared a poster about Iran which she had not spoken about before). Both teachers as novice teachers were eager to learn new things and to potentially include new topics and methods into education.

<sup>31</sup> See <https://daltoninternational.org/dalton-education/>

When it comes to support of languages, none of our teachers conducted specific activities focusing on support of multilingualism. Except for the English language which is compulsory at elementary schools, they did not teach other languages. Neither they did anything particular with languages children speak at home. Children at this school speak Czech. Czech is the instruction language and all children are required to use it. During observation and activities, we have not heard other language than Czech. Regarding the languages children speak with each other, in the focus group interview conducted within the Children study a boy with Ukrainian background admitted he used to talk to his Moldovan classmate in Russian language as it was easier to them. They were able to express themselves better. According to teachers' knowledge, only children with one or both parents of non-Czech origin spoke their mother tongue at home. However, none of them was certain they really do. According to one teacher, a girl with Vietnamese background spoke Czech at home because parents wanted to practice Czech (even though both come from Vietnam). When it comes to the Roma children at School 1, teachers did not have any information about the language they speak at home. They inferred children spoke Czech with their parents. Even though teachers involved in our activities were active and willing to include VLE activities and topics into their teaching plan.

### **Characteristic of the classrooms regarding social climate**

The teachers expressed willingness and shared some experiences with trying to solve tensions between pupils. They usually talked to the children; if needed they talked to parents; they discussed particular steps with the school psychologist or with older teachers/director. When facing troubles with a girl with Iranian background, one of the teachers asked for help one of the parents who works as a social worker.

### **Characteristic of the classrooms regarding the usage of ICT**

Teachers could take part in different trainings and workshops if interested. Most of the classrooms were equipped with multimedia projectors. One of our teachers (3.B), however, did not have one in his classroom. He had a computer at his disposal but not an interactive board as the second teacher (3.C) does, however later in spring 2019, also the teacher Procházka's classroom was equipped with interactive board. Both teachers used the computer/board mainly to show pictures (for example as an inspiration for the creative class) and to listen to music (in the music class to show examples of different musical instruments or to listen to a pop song children like to sing). Teachers usually communicated online with parents through their edukit tool. However, as some parents did not respond to online messages, teachers usually send information written in children's notepads.

## School 2

### **Characteristic of the school/classrooms regarding educational programme, alternative educational approaches and methods and multilingualism**

The school participates in different projects aiming at inclusion and diversity. It also cooperates with the Faculty of Education at Jan Evangelista Purkyně University in Ústí nad Labem.

The School 2 is involved in following educational projects:

- Integra jam (by Faculty of Education University of J. E. Purkyně in Ústí nad Labem) – workshops (arts and music).
- Multi-ethnic music festival, which supports the integration of foreigners in the Czech Republic.
- Programs implemented by the PPI Community Multicultural Center in Ústí nad Labem (services for immigrants and asylum seekers).
- Programs implemented by “Romanojasnica” (for example: “Různobarevný festival” – Multicolored festival – dance ensemble)
- “Rodina od vedle” - the project has proved to be an effective and extraordinary tool for integrating foreigners into society. It helps to improve relations between the majority society and foreigners, to build a multicultural society and to understand different cultures.
- Colourful planet (Barevná planeta) - Ethno-ethnics, workshops, exotic food and especially music from all over the world. Multi-ethnic music festival, which supports the integration of foreigners in the Czech Republic.
- The Education for Competitiveness Operational Program supported by the Ministry of Education.
- School for All: Inclusion as a way to effectively educate all pupils supported by the Ministry of Education.

With the exception of English language which is part of the compulsory curriculum, teachers at this school did not realize any specific activities focused on the support of multilingualism.

### **Characteristic of the classrooms regarding the usage of ICT**

There was a board in one of the classrooms, which was not an interactive one though. Despite that, pupils could write on it with markers and teacher could screen pictures on it. There was one interactive board in another classroom.

## School 3

### **Characteristic of the school/classrooms regarding educational programme, alternative educational approaches and methods and multilingualism**

The school participates in different projects aiming at inclusion and diversity. Relevant to the ISOTIS WP4 VLE focus, the school is involved in several projects:

- Model of community and inclusive education for elementary schools (project focusing on equal opportunities for pupils with special needs).
- Systemic support of inclusive education in the Czech Republic.

Children at School 3 spoke Czech as Czech was the instruction language and the children are required to use it. During observations and activities, we have not heard other language than Czech. However, we did not do exploratory observations at this school where many children speak Roma among their peers. Despite that, even at this School was the Czech language the most prevailing. However, at this school a significant number of children spoke Romani and its various dialects at home. Teachers admitted they have even learnt some Romani words and phrases. They listened to Romani artists during classes, for instance. They tried to include some multilingual topics to the curriculum. The class teacher of the class 4.B cooperated with a teacher assistant of Roma background. He helped her with the communication/cooperation with Roma parents. The teaching assistant helped us with the preparation of some activities concerning Roma language. Teachers communicated with parents on a regular basis, at least four times in a year. The main channel were the regular parents' meetings during which teachers update parents about main issues and past and forthcoming events. Parents could also come to discuss their children's progress or problems. Teachers at this school used also communication through social workers who go directly to families.

### **Characteristic of the classrooms regarding the usage of ICT**

The teacher of 4.B did not have an interactive board in her classroom. She had a computer classroom at her disposal, however there were not enough PCs for all 4.B children. She had rather limited ICT competences as she self-reported. The other teacher (young assisting teacher in the 5th grade) worked also in the school library where they had computers too. She used computers with some of the students during activities they did.

#### **6.4.2.2 Highlights**

We here summarize some key points we identified during the in-depth exploration of the school settings that helped in focusing, in collaboration with the teachers involved in the research, the main goals and research questions.

- Personnel we have met at all schools during the activities and during the negotiation of our presence at schools, appeared to be very inviting and positively motivated for our activities. The school directors and the vice director we communicated with contacted us with open and active teachers, some of them at the beginning of their teaching careers. In general, school representatives depict their schools as inclusive and open to innovations.
- Even though multilingual children and children with non-Czech background do attend our schools, multilingualism is not a resonant topic (mainly at Schools 1 and 2). At the beginning, teachers have not thought about multilingualism in their classrooms, they have even admitted



it was not an issue they would have been reflecting. However, during our presence at schools and during our conversations they admitted they started to be more sensitive to it. They also found out about languages pupils in their classrooms speak.

- The multilingualism topic was more reflected at the segregated school (School 3) where teachers (also non-Roma) do realize children at school speak Romani language and its different dialects. Teachers here were interested in topics and activities focusing at multilingualism.
- At School 2, teachers faced struggles to develop multilingualism in their classrooms as Roma children attending these classrooms speak mainly Czech and if the Romani language is present in their lives it has the form of an ethnolect. Thus, the teachers did not see much reason to develop the topic of multilingualism, especially in relation to the Roma children.
- Among the needs teachers articulated we identified:
  - The children do not have any IT subject in their curriculum until fifth grade. Therefore, they can barely work with computers and tablets. Furthermore, they often do not have such devices at home either (School 3) or their parents do not allow them to use them (School 1).
  - Teachers would need more offline activities (see the previous point).
  - Teachers would prefer simple activities that children can comprehend. Also, it would keep their attention better (during longer activities children were losing focus).
  - They would also need a good ratio between more concrete activities (for example matching celebrities with their bio) and abstract activities (for example matching body parts with different languages they speak). Some teachers were skeptical about comprehension of activities requiring more abstract expression. On the other hand, for the other teacher abstract activities sounded more interesting and doable in the context of her classroom (according to her, children in her class are creative and they are better in expressing more abstract ideas and addressing them creatively).

In light of the previous considerations, we decide to focus mainly on the following goals:

- raise children's cultural and multilingual awareness through discussion, reflection and interactive and digital activities
- raise teachers' competences to deal with cultural and social diversity in their classrooms
- support the use of activities aiming at language and cultural competences
- raise teachers' reflectivity in areas of potentially asymmetrical power relations among dominant and minority groups.

## 6.5 PART III - CO-DESIGN AND IMPLEMENTATION PHASE - going into practice

### 6.5.1 The co-design phase

The co-designing phase was launched in spring 2018 when we started to design activities relevant for the Czech context with emphasis put on multilingualism within the WP4.4 VLE working group. At all of three involved schools in the Czech Republic, the main co-designing phase with teachers started in December 2018.

#### 6.5.1.1 Overview of the meetings dedicated to the co-design of the activities:

Firstly, the proposals of several activities aimed on supporting multilingualism in classroom environment were shared with the teachers who were asked for their feedback and first impressions regarding relevance of the activities for their classrooms. Secondly, meetings at all schools were held to present the still evolving demo version of the VLE webpage to teachers and ask them for their feedback. Thirdly, the credentials to the demo teachers' VLE account were shared with them and they were asked to explore the VLE structure and contents/resources by themselves. Another round of meetings at each school followed to ask teachers for their feedback and possible modifications of the proposed activities. However, in the table below, we include only the period between January and June 2019 where we focused exclusively on the VLE activities (without further overlap with WP 2.5 Children Study).

Table 6.1 - Number of visits in three schools during individual phases in 2019

School	Period	Number of visits (co-design discussion)	Number of visits (conducting activity/ observation)	Number of visits (activity evaluation + final evaluation)	Total number of hours
School 1	February-June 2019	4	4	5	20
School 2	February-June 2019	2	2	1	14
School 3	January-June 2019	4	2	1	13

Table 6.2 - Number and specificities of individual phases at the three schools

School	Phase	N. visits	Comment
School	Co-design	4	The two teachers of both classrooms were present at all meetings.

<b>1</b>			<p>The first meeting focused on presentation of the overall aim of the VLE focus (multilingualism and awareness increase), presentation of the inventory of potentially useful activities prepared by the ISOTIS team, and the discussion of potentially useful activities with regard to the individual class contexts.</p> <p>One visit focused on the presentation of the VLE platform as such, introduction to its functionalities.</p> <p>We organized two meetings in order to discuss, give feedback and to prepare the two main activities teachers planned for their classrooms (languages in the family, multilingual celebrities).</p>
	Implementation	4	<p>In both classrooms we observed teachers conducting three main activities (languages in the family, languages in the classroom, multilingual celebrities). During the first visit they conducted the first two; during the second visit they conducted the third one.</p>
	Evaluation	5	<p>After each activity in each classroom we made evaluation based on the scenario - we evaluated the content, children's interest and involvement, impacts, VLE usability, potential improvements to activities.</p> <p>We held one final evaluation meeting with both teachers. We followed the prepared interview scenario and the questionnaire to evaluate the VLE platform usability and experiences of the teachers.</p>
<b>School 2</b>	Co-design	2	<p>During the two meetings the two teachers were present with their assistants (two assistants from class 5.B and one from class 4.A). We were also connected via phone and email (but only with the two head teachers).</p> <p>The first two meetings focused on presentation of the overall aim of the VLE focus (multilingualism and awareness increase), presentation of the inventory of potentially useful activities prepared by the ISOTIS team, and discussion of potentially useful activities with regard to the individual class contexts.</p> <p>We did not organise the last meeting to discuss, give feedback and prepare for the activities the teachers prepared for their classrooms. Everything was discussed by phone and email.</p>
	Implementation	2	<p>We observed the teachers and their assistants conducting their activities. In classroom 5.B also the English teacher was present, on the first day we observed two activities and another two the second day. In class 4.A the teacher conducted two activities the first day and three activities during the second one.</p>
	Evaluation	1	<p>We held one final evaluation meeting with the two teachers. We followed the prepared interview scenario and the questionnaire to evaluate the VLE platform usability and experiences of the teachers</p>
<b>School 3</b>	Co-design	4	<p>During the first three meetings the three teachers were present (the head teacher of the 5.A, her assistant and the head teacher of the 4.A). We held the last co-design meeting only with the teacher of the 4.A where the activities were conducted.</p> <p>The first two meeting focused on the presentation of the overall aim of the VLE focus (multilingualism and awareness increase), presentation of the inventory of potentially useful activities prepared by the ISOTIS team, and the discussion of potentially useful activities with regard to the individual class contexts.</p> <p>The third visit focused on the presentation of the VLE platform as such, introduction to its functionalities.</p> <p>During the last codesign meeting we discussed, gave feedback and prepared for the activities the teacher planned for her classroom.</p>
	Implementation	2	<p>During two days we observed the teacher and the teacher assistant conducting four main activities (languages in the family, languages in the classroom, the matching game and multilingual celebrities). During the first visit they conducted the first three; during the second visit they conducted the fourth one.</p>
	Evaluation	1	<p>Due to the challenges with the privacy policy dealings at the ISOTIS and Masaryk University level, we conducted only one longer evaluation visit. We merged the final evaluation of the VLE platform usability with the discussions about the content of activities, children's interest, impact and potential changes to activities for the future</p>

## Methods of co-designing

The participants involved in the co-design process were almost exclusively the researchers and teachers.

The co-designing occurred in form of:

- presentation of variety of activities,
- discussions about their contents and forms
- discussion about their usability in the context of the classroom
- individual preparation of drafts and final versions of activities (teachers did it individually (Schools 2 and 3, or together (School 1)).

Feedback from children was collected in form of class discussions (teacher asking, children responding).

Feedback from teachers was collected in the form of:

- discussions during the co-designing
- after activity interviews following the teacher's diary structure
- final interview
- questionnaire.

To our knowledge, during the co-design phase the teachers did not discuss the VLE activities with the children. Children had a rather passive role in the overall co-design of single activities. Though, they played an active role in preparing for the activity itself (finding out about languages at home, coming up with their nicknames, painting their faces, drawing the pictures for the matching game, coming up with names of well-known persons they know or look up to).

Parents did not have an active role in the co-design of the activities. They had their role in providing information about the languages in the family; also, they could refuse participation of their child.

### 6.5.1.2 Challenges in the co-design phase according to professionals

**School 3.** We received the most fruitful feedback at the School 3 in Brno. In this regard, our interpretation was that teachers with majority background at this particular school represent the minority within the whole school context and thus are possibly more sensitive to issues related to diversity. They are well informed about the presence of different dialects of Roma language in the classrooms as well as about the negotiations many pupils undergo in relation to their ethnic and language identities. Teachers immediately linked the proposed activities with “centres of activities”, the group tasks they are used to organize in their teaching on a regular basis. These teachers were very positive regarding the attractiveness of the digital activities for their pupils (e.g., they thought that their pupils would like the voice synthesizer or multilingual keyboard), however, they were more sceptical regarding their digital competences - e.g. the teachers

mentioned that even the pupils in the 5th grade were really slow at typing anything on the keyboard. During our second meeting after they could have explored the platform by themselves, they found the structure of the VLE platform very complicated. Therefore, they suggested to create a separate group in My Space with direct links to activities in one place.

Teachers also found the structure of the VLE over-structured and the contents (explanations of concepts) too difficult to comprehend. According to them, in general they found it difficult to read the texts.

In relation to the videos placed on the VLE which were at that time only in English with English subtitles, they objected that their pupils would not be able to read the subtitles quickly (even if translated to the Czech language). Teachers opted for inviting the children to work divided into groups (not individually), e.g. 6 pupils per group could work with one tablet together as this could be more easily organized. They rejected any suggestions encompassing more complicated tasks (such as filling a table digitally) and tried to develop easily manageable alternatives while taking their pupils into account.

Teacher Nováková faced difficulties with most of the VLE content being in English on this stage (the Czech team translated only the activities related to multilingualism so far). She felt relieved when she found out that there was google translator function embedded in the VLE. Curriculum-wised, the teachers faced troubles when trying to link the proposed activities with the fourth grade curriculum as this does not encompass the topics related to multiculturalism in the respective subject.

At **School 1**, the teachers seemed to be not so enthusiastic while giving us their first feedback to the proposed activities. In general, although they liked some of them, they did not see such a big value in addressing the topic of multilingualism in their classrooms. One of the reasons we identified could be that they overlooked Roma language in the lives of their Roma pupils (see the previous section on the findings) and in one of the involved classrooms the ethnically minor pupils were rather shy regarding the performance of their ethnic identities. Instead of hearing Vietnamese or Moldovan languages in the daily lives of these classrooms the majority Czech language prevailed. The only explicitly positive thing about the proposed activities mentioned by teacher Procházka was his statement that thanks to these activities he could find out more about some of his pupils' language background (e.g., some of them have relatives in Slovakia and he did not know that).

Class teacher Černý was reflective about the silence which was typical when the ethnically minor pupils had the opportunity to talk about the country of their origin, their cultural habits or language.

During our first meeting the teachers agreed on the elaboration of some activities focused on multilingualism, however they were also attracted by other topical sections from the VLE which are more in line with global or multicultural education. Possibly, they looked for deeper interconnections with the Children's study activities (see report D2.4) we have conducted in their

classrooms during autumn 2018 and multilingualism seemed to be too specific for them. Teacher Černý brought a proposal of activity to our meeting which was concerned more with the global justice and multicultural education than multilingualism.

**At School 2**, in general, the teachers did not perceive their pupils as bilingual although there are many Roma pupils who use ethnolect in their families (a mixture of Czech and Roma languages). Most of them know only phrases and words in Romani, however their active competence in Romani language is rather limited. Besides the Roma, there is one pupil coming from Slovakia and one girl coming from Vietnam who used to attend this classroom but left. The proposed activities were thus adapted for the hypothetical future usage - e.g., which languages the pupils want to learn. Despite the fact that teachers perceived their classrooms as rather monolingual, they invited the opportunity to deal with these topics and develop pupils' competences in multilingualism as these are very positive for their future life. The teachers also found these topics attractive for their pupils. They liked the video based on Pablo's story used as incentive to observation and reflection on "My mother tongue doesn't matter". They also liked the activity focused on the language biographies of celebrities - this activity was developed in collaboration with the teachers at School 3 and we presented it also to teachers from the other schools. They also appreciated the activities focused on languages comparisons and "Multimedia intercultural calendar."

### 6.5.1.3 Overview of the activities co-designed

The Table below illustrates the list of activities implemented within each school setting, while a detailed description is provided in the ANNEX 1 and in the next paragraphs.

Table 6.3 - Overview of the activities co-design

School	Inspiration for activity		Activity adaptation
School 1	Tree of languages <a href="https://vle.isotis.org/mod/hvp/view.php?id=1234">https://vle.isotis.org/mod/hvp/view.php?id=1234</a>	→	Faces with bubbles
	Multilingual celebrities <a href="https://vle.isotis.org/mod/hvp/view.php?id=3437">https://vle.isotis.org/mod/hvp/view.php?id=3437</a>	→	Czech multilingual celebrities
School 2	Tree of languages classroom	→	Languages in our Portrait of my friend The poster

	Multilingual celebrities	→	Czech multilingual celebrities
School 3	Tree of languages <a href="https://vle.isotis.org/mod/hvp/view.php?id=3575">https://vle.isotis.org/mod/hvp/view.php?id=3575</a>	→	Language feathers
	Multilingual celebrities (accent on celebrities with Romani background) <a href="https://vle.isotis.org/mod/hvp/view.php?id=2635">https://vle.isotis.org/mod/hvp/view.php?id=2635</a>	→	Czech multilingual celebrities
	Matching game <a href="https://vle.isotis.org/mod/hvp/view.php?id=3445">https://vle.isotis.org/mod/hvp/view.php?id=3445</a>	→	Roma-Czech handmade MG Language crosswords

#### 6.5.1.4 Overview of the meetings dedicated to the implementation of the activities

Table 6.4 - Overview of the meetings dedicated to the implementation of the activities

School	Implementation period	Number of visits	Number of hours
School 1	March - April 2019	4	7
School 2	April 2019	2	8
School 3	June 2019	2	5

#### 6.5.1.5 Roles and methods

During the implementation phase, the teachers and children had the main active roles.

- *Teachers* prepared and conducted the activities and lead the discussions. In the class 3.B, partially 3.C (School 1), 4.A and 5.B (School 2) and 4.A (School 3), assistants were present during the activities.
- *Children* were those who were working on tasks (individually or in groups). Also, they were answering teachers' questions and discussing multilingualism and related topics.
- *Researchers* were more “neutral” during the implementation, observing and writing field notes. The only active part they assisted with was the work with VLE (creating accounts for pupils, demonstrating functionalities, filling in the languages in the Languages in my classroom chart).

Challenges in the implementation phase with professionals/children

- Due to the problems with consent forms, at the Schools 1 and 2 we had only limited options of how to engage children in the VLE use as they could not actually use the platform themselves.

- In all the classes involved, some children did not ask about the languages at home, so they were just guessing during the class activity or they presented only themselves and their closest relatives.
- Some children had limited skills in using ICT, so they needed assistance during the online part of the implementation.
- One of the teachers had limited skills in using ICT. She did not use it herself. However, she got support from the researchers and from the assistant.
- The insufficient digital technologies equipment at the schools (broken computers, missing interactive boards, low number of available working tablets etc.) required to adjust and reduce the use of the VLE.

#### 6.5.1.6 Documentation

The researchers took field notes during the implementation phase, taking pictures of children outcomes. The researcher also collected teachers' feedback after each activity, final qualitative and quantitative questionnaire. They made audio recordings and notes.

### 6.5.2 The Implemented activities and the description of experience in the classrooms

#### 6.5.2.1 The flow of the experience

In each classroom we followed a similar procedure of steps. Though some local specificities, the flow of the experience proposed in each school and class involved in the research encompassed similar activities and followed similar steps. The steps are described in detail in the templates of activities. Activity templates are available in Appendix at the end of the document.

#### 6.5.2.2 SCHOOL 1: Classrooms 3. B and 3.C

##### Activity 1 - Faces and bubbles + Languages in my classroom

The activity is an adaptation of the “Tree of languages” proposed in the inventory

(<https://vle.isotis.org/mod/hvp/view.php?id=1234>)

The activity started by preparing the list of languages spoken at home by each pupil. While the teacher in 3.B managed to set the activity in the context of the ISOTIS project properly (e.g., he asked what does the term “multilingualism” mean for the children, how were the other already conducted activities in the classroom related to this phenomenon), the teacher of 3.C faced some difficulties explaining the context of the activity. He started immediately asking children if they did their homework and asked their parents about languages spoken in the family. Teachers in both





## Activity 2 - Czech multilingual celebrities

The activity started with the teacher dividing children into smaller groups (3-4 members). He prepared the list of individual groups and celebrities in advance. He assigned each group one pre-prepared celebrity. As these were the celebrities prepared mainly by the researchers, it seemed some pupils did not know all of the personas. However, as it was a group activity, they explained to each other or they googled them online.

Children were asked to search for particular information about these persons online. They welcomed working with the tablet very much. However, they used it not exclusively to work on the task, and so, the fact they could work with the tablet or the computer distracted some of them from the work. Also, they found particular information about the celebrities that distracted them from the task too, thus prolonging the implementation of activity.

When the reflection session was organized, children were asked to sit in circle, present the celebrities and discuss the information they searched for. Before the reflection, they matched the photos of the celebrities with the correct bios on the VLE.

The teachers had prepared many questions regarding multilingualism, use of languages, multilingual celebrities, how a person can become multilingual, what might be the advantages etc. Children seemed to be engaged and except for some individuals, they participated actively.



<https://vle.isotis.org/mod/hvp/view.php?id=3437>

### Adaptations suggested

The teachers were inspired by the activity “Tree of languages” from the inventory we presented to the teachers. They suggested to adapt this activity as follows:

- instead of a tree, children would get three types of faces (themselves, family, friends) and bubbles in which they would fill in languages these three groups speak (see the picture below).

- children would ask at home about languages their family members speak
- in class they would fill in the bubbles and count languages in the classroom
- the teachers would insert languages spoken in the classroom into the VLE platform.

### 6.5.2.3 SCHOOL 2: Classroom 5.B

#### Activity 1 - Languages in our classroom

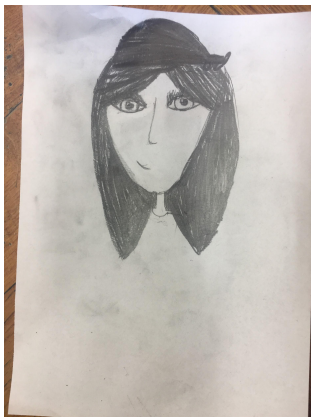
The teacher started this activity on a carpet in the back of the classroom. She asked the children several questions, for example “How many languages do you speak?”, “Which languages do we learn at school?”

She invited two guests to join this activity. One of them was an English teacher, who came from Belarus. The other one was an assistant from Ukraine. They were talking about their countries, about traveling to the Czech Republic and about the differences from the life in their countries.

The children could ask them questions at any time. They seemed to enjoy their presence and they were all really curious. One of them wanted the two people to talk in Russian and all the children were guessing what they were talking about.

#### Activity 2 - Portrait of my friend

The children were asked to draw a picture of their friends who were not in their classroom anymore. Each of them could choose only one friend (the one they missed the most). Most of them drew a picture of Jitka, a girl from Vietnam. They got a paper with questions (see the Appendix) about the pictures and were asked to write the answers. Then they talked about it. Most of the children did not want to do this activity because they did not like to draw.



### Activity 3 - The poster

The teacher showed the children a short ISOTIS video about Pablo32, a boy who comes to a country whose language he does not know. She asked them about some words used in the video - for example, what “flexible” and “bilingual” means. Then she divided the children into small groups and the groups were asked to make a poster promoting learning of languages.

Some of the children did not want to join the groups and they could work individually. Most of them really enjoyed this activity because they could use their phones to find some information and pictures.



### Activity 4 - Czech multilingual celebrities

The teacher showed three pictures of celebrities to the children - Jan Amos Komenský, Karel Čapek and Karel IV. Then she asked them to match the pictures with the information on the papers she gave them. The information were about languages the celebrities spoke, their abroad journeys, meetings, relationships etc. The children could choose one of the celebrities to work with. They could find some information on tablets about the celebrities and rewrite them on a big paper. Most of the pupils liked the activity. At the end of the activity, the teacher facilitated discussion and reflection with the children.

#### 6.5.2.4 SCHOOL 2: Classroom 4.A

### Activity 1 - People around us

The teachers brought a guest to the classroom - an assistant from the other class coming from Russia, but living in the Czech Republic for twenty years. Before giving the floor to her, she asked some questions. What comes to children’s minds when they hear the word “language” (“jazyk” in Czech, the word also means “tongue”). Various answers came - language as a means of

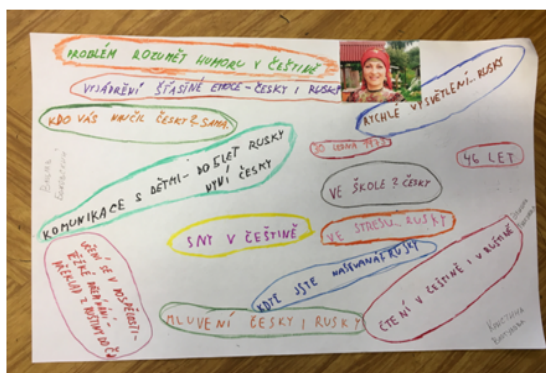
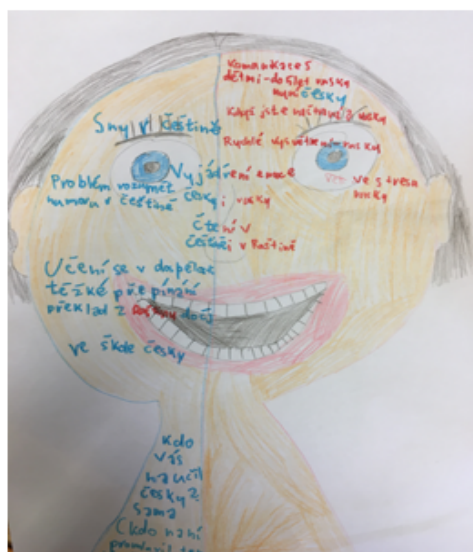
<sup>32</sup> See <https://www.youtube.com/watch?v=X3M6VUVeGBI>

communication, tongue in your mouth, in a boot, Czech language. Another question was directed to mother tongue. Children mentioned communication, expression of feelings, greetings, describing activities, addressing people, meeting or reading.

Afterwards, the teacher showed a video in which children saw a boy who could speak two languages (the Pablo video available online)<sup>33</sup>. The pupils were supposed to discuss why it was necessary for him to speak two languages and whether it is an advantage or a disadvantage.

In the second half, the guest spoke. She had prepared a presentation about herself, her country of origin and she talked about what her experience was with moving to a foreign country. After the presentation, children had the opportunity to ask any questions they had. They were mostly interested in why she wanted to come to the Czech Republic, how she learned the Czech language, whether she did not want to return to Russia or when she used Russian.

At the end the pupils created some artwork about the assistant and about Russia.



## Activity 2 - Celebrities

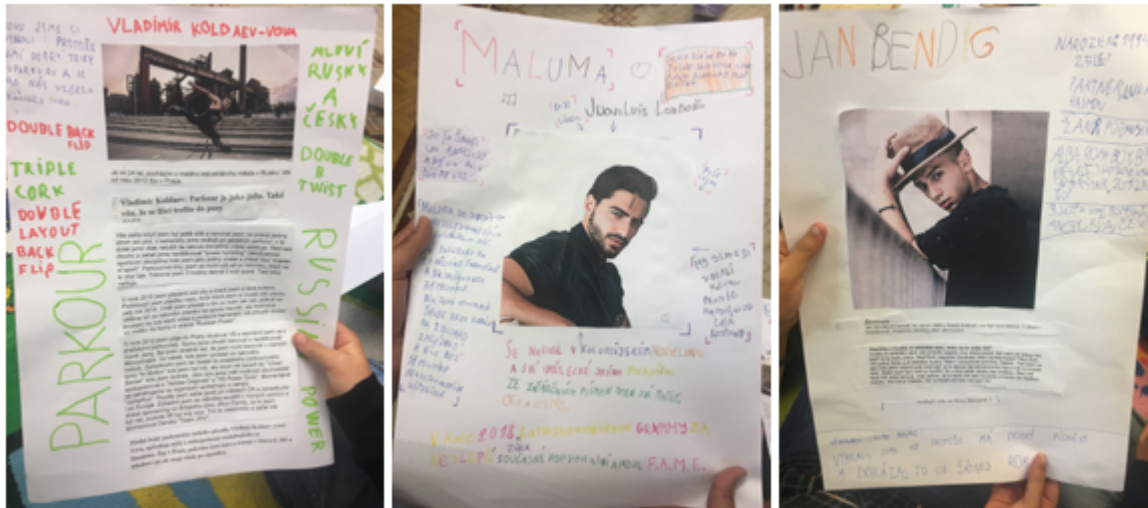
Firstly, in another lesson, pupils were asked to come up with names of celebrities they look up to. When the pupils entered the classroom, they saw photographs of celebrities on the noticeboard that they had pre-selected themselves and who could speak more languages in their opinion. The teacher gathered the children in a circle on the carpet and asked them who is a celebrity or how a celebrity should behave according to them. When listing celebrities, children mentioned singers, youtubers and sportspeople.

The main task, afterwards, was to create a profile of a celebrity based on the information distributed by the teacher. The pupils were divided in groups according to the celebrity chosen by

<sup>33</sup> See <https://www.youtube.com/watch?v=X3M6VUVeGBI>

the children. In case they needed more information, they could use a tablet or smartphones for further search. At the end, children were surprised how much they learned about their favourite celebrities and they would walk around and look at the profiles created by others.

The children evaluated the activity positively. Since the beginning it was successful as children could choose the celebrities themselves.



<https://vle.isotis.org/mod/page/view.php?id=2169>

### Activity 3 - Languages in the world

In connection to the topic of multilingualism and its benefits, a third activity was proposed to children. At the beginning, the pupils were supposed to remember the first activity about languages and why it is beneficial to know more than one language. The teacher asked the children what language they wanted to learn. She got different answers, they wanted to visit the country where particular languages are spoken; wanted to be able to communicate with relatives living abroad, wanted to visit family in England; or go to Vietnam to talk child's father.

The pupils had two tasks in this activity. Firstly, they were supposed to find out which countries speak the language they want to learn, find them on the map and colour them. The second task was to create a dummy for themselves and place it where they would like to travel. This activity was the most difficult one, as they needed to work a lot with maps and searching online for languages spoken in the country. However, children learned many things. For example that one language is spoken in more countries or that not all languages of the world are spoken in Europe.



### Adaptations suggested

One of the essential suggestions was to involve people with migration or multilingual experiences into the class activities. Their presence could assume the format of Living Libraries or just discussions with the class.

#### 6.5.2.5 SCHOOL 3: Classroom 4.A

##### Activity 1 - Feathers and languages + Languages in my classroom

The teacher started to prepare the activity before the researchers came to the classroom. They had painted faces prepared already, feathers were already cut out of paper and children had their tribal nicknames prepared too.

Children seemed to enjoy the activity. They got the context of the activity explained prior to implementation, they were ready to answer the teacher's questions about multilingualism.

The teacher asked them to take their pre-prepared faces and work individually on their assignment. The children were asked to find out about languages their closest family relatives spoke and write them to the individual feathers, later glued to the painted head.

According to the teacher, except for the fact that some children were lying about languages to look better, the activity flow was smooth. Interestingly children lied to look 'cooler' declaring to speak more languages than they truly did.

<https://vle.isotis.org/mod/hvp/view.php?id=3575>

## Activity 2 - Czech multilingual celebrities + Languages crosswords

The teacher decided to choose the same set of celebrities as the teachers in the School 1.34. According to her, celebrities in this set fitted better to children's interests.



The teacher had prepared the activity in advance (she printed out the personas pictures, printed out the sheet with information and questions, prepared the crosswords and divided the class into “tribes” - smaller groups).

Children were assigned one of the celebrities. Even though each child had his/her own sheet, they were working in groups as 3-4 had to read about the same person. They were asked to read the information and fill in the sheet answering the questions about the celebrity (f.e. what languages he/she speaks, where is he/she from, how the flag of the country looks like). They could work with atlas to find the countries where individual languages are spoken and to see the countries' flag.

When the sheet was filled in and the flag coloured, they were asked to cross different languages in the crosswords.

<sup>34</sup> In the co-design phase, together with the 5.A (School 3) teachers, the researchers prepared two sets of celebrities, both fitting to the classes ethnic and age contexts. In the School 3, most of the children had a Romani background. So, one of the sets consisted primarily of Roma celebrities who the children from 5.A indicated to know. Even though the 4.A class (School 3) consisted almost exclusively of pupils with Romani background, the teacher found most useful the other set of celebrities because it would fit better to interests in her class (i.e. 'they are interested in sports or listen to singers from the previous set').



**Monika Bagárová** – Rozmazlené štěňátko

Datum narození - 5. 7. 19  
Místo narození - Brno  
Výška - 168 cm


Zpěvačka pochází z Brna, z otcovy strany má maďarský a romský původ. Má ráda romskou kulturu a jazyk a romsky částečně rozumí, ale nemluví. V roce 2009 byla finalistkou soutěže Česko-Slovenská Superstar, kde skončila pátá. Několik let žila v Americe, mluví česky a anglicky.

1) Co o této celebritě víš? JE SPĚVAČKA A JE ROMKA

2) Čím se proslavila? SPĚVEM

3) Kolikta mluví jazyky a jakými? MLUVÍ DVĚMA JAZYKY (MAĎARSKÝ A ROMSKÝ) ČESKY A ANGLICKY

4) Zakresli vlnku státní, kde se mluví touto řečí.



5) Dokážeš přeložit dané slovo do jazyku, kterým mluví Tvoje celebrita?  
Lew-BDS Zpěvák - SIMĚD Svět - LVMA  
Hodba - GILA Zna - ROMJ

6) Zkus si svoji celebritu nakreslit.

**Jan Bendig** – Zlatá kočička

Datum narození - 1994  
Místo narození - Hradec Králové


Od dětství se věnoval zpěvu v pěveckém sboru Honu paní a poté v sboru Gypsy Brothers. Především se věnuje v soutěži Česko-Slovenská Superstar, kde se v roce 2009 se umístil na 4. místě. Od té doby se věnuje sólově kariéře, zpívá česky, romsky a anglicky.

1) Co o této celebritě víš? UMÍ SPĚVAT ALE JE CIGAN O DĚD

2) Čím se proslavila? (spěvák) sborové zpěvy ale si spou

3) Kolikta mluví jazyky a jakými? 3 česky romsky anglicky

4) Zakresli vlnku státní, kde se mluví touto řečí.



5) Dokážeš přeložit dané slovo do jazyku, kterým mluví Tvoje celebrita?  
Zpěvák - LA VUTRAIS Svět - LVMA  
Hodba - GILA Muz - MURŠ

6) Zkus si svoji celebritu nakreslit.

Afterwards, the class moved to the interactive classroom where one of each group presented the celebrity and matched the picture with the text online in the VLE.

<https://vle.isotis.org/mod/hvp/view.php?id=3566>

### Activity 3 - The Roma-Czech matching game

In March 2019, during the co-design phase we asked teachers in School 3 to come up with common words/items that would be part of the matching-game. In the end, to teachers request, together with pupils they came up with around 10 words that were said and written the same in all (or most of) Romani dialects (to prevent conflicts in classes between children who spoke different Roma ethnolects).

After choosing the words, the Roma speaking assistant controlled the translations and children drew these items. Afterwards, the researchers had digitized these drawings, translations and uploaded them into the VLE platform, creating the matching game.

The fact that children painted the pictures themselves made the activity very attractive. Children were happy and proud to see their pictures online in a matching game. As not all of them used computers at home, the game was one of the activities they found the most special in the evaluation. They wanted to play it in the interactive classroom several times in a row.

<https://vle.isotis.org/mod/hvp/view.php?id=3562>

### Adaptations suggested

In general, the teachers evaluated the activities inventory positively.

- The teachers found interesting the “Celebrities” activity. According to them, children listen to music and they look up to various popular personalities (including the Roma). Teachers asked

pupils about celebrities they currently like. Researchers found some information about these personalities, prepared a brief bio and created a matching game (drag&drop) in the VLE where children matched photos and bios. After they could discuss the role of languages.

- The teachers also liked the pexeso activity (in the section Multilingualism in families). They suggested to consult words that would be the same for all Roma children in the classroom (problem is that in different Roma dialects/ethnolects some words are said differently and it might cause tensions). After identifying these words, the assistant helped with translation. Researchers then prepared the pairing activity in the VLE.
- The teachers suggested to elaborate also on the activity of Animal sounds. They were surprised animals are represented differently in different languages. According to them, it would be interesting also to children.
- Teacher in one of the classrooms would like to adapt the activity “Body of languages”. According to the teacher, pupils in one of the classrooms were more skilled in expressing themselves in more abstract and creative way. In this regard she found interesting the activity in which they would express different languages they speak with different body parts (for example heart would express the Romani language, head the Czech language).
- However, the majority of these activities should be conducted in the offline mode as pupils in these two classrooms did not have much experience with digital technologies and it would take time and be complicated to children to write on a keyboard or make charters online.

## 6.6 PART IV - Monitoring system: documentation, data collection and evaluation

### 6.6.1 Overview of the procedures adopted for monitoring and evaluating the intervention

Table 6.5 - General overview of the monitoring procedures

General overview			
	Pre-Phase (exploratory phase, co-design)	During (Implementation phase)	Post phase
Teachers	<ul style="list-style-type: none"> <li>✓ Individual interviews and/or focus groups on pedagogical approach, multiculturalism and multilingualism, use of ICT etc.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Qualitative documentation of the process of co-designing and implementation into practices:               <ul style="list-style-type: none"> <li>- teachers' diary (in form of interviews after the activity)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>✓ Individual interviews: feedback on VLE (interface), activities,</li> </ul>

	<ul style="list-style-type: none"> <li>✓ Observations in classroom (School 1 and School 2).</li> <li>✓ Co-design meetings feedbacks on VLE interfaces, activities &amp; usability test.</li> <li>✓ Vignettes from WP5 questionnaire.</li> </ul>	<ul style="list-style-type: none"> <li>- observations and field notes,</li> <li>- short interviews/conversations (opinions, formative evaluation on activities, children participation, VLE interface and use...),</li> <li>- pictures of children's' outcomes</li> <li>✓ VLE: <ul style="list-style-type: none"> <li>- quantity and quality of use;</li> <li>- feedback on the interface</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>process of work.</li> <li>✓ Discussion in presence, activities and process of work</li> </ul>
<b>Children</b>	<ul style="list-style-type: none"> <li>✓ Classroom observations</li> <li>✓ Conversations during the day at school (spontaneous or elicited by teachers/researchers with open questions)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Group discussion after the implementation of each activity</li> <li>✓ Conversations (spontaneous or elicited by teachers/researchers with open questions)</li> <li>✓ Observations and field notes; pictures of children's outcomes;</li> <li>✓ VLE: observation on quality of use and reactions</li> </ul>	

**6.6.2 Analysis of the perceived experience and of the educational-formative impact in a short term**

**6.6.2.1 School 1**

**Themes, activities and participation/interest**

The researchers have identified development in teachers' attitudes towards the topic of multilingualism itself. At the beginning of the exploratory phase, they did not put too much emphasis on multiculturalism or multilingualism. It was not necessarily because they were not interested but, according to them, there was not enough time and space in the mandatory curriculum to dedicate more attention to subjects different from what the curriculum dictates. Nevertheless, at the end of the implementation phase, teachers evaluated positively the activities and topics, they seemed to be glad they knew their pupils better.

According to the teachers, activities:

- fit the class context

- made children interested, active and participating
- helped to enhance pupils' soft skills and critical thinking (group work, self-expression, formulation of opinions, articulating ideas and feelings, sharing, reading comprehension)
- helped to develop and practice teachers' skills (organizing group work, explaining contexts, organizing time/plan the activity)
- engaged teachers into discussion about the curriculum, formative evaluation, critical thinking, forms of evaluation and integrating multilingualism into other subjects within the curriculum
- helped teachers know pupils better

In general, children liked the activities. Even though they did not like few tasks (mostly cutting or drawing), they were participating actively.

They seemed to be enjoying work with computer and tablets.

Also, some of them enjoyed talking about themselves and their families (languages they speak). Almost in all cases, bilingual children (except for a girl with Canadian background) and children with ethnic or language minority background in the context of ethnically major classrooms (School 1) did not joined the discussions much. This could be caused by their shyness, or according to teacher Černý, by the pedagogical approach of the previous class teacher who did not support them in expressing their opinions. They did not want to talk about their families either.

### Teaching approach, practice and curriculum

Teaching approach did not change profoundly during such a brief period of time. Nevertheless, teachers at School 1 seemed to reflect much more the themes of multilingualism, its presence and potential importance in the class (mainly if there are bilingual children or children with minority background). However, they did not seem to be reflecting more on the presence of Romani children in the classroom. They still seemed to associate Roma children rather with their socio-economic background than the cultural and linguistic one. One of the reasons might be the fact that Roma children in these two classrooms did not mention they spoke Romani at all and they did not talk about their Roma background either. In the classrooms with significant proportion of ethnically minority pupils (especially School 3) teachers were used to reflect more upon the ethnic/cultural background of the pupils even before the project. Despite that, they welcomed the activities.

According to teachers, during the ISOTIS project they came to a new perspective on how to set and plan inter-curricular themes. Also, they would like to include these and similar activities into different subjects they teach. During the implementation, the intersectionality of activities was between subjects such as arts, civic education, reading comprehension but also mathematics. While within the “Languages in my classroom” activity there were intersections between languages, arts, and mathematics (pupils produced a chart), there were intersections between languages, arts and geography within the “Multilingual celebrities” activity. As an added value,

teachers also embedded inter-curricular themes such as multicultural education, multilingualism, or media education within these subjects.

### ICT Competence and enhanced learning environments

Even though each classroom was equipped with interactive board, teachers did not use it regularly on a daily basis. Its use depended much on the particular subject. They used it mainly in art class, music class or civic education - mostly for example when they wanted to show pupils pictures, examples or play a song.

There seemed to be a gap among children when it came to use ICT. Only a few children would take out the phone during the breaks. It was mainly one individual who was showing videos on the phone. Some children said their parents did not let them use computers or be online.

Teachers had ICT competences, they used technologies as private devices but they did not put emphasis on the use of ICTs in teaching.

According to them, it would make more sense to use ICT and digital technologies in higher grades. Smaller children (in our case 9-10 year olds) have much to learn, curriculums are demanding. Also, in the fifth grade, informatics is a compulsory subject.

### Children's identity and competence

In the context of the School 1, it was mainly the children from majority background who were talking about themselves and their families (children with relatives with Slovak or Canadian background). The children with minority background (Vietnamese, Kosovar, Ukrainian) did not share too much information about themselves, their parents or family. If they did so, it was because the teacher addressed the question to them and/or asked them explicitly.

Except for one child with Ukrainian background, other children with minority background did not even say they had a different first language than Czech. It was not always clear if they were ashamed or did not want to share, or if they were just not reflecting it.

There was one episode at the end of the implementation phase when a girl with Vietnamese background shared a phrase in Vietnamese. During the exploratory phase, one girl repeatedly asked her to say something in the language and she repeatedly refused. At the end of the implementation, another girl asked her the same. At first, she refused to say something in Vietnamese but later she did it. The girl who asked seemed to be excited and was repeating the phrase while she was approaching her table at the back of the classroom.

When it comes to teachers, before the activities, they did not know what languages the children and their relatives spoke. After the first activity they were surprised and they seemed to be impressed (children with Slovak parents, Dutch speaking aunts, Vietnamese girl speaking Korean, or children learning Greek or Esperanto).

Regarding the children with Roma ethnic background, teachers did not know whether the children or their relatives spoke Romani. According to them, they spoke Czech with their parents and they had never heard them speak Romani with each other. These children did not indicate Roma language in their activities either.

In the context of the School 3, Romani children learned new information/facts about their culture/language from the teacher assistant who was of Roma background and gave them a “lecture” about the history and diversity of Roma language during the implementation of the activities. They also sang Romani songs and could learn Roma words during the preparation of the matching game.

### Social climate and relationships

The teachers claimed the activities were very valuable as they learned many new information about children in their classroom, especially for one teacher who was teaching for the first year in one class involved in the research. According to him, the activities helped him learn about his students, see how they worked individually or in groups, how they reacted to the activities and group work, what their strengths and weaknesses.

### 6.6.2.2 School 2

#### Activities

The teachers liked the activity about celebrities, and that is why they used it; otherwise, they had their own activities. They talked to the children, who were looking forward to learning more about their favourite celebrities, and they decided to choose it. The problem with all activities was that no pupil could speak Romani, and thus the children were not able to work on these activities effectively. They were not able to imagine what opportunities they would have knowing another language. Thus, the teachers used our platform and adapted the activities. A strength was that children could use their creative potential, while a weakness was that the activities were rather difficult because there was no one who could speak more languages - the children could not rely on their own experience, but only on what they have read or learned about the topic.

#### Participation and interest

The teachers did not regard this teaching as different, because they were used to similar activities. One benefit for them was that they could use English language in more subjects.

The pupils were motivated and did not lose interest in any of the activities. They liked best the Celebrities activity, because known personalities are their models. The teachers tried to engage parents in the activities, but there was little interest. Sometimes, the children were asked to prepare for the activities at home, and at least were supposed to talk about multilingualism with

their parents. The teachers thought that the parents would be more interested, if the activities were better designed for including and engaging parents.

### Curriculum

The teachers found connections between the activities and curricula, because they tended to interconnect different subjects and it was also possible with these activities (Czech language, My country, English).

### ITC Competence and enhanced learning environments

The teachers did not want to use ICT much, because they do not use the frequently with children. The pupils could use tablets and smartphones, but they did not play a key role. The teachers like to consult various books and encyclopedias.

### Main topics (multilingualism/interculturalism/participation/inclusiveness...)

The children were more interested in the former 2.5 Children Study activities, when they were asked to imagine an arrival of a foreign classmate. During WP 4.4 VLE activities, the pupils focused on creating and working, rather than thinking about multilingualism. However, they found out that it is good to know more languages. Afterwards, they were interested in learning a new language, and it has also manifested in the English classes.

### Children's identity and competence

The pupils learned to differentiate between important and irrelevant information. They improved their critical thinking. They realized we live on one planet and it is good if we can understand each other in terms of culture or language.

### Social climate and relationships

The pupils were enthusiastic about the activities and team-work. They liked how they worked at different places at school (in benches, on the carpet, in the hall...). During the activities, the relationships between children or children-teacher relationships remain unchanged.

## 6.6.2.3 School 3

### Activities

The activities co-constructed by teachers and researchers were adequately adapted to the class context which is composed predominantly by pupils with Roma background. Teachers took the specific needs of Roma pupils into consideration when designing the activities - they considered that some of them have limited competences in reading, working with ICT, or comprehending too abstract information etc. Therefore, the implemented activities fit the class context very well - even

a pupil with mild mental handicap participated in the activities successfully. At the same time, the activities met the ISOTIS goals as they really enhanced the multilingual awareness of pupils and thematised Roma language explicitly.

### Participation and interest

Despite the limited time we had for implementation of these activities in the 4th grade, the teacher proved to be very active and enthusiastic in the process of co-design and implementation of the activities. She was very well prepared - although we spend only limited time by observing the implementation of activities in the classroom, she realized several pre-activities with children before our visits to be ready for the “hot” implementation phase. Therefore, pupils were well informed about the main topics of the project, they even rehearsed Romani songs in advance so they could sing them for us. They also chose and painted the Romani words for the matching game so they were very enthusiastic when they saw their pictures digitized in the VLE. They also enjoyed watching different videos related to the Celebrities activity (e.g. a song by a multilingual singer). Generally, children were very cooperative, concentrated and enjoyed the activities very much.

### Teaching approach and practice

It is very difficult to evaluate the changes/development in the teaching approach/methods of the teacher regarding the limited time we could spend in the classroom. Curriculum-wise, the specific focus on multilingualism was without any doubts something new for the teacher. On the other hand, she was used to react to the multilingual diversity in her classroom which is obvious in the daily practice- e.g., by the established cooperation with the teaching assistant who is of Roma background and who helped pupils to translate some words from Czech to Romani and vice versa if needed.

### ITC Competence and enhanced learning environments

As the teacher self-reported, her ICT competences were rather limited. The researchers and teacher assistant helped her to create the VLE accounts for the pupils as well as to facilitate the implementation of the activities in the computer lab. Even though she worried about that, she seemed to be capable to facilitate the activities even by herself.

### Main topics (multilingualism/interculturalism/participation/inclusiveness...)

The main topics of ISOTIS project were directly addressed and supported through the implemented activities (especially through the matching game and multilingual celebrities). Teacher reflected on the multilingual diversity in her classroom and used it as a resource when designing/implementing the activities. Roma language and Roma culture were explicitly the focus of the activities. The teacher did not want to use the video with Stano as she found the main



message too complex and difficult to capture for her pupils because of the age and level of comprehension. She also worried that the pupils would not understand all of the Romani words. She expressed similar kind of fears to the video with Pablo. On the other hand, she used the videos as an inspiration for the “lecture” of her Roma teaching assistant who discussed with pupils about Romani language and shared his own experiences.

### Children's identity and competence

We perceived as a crucial moment that pupils could openly discuss their language/cultural background and perform their multilingual identities in front of the teacher and researchers with majority background. This situation enabled to change the asymmetrical power balance usually established between the Czech majority and Roma minority. At that time, it was the Roma teacher assistant who was an expert on Roma language (he corrected some typos in Roma language on the VLE). He further strengthened the meaning of the Celebrities activity when he showed his competency in speaking several languages (Czech, Roma, Hungarian, Spanish). We suppose, he could function as an important role-model for the children.

### Children as students/Social climate and relationships

Children were very enthusiastic about the activities and cooperated with the teacher very well. Despite our worries about their limited ICT competences, all of them were able to work on the computer, set the account and conduct the activities in the computer lab. Several pupils asked if they could use the VLE platform later at home or at school and were happy when the teachers' answer was positive. One boy asked whether he could use VLE on smartphone. We know from the design team that some functionalities of the platform are restricted on the mobile devices therefore we could not recommend it. However, in the context of socially deprived families, this could be perceived as a significant barrier as some of them could have access only to the mobile phones and not laptops/desk computers.

### 6.6.3 Teachers' evaluation on the VLE

During our second meeting, the teachers proposed one activity based on the activities presented on the VLE platform, the section Supporting multilingualism in the classroom (for detailed description, see below). In general, they found the platform to be well structured and appreciated different functions BEEBA represents in relation to the VLE content. On the other hand, they struggled with the idea that pupils could use proposed activities directly on the VLE. They found them more suitable for the off-line mode. Teacher Procházka further mentioned that activities presented in the section Multilingualism in the families were very nice and he would like to arrange some kind of café for parents aimed at discussing multilingualism. However, he does not find the pupils' parents enthusiastic enough for this kind of activity.

Both teachers mentioned repeatedly that not having a well-equipped computer room in their building is a big barrier to improving digital competences of their pupils. They also mentioned that there were big differences among pupils regarding their digital competences - while some of them used tablet every day at home others hadn't yet worked alone on a computer. There were even children who are not allowed to use computers at home.

### 6.6.3.1 Use and evaluation of the VLE functionalities

In the following tables we summarize the use of individual functionalities offered by the Virtual Learning Environment (VLE platform). In particular, the tables sum up the teachers' views on My space, Resources, Digital tools, Tutorials and Beeba.

Table 6.6 - Teachers' evaluation of the My space VLE functionality

School	Used?	Useful?	What they used?	Comments
School 1	✓	✓	Languages in my classroom (chart available on the platform); Celebrities	Teachers found it useful - it concentrates activities and resources for the classroom.
School 2	✓	✓	Languages in my classroom (chart available on the platform), Celebrities, Video	Teachers think it has a big potential to make children realize that languages are important.
School 3	✓	✓	Languages in my classroom (chart available on the platform); Celebrities; matching game; video	The most useful - it concentrates activities and resources for the classroom; possibility to add own activities.

Table 6.7 - Teachers' evaluation of the Resources VLE functionality

School	Used?	Useful?	What they used?	Comments
School 1	✓	✓	Videos (Pablo); activity descriptions	The most used and thus the most useful part.
School 2	✓	✓	Videos (Pablo); activity descriptions	
School 3	X	✓	Activity descriptions	Potentially useful for teachers, mainly the experiences and activities. However, it is not useful to

				children as they would not understand. The language and content are difficult. Therefore, she did not use it.
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Table 6.8 - Teachers' evaluation of the Digital tools and Tutorials VLE functionality

School	Used?	Useful?	What they used?	Comments
School 1	X	X		Not used at all.
School 2	✓	✓	Digital tools	
School 3	X	X		Not used at all. Teacher did not even know what it is and where she could find it.

Table 6.9 - Teachers' evaluation of the Beeba VLE functionality

School	Used?	Useful?	What they used?	Comments
School 1	X	✓		Teachers opened Beeba only during the first visit of the platform. During the activities they used the online Translator (not the one right in the platform).
School 2	X	✓		
School 3	X	✓		She watched Beeba only once at the beginning as she was curious. She did not know how to close Beeba though. However, she did not use it later. She said she would have used the vocal synthesizer feature if she knew about this option before.

### 6.6.3.2 Likes and positive points about the platform

According to all five teachers, the VLE has a good potential (once it is finished, better structured, filled with big number of various activities to choose, it contains translations to native languages, including Roma), if computer classroom/technologies are available for the entire class. According to them, it has a potential to serve as a big database of activities and videos that

could serve as inspiration. Thus, the Resources functionality was perceived as a potential pool of inspiring useful activities that could be used in practice.

**All five teachers** evaluated very positively the My space functionality. They said that

- it is useful as it concentrates activities and resources for the classroom
- it has a big potential to make children realize that languages are important
- it is the most useful functionality at the platform as it concentrates activities and resources for the classroom and it offers possibility to add own activities

**Two out of five** teachers evaluated the availability of the Translator (in Beeba section) and possibility to record voices and share videos/recordings as potentially useful tool.

One teacher stated that it is easy to use (children would be able to use it already in the 5th grade when Informatics is a compulsory subject).

One teacher appreciated also the possibility for children to have accounts at the Platform while teachers can have access to it and regulate their activity to some extent.

Also, all five teachers found Beeba potentially useful. However, they clicked at it only during the first visit of the platform and have not used it ever since. Therefore, they saw its positive value primarily during the first touch with the platform.

#### 6.6.3.3 Dislikes and negative about the platform

**The same five** teachers also see some potential challenges to the look, content and use of the platform.

**According to all five**, the platform in spring 2019 was only at its preliminary stage. They saw it as its raw form, as unfinished with many sections/ activities/ functionalities available only in English and not in national and minority languages. With this, the missing the Romani language and translations to Romani were raised as one of the concerns.

**Three out of five teachers** commented also on the theoretical content available on the platform. They said that the theoretical concepts and explanations are very difficult to understand (the language and phrasing are children unfriendly). Even teachers found some parts difficult to understand). Also, according to them, the platform should be more practical than theoretical (more activities and videos available in native languages).

#### 6.6.3.4 How were findings shared with participants

Findings were not shared with participants yet. The researchers will prepare a brief document and present it to teachers and parents in early fall. In the School 2, the teachers did not express much interest in sharing the findings.

## 6.6.4 Overall evaluation of the intervention according to the adopted criteria

### 6.6.4.1 Goals achievement

In regard to coherence with the ISOTIS values, the intervention met the criterion of an active and research-based approach. The researchers actively communicated and cooperated with all the teachers involved. Even though the researchers had set the agenda at the beginning of the co-design phase, the teachers took part in designing the activities.

Also, the activities took into consideration the local contexts of each class, including pupils' ethno-cultural background, socio-economic background, curriculum and children's abilities.

The main aims of promoting inclusive processes and of raising the multicultural and multilingual awareness among the teachers and children were met. The teachers started to reflect upon these issues more. Even though they had multilingual children in their classroom, they were often not aware about it or they did not find enough space in the curriculum to tackle these topics. Finding out more information about the pupils (including languages they spoke or learned) caught their attention and intrigued them to extent they wanted to implement the activities also in other years and other classrooms.

Regarding the VLE intervention, the researchers were able to include ICT into the activities, however only in limited extent. Therefore, the sustainability of VLE in the Czech context is uncertain.

### 6.6.4.2 Coherence with the adopted quality criteria

Table 6.10 - Cross WP criteria

CROSS WP CRITERIA		
<b>COHERENCE WITH THE ISOTIS VALUES</b>	Referred to a systemic/bioecological framework: building on and empowering interconnections among subjects, systems (e.g., family, school/organization, extended community...).	OK
	Participative and resource-based (co-creation of content, exchange of knowledge, of resources, of competences, making use of existing resources and prior knowledge of the participants).	OK
	Process-oriented: activities should NOT be intended and designed as isolated-segmented activities, rather they should be part of a meaningful process including several steps,	OK

	connected to the local systems of life of the participants.	
	Active and research-based: participants has to be actively involved also in research and problem-solving actions.	OK - teachers are involved
	Culturally sensitive and developing cultural sensitiveness.	OK
	Promoting emancipatory and inclusive processes: giving voice to subjects that are generally 'unheard', 'unlistened'; increasing awareness, reducing barriers	OK - activities are increasing awareness of teachers and pupils and reducing barriers
<b>COHERENCE WITH THE ISOTIS INTERVENTION METHOD</b>	Theory and method-founded: clear reference to literature and research and clear/explicit methodological criteria.	OK
	Pragmatic (offering examples) and open to local adjustments.	OK
	Blended (ICT enhanced/augmented activities).	OK
	Sustainable by the participants (without the researchers)	Has to be proven
	Innovative (for the local context) and enriching/renewing local practices.	OK
	Transferable to other contexts/customizable/ 're-interpretable	OK

Table 6.11 - *Criteria specific to WP4*

<b>CRITERIA SPECIFIC TO WP4</b>		
<b>Coherence with WP4 aim and objectives to support knowledge production, knowledge sharing and negotiation of meanings</b> which foster global-intercultural competence and multilingualism (mutual understanding of the content and value of multiculturalism and multilingualism) in various contexts among children in pre-primary and primary schools.		
<b>Global Intercultural competence</b>	– Engaging teachers, children and parents with global competence and multilingualism values, skills, attitudes, behaviours and	OK

<b>And pedagogical frameworks (Human rights and social justice... etc.)</b>	actions: raising awareness and involving participants in concrete experience.	
	Mobilizing cultural and language resources in different contexts (family, home, community, school, leisure), from all the participants (teachers, children, parents)	OK
	Stimulating critical thinking on crucial notions (culture, identity and cultural identity, multilingualism, race, democracy, social justice...); challenging and deconstructing stereotypes, essentialist construction and hegemonic ideologies.	OK
	Centered on the children's experience at school, at home, in the neighborhood, in the parents country...	OK
	Giving voice to children and stimulating agency, democratic attitudes and behaviors.	Considering the problems with informed consent, children were involved only to a limited extent (see section 3 on Ethical considerations ).
	Connecting and integrating global-intercultural competence values/skills/attitudes... within the learning process and the curriculum.	OK
	Engaging families with language experiences relevant to child's everyday life and to child schooling	In the Czech context, families were involved only as a source of information about languages spoken in family.
	Stimulating co-construction and negotiation of meanings and practices of multilingualism and global-intercultural competence at school and in everyday life.	OK
	Involving children and parents in providing/constructing materials to be shared also through the VLE social-media infrastructure (about their home life, their country of origin, other cultural artefacts).	Considering the problems with informed consent, children and parents were involved only to a limited extent to provide own materials.

	Encouraging communications, knowledge of each other, empathy, solidarity, between children, parents and teachers	We encouraged empathy among children and teachers, however we involved parents only to a limited extent.
	Balancing the exploration of differences with the acknowledgment of commonalities, and the feeling to belong to a common human beings species  providing information about other cultures that follow the criteria of teaching about similarities, the nature of everyday life, and positive achievements (Hernes, 2003) [GP2]	OK
	Innovating pedagogical practices, also through the use of ICT, and raising children's engagement, concentration and also fun.	OK
	Co-creation of the virtual space and activities focusing on global-intercultural competence and multilingualism	OK
	Making a flexible use of ICT without depending too much on families on-screen engagement/engagement with the VLE .	Not yet, as the children could not use VLE platform because of problems with informed consent.

Our main issues considering the implementation of VLE activities as well as meeting the VLE study criteria/goals were the limited participation of parents on the activities and only indirect participation of children in the VLE environment. We consider the limited participation of parents as the result of the focus of our activities on the classroom environment and curricula (there were other team within the ISOTIS project which focused on family context specifically). However, the limited participation of children in the VLE environment was much more the effect of the complications raised by the GDPR legislature which resulted in long-term negotiations of VLE privacy policy and informed consents with lawyers. Therefore, only in one of the participating classroom we were able to set VLE accounts for pupils and conduct the activities on more interactive basis.



Table 6.12 - *Criteria from D2.2*

Values And Priorities Guiding Decision Making		
CRITERIA	Likert Scale	Comments
<b>1. Start early.</b>	Absent 1 – 2 – 3- 4- 5 Highly present	It was not part of our intervention.
<b>2. Develop the intervention within a coherent theoretical framework and based on strong empirical evidence.</b>	Absent 1 – 2 – 3- 4- 5 Highly present	We based our activities on theories of intercultural education and Global intercultural competence model (see Chapt 1). Strong empirical evidence is essential as contexts of each school or classroom differ. We consider the exploratory phase very important in understanding these contexts. We felt we missed a lot in the classrooms where we did not do any participant observations before implementation due to the time constraint. We could have gathered more robust data, the interpretations would have been richer and more accurate.
<b>3. Target a balanced set of skills, considering both cognitive, academic, and socio-emotional outcomes.</b>	Absent 1 – 2 – 3- 4- 5 Highly present	Targeting a balanced set of skills is crucial to enhance pupils' knowledge on the topic, catch their interest, increase motivation as well as identification with the main message. The VLE activities mainly fulfil these criteria successfully as they are constructed to be cross-curricular and enhance different kinds of competences.
<b>4. Actively identify, explicitly value, and intentionally acknowledge the resources of all children, families, and communities</b>	Absent 1 – 2 – 3- 4- 5 Highly present	The structural support of teachers is needed. Due to insufficient training in this area and due to the demanding curriculum, teachers often denounce lack of time and space for actively identifying, acknowledging and supporting resources of all children. Also, support depends on individual teacher's interest, background and perspective. The teachers involved in our activities were definitely not ignorant to ISOTIS main topics. However, this can vary greatly among teachers at the same school as well as teachers from different schools in the Czech context..

<p><b>5. Value all languages and cultures equally and consider them as resources for teaching, learning, and succeeding in life</b></p>	<p>Absent 1 – 2 – 3- 4- 5 Highly present</p>	<p>The intervention promoted an approach that values all languages and cultures, despite that some teachers did not know what languages children and their families speak.</p>
<p><b>Intervention Approaches/Strategies</b></p>		
<p><b>6. Provide language supports to immigrant background students concurrently to teaching the age-appropriate curriculum.</b></p>	<p>Absent 1 – 2 – 3- 4- 5 Highly present</p>	<p>Language support of non-native speaking families is rather informal in the Czech context (at the school level). It seems to depend rather on the concrete principal, vice-principal or teacher. From the ISOTIS activities experience, parents and teachers usually do not communicate with the help of a third party. They try to communicate in Czech even if the parent does not speak the language or has difficulties speaking it. However, the intervention did not include a particular language support. Rather, it was focused more on the acknowledgment and the valorisation of all languages.</p>
<p><b>7. Explicitly value and intentionally support the development of the language and cultural heritage of immigrant and minority students.</b></p>	<p>Absent 1 – 2 – 3- 4- 5 Highly present</p>	<p>We succeeded in raising awareness among teachers when it comes to multiple languages in their classroom. They admitted that before the ISOTIS project they did not think too much about the foreign born pupils, or pupils with a minority background as potential resources. The difference seemed to be in the School 3 where the majority of children has Roma background. Here, the cultural heritage seems to be actively supported (however, due to lack of space for observations, this conclusion is rather preliminary). Also, during the intervention, the assistant (self-identifies as Roma) took part in the activities and added a slot tackling topics of Roma language and culture.</p>
<p><b>8. Actively promote positive contact between minority/majority and advantaged/disadvantaged students through joint learning activities based on positive interdependence.</b></p>	<p>Absent 1 – 2 – 3- 4- 5 Highly present</p>	<p>The intervention might have succeeded in raising the awareness of pupils from the majority about the potential minority background of some of their peers. The pupils in all classes had opportunity to talk about advantages and disadvantages of multilingualism. For some of them, this might have been the</p>

		first time to think about this topic and discuss it.
<b>8.1. Use cooperative learning to support the development of social skills, the reduction of prejudice, and the academic achievement of all students.</b>	Absent 1 – 2 – 3- 4- 5 Highly present	The usage of cooperative learning is to a big extent context related and depending on individual teachers' abilities and preferences. In the observed classrooms, the teachers used methods of cooperative learning, however it is difficult to generalize this observation in relation to other activities/subjects in the respective classrooms. However, we cannot prove that the intervention lead to development of skills potentially reducing prejudices.
<b>8.2. Use heterogeneous grouping to support positive contact among diverse students.</b>	Absent 1 – 2 – 3- 4- 5 Highly present	.Teachers in the classrooms used heterogeneous groupings to facilitate ISOTIS activities, however the main goal was to make the group “workable”, not to support positive contact among pupils. Nevertheless, the intervention succeeded in using positive groupings, potentially enhancing positive contact among diverse pupils.
<b>9. Use interactive socio-cognitive training approaches (e.g., role-playing, simulation games, and group exercises) to support the development of anti-bias/anti-prejudice attitudes.</b>	Absent 1 – 2 – 3- 4- 5 Highly present	In the classroom where the 4.4 VLE activities were conducted, such approach is rather rare. It might be due to the dense mandatory curriculum or differently oriented training teachers get.  Even though teachers usually do not use the named training approaches often in their teaching, they appreciated group activities for children (because of soft skills development), Thus, we managed to include interactive approaches in the activities.
<b>Involving and Supporting Key Actors</b>		
<b>10. Actively support family participation (e.g., through bidirectional communication strategies, meaningful learning at home activities, active involvement in decision making processes in school, etc.).</b>	Absent 1 – 2 – 3- 4- 5 Highly present	Except for signing the informed consent, in the Czech context, parents were not involved in the 4.4 VLE activities co-design or implementation. Though, they were part of an activity where they were supposed to tell/discuss to/with children languages spoken in the family.

<p><b>11. Provide appropriate support and training to classroom teachers.</b></p>	<p>Absent 1 – 2 – 3- 4- 5 Highly present</p>	<p>We managed to provide support to teachers during several meetings and discussions. Also, they were working together, dedicating some additional time to preparations and meetings.</p>
<p><b>12. Use the potential of information and communications technology to actively engage children in learning, support teachers, establish bidirectional communication channels with families, etc.</b></p>	<p>Absent 1 – 2 – 3- 4- 5 Highly present</p>	<p>From our experience in three classrooms, the use of ICT is rather rare. The IT subject is compulsory starting at grade four/five. However, computers and digital technologies are often absent, broken or not used in classes.</p> <p>Also, teachers often do not use them themselves.</p> <p>Another obstacle is the family socio-economic status. Many families do not have computers at home. Or, in other cases, not depending necessarily on the socio-economic status, parents do not want their children to use technologies (computers, tablets, smart phones) and set up accounts. For the above mentioned reasons the intervention did not succeeded in supporting the use of ICT in learning and establishing communication channels.</p>
<p><b>Monitoring, Evaluation, and Dissemination</b></p>		
<p><b>13. Monitor both student learning and sense of belongingness in the classroom and in school.</b></p>	<p>Absent 1 – 2 – 3- 4- 5 Highly present</p>	<p>We did not manage to monitor and evaluate learning of and sense of belongingness in the classrooms.</p>
<p><b>14. Use high-quality research designs to evaluate the effectiveness of the intervention/approach/strategy.</b></p>	<p>Absent 1 – 2 – 3- 4- 5 Highly present</p>	<p>.Important to do, however, necessary to have the evaluation design ready during or right after the exploratory phase so the evaluation of the pre-intervention period is done. We did not manage to evaluate the intervention effectively</p>
<p><b>15. Make information about the intervention/approach/strategy readily accessible.</b></p>	<p>Absent 1 – 2 – 3- 4- 5 Highly present</p>	<p>Information was presented and available to teachers and to parents too. It was less accessible for children and parents (we provided more detailed intervention outcomes to parents).</p>

Consistently with the table 1 criteria WP4 interventions adopted also the criteria of Table 2 (those criteria were also shared by task 3.4 and 5.4).

Table 6.13 - *Criteria of VLE-related tasks 3.4, 4.4, 5.4*

CRITERIA	Likert scale	Comments
<p><b>Raising awareness and knowledge</b> of multiple languages, cultures, human rights, discrimination mechanisms and promoting skills in multiple languages and in critical thinking and establishing shared understanding.</p>	<p>Absent 1 – 2 – 3- 4- 5 Highly present</p>	<p>The activities focused on these aims (mainly in relation to raising awareness of the presence of multilingualism in the classroom and of the Romani culture and language). In this regard, we managed to raise awareness and knowledge of multiple cultural backgrounds, including languages. Teachers and pupils started to reflect more the presence of multilingualism in the class.</p> <p>Establishing shared understanding and critical thinking were present only in limited form due to time constraints of the 4.4 VLE activities.</p> <p>Nevertheless, during the interaction we were able to engage pupils in discussions, we practiced arguments formulation and expressing opinions.</p>
<p><b>Promoting agency</b> of all stakeholders based on valuing their cultural background, resources and identity.</p>	<p>Absent 1 – 2 – 3- 4- 5 Highly present</p>	<p>Despite most of the stakeholders involved in VLE study were of majority ethnic background, the activities supported them in reflecting about multicultural topics, languages as a resource as well as multiplicity of identities people can have. We succeeded in promoting the agency primarily between teachers and pupils.</p>
<p><b>Using the resources</b> available in the form of diverse family languages and cultural backgrounds to innovate learning practices of children and professionals and to create rich learning experiences.</p>	<p>Absent 1 – 2 – 3- 4- 5 Highly present</p>	<p>This was present mainly due to the VLE activities as such (they focused on family languages). Therefore, through the VLE activities we were able to use family language resources.</p>
<p><b>Sustaining communication and collaboration</b> between stakeholders, encouraging and</p>	<p>Absent 1 – 2 – 3- 4- 5 Highly present</p>	<p>As the main actors of WP4.4 VLE intervention were teachers and their pupils, the ISOTIS project did not initiate any new kind of networking among stakeholders, other than among professionals (teachers/ colleagues).</p>

supporting networking between stakeholders.		
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## 6.6.5 General reflections and Highlights

### 6.6.5.1 Methodology

Activities have to be (co)designed with/by teachers because they are those who know best the context of the class, pupils' strengths and weaknesses. The role of researchers is, however, also crucial as they are able to reflect more on diversity in the classrooms and observe the interactional dynamics of the class from the outside which can be difficult for the teacher. The design-based approach combined with the ethnographic observations thus fits very well for this specific participatory kind of methodological approach.

### 6.6.5.2 Topics addressed

The first reactions of the teachers from some of our schools (Schools 1 and 2) did not emphasize the topic of multilingualism as something strongly valuable to be supported in the curricula. However, during the project they found the topics of multilingualism as highly relevant even in classrooms where the majority of children would belong to the majority ethnic and language groups. Even with smaller numbers of children with minority background, conducting activities focusing on multilingualism, and making them part of the curriculum does make sense. The teachers appreciate reflecting upon different topics or finding out new information about their children. In consequence, it might strengthen the trust and deepen the relationships between teachers and children in class.

### 6.6.5.3 Use of ICT

It is difficult to implement and sustain an activity directly related to a digital platform if the school equipment does not provide enough functioning computers or tablets. Also, it is difficult, if teachers do not have much experience or do not use technologies themselves. These could be significant barriers we faced in some of the classrooms involved in the ISOTIS project. We also recommend to reflect on different level of ICT competences among pupils which is highly probable especially in heterogenous classrooms. The VLE platform has its strengths. According to the users, it is valuable to have a big inventory of potential activities to use in class. Also, they evaluated positively the possibility to have all class relevant information and resources in the "My space" section. However, in the local national contexts, the platform would be used only in case it is ready, if there is vaster inventory of activities and if the whole platform is available in local and minority languages.

## 6.6.6 CONCLUSIONS AND RECOMMENDATIONS

### 6.6.6.1 Diversity topics absent in the curriculum

The topics related to multiculturalism and multilingualism neither very present in the formal curriculum nor in the daily teaching practice at the primary level of compulsory education in the Czech Republic. The Czech teachers involved in the VLE interventions perceived the compulsory curriculum as very dense and acknowledged that there is not much space for cross-subject topics such as multicultural education or multilingualism. Even though the young recently graduated teachers as well as the established skilled ones would like to engage more in topics of diversity or social justice, the compulsory curriculum does not provide enough space for it.

Slightly different situation can be observed at ethnically segregated schools (such as School 3), where teachers react to the needs of their ethnically minor population of students. In response, they integrate multicultural topics related to the specific ethnicity (in this case, Romani, e.g., Romani songs, language, etc.) organically into the curriculum.

### 6.6.6.2 Teachers and (not) perceived cultural resources

Teachers at predominantly majority schools do not perceive their ethnically minor students as a positive resource in sense of their cultural background and multilingual diversity. They either perceive them in a neutral way as „pupils like any other“, or they thematise the non-majority language as something negative. In case they tend to evaluate in rather negatively, they perceive it as a barrier that could complicate the education process as well as the performance of bi/multilingual students or student with different mother tongue. Teachers usually do not use the language diversity of their classes in pedagogical way. From our experience, they often do not even realise they have multilingual pupils in their classrooms.

Again, we have a slightly different experience with a classroom at the segregated school (School3) where teachers are aware of limits, specificities but also of positives of pupils Romani background. They reflect differences in various ethnolects and how this can influence the dynamic of the class. Also, they try to actively engage in using Romani language as a resource and support its use and development.

### 6.6.6.3 Relationships building capacity of activities

Activities focused on the support of multilingualism have great potential to deepen relations among pupils and their teachers; they positively influence social climate in the classroom and enable to find out more information about each pupil (country of origin, languages they speak at home, languages the members of extended family speak or used to speak etc.). Further, teachers

have the opportunity to build upon these notions and develop activities involving language and cultural resources.

#### 6.6.6.4 Use of ICT not common

The use of ICT at the first grades of primary education in the Czech Republic is not very common. The Informatics as a compulsory subject usually starts to be taught at the 5th grade. Besides that, there is often an insufficient technological support on the school level (only several tablets available for the whole classroom, broken computers in the computer lab etc.). Thus, the ICT infrastructure is rather underdeveloped. Parents are also important actors regarding the support of ICT use in the education process – while some socially disadvantaged families even do not possess a computer/laptop or do not have access to Internet, other middle-class parents do not want to allow their children to spend much time in presence of ICT. This diversity can be also a challenge pedagogically-wise.



## 7 Conclusion and Lessons Learned for Policy and Practice Recommendations

### 7.1 Introduction

This last chapter integrates the main findings of the work carried out as part of T4.4 across the different countries, discussing the main lessons learned and the challenges encountered, while highlighting some recommendations for policy and practices.

The Description of Action for Task 4.4 refers to the development of a transferable model of a curriculum supporting diversity and trans-language in education using a design-based approach and a Virtual Learning Environment (VLE). While it is likely too hard to propose a complete model for a curriculum, the VLE Task 4.4 interventions can contribute to deepen the reflection on the key principles and key success features adopted in the methodological and pedagogical framework, drawn from the first WP4 tasks and reports incorporated into the pedagogical and methodological framework that guided the interventions. The lessons learned from the VLE interventions can also contribute to providing additional insights in terms of guiding principles transferable to other contexts, strategies and practices, supported by the implementation of ICTs, to innovate curricula and pedagogies in pre- and primary school settings.

### 7.2 The evaluation of goal achievement and impact

The interventions focused mainly on the proximal processes in the immediate micro-system of the children, namely classrooms, directly involving the main social actors, children and teachers, introducing selected, co-designed experiences to work on Global and Intercultural Competence, multilingualism and language awareness. In two cases (Italy and Greece) and in the pilot study (the Netherlands), the interventions structurally encompassed the involvement of parents, addressing the mesosystem and aiming to bridge children's experience between home and school, valuing family resources, including them more in school children's experiences and strengthening the partnership and collaboration between teachers and families.

All country reports provided an evaluation of the interventions in terms of results and coherence with the work process within the adopted framework. The aim of the monitoring system, adapted by the country teams to each research design, was not to control variables and to test hypotheses as in an experimental approach, nor to 'simply' provide a rich description of the research context. Rather, the objective was to try to document if, how and *under what circumstances* the intervention had an impact in the short term as desired and if, how and *under what circumstances* the VLE supported and empowered the work to reach the goals in the short term. The monitoring and evaluation system in each country intervention, conducted using several qualitative

instruments before, during and after the intervention, provided rich documentation on short-term impacts and the research participants' perceptions and evaluation of the ISOTIS project. It also made a clear reference to the theoretical premises applied in the design, to develop *contextualized theories* (Pellerey, 2005) rather than general ones.

Collecting feedback from all the research participants, all the studies provided evidence that the interventions conducted were generally successful in terms of goal achievement and coherence with the framework, while they also discussed the limitations of the studies and the main challenges encountered for the full achievement of general and local objectives with a generative analysis of reflections useful for future experiences in this field. The evaluation of the achievement of the objectives, even if sometimes partially or critically analyzed by the researchers, concerned both the key-general cross WP VLE framework criteria and aims (*raising awareness and knowledge; promoting agency; valuing resources and sustaining collaboration and communication*), as well as the general objectives of T4.4 here briefly reported:

- Connecting and bridging home and school children's linguistic and cultural experience, making them visible, legitimate and valued as part of a multilingual and multicultural community;
- Promoting the intercultural competence of teachers and children in dealing with diversity, appreciating differences and commonalities;
- Promoting positive attitudes and ideas regarding all languages and cultures as equal, deconstructing stereotypes and power relationships;
- Soliciting the acknowledgement of equal rights and social justice and promoting democratic values, attitudes, skills and behaviors;
- Enhancing digital competence and increasing the use of positive technology.

To what extent the aims were reached varied in most of the intervention sites by the different stakeholders involved: teachers, children and parents. In all interventions there was multivocal consensus on the full involvement of the children in the activities (with some exceptions that addressed below), that they took advantage of the experiences offered during the project and that they would like to repeat and continue them. The teachers also participated in the intervention research mostly in an active and involved way, but, as in any adult learning experience (Mezirow), their experience was inevitably more complex. They opened up and at the same time expressed resistance to proposals for the innovation of educational practices that required them to adopt a new look at the reality of school, children and their educational practice. While in some contexts intercultural educational practice was already established, for example in the Greek and the Portuguese site 2 contexts; in some others, such as in sites 1 and 2 of the Czech schools and in site 1 of the Portuguese school, teachers started from more traditional experiences, less open to curricular innovations related to multiculturalism and multilingualism. In the Italian school, already characterized by a history of participation in intercultural projects, the enhancement of mother tongues was not part of the educational practice. Moreover, in all contexts, the integration of ICTs

in teaching-learning processes, appreciated without exception by all children who were able to make direct use of VLE, was one of the main challenges for all teachers. While they recognized ICTs were an asset for didactic innovation, this clashed with their low skills and the widespread structural deficiencies of equipment in the schools.

Parental involvement was not pursued in all interventions, but only in Italy and Greece. In both cases, this objective was partially achieved, in particular in Greece where the parents, while appreciating the activities proposed to the children, virtually did not make use of the platform. In Italy, only a minority of parents participated, but they provided very significant, positive feedback.

Below we will examine the main lessons learned from these experiences of curriculum innovation and educational practices supported by the use of the ISOTIS platform, examining them in relation to the model adopted in the methodological and pedagogical framework at the different levels of the ecological system, from the microsystem (most involved) to the macro-system, and in relation to the three main spheres:

- the innovation of inclusive curriculum and pedagogies
- the intervention methodology and process
- the use of ICTs to innovate teaching and learning practices and communication

### 7.3 Highlights on the innovation of inclusive curricula and pedagogies

The research design had a clear methodological and theoretical framework that incorporated some of the recommendations provided by the inventory and the analysis of promising interventions (D.4.2 Aguiar et al., *Inventory and analysis of promising curriculum, pedagogy and social climate interventions tackling inequalities*) as well as the success features and facilitator factors provided by the in-depth case study comparative analysis (D 4.3. Aguiar, Silva eds, *Case studies on curriculum, pedagogy and social climate interventions tackling inequalities*). Key recommendations and key success features, facilitators and obstacles of innovative promising interventions (or approaches, programs, projects) aiming to reduce social and educational inequalities through curriculum design and implementation, pedagogical practices and/or school social climate were identified through the lens of the bio-ecological model of human development (Bronfenbrenner & Morris, 2006) at all levels of the ecological system.

#### 7.3.1 The microsystem level

At the **microsystem level**, the framework and the implementation of the interventions highly recognized the *social role of children* and promoted *interpersonal relationships* by actively involving children in decision making and sharing their resources, also in the early years at the preschool level, allowing them to share personal stories, information about their country of origin

and their first language (see key recommendation 4 - Actively identify, explicitly value, and intentionally acknowledge the resources of all children, families, and communities).

Strategies to make older children tutors for younger children were implemented in some interventions (in IT). Positive relationships among children were pursued, letting the children experience open debates and also posing them problem-based activities.

At the pedagogical level, the interventions made also reference to the implementation of *equity pedagogies*, proposing a socio-constructivist approach and cooperative learning strategies to promote meaningful learning, enrich socio-emotional interactions with cognitive acquisitions (see key recommendation 3 - Target a balanced set of skills, considering both cognitive, academic, and socio-emotional outcomes) and support positive contact (see key principle 8 - Actively promote positive contact between minority and majority and between advantaged and disadvantaged students through joint learning activities based on positive interdependence).

Several of the activities also involved experiential learning, such as role-playing or video and multimedia production, drawing or writing songs or poems or organizing exhibitions shared with parents on the VLE. A focus on play and children's enjoyment was maintained in all interventions, supporting positive and meaningful experiences and children's creativity and imaginations, as well as guided reflection about the experiences on multicultural awareness, language awareness, socio-economic equity and human rights, stereotypes and discrimination, which were carried during and after the activities.

All of the interventions (except for one site in Portugal) included activities aimed at valuing and giving visibility to all languages (and cultures) co-existing in the classroom/school, especially first languages (as also recommended in the list of principles, see key principle 5 - Value all languages and cultures equally and consider them as resources for teaching, learning, and succeeding in life; and key principle 7 - Explicitly value and intentionally support the development of the language and cultural heritage of immigrant and minority students), following the Language awareness guidelines. The link with the 'official curriculum' and school routines was considered paramount in order to connect the intervention goals and content with the goals and content of the school.

The analysis of the four intervention reports allows us to deepen some reflections on the key features of the interventions at the microsystem level. The data collected shows that in addition to representing valid key principles, they proved to be factors to the success of the interventions and some of the most appreciated features by all the research participants: first of all, by all children, but also by teachers and parents (where involved). Regarding this we can highlight some assets of the interventions and challenges as well:

### 7.3.1.1 The intercultural 'emergent curriculum'

**The centrality assigned to the experiences of children** (and families) proved to be of great importance in the intervention and for the construction of experiences to foster intercultural

dialogue and the enhancement of the linguistic and cultural repertoires of the children. This held true especially in the preschool where an approach that stems from children's direct experience and not from knowledge, correct but abstract and distant, is even more compelling. Children experience diversity (of languages, routines, eating habits, rules, behavior in family relationships, etc.) in their daily lives, even when they are born in the same cultural sphere. Many of the activities carried out made it possible to bring out these differences, observe them and put them into words.

**Conversational practices are key competences for teachers.** The approach based on experiences required authentic competence in promoting interaction and communication between children, with the teachers being open to listening and exchange, something that was not always observed in teachers. The teachers did not automatically stimulate or facilitate classroom interaction on diversity issues, even during activities constructed in an original and correct way. This aspect clearly emerged in particular in the Dutch pilot study. When analyzing some activities of exchange, the comments given on images of family life (breakfast in the morning, or going to bed routines in the evening ...) or the conversations that occurred from shared reading of books, a number of remarkable relational and communicative patterns of the teacher were observed, such as:

- carrying on conversations centered on the traditional triplet question-answer-confirmation with a single child, without opening to group conversation and peer communication;
- focusing attention on the correct knowledge of cultural content in asking questions to the children, who were implicitly considered 'little experts' of the culture of origin of the family, without taking into account that sometimes the children had never been to the country of origin of the parents and depending on their age, they may have acquired only partial awareness of the family cultural background;
- calling on children with different cultural and linguistic backgrounds more than children of the native nationality.

These communicative patterns actually distorted - unconsciously - the essence of the intercultural educational proposal of the activities, aimed at sharing ideas, experiences of children at home and shared at school through the visual support of family photos and the expression of 'theories' about themselves, their cultural identity or other issues that the children were progressively developing awareness of.

These forms of communication are linked to a style of transmission of knowledge and the role of the teacher as the one who knows and assesses whether something is said correctly. They do not allow the emergence and socialization of the experience of the children and their ideas, their "work in progress ideas" and the observation of the emerging differences, which are the driving forces behind intercultural education that can then be extended - especially in school age children - to new contents and the study of different historical and cultural perspectives (always anchored in the experience of children, helping them re-elaborate their history and identity.)

### 7.3.1.2 The pleasure of having a voice.

**Engaging children as reliable informants in open debates** was one of the aspects most appreciated by children, especially in Portugal and Italy, with respect to the characteristics of the proposed educational approach and the structure of the activities. The children observed that they were not used to expressing opinions and being able to discuss them, not to reach a consensus or a solution, but to exchange different opinions, to 'stay' in the complexity of the issues addressed (for example the issue of social and economic justice in Portugal, or the issue of the well-being of newcomers and feeling welcomed in their school in Italy) and to understand that there are no single 'right' solutions but multiple ones, requiring children to respect each other's ideas.

With regard to this aspect, the children expressed a remarkable sense of novelty in their experiences as students (11 and 12 year-olds), represented by this form of open, cooperative, dynamic, unjudgmental, divergent communication because it was open to multiple solutions and aimed at gradually building knowledge and awareness. Children's pleasure in being consulted during the course of the ISOTIS activities gave back an image of traditional school life in many schools, in which implicit models of the transmission of knowledge underlie the unidirectional conversations of teachers speaking and children listening. The communicative forms of the ISOTIS activities thus offered children privileged observations of the hidden, latent, implicit curriculum, still informed by traditional ideas, which can coexist, albeit in contradiction, with educational intentions of active involvement of children and active and inclusive forms of education. Awareness of this is of primary importance for the innovation of the curriculum and pedagogical proposals in general and even more so if inclusive and intercultural, with important repercussions on the social climate and the quality of social relationships. From this point of view, it is not surprising that children progressively acquired confidence in sharing and expressing opinions during their experience and that they appreciated the cooperative dimension, both in terms of social interactions and the collaborative construction of knowledge.

### 7.3.1.3 The pleasure of taking action

**Engaging children as researchers and action takers** These aspects were closely linked to the previous point and complemented it: from being able to have a voice to being actively engaged in collaborative research and problem solving, with the commitment to make proposals and implement them. This transition to action was equally appreciated by children in both pre- and primary school and was a key ingredient of their motivated and joyful participation in activities. In the framework of Global Competence and in the general theoretical framework of personal competences, knowing how to use knowledge to act is what reveals a true acquisition of competence that otherwise remains at a level of abstract thought. The transition to action is even better if the children can observe the outcomes and impact that the actions have on reality, such as those carried out in collaborative research on making their school a more inclusive and welcoming place, one of the ISOTIS activities. This helped children to deepen their awareness

which was initiated through reflection and the exchange of views, and to increase their sense of agency, encouraging openness in the hope of being agents of change in social reality, starting from the school micro-context.

#### 7.3.1.4 Awakening to language at school

**Having a voice in your mother tongue.** Most of the intervention projects within T4.4 referred to the perspective of Language Awareness, to promote the enhancement of languages and cultures of origin in the school in a form integrated with the school curriculum. This approach generated new behavioral modalities among children within the school context. The children progressively manifested naturalness in expressing their own language skills and curiosity about those of their classmates. In fact, this approach, defined in French as *éveil aux langues* (language awakening), acts within the context as a way of revealing a hidden, submerged reality, of which teachers (especially in the Italian and Czech contexts) seemed to be unaware and which they discovered and felt amazed about. In some cases (in Italy) teachers were concerned about children using their mother tongues at school for fear that they would isolate themselves in small groups (specifically regarding the Arabic language in the Italian school involved).

In most cases, the children showed natural curiosity in exploring the languages present in their class, bringing to light their experience at home and/or in the ethnic-cultural community of the family. In many contexts, both researchers and teachers (especially in Italy and Greece) observed that the enhancement of mother tongues encouraged children who were usually silent and less involved in discussion in class or in collaborative activities, to become involved and dynamic, expressing their desire to share their history and the language or languages spoken in the family, feeling proud of them. In some cases, especially in Italy, it was observed that for newcomers who did not speak Italian, arriving in a context where the children were involved in valorizing their mother tongues was an experience of great facilitation. A mother of a newly arrived child described how the work on mother tongues, in the context of social interactions, produced a real "reversal of the social image" of children who came from elsewhere and did not know the language: a reversal from 'those who do not know the local language' used at school and more generally the majority language in the country, to 'those who know another language' (as the mother explained: "this was very reassuring, she understood that she had a strength"). The legitimacy of all languages in the small community of the class thus allowed giving voice to all the languages present and to experience a multilingual community in the class, which increased the sense of belonging in an observable way.

The social-emotional dimension of languages is often underestimated in school teaching: with regard to languages, emotions are felt and ideas linked to personal, family and social life are present, which condition the use and appreciation. Languages have a social image that places them hierarchically and gives them greater or lesser social, local and global prestige. The school curriculum defines and legitimizes the use and study of the languages included in its statute at

school. In schools, these social representations are sometimes unknowingly reflected, and the enhancement of children's multiple linguistic profiles have no way of being expressed. Teachers, through this work, became aware of how they were able to discover a hidden side of the children in their classes and this allowed them to have a more global idea, sometimes to change their image with respect to social and learning skills. In the Greek context, it was pointed out that teachers became aware of how their attitudes towards languages influenced the children's attitudes and how they needed to pay more attention.

#### 7.3.1.5 Fear of speaking a language other than the majority one

This work on languages also encountered difficulties, as observed in the Czech case, where in one of the schools involved with a majority school population and a mixed minority from mixed backgrounds, children from different cultural linguistic backgrounds (including Romani-speaking children) preferred not to expose themselves and not to declare if they spoke languages other than Czech. The school context was described as 'typical' for the Czech reality because, although diversely populated regarding cultural and linguistic presences, it was 'neutral' in not giving visibility to such differences.

These difficulties lead us to think of the need to implement longer and more relaxed interventions, especially in environments where there are not already forms of intercultural education, which, although partial or partly contradictory, nevertheless contribute to creating a substratum in the local cultural and social climate of the school, as well as the opportunity to work at different levels of the school context, so that, progressively, a social climate can be promoted in which children feel they can express their differences with spontaneity and trust, without fear of judgement or of losing recognition of belonging to the local community.

**A balanced approach to valuing diversities, commonalities and the resources of each child:** an almost opposite problem was found in other contexts (e.g. in Italy and the Netherlands) where the focus on the enhancement of linguistic and cultural diversity led in some cases to pay more attention to children with different cultural backgrounds than to native children. In Italy, a challenge in the project valuing multilingualism was to engage Italian children, who realized they were less skilled in languages than their immigrant or second-generation classmates (usually perceived as the ones who had to learn Italian), equally. A strategy the researchers tried to implement was to include Italian dialects in the activities all the forms of languages (art, digital creation, music) and to value all kinds of skills/resources that could be put into play (e.g. in the 5<sup>th</sup> grade class, an Italian student was strongly involved in recording and editing video interviews carried out during the intervention). But at the end of the project, it was a concern to observe the minor involvement of the Italian children in some activities in one of the classes.

This experience led us to observe that great care must be taken to achieve a balanced approach that does not produce a paradoxical opposite mirror situation to the initial one, however unbalanced. Valuing differences means valuing the resources of everyone and of each individual.



## **A balanced approach between child-lead and teacher-lead activities to get in touch to real-world**

The implementation of activities, in particular with regard to social justice issues and social and economic equity, met with the interest of children and raised high motivation on their part, due to how they were treated (the cooperative characteristics were highlighted), but also because they put them in touch with real-world issues of social relevance that allowed them to become more aware of the interdependence at the origin of social and economic inequality. Economic inequalities and social justice were new and unfamiliar to the children (and to some extent to the teachers), who had superficial perspectives on the topic. Concrete content and data were made available for children to explore and examine, aiming to enrich their personal and subjective perspectives with clear and developmentally appropriate information.

In these cases, the children's interest and motivations was combined with a clear and strategic focus on content and knowledge related to social inequalities and multiculturalism, aligned with a coherent theoretical framework (Asia Society/OECD, 2018) and with the national curriculum. Intentional and specific goals for each step were established to guide the interventions, combining local/specific needs and interests with theoretical/learning goals, providing several examples of possible avenues through which children could be highly interested while learning about topics that were relevant for the curriculum.

### **7.3.1.6 The challenges of the curriculum**

The general framework of the interventions of Task.4.4 included, as in fact was done in all the school contexts involved in the research, the possibility to connect the aims and central themes of the project (Global competence and multilingualism) to the school curriculum and to keep attention both on socio-emotional skills and academic and cognitive learning. In terms of the curriculum, the activities effectively favored interdisciplinary didactic planning of connections with regard to the local teaching curriculum and in some cases, for example in Portugal, they also favored the development of a vertical curriculum, in the form of collaborative work between children of different ages and grades.

From the point of view of social-emotional, cognitive and academic skills and outcomes, the Socio-Constructivist approach adopted actively involved children, valuing their role as active learners, citizens, key informants, 'researchers' and members of a learning community. All of the pedagogical theories selected and used as points of reference by each country team provided ample perspectives, promoting not just the mere acquisition of knowledge related to the core-topics, but emphasized the relevance of an increase in soft skills regarding *analytical skills* (i.e. critical thinking, problem solving, decision making, research and inquiry); *interpersonal skills* (i.e. communication, collaboration, leadership and responsibility); *ability to execute* (i.e. initiative and self-direction, productivity); *information processing* (i.e. information literacy, media literacy, digital

citizenship, ICT operations and concepts); and *capacity for change* (i.e. creativity, innovation, adaptive learning, learning to learn and flexibility) (Finegold and Notabartolo's, 2008).

However, it is important to highlight some of the challenges faced in implementing these operational proposals with teachers:

- In general, in all contexts (perhaps with the exception of the Greek context, where some teachers were part of the research team and had extensive experience in active and creative pedagogy), the research teams' support of the teachers was very important, not only in the use of the platform (see the next paragraph), but also in the adoption of a socio-constructivist and cooperative perspective. In some cases (in Portugal for example), the teachers recognized that the researchers made a substantial contribution to the success of the activities by helping to design the flow of children's experiences step-by-step and helping to facilitate group work. In the Italian case, it was important to make the teachers aware of the criteria and different strategies for guiding cooperative learning, much more than simple group-based work. The heterogeneity of the group members was a main basic principle (avoiding level-based grouping), but other criteria regarded how children were involved, their roles, what intra-group and inter-group collaboration was organized. A main challenge was to provide teachers with a full understanding on what socio-constructivism entailed and the strategies to organize cooperative learning based group work. A training session during the first part of the project was dedicated to this, and subsequently the co-design meetings helped to discuss strategies referred to specific characteristics of each class in greater detail.
- The continuation of a more or less explicitly dichotomous vision between "hard" and "soft" curricula, within which the activities proposed by the Isotis project were positioned. Although not in all school contexts, the teachers, even though they appreciated the courses and recognized the educational effects on the children, expressed their fears on how to carry out the 'regular' program and not to take away too much time from it (in particular in the Italian and Czech cases). This concern about time and the program, in general, led us to reflect on the need to work with teachers on a broader reflection regarding the priorities of the school training project, today and in the near future; more specifically, it led us to reflect on how to make the school staff more aware of the virtuous synergies that activities to enhance mother tongues had on the acquisition of the language of instruction, as well as on the identity and social climate at school. The research required the commitment to offer to those working in the school examples of how to integrate these issues with school disciplines, as we tried to contribute with the Isotis research.
- A third important challenge concerned the connection between socio-emotional, academic and cognitive skills and outcomes. The holistic pedagogical approach and the activities proposed were aimed at promoting new knowledge, awareness, critical thinking and socio-emotional skills. Especially in Italy, one of the main challenges was to make visible the virtuous interplay of the social-emotional and cooperative aspects enacted by the pedagogical

approach with the cognitive work required, and how this pedagogy stimulated the motivation to learn, improve and overcome limits, also in academic achievement. In communicating through the VLE noticeboard, exchanging views in small and large groups and creating artefacts, children wrote, read, spoke and communicated in several modes. Some of them faced their weaknesses in these actions (like reading aloud to record their voice for digital storytelling, or writing a text in two languages, especially in the 2<sup>nd</sup> grade class), motivated by the use of ICTs, the use of their mother tongue and the active role assigned to them, as highlighted in the results. Children also elaborated solutions, thought critically on complex topics and took action, demonstrating they were eager to feel competent in using their knowledge.

### 7.3.2 The mesosystem and exosystem levels

At the **mesosystem and exosystem level**, all interventions involved the teachers in a closely collaborative research process, also aimed at building teacher group collaboration (though not as a main goal). The collaboration of the research team with the teachers included efforts to support professionals, striving to reinforce teacher knowledge, values, beliefs and *commitment* to children's (and families') respectful inclusion, viewing themselves as *agents of change* towards inclusion and social justice. With regard to collaboration with teachers and the work process, see paragraph 7.4. (Highlights on the intervention methodology and process).

In some interventions (in Italy and Greece), it was also possible to address parents, especially in Italy thanks to the synergy with task 3.4, aimed at enhancing *communication with parents, to convey information* regarding school life, activities and the children's experiences, providing textual and visual documentation through a multimedia and multilingual communication system embedded in the ISOTIS VLE. Parents were also *involved in selected classroom/school activities* (i.e. exhibitions and performances), sharing personal and traditional stories in the home language at school, revealing their language competences. In Greece, the main challenge encountered regarded a general lack of a '*culture of participation*' of parents, who did not actively participate in education programs and school activities; additionally, often they were not familiar with ICTs and schools needed to make a lot of effort to engage them in communicating and interacting using technology for educational purposes.

In Italy, parent involvement revealed interesting aspects as well. The multimedia and multilingual communication methods offered by the platform, as well as the sharing of visual documentation of school activities, introduced novelty in school-family communication practices which were highly appreciated by parents who participated, facilitating a two-way communication exchange and mutual knowledge sharing. On the other hand, the platform itself was not sufficiently simple to use because it was not always accessible on a smartphone (see the next paragraph and the Italian country report in D.3.4 on the VLE for parents). Bridging children's experiences between home and school involving parents represented a promising systemic approach to promote

intercultural education, with beneficial effects on children's participation in the activities as well as on family-school partnerships.

### 7.3.3 At the school-institutional level

The interventions could not target the school as an institution, because only a few classes were involved at each site. The VLE interventions, however, promoted a *strengths-based curriculum concept* and pedagogical approaches based on the resources of all stakeholders, including children and families with diverse racial, ethnic, cultural, linguistic and social class backgrounds. This resource-based approach was appreciated by all the stakeholders and represented a successful feature, though we can also imagine that the effort required in sharing linguistic resources also contributed to lowering the number of participants, especially among families.

The interventions focused on *language support* and especially gave visibility to children's first languages. We did not address learning a second language (in Italy there was an initial proposal to combine both first language valorization and second language support, but this proposal was not followed-up due to time constraints).

The themes dealt with in the experiences and the pedagogical approach adopted (whose characteristic features were highlighted above), represent the core of democratic citizenship education in terms of the acquisition of values (respect for opinions, mutual listening, care for the common good), the development of skills and competences, and the sense of agency in taking action. From this point of view, we believe that the activities carried out and described in this report offer good examples of a *curriculum aligned with real-world democratic experiences* as well as societal challenges, which resulted in perceptions of relevance and meaningfulness among the local stakeholders.

## 7.4 Highlights on the intervention methodology and process

The theoretical and methodological framework shared with the professionals and, when needed, with the children as well, was organized in few main work phases: from an exploratory phase of getting to know the context, to a co-design phase aimed at defining the activities according to the features, interests and needs of the local context, with a monitoring system throughout the work process that led to a final evaluation involving all the stakeholders. A few points can be highlighted regarding these work phases:

- The exploratory phase represented the foundation of the process and helped in familiarizing with the context, collecting data and then adjusting the intervention, in collaboration with the teachers. Learning about the context and its specificities (in terms of pedagogy, curriculum, school structures and projects) and the commitment to a modified, shared agreement was crucial to establishing a true collaborative partnership with stakeholders and to create a meaningful intervention in each site. Even though it required time, this phase was critical to

allow for meaningful interventions. For several interventions, it served not only for setting the stage in terms of the overall principles and goals of the intervention, but also for researchers and teachers to get to know each other and develop trusting and respectful relationships.

- In some cases (i.e. in Italy), the main challenge regarding this point was how to find the most opportune ways to share the evidence collected on the school context, the teaching practices and the social climate observed, when this evidence was strikingly different from the ideas and perceptions on these topics expressed by the teachers themselves. For instance, in the Italian case, teachers were convinced that they were already attentive to valuing the cultural backgrounds and that they promoted intercultural dialogues among children, while the researchers observed little attention paid to these aspects and no practice dedicated to valuing multilingualism. We opted to present at least part of the contradicting results to the teachers when we presented the intervention as an opportunity to further enhance and develop the values, beliefs and skills that were already present (for example we highlighted the still dominant monolingualism and included examples from practice to demonstrate that, and this was well-acknowledged). Thanks to the close collaboration with each teacher, the coaching relationship we could develop helped teachers to gain awareness and observe their children and their educational practice in a different way.
- Teachers valued close support and collaboration, both in the co-design and the implementation phases and for using the VLE during the intervention. During the whole process, it was relevant both to share resources and ideas when co-designing and to provide direct support, side by side with teachers, during the implementation (online and offline) of the learning experiences. The support and mediation to the team was in most interventions crucial for the overall success, both for conducting the activities and for implementing the VLE as part of the activities. While in most of the interventions the activities could be carried out by teachers without the support of researchers, this was not the case in using the platform, its functions and resources to carry out these activities in a blended form. The sustainability of the curriculum proposal supported by VLE requires the overall improvement of the platform, as will be detailed in the next paragraph.

## **7.5 Highlights on the use of ICTs to innovate teaching and learning practices and communication**

The ISOTIS VLE, in task 4.4, meant to provide teachers and children a digital “enhancement” of educational and communication processes, adapted to the local context, not a “digitization” of traditional teaching and communicating, for which co-creation processes for developing content using the cultural and linguistic resources of children, families and communities were essential. The expected outcomes were to increase the engagement of stakeholders and to empower them, to increase collaboration and sense of belonging among the local community and to create an enriched and truly intercultural curriculum and communication. At the platform, teachers were

invited to organize the participants in groups by varying their roles and selecting appropriate, well-tailored content for each role from the many different content resources within each course structure. The platform, its functions and content resources were designed to be consistent with the ideal of active teaching children, through active engagement and through avoiding reduction of the learning experience to a simple “digitization”. The implementation and use of the VLE was meant to strengthen the teacher’s role as a coach in the development of the children’s work-in-progress during the various cooperative practices, and to boost the learning and communication experience of the children digitally, through a “multi-code” language, which could enhance students’ multiple skills with new learning opportunities. The VLE offered a platform for the integration of activities carried out both in “real” and in digital contexts and also for documenting processes and contents produced by the participants.

## 7.6 The evaluation of Virtual Learning Environments: a synthesis of the main results in Task 4.

### 7.6.1 Use and appreciation

#### 7.6.1.1 What did the research participants explore?

The exploration and use of the VLE showed patterns common to all countries, to a subset of countries or to one country specifically. The research teams had to adjust how to give access and to explore the VLE based on local requests, constraints or conditions. It was also challenging to deal with the new European regulation on privacy and data processing (GDPR) that caused delays in the implementation of the VLE.

The implementation of the VLE in WP4 regarded mainly teachers and children, while parents were also involved only in Italy and in Greece (due to synergy with WP3).

In all **countries**, the exploration of the VLE was guided and supported by the researchers: during meetings with teachers, children or with both teachers and children together, the overall structure of the VLE was presented regarding the three main sections (MY SPACE, CONTENTS and TOOLS) and the main functions.

All **teachers** received personal login credentials at the beginning of the intervention so that they could continue the exploration on their own. Teacher profiles allowed them to access all of the VLE sections and explore all of the resources, functionalities and applications.

Teachers explored the VLE exclusively in the presence of the researchers in Portugal and Greece, while in Italy and the Czech Republic teachers spent time exploring resources also without the researchers.

They mainly browsed the resources related to the classroom intervention topics in which they were involved (i.e. “Promoting multilingualism” in the Czech Republic and Italy; “Social justice and human rights” in Portugal; “Participation and Democratic life” in Portugal and Italy; “Promoting Intercultural sensitivity” in Greece), although other resources were provided in both English and the national language.

Related to the involvement in WP5 (professional development), in Portugal and Italy, teachers also accessed descriptions of activities and materials uploaded by ISOTIS partners in other countries.

The access of **children** to the platform differed from country to country. In the Czech Republic and Greece, children did not explore the platform independently. Guided by the teachers and/or the researchers, they had the opportunity to mainly look at some resources (videos) or some of their artefacts uploaded onto the VLE, but they didn't directly use the VLE. In one case, school

children co-created images off-line for a memory game in the Romani language and they enjoyed having their work uploaded on the VLE, available to other children using the platform.

In Portugal and Italy, children had access to the platform and were invited to explore resources and functionalities. In Portugal they were always supported by the researchers (teachers were supported as well). In Italy children also explored the platform autonomously (even more so than the teachers).

The VLE sections available in the child's profile were 'My Space' and 'Tools: Explore the resources', and during the interventions, all the ISOTIS videos were made available in the children's profiles.

In 'My Space', children were provided access to several resources, such as ISOTIS videos or other videos embedded in the VLE; H5P applications useful to develop tasks; questionnaire tools connected to videos. These resources and applications were sent to children by the teachers or the researchers through the Noticeboard system.

Children participated in forums and explored the communication functionalities provided by the Noticeboard system, allowing them to send messages using different media languages (text, audio & video-recording, drawing) and different languages (multilingual keyboards and Google translator) using Beeba. In Italy, children (especially children in the 5<sup>th</sup> and 2<sup>nd</sup> grades) also had the opportunity to explore the instant message system and they explored and used a page to create their own personal avatar profiles.

**Parents** were invited to explore and use the VLE only in Greece and Italy. The participation of parents was not particularly high, especially in Greece. In both countries, specific meetings with parents were held for each class involved to present the VLE. In Italy, besides the resource section, time was dedicated to presenting Beeba's functions and the MY GROUPS section, where the teachers in collaboration with the researchers used the noticeboard to communicate and exchange materials (teacher & parent noticeboards, student & parent noticeboards, and, in the second grade, teacher & student & parent noticeboards) during the interventions.

#### 7.6.1.2 What did they use?

The use of the VLE varied according to the level of autonomous access (i.e. exploring the resources), the technological equipment at the schools and the teachers' digital skills.

In general, **teachers** did not take full advantage of all the functionalities present in the VLE.

In all countries, the VLE was used to:

- find information to increase knowledge regarding some key topics (language awareness, bi-/multilingualism, intercultural competence...);
- look at the Videos and the section DID YOU KNOW?;



- get ideas/inspiration for some possible activities to be implemented in the class (sub-section WHAT CAN YOU DO?);
- read observation cases to sustain teacher reflectivity in the section OBSERVE AND REFLECT.

In some countries (IT, PT and CZ) the social infrastructure (the noticeboard) of the VLE in the MY SPACE section was used more intensively for several purposes:

- to send children a video or other material to engage them in commenting on it, either in presence offline and at distance using the noticeboard at home;
- to send a notice to children to engage them in a task or activity that in some cases was carried out offline, in other cases entailed the use of one or more VLE applications.

The noticeboard was used in all countries (including Greece) to upload children's artefacts. When the products were non-digital, they were digitalized afterwards. In Italy the use of the noticeboard was extended, also involving parents (within the scope of WP3). It was used to:

- send notices to parents and report the homework assigned to children;
- share documentation (pictures, videos, products of the children) regarding the activities carried out at school, experimenting new ways to communicate with parents and enhancing family-school dialogue and collaboration;
- communicate between children and parents, inviting parents to participate and contribute to activities that the children were involved in; or even to foster communication between children, teachers and parents.

The Documentation section of My Space also served as an archive for activities and videos that teachers appreciated (CZ). In other cases (IT), a digital version of the Teacher Diary tool was provided and some teachers took advantage of it, to keep track of and document the activities carried out and report personal reflections throughout the intervention. In the scope of WP5, the noticeboard was in Italy and Portugal also used to exchange experiences, practices and reflections with professionals from other countries, supporting teachers in the acquisition of a critical, reflective stance.

**Children** in all countries used the platform to watch the videos and share and look at their products if digital/when digitalized and uploaded by the teachers/researchers. In some countries they also used noticeboards and forums to communicate with other children and with teachers and children, and, in Italy, with parents. The communication on the noticeboard was fully explored and used by children using all the media languages (audio-video recording, drawings and texts). In Italy, children also used Beeba, the linguistic accessibility mediator embedded in the VLE, to translate and read texts aloud in different languages. In the Italian context, in a couple of classes, children also created their own avatar profiles.

**Parents** used the VLE in Italy to get informed about bilingual children's language learning, watching the videos aimed at increasing parent awareness, knowledge and skills in raising multicultural/multilingual children, to communicate through the VLE noticeboard, to read teacher notices and the class documentation and to provide contributions requested by the teachers and/or by the children themselves. These included: contributing to the realization of the digital storytelling activity by providing written translations of the stories or contributing to the Multireligious Calendar by sending information, pictures or videos of religious feasts.

### 7.6.1.3 What resources and functionalities were interesting and which ones did they like the most?

In some countries (PT and Greece) **teachers** had less direct engagement with the platform and feedback on specific resources and functionalities was not obtained, while in Italy and the Czech Republic it was possible to get their feedback. Both the Czech and Italian teachers appreciated the database of activities and videos that could serve as inspiration, but they appreciated most the My space section in relation to different functionalities. The Czech group emphasized the utility of having an archive of activities, resources and documentation all in one space for each classroom. They also appreciated Beeba functions (such as language translation) and the multimedia communication system of the noticeboards using audio-video recordings and drawings to communicate, besides texts; they also imagined that with regular use, the platform could be a useful space for regulating children's activities and work to some extent. The most appreciated feature was the possibility to create an archive of resources and documentation in 'one place' dedicated to one class.

The Italian teachers, more than the storage function, considered the opportunities for communication and sharing between children, teachers and families provided by the noticeboard to be interesting. Teachers thought the VLE was a promising tool to build a 'community' for learning purposes, for sharing and communicating. In the professional development activities of WP5, the VLE also facilitated the dialogue and exchange among professionals from different schools and different countries.

In the countries where **children** actively participated on the platform (PT and IT), they appreciated the opportunity to interact with peers and, in Italy, to communicate with parents between home and school, receiving songs, stories and words in different languages from parents. Looking at the noticeboard to see if any news was on it was exciting. In Portugal, children also appreciated the attractive visual information and the opportunity of learning through play, thanks to the use of digital applications.

**Parents**, in the Italian experience, appreciated several features of the multilingual and multimedia communication system:

- multilingual messages & contents;

- translation tools provided by Beeba;
- video communication with teachers through audio-visual resources;
- visual content and content of a didactic nature (e.g. on multilingualism).

The noticeboard tool made it possible for parents to:

- have more inclusive, faster, easier for non-native speakers to communicate with parents, teachers and the school system;
- have access to documentation about the activities realized in class by their children and get messages from the teachers;
- strengthen the collaboration between school and home contexts as learning environments, increasing their awareness of the school system and learning activities, improving their participation in their children's school life and their support in learning activities and homework;

They also appreciated the way the VLE was used by the children (constructive, formative use, different from the most popular social media).

#### 7.6.1.4 What did they like the least?

The **teachers**, especially in Italy, criticized the VLE mainly because it was perceived as unintuitive, complex and fragmented in its functions, aspects that made it quite difficult for the professionals to use – let alone master – the platform in complete autonomy without the assistance of the researchers. In other countries, such as in the Czech Republic, teachers criticized the theoretical information, considering this also too complex for them, and they would have appreciated a larger supply of guidelines for actions and videos in several languages (including the Romani language/s), lessening the theoretical parts.

Moreover, the fact that the platform was a prototype, unfinished, with some functions available only in English, represented a barrier to appreciating all of the resources and functionalities. In Italy, the VLE graphic interface was considered aesthetically unattractive.

**Children** mostly appreciated the interface and they had fewer difficulties in using the VLE, discovering by themselves how to use some functionalities. In a few cases, they also expressed some criticism when the use of the noticeboard was too intense, the request for uploading videos or answers to questions made them feel a bit anxious.

**Parents**, in the Italian case, did not appreciate the following aspects:

- the interface was not user-friendly (problems encountered with the password);
- the wealth of resources provided was not easily accessible;
- it was not smartphone-friendly.

A few Italian parents found the videos uninteresting and others found the theoretical contributions of little use. Some pitfalls, related to the multilingual interface and social communication system were raised by a number of parents. For instance, one parent expressed the risk of discouraging

immigrant parents from learning Italian, some others stressed the similarity with other tools already available (e.g. Google translate). Mothers observed the risk of feeling overwhelmed in using digital tools for communication, since they already used Whatsapp chat.

#### 7.6.1.5 Do you think that the platform fostered any innovation in your practice? What (if any) potential do you see in the platform?

**Some teachers (CZ) found** it valuable to have a big inventory of potential activities (possibly broader in the future than the one currently provided) to be used in class, accessible in the local languages, as well as the possibility to have all relevant class information and resources in the “My space” section. Other teachers, especially in Italy and Portugal, although the teachers did not think they would have the time to explore the platform and take advantage of it, acknowledged how the VLE motivated students to engage also in complex tasks, how it increased the participation of children, and how students were responsive to it. In sum, they considered the ISOTIS VLE an asset that enhanced children’s learning experiences. In Italy, the teachers considered the VLE had the potential to build a learning community among children and professionals, facilitating dialogue and exchange among professionals from different schools/countries.

**Both teachers and parents** considered the VLE a powerful tool to enhance family-school communication and collaboration. In fact, the sharing of some of the activities at school and/or at home through the VLE contributed to defining a more symmetrical relationship and better negotiation modalities between teachers and parents: teachers could make examples of "activities" or "educational interventions" at school visible to parents; parents contributed by making their linguistic and (inter)cultural competences visible.

Communication between school and migrant families, often complicated by problems of linguistic misunderstanding, was also facilitated by the visual languages used (video-photo) and the greater presence of the languages of origin at school and on the VLE. This kind of communication was also particularly useful to parents who did not participate very much in school life or who were not in a position to participate because they did not have a voice (in the broadest sense: excessively fragile, vulnerable, isolated or bearers of an idea of school as a context independent from the family which they should respect without intervening). The interaction between school and family, often unidirectional (school to family), also developed in the opposite direction: from family to school. These strengths induced both the school director and informant A (as the assistant principal) to extend the use of VLE to the whole school starting from the next year. One teacher, who would be teaching in another school the next year, was so pleased that she proposed the use of VLE to the director of her new school.

#### 7.6.1.6 What changes would you suggest?

The main changes suggested were:

### **Structure and resources**

Make the VLE structure and its functions more immediate, intuitive and overall user-friendly;

Make the interface more attractive;

Give a more coherent structure to the resource courses;

Enlarge the number of activities and of videos in different languages.

### **Social infrastructure and languages:**

- Enhance and improve the opportunities for communication and exchange that the VLE can offer at various levels (between teachers and pupils, between teachers and families, between professionals);
- Develop the translation functions further a key feature;
- Add more translations to native languages and translate the platform into Romani language;

Both parents and children proposed increasing usability via smartphone with an easier interface (they proposed an application) and enhancing the communication system also with video calls (like Whatsapp) sections.

QUESTIONS	OBJECTS	TEACHERS	CHILDREN	PARENTS (involved significantly only in Italy)
What did you explore and used?	<b>RESOURCES</b> <input type="checkbox"/> Videos <input type="checkbox"/> Theoretical information <input type="checkbox"/> Observation cases <input type="checkbox"/> Activities	<b>All countries</b> <b>All typologies</b> <b>Few contents</b> <b>All guided</b> <b>Two countries autonomously</b>  All teachers in all countries explored and used few contents from each typology (mainly related to the key topics of the intervention). Only IT & CZ teachers explored the VLE autonomously as well	<b>All countries</b> <b>All typologies</b> <b>Few contents</b> <b>All guided</b> <b>Half of the countries autonomously</b>  The child's profile only had Videos & Activities In all countries, children watched some videos and looked at some materials for the activities	<b>One country</b> <b>All typologies</b> <b>Few contents</b> <b>Guided and autonomously</b>  Only in Italy did parents explore the resources on the VLE. None were used for home activities (not expected). Some parents watched some videos with children at home
	<b>DIGITAL TOOLS</b> <input type="checkbox"/> Digital applications <input type="checkbox"/> Tutorials	<b>Most countries</b> <b>Few tools.</b>  In IT, PT and CZ some teachers explored a few tools if they were needed for the activities	<b>One country</b> <b>Several tools</b>  In IT children explored tools	<b>None</b>  None of the parents explored the tools section
	<b>MY SPACE</b> <input type="checkbox"/> Noticeboard <input type="checkbox"/> Projects and Materials <input type="checkbox"/> Documentation	<b>All countries</b> <b>Few tools</b>  In IT, teachers mostly used the noticeboard with children and parents. In PT, the noticeboard was used with children. In CZ teachers used Projects and materials for storage and the Documentation section for pictures or children's products	<b>Half of the countries</b> <b>One tool</b>  Especially in IT and PT, children used the <b>noticeboard</b>	<b>One country</b> <b>One tool</b>  Parents in IT explored the <b>noticeboard</b> and used it (even if just few of them) with other parents, teachers and children
	<b>BEEBA</b> <input type="checkbox"/> Multilingual Keyboard <input type="checkbox"/> Vocal synthesis <input type="checkbox"/> Translator <input type="checkbox"/> Format options	<b>All countries</b> <b>All functionalities</b>  All teachers explored the functionalities provided by Beeba	<b>Two countries</b> <b>All tools</b>  In PT children looked at Beeba's functionalities, In IT children used several, mainly translator and the multilingual keyboard	<b>One country</b> <b>One tool</b>  Parents explored Beeba's functionalities, but mainly used the translator. A small minority also used the multilingual keyboard.

What resources and functionalities are interesting and you liked them?	<b>RESOURCES</b> <input type="checkbox"/> Videos <input type="checkbox"/> Theoretical information <input type="checkbox"/> Observation cases <b>Activities</b>	<b>All countries</b> - appreciated the videos and activities  -the theoretical parts not very appreciated in two countries (CZ, PT)	<b>All countries</b> Children appreciated videos and activities (the implementation)	<b>One country</b> Most of parents in Italy appreciated the videos. They appreciated the activities implemented in the class involving their children and participating
	<b>DIGITAL TOOLS</b> <input type="checkbox"/> Digital applications <input type="checkbox"/> Tutorials	<b>All countries</b> <b>Few applications</b>  Few teachers were skilled enough to appreciate the use of the applications, but supported by researchersthey used some of them to conduct some activities	<b>Two countries</b> <b>Few applications</b>  In IT and PT children appreciated the application they explored and used	<b>All countries</b> <b>None</b>  No exploration or use.
	<b>MY SPACE</b> <input type="checkbox"/> Noticeboard <input type="checkbox"/> Projects and Materials <input type="checkbox"/> Documentation	In two countries (IT and PT) teachers mainly appreciated the noticeboard and its integrated multimedia communication system.  One country (CZ) appreciated the Projects and materials and Documentation area	<b>Two countries the noticeboard</b>  Children appreciated the noticeboard very much, especially in IT and PT where they had the opportunity to use it with children and/or with parents, making use of all the media-languages. They also appreciated the Instant messages chat and the avatar profile.	<b>One country the noticeboard</b>  Parents in IT appreciated the noticeboard (not many used it)
	<b>BEEBA</b> <input type="checkbox"/> Multilingual Keyboard <input type="checkbox"/> Vocal synthesis <input type="checkbox"/> Translator <input type="checkbox"/> Format options	<b>In all countries, teachers appreciated the functionalities, but they asked for better functionality.</b>	<b>One country</b>  In IT children appreciated Beeba's functionalities (though they used them only a few times)	
What did you like least?	<b>RESOURCES</b> <input type="checkbox"/> Videos <input type="checkbox"/> Theoretical information <input type="checkbox"/> Observation cases <input type="checkbox"/> Activities	<b>In all countries the theoretical parts were not appreciated.</b>  <b>In all countries, teachers criticized the complexity of the platform.</b>	<b>Nothing</b>	<b>The complexity of access to the Platform and to each section.</b>

	<b>DIGITAL TOOLS</b> <input type="checkbox"/> Digital applications <input type="checkbox"/> Tutorials	No comments	No comments	No comments
	<b>MY SPACE</b> <input type="checkbox"/> Noticeboard <input type="checkbox"/> Projects and Materials <input type="checkbox"/> Documentation	Nothing, but the noticeboard needs to be improved		Nothing, but the noticeboard needs to be improved
	<b>BEEBA</b> <input type="checkbox"/> Multilingual Keyboard <input type="checkbox"/> Vocal synthesis <input type="checkbox"/> Translator <input type="checkbox"/> Format options	To be improved		To be improved
<b>Do you think that the platform provides/fosters any innovation in your practice?</b> What (if any) potential do you see in the platform?	High potential looking at the children's engagement (IT, CZ, PT)  High potential looking at the parent-school communication innovation (IT) But feeling low-skilled and not available to invest time; feeling big limitations in terms of tech equipment of schools and, in some areas, of children at home	High potential in learning activities, in communicating with everyone (teachers, children, parents)	High potential in parent-teacher communication, in being involved and understanding the school context, in being involved in the children's experience at school.	
<b>What changes would you suggest?</b>	Easier, more user-friendly, more coherent and immediate to use More languages More videos More activities (less theory) Enhance the social infrastructure and	Video call system	Application mobile-friendly Easier to use	



## 7.6.2 The VLE, the research process and the activity implementation

### 7.6.2.1 What role did the VLE play during the work process and the activities?

The role played by the VLE changed according to the quantity and quality of its use. While in the Czech Republic the VLE platform did not play a significant role **teachers'** work and activities process, as use in the local context was limited due to several factors (a problem with informed consent, the technical skills of some teachers or students, incomplete version of the platform and limited digital technology available at schools), in other countries (IT and PT), the VLE in the class played a positive role:

- Facilitating research, organizing information and exchanges among actors;
- Promoting children's motivation and interest to learn more about the topics addressed by the project, but also regarding other curricular topics;
- Promoting active student participation and interactions between peers and the working group also at distance;
- Promoting learning through play and usage of ICT;
- Promoting communication and interactions between children and teachers enriched by the noticeboard-based distance communication system (i.e. children asked questions and for clarification on homework, they talked to the teacher about life at home on holidays, during the Easter Break, etc.);
- Promoting multilingual communication and the exchange of multilingual materials

In relation to the collaboration of professional, the VLE facilitated sharing, inspiring examples of work conducted in schools, with concrete examples of the activities conducted and materials produced by children.

In use with **parents** in Italy, the use of the VLE contributed to enhance family-school communication: it contributed to making teachers find and experiment with new modalities to engage and communicate with families and acquire a more critical, reflective stance in their way of valuing families (e.g. use of the digital reflective diary; opportunities for international exchange).

When children had the opportunity to co-create activities (i.e. painting items for the matching game in one of the Czech schools), the VLE was perceived as a powerful tool to value and share the artefacts and make them available to other children.

### 7.6.2.2 What were the main challenges and the main advantages in using the VLE?

The main challenges in the use of the VLE were as follows:

### With teachers:

The main challenges dealt with the possibility to make teachers explore and use the VLE in a more autonomous and deliberate way. Although they experienced the opportunities offered by the VLE at various levels first-hand (PD, teaching-learning process, family-school communication), they often relied on the technical support of the ISOTIS researchers. The lack of familiarity with ICTs of the teaching staff and time constraints also played a role. In some countries (CZ), it was mentioned that teachers often do not use computer technologies themselves in their personal lives, only tablets and smartphones.

Also, the interface and structure was perceived as too complex and added an additional challenge.

### With children:

The main challenge in many countries was represented by limited digital technology available at schools. This required children to take turns using the PCs available, or it even renouncing the children's direct use of the platform. Computers and digital technologies were often absent at schools, they were often broken or not used in classes.

Children, especially the youngest at the primary school, had also some difficulties in memorizing their credentials.

From home, not all children had internet connections in all the countries. In some countries (like CZ) it was mentioned that many families did not have computers at home; or, in other cases, not depending necessarily on the socio-economic status, parents did not want their children to use technologies (computers, tablets, smart phones) and set up accounts.

### With parents:

Involving families in school activities was a challenge because of the limited time available, problems in accessing the platform, the lack of participation and cooperation of some teachers. Moreover, almost all parents received the credentials to access the VLE associated with their e-mail address. This type of registration allowed the user to receive an email alert each time a message was written or a resource was uploaded to a forum/message board in one of the subscribed groups. It was possible, therefore, that some parents, seeing the alerts and communications from teachers directly by email, did not feel the need to enter the platform to read the same communication.

Overall a key point was related to the need for an easy and friendly mobile phone application .

**The advantages** in the use of the VLE related to all the positive roles played by the VLE mentioned above and the appreciation of some content and functions by the teachers and children as highlighted before.

### 7.6.2.3 Summing up: points of strength and weakness of the VLE tool and its implementation

Overall, the evaluation seems to suggest that the VLE had a good potential, offering interesting and valuable functions and content. Nonetheless, it is crucial to improve both its interface and its structure to make them more intuitive and straightforward

The interventions highlighted some valuable lessons.

#### **Some key points learned regarded the work process with professionals and children in using ICTs:**

- The potentialities of the VLE platform can contribute to raise student motivation and interest in the content and overall process, while allowing for the development of digital competence and contributing to achievement of the intervention goal;
- Teachers acknowledged this empowering effect of the VLE on children's motivation, interest, and participation and saw that the VLE and ICTs in general were an asset of the teaching and learning processes and also of the social climate;
- Teachers did not feel ready, skilled or supported (by the ICT equipment at school, or professional development) to make the step to use ICTs and the VLE in their regular activities;
- When teachers struggled with time and an overloaded work scheduled, close support and collaboration of the research team with teachers was necessary and enabled the usage of the VLE. An initial step in close collaboration with the team seems to be necessary, together with structural conditions (e.g. time) for teachers to explore the platform and use it autonomously. In this regard it is important to plan an extended time to let professionals (& parents) familiarize with the VLE. While it can be helpful to provide some demonstrations/tutorials to show them the possibilities that the VLE provides, it is nonetheless crucial to let them explore its functions at their pace, to develop autonomous use;
- Children demonstrated a very positive attitude towards ICTs and they were frequently more skilled than teachers (IT). To overcome possible teacher resistance towards ICTs, it may be useful to consider the parallel involvement of children. In fact, pupils can play a bridge role, helping teachers (and parents) to approach and see the potential offered by new technologies.

#### **Some points related to the content, especially the activities:**

- The theoretical information did not work as well as activity guidelines that were appreciated and requested.

- Videos were appreciated as a stimulus to talk and communicate with children, parents and teachers and participants asked for more videos in multiple languages.
- Designing the VLE experiences with the same principles as the offline activities led to positive results. Thus, the VLE experiences can be outlined based on children's and teachers' interests, clearly focused on learning contents and goals and involving children's active participation and interaction with the platform, in small cooperative groups.

### **Some other points regarding the platform structure and interface:**

1. it was necessary to make the overall structure and interface of the platform simpler and more intuitive, so as to favor more active, gratifying and autonomous use by teachers, children and parents;
2. it will be important to work to enhance and improve opportunities for communication and exchange that the VLE can offer at various levels (between teachers and students, between teachers and families, between professionals) – as it was one of the aspects considered more promising by the participants;
3. it is necessary to translate the platform into more national and minority languages.

## **7.7 Main lessons learned and recommendations for practice and policy**

We here summarize the main lessons learned and the recommendations for practice and policy in reference to three levels of reflection:

- the innovation of inclusive curricula and pedagogies;
- the use of ICTs to innovate teaching and learning practices and communication;
- the methodology and process of the intervention.

### **7.7.1 The innovation of inclusive curricula and pedagogies**

- The essential centrality of the children's experience as a starting point to create intercultural dialogue and shared knowledge, from the early years, meaningful to the children and close to their life: an 'emergent intercultural and multilingual curriculum' can be elicited and promoted listening to children's experiences, knowledge (even if partial) and elaborations, socialized through school experiences with the teachers and the class group.
- The importance of involving families in sharing resources and knowledge in a systemic generative way for positive effects on the families' and children's participation, motivation and enjoyment.

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- The crucial role played by teacher's conversational practices and communication skills in engaging children in open dialogues, sharing life experiences, exploring and meta-reflecting on the diversity emergent from their experiences.
- In connection to this, it is crucial to provide children of all ages with true opportunities for open dialogues with teachers and peers, to express opinions without being judged or evaluated, enjoying the exploration of complex topics connected to the real world.
- The value of considering children as reliable informants, researchers on their life experience and on societal and real world issues, engaging children in authentic learning and raising their motivation and enjoyment in learning.
- The importance of supporting children's collaboration in decision-making process and taking action, in order to motivate participation so that children experience democratic values and attitudes starting from the early years, and to cultivate the hope of being agents of change.
- The crucial importance of providing professionals with concrete and well documented curriculum implementations to make visible the integration of main school learning with Global Competence, Intercultural and multilingual education, transversal to all disciplines, not limited in time and disconnected from the rest, in order to overcome resistances to change.
- Specifically in reference to multilingual education, it is relevant to reinforce the importance given to a socio-linguistic approach in school curricula and pedagogy, guiding teachers in considering their crucial role in fostering positive emotions and ideas about all the languages present in the class, affecting children's relationships with their language repertoire and their cultural heritage.
- The crucial importance of providing professionals with concrete and well documented curriculum implementations to make visible the virtual interplay of socio-emotional, cognitive and academic acquisitions enacted by active, socio-constructivist and cooperative practices, to facilitate the true valorization of soft skills at school.
- An inclusive context can be built progressively, posing widespread attention throughout the school day on the relational and discursive modalities with children, the use of words, in order to create a coherent social climate, and posing a careful/thoughtful attention to the spaces and materials present at school. The visibility of the presence of languages and cultures in the school space creates a coherent and fair context, able to facilitate the socialization of cultural and linguistic knowledge and reflections connected to them and avoiding feelings of discomfort by asking children to talk about linguistic or cultural differences

### **7.7.2 The use of ICTs to innovate teaching and learning practices and communication**

- The great potential of using a multilingual, multimedia digital support to improve communication and bi-directional exchange between family and school, to increase communication among children, between children and teachers, children and parents, children, teachers and parents, children and School Director.
- The symbolic value of a multilingual digital tool such as the VLE as part of the school experience, providing visibility of languages and legitimating them.
- The great potential of ICTs to engage children, increase their participation in accomplishing typical school activities such as reading and writing.
- ICT tools, such as the VLE, can foster children's motivation and interest, especially using guiding criteria aimed at fostering cooperation, networking, sharing etc. and a blended approach open to offline and online solutions.
- The importance of providing simple, easy digital tools to lower the skill requirements, both in reference to teachers and parents, to favor more active, gratifying and autonomous use.
- The importance of dedicating time so that professionals & parents can familiarize with the adopted digital tools, the VLE, by providing some demonstrations/tutorials to show them the possibilities that the ICTs provide and let them explore the functions at their own pace.
- The key role potentially played by children by involving them in the use of ICTs to help teachers approach and see the potential offered by new technologies.

### **7.7.3 The work process (research methodology)**

- The relevance of starting from the in-depth exploration of the context as a key foundation of the intervention in order to gain familiarity with the local environment, collect meaningful data and address problems and topics relevant to the local stakeholders.
- The relevance of proximal tutorship and coaching in supporting teacher professional development.
- The importance of combining references to a clear theoretical framework and concrete proposals.
- The great potential of involving teachers in research-oriented processes to provoke change in beliefs and attitudes.
- The key role of the School Director as part of the intervention and collaboration during the process, valuing efforts and supporting the coordination of the teachers.
- The importance of 'mapping' the local school culture related to inclusion, diversity, multilingualism, progressively letting the contradictions and the implicit different

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views (when present) emerge, to highlight the gap between the declared pedagogy and practice and the actual situation.

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## ANNEXES

### Annex to chapter 2

<b>TITLE</b>	<b>Listening to languages: Parents come to school and read stories in their mother tongue</b>	<b>How do we look? Activities to investigate the different colours of our classroom</b>	<b>Bringing home life into the classroom to facilitate meaningful intercultural interaction in the classroom</b>
<b>TOPIC</b>	Promoting multilingualism in the classroom	Promoting intercultural sensitivity	Promoting intercultural sensitivity
<b>AGE RANGE</b>	4-6 (kindergarten, first year of primary school)	4-6 (kindergarten & first year of primary school)	4-6 (kindergarten, first year of primary school)
<b>SHORT DESCRIPTION OF ACTIVITY</b>	Parents who speak a different language than the language that is spoken at school are invited into the classroom to read aloud in their mother tongue to the children. Children are asked to listen closely, and invited to reflective discussion afterwards about the sound of the language, if they recognise words, and making comparisons to other languages they know or heard before...	This set of activities centers around physical comparisons (skin-, eye-, hair colour, length, shape of nose, lips etc.) and making these issues addressable in the classroom. Starting with circle time and reading a picture book on skin colour, the activities evolve both individually and collectively in order to give children the opportunity to	In this activity, pictures from home life are shared in the classroom, to be discussed with the children during circle time. During these discussions children learn more about each other's background and home environment. They also become more aware of differences and similarities. Most children are not consciously aware of their own or others' cultures, but with this activity it can gain importance through concrete interactions on everyday practices (Seele, 2012).

INTERNATIONAL REPORT TASK 4.4

		learn and talk about how they all look.	
<b>AIMS</b>	<ul style="list-style-type: none"> <li>• Increasing awareness of multilingualism in the classroom</li> <li>• Create possibility to come in contact with other languages</li> <li>• Give the message that all languages are allowed in the classroom</li> <li>• Increase parent-teacher partnership; involve parents more/make use of parent resources</li> <li>• Listen to, compare and discuss the sound of different languages in the classroom</li> </ul>	<ul style="list-style-type: none"> <li>• Addressing and making explicit the fact that that all the children are (equally) part of the same class, however different or similar they look</li> <li>• Develop a discourse to talk about physical similarities and differences in the classroom</li> </ul>	<ul style="list-style-type: none"> <li>• Connecting home world with school world</li> <li>• Increase awareness of each other's life's and background</li> <li>• Increase cultural sensitivity</li> </ul>
<b>PROCEDURE/DESCRIPTION OF STEPS IN THE ACTIVITY</b>		<p>Several activities can be part of this set. Below a selection of activities that were part of ISOTIS pilot study:</p> <p>Step 1: Circle time book reading:</p>	<p>Step 1: The teacher decides on a topic for the pictures, and asks the question to parents/children: can you share a picture of 'your ...' from home?</p> <p><i>In the pilot study for ISOTIS, children (and their parents) were asked to</i></p>

INTERNATIONAL REPORT TASK 4.4

		<p>There are a lot of books available about the topic of skin colour, pick one to read during circle time as starting point for a discussion on different skin colours. Several topics can be discussed, dependent on the direction of the book, and of level or interests of the class. This start activity sets the tone, so a clear message should be underlying it: Depending on the awareness of the children, issues of social justice, racial discrimination can be addressed.</p> <p>Step 2: Introduce skin colour cards: A set of skin colour cards is introduced to the class during circle time. Every colour is there twice. With these cards several playful games can be done in order to introduce the children to all the different skin colours that exist: e.g., children pick a card (not necessary their</p>	<p><i>share a picture of their breakfast and a picture of their bed/sleeping arrangement. All the children in the classrooms could relate to these topics, and contributed with pictures. In some of the classrooms teachers asked the children to share a picture of their favourite stuffed animal. In the pilot study the pictures were shared with help of a digital tool – Padlet – and placed on a shared digital board. This afforded an equality approach to diversity, as all the pictures were shown at the same time and in the same screen.</i></p> <p>Step 2: The pictures are collected and shown – all at the same time/in the same space. This collection of pictures is the starting point for circle time discussions. During the first phase asking children to describe and explain about their pictures, is a way of bringing valuable information about the child and his background into the classroom.</p> <p><i>During the first pilot study of this activity, teachers' focus was too much and too explicit on cultural</i></p>
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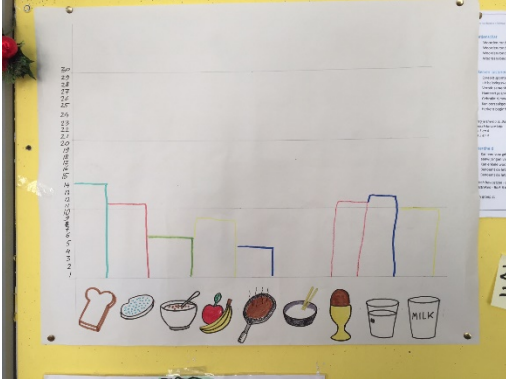
INTERNATIONAL REPORT TASK 4.4

		<p>own skin colour), when the music plays they walk around in the classroom, when it stops they compare cards with the child nearest to them, when the cards are different they switch cards, music starts again and the procedure repeats. During the final stop children have to go and look for the child with the skin colour card that matches the one they have.</p> <p>Step 3: make self-portraits: Children are invited to make a self-portrait. They have a mirror to look closely at their face. Chalks with different skin shades are available, and children are encouraged to find the best matching colour of their skin. Next to skin colour, colour and shape of eyes, hair, lips etc. should also be chosen resembling their real colours as best as they can. The teacher can stimulate the children to ask other children to give feedback and check</p>	<p><i>backgrounds of the children. They experienced that children were not always aware of it, and that the relation between their backgrounds and the food they ate was not easy to find. One child answered after being asked what typical Japanese food was .. 'vegetables'.</i></p> <p><i>During the second round of this activity, teachers scaffolded discussions more towards rituals and practices surrounding breakfast, talking about where the breakfast was eaten, together or alone, differences between weekday and weekend breakfast, special day breakfasts (e.g., during birthdays). Through these questions, children learned about each other and became aware of differences and similarities between their own experience and that of their classmates. Through this process cultural influences were revealed.</i></p> <p>Step 3: During the second stage, more comparative questions can come up, encouraging children to see similarities and differences, not only visible ones in the pictures, but also about underlying values and beliefs.</p>
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INTERNATIONAL REPORT TASK 4.4

		<p>the drawings, did they select the right colours for eyes, hair. How about the skin colour?</p> <p>Alternatively the children can also draw each other in pairs, focusing on all the elements in their face (colour and shape of eyes, hair, lips, skin). The teacher joins the pairs for a short talk about their physical characteristics, and for stimulating them to look carefully.</p> <p>The self-portraits get a prominent place in the classroom.</p> <p>Step 4: Comparison corner: In a corner of the classroom a small tent is made, in the tent all sorts of materials about physical appearances are arranged (e.g., posters with different eyes, ears, noses, hair, skin colour, etc., mirrors, instruments to measure, ). Pairs of children are invited in the tent to investigate if they look alike</p>	<p><i>Be aware that these issues evoke lots of emotions and feelings in children. Sharing stories about oneself and one's family life is an activity that needs to be treated with care. In our pilot work we saw that it was not easy for teachers to find a balance between allowing room for children to express these emotions (even if it meant talking through each other) and promoting an orderly classroom. Too much focus on the last, however, meant that there were many missed learning opportunities.</i></p> <p>Step 4: Other subject matters can also be inspired by the shared pictures: children who all share a picture of their breakfast, can use this information for instance to create a bar chart counting for each breakfast item the number of children who ate it, linking it to early mathematics.</p> <p><i>During the pilot study of this activity the classroom collaborated to make a bar chart of things they eat for breakfast (see picture). During the second pilot study, one classroom</i></p>
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INTERNATIONAL REPORT TASK 4.4

		<p>or not and in what they do and don't.</p> <p>Step 5: Circle time book reading: As final activity of this set, the teacher can repeat the start activity; reading the same book on skin colours again followed by a final circle time discussion on the topic. What did the children learn about each other, about all the different colours and backgrounds in the classroom?</p>	<p><i>made a bar chart every day during one week, so they could compare their breakfasts throughout the week.</i></p> 
<p><b>LESSONS LEARNED DURING PILOT STUDY ISOTIS</b></p>	<p>Preparation of the activity is very important; talk with parents beforehand about what is aimed for with this activity and what is expected from them (type of book or song, duration of the reading)</p> <p>The quality of the reflective discussion afterwards is also influenced by the preparation of the children before the activity.</p> <p>The child who's parent will read can have an extra role in the activity, for</p>	<p>During the pilot study of this set of activities Children are</p> <p>Mirrors invite to take a good look at oneself, not necessarily to look at each other. It is good to be aware of this, if the goal is to stimulate looking at each other and seeing differences and similarities, .</p>	<p>Use topics that concern all children, such as eating (e.g. breakfast) or sleeping, and that allow talk of rituals &amp; practices. Through practices and rituals, children learn that their way of doing things at home is not the only way.</p> <p>From experiences in the pilot study we learned that children might need some scaffolding to explain their picture, so don't hesitate to ask guiding questions. Involving the other children in this allows for the group level to be</p>

INTERNATIONAL REPORT TASK 4.4

	<p>instance by translating some of the words. From the pilot study however we learned that at this young age it is not evident that children will all have mastered easy switching between languages. This means that they might not be able to translate words, because the language they use for certain words is linked to the cultural practice they are used to (e.g., in one instance a child's grandfather came to read in the class, his 'baba' (grandfather in hindu) as he was introduced by the child. The child was asked repeatedly what 'baba' meant, but he was not able to translate it into the Dutch word for grandfather, because for the child it was his 'baba' who came to read)</p>		<p>reached in the classroom discussion (instead of having a group discussion that is made up of teacher-child interactions only).</p> <p>Children at this young age are most of the time not aware of the cultural influences shaping their day-to-day practices, but they can - if supported - describe experiences in great detail. Through these experiences the class can learn about underlying rituals and beliefs.</p> <p>Having a different (cultural) background can come up as one of the sources for differences or similarities that children discover between each other. Refraining from making it the starting point means that <i>all</i> children are addressed at the start of the activity</p> <p>Showing the pictures simultaneously, at the same screen, instead of one after another, affords children experiencing equality and diversity at the same time: "<i>we all eat breakfast, but not necessarily the same or in the same way</i>"</p>
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INTERNATIONAL REPORT TASK 4.4

			Share the pictures with parents too, even with results from the classroom discussions. This allows them to have a similar experience as their children have in the classroom, learning about backgrounds of all children and experiencing equality and diversity at the same time.
<b>ROLE OF TECHNOLOGY</b>			<p>Pictures can be shared with school using ICT possibilities (e.g., mobile technology, email).</p> <p><i>In the pilot study, the tool Padlet (<a href="http://www.padlet.com">www.padlet.com</a>) was used to share the pictures, because with that tool a digital blackboard could be created on which all pictures could be shown simultaneously. This digital blackboard was used to upload the pictures and to show the pictures in the classroom. Parents could also access it from home, making it possible for them to experience the same as their children.</i></p> <p>This can also be done with other technology, or even without technology (pictures taped to wall)</p>
<b>POSSIBLE LINKS TO RESOURCES</b>			

## Annexes to Chapter 3 – Country report IT

### Annex A – First context exploration – Basic Information

#### FIRST CONTEXT EXPLORATION

##### BASIC INFORMATION

**Please, write down the following information**

1. Country
2. Which type of school are you going to observe? (primary school, pre-primary school, etc...)
3. Grade of the observed class
4. Observers' name
5. Observation period (e.g. from the 7th to 11th of May)
6. What is the total number of the children in each class?
7. What is the number of the children with migrant background in each class?
8. Where do they come from?

**The following are useful places or moments to be observed**

- didactic moments
- lunch
- break
- toilet moments (?)
- getting out of school
- peers conversation

**Principal focuses**

1. Linguistic and plurilinguistic practices among peers or between peers and teachers (translanguaging /language brokering)
2. Dialogues and conversations about diversity (language diversity, food, clothes, attitudes, ...)
3. Relational dynamics (ethnic groups, non-ethnic subgroups, ...)

**Second focuses**

You can identify key-children, and you can observe them in a deeply way, recording some interesting conversations (e.g: newly arrived children, mutism case, plurilingual and loquacious child, ...)

## INTERNATIONAL REPORT TASK 4.4

### OBSERVER RECORDS

OBSERVER NAME:	
DATE: ___/___/___	
CLASS:	
OBSERVATION TIME: FROM _____ TO _____	
NAME OF THE TEACHER:	
SUBJECT:	
TOTAL NUMBER OF THE CHILDREN: N. OF THE FOREIGN CHILDREN:	
NATIONALITY OF THE CHILDREN WITH MIGRANT BACKGROUND (please, record if they are 1st, 2nd or 3rd generation)	
- ...	
- ...	
KEY-CHILD:	
NAME:	WHY IS HE/SHE A KEY-CHILD?:
- ...	
- ...	
- ...	
OBSERVER'S NOTES:	

## INTERNATIONAL REPORT TASK 4.4

<p>Description of the context (place, characteristics of the place, roles, aims of the activity...)</p> <p>Time:</p>



## INTERNATIONAL REPORT TASK 4.4

### Annex B – Interview with teachers



<b>Interview with teachers</b>	
<b>PRESENTATION OF THE CLASS</b>	<p><b>1. Tell me about your class.</b> (give teachers time to present their class)</p> <ul style="list-style-type: none"> <li>- <i>How would you describe this group of children?</i></li> <li>- <i>What are the educational themes to which you devote more attention?</i></li> <li>- <i>What are the strengths and weaknesses of the children in your class?</i></li> </ul>
<b>PEER RELATIONSHIPS</b>	<p><b>2. What are peer relationships like in your class?</b></p> <p><b>3. Tell me a specific episode or time about it.</b></p>
<b>NEWCOMER STUDENTS</b>	<p><b>4. During this school year, have you introduced a newcomer student just arrived in [YOUR COUNTRY] into your classroom?</b></p> <p><b>5. If teachers answer YES: Focusing on [NAME OF THE NEWCOMER STUDENT], how did you manage his/her introduction into your classroom?</b></p> <ul style="list-style-type: none"> <li>- <i>What are your main concerns when a newcomer student joins your classroom?</i></li> <li>- <i>What resources do you draw on? (at different levels: resources of the child, of the family, of the teachers, of the school...)</i></li> </ul> <p><b>If teachers answer NO: How do you usually manage the introduction into your classroom of newcomer students?</b></p> <ul style="list-style-type: none"> <li>- <i>...possible <u>resources</u> to draw on to guide practices (collaboration with colleagues within the school, cultural mediators, training/professional development courses, families...)</i></li> <li>- <i>...possible <u>difficulties/issues</u> to face (communication/relationship with the child; communication/relationship with the family; teaching/learning processes; relationship among peers within the classroom...)</i></li> </ul>
<b>IDENTITY</b>	<p><b>6. Thinking about your classroom, what are the first thoughts that come to your mind about the theme of cultural identity?</b></p> <ul style="list-style-type: none"> <li>- <i>... perceptions and thoughts of children from migrant background</i></li> <li>- <i>... perceptions and thoughts of their classmates</i></li> </ul> <p><b>7. Tell me a specific episode or time about it.</b></p>
<b>MULTILINGUALISM: VALORIZATION OF L1</b>	<p><b>8. Thinking about your classroom, what are the first thoughts that come to your mind about the theme of multilingualism?</b></p> <ul style="list-style-type: none"> <li>- <i>...role of L1 in L2 acquisition</i></li> </ul>

## INTERNATIONAL REPORT TASK 4.4

	<ul style="list-style-type: none"> <li>- ... <i>concerns</i></li> <li>- ...<i>advantages</i></li> </ul> <p><b>9. Do children from migrant speak in their mother tongue at school?</b></p> <p><b>10. Tell me a specific episode or experience about it.</b></p> <ul style="list-style-type: none"> <li>- ...<i>do similar episodes occur frequently?</i></li> <li>- ...<i>do these episodes involve also other children?</i></li> </ul> <p><b>11. In your classroom, do you implement any strategies/practices to give visibility to and promote linguist diversity?</b></p>
MULTILINGUALISM: TEACHING L2	<p><b>12. In your classroom, do you implement any strategies/practices to support children from migrant background in learning [L2]?</b></p> <ul style="list-style-type: none"> <li>- ...<i>what methodologies do you use? (e.g. cooperative learning, peer tutoring, translanguaging...)</i></li> <li>- ...<i>to whom are these strategies/methodologies addressed? (newcomers, second generation students, native pupils)</i></li> </ul>
INTERCULTURAL COMPETENCES AND LEARNING	<p><b>13. Thinking about your classroom, what are the first thoughts that come to your mind about the theme of learning to live together with people from different cultures and to understand different cultural perspectives?</b></p> <ul style="list-style-type: none"> <li>- ...<i>how do you promote learning of intercultural competences?</i></li> <li>- ...<i>what intercultural competences do children learn?</i></li> </ul> <p><b>14. Tell me a specific episode or time about it.</b></p>
GENERAL INFORMATION ABOUT THE TEACHERS AND THE CLASS	<p><b>At the end of the interview, collect some specific data about:</b></p> <ul style="list-style-type: none"> <li>- <b>the teachers</b> (if needed):             <ul style="list-style-type: none"> <li>o names</li> <li>o what subjects they teach</li> <li>o in which classroom they teach</li> </ul> </li> <li>- <b>and their class:</b> <ul style="list-style-type: none"> <li>o number of children with migrant background</li> <li>o nationality of children with migrant background</li> <li>o languages known and/or spoken by children with migrant background</li> </ul> </li> </ul>

## INTERNATIONAL REPORT TASK 4.4

### Annex C – Questionnaire for Italian parents

Istituto Comprensivo “Luigi Cadorna” -  Preschool  Primary School: Class \_\_\_\_\_ Children’s number \_\_\_\_\_ Children’s age: 1° \_\_\_ 2° \_\_\_ 3° \_\_\_ 4° \_\_\_ ....

Children’s place of birth: \_\_\_\_\_

How long have they been in Milan? (if born in another town) \_\_\_\_\_

#### ISOTIS PROJECT QUESTIONNAIRE– ITALIAN PARENTS

		MUM - Mother’s age: _____	DAD - Father’s age: _____
<b>Country/town of origin.</b>	Where were you born? (please specify the town)		
	How long have you been in Milan? (if born in another town)		
<b>Which languages/dialects do you know or use?</b>	Which language or dialect can be considered your mother tongue?		
	Which other languages or dialects do you know? (regardless of the level)		
<b>Which languages or dialects do you speak within the family?</b>	With your husband/wife?		
	With your children?		
	With your family of origin?		
<b>Which languages or dialects do you speak at school?</b>	Do you sometimes use languages or dialects different from Italian with the other parents at school?		

**Languages/dialects of children (think about the child that is in this class).**

- Which languages or dialects does your child know? (regardless of the level)  
\_\_\_\_\_
- Which languages or dialects does your child speak gladly...
  - in family with mum?  
\_\_\_\_\_
  - in family with dad?  
\_\_\_\_\_
  - in family with siblings?  
\_\_\_\_\_
  - in family with grandparents?  
\_\_\_\_\_
  - in family with friends?  
\_\_\_\_\_

**Languages spoken at school (according to what you know).**

## INTERNATIONAL REPORT TASK 4.4

- Does your child meet other languages/dialects through the activities organised by teachers? (if yes, please specify which ones)  
\_\_\_\_\_
- ... through schoolmates? (if yes, please specify which ones)  
\_\_\_\_\_

**Language/dialect learning support at home (please fill this section if at least one of you consider a language or dialect different from Italian his/her mother tongue ).**

- Do you think that the maintenance of the languages or dialects of origin is important?  
 Yes, a lot -  Yes, enough -  just a little -  No, absolutely -  I don't know
- Do you do anything in order to support your child in learning the mother tongues or dialects?  
 Yes -  No
- If yes, which tools do you use or did you use?
  - We always use the mother tongue/dialect at home
  - We use books in mother tongue/dialect (about religion, tales, other)
  - We use computer/technologies
  - We use online resources in mother tongue/dialect
  - We use audio and/or video tapes in mother tongue/dialect (cartoons, other)
  - Other \_\_\_\_\_
- Is your child willing to learn/talk (if she/he already knows it) the mother tongue or dialect?  
 Yes, a lot -  Yes, enough -  Just a little -  No, absolutely -  I don't know

**Maintenance of languages/dialects of origin**

- Do you think that the maintenance of the languages or dialects of origin slows the Italian language learning?  
 Yes, a lot -  Yes, enough -  Just a little -  No, absolutely -  I don't know
- Do you think that the maintenance of the languages or dialects of origin eases the Italian language learning?  
 Yes, a lot -  Yes, enough -  Just a little -  No, absolutely -  I don't know

**The school**

- Do you think that the school should do something for the languages of origin learning for not Italian children or the dialects learning for Italian children?
  - Yes, for example \_\_\_\_\_
  - No, we don't think so
  - I don't know.
- Do you think that the school should do something for the Italian language learning for not Italian children?
  - Yes, for example \_\_\_\_\_
  - No, we don't think so
  - I don't know.

**Technologies at home:** Please indicate which technologies you have at home:

## INTERNATIONAL REPORT TASK 4.4

ISOTIS INCLUSIVE EDUCATION AND SOCIAL SUPPORT  
TO TACKLE INEQUALITIES IN SOCIETY



- 
- Television
  - Computer
  - Internet
  - Smart-phone
  - Tablet



**EVENTUAL CONTACT:** *Would you be available to tell us better about your experiences? If yes, please write down your email and/or telephone number and you will be contacted a second time:*

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***Thank you for your participation!***

## INTERNATIONAL REPORT TASK 4.4

### Annex D – Questionnaire for non-Italian parents

Istituto Comprensivo “Luigi Cadorna” - • Preschool • Primary School: Class \_\_\_\_ Children’s number \_\_\_\_ Children’s age: 1° \_\_\_\_ 2° \_\_\_\_ 3° \_\_\_\_ 4° \_\_\_\_ ....

Children’s place of birth: \_\_\_\_\_

How long have they been in Italy? (if born abroad) \_\_\_\_\_

#### ISOTIS PROJECT QUESTIONNAIRE– NON ITALIAN PARENTS

		MUM - Mother’s age: _____	DAD - Father’s age: _____
Country of origin.	Where were you born?		
	How long have you been in Italy?		
Which language/languages do you know or use?	What is your mother tongue?		
	Which other languages do you know? (regardless of the level)		
Which languages do you speak within the family?	With your husband/wife?		
	With your children?		
	With your family of origin?		
Which languages do you speak at school?	In which language do you talk with your child’s teachers?		
	And with the other parents at school?		

**Languages of children (think about the child that is in this class).**

- Which languages does your child know? (regardless of the level)  
\_\_\_\_\_
- Which languages does your child speak gladly...
  - in family with mum?  
\_\_\_\_\_
  - in family with dad?  
\_\_\_\_\_
  - in family with siblings?  
\_\_\_\_\_
  - in family with grandparents?  
\_\_\_\_\_
  - in family with friends?  
\_\_\_\_\_

**Languages spoken at school (according to what you know).**

- Which languages does your child speak with teachers at school?  
\_\_\_\_\_

## INTERNATIONAL REPORT TASK 4.4

- 
- ... which languages does he/she speak with schoolmates?  
\_\_\_\_\_
  - Does he/she speak Italian gladly?  
• Yes, a lot - • Yes, enough - • Just a little - • No, absolutely - • I don't know
- Language learning support at home.**
- Do you think that the maintenance of the language(s) of origin is important?  
• Yes, a lot - • Yes, enough - • just a little - • No, absolutely - • I don't know
  - Do you do anything in order to support your child in learning the mother tongue(s)?  
• Yes - • No
  - If yes, which tools do you use or did you use?
    - We always use the mother tongue at home
    - We enrolled our child in mother tongue classes
    - We use books in mother tongue (about religion, tales, other)
    - We use computer/technologies
    - We use online resources in mother tongue
    - We use audio and/or video tapes in mother tongue (cartoons, other)
    - Other \_\_\_\_\_
  - Is your child willing to learn/talk (if she/he already knows it) the mother tongue?  
• Yes, a lot - • Yes, enough - • Just a little - • No, absolutely - • I don't know
  - Do you do anything in order to support your child in learning the Italian language? • Yes - • No
  - If yes, which tools do you use or did you use?
    - We always use the Italian language at home
    - We enrolled our child in Italian language classes
    - We use books in Italian language (religious, tales, other)
    - We use computer/technologies
    - We use online resources in Italian language
    - We use audio and/or video tapes in Italian language (cartoons, other)
    - Other \_\_\_\_\_
  - Do you think that the maintenance of the languages of origin slows the Italian language learning?  
• Yes, a lot - • Yes, enough - • Just a little - • No, absolutely - • I don't know
  - Do you think that the maintenance of the languages of origin eases the Italian language learning?  
• Yes, a lot - • Yes, enough - • Just a little - • No, absolutely - • I don't know
- The school**
- Do you expect the school to do something for the language of origin learning?
    - Yes, for example \_\_\_\_\_
    - No, we don't expect this

## INTERNATIONAL REPORT TASK 4.4

- 
- I don't know.
  - Do you expect the school to do something for the Italian language learning?
    - Yes, for example \_\_\_\_\_
    - No, we don't expect this
    - I don't know.

**Technologies at home:** Please indicate which technologies you have at home:

- Television
- Computer
- Internet
- Smart-phone
- Tablet

**EVENTUAL CONTACT:** *Would you be available to tell us better about your experiences? If yes, please write down your email and/or telephone number and you will be contacted a second time:*

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***Thank you for your participation!***



## INTERNATIONAL REPORT TASK 4.4

### Annex E – Focus group with parents

#### Focus group with parents

**General objective of the focus:** to access parent's discourses (ideas and beliefs, perceptions, concerns and positive elements) and practices (practices/strategies to ensure transmission) on the central themes of plural identities, multilingualism, intercultural competences, and transnationalism.

##### 1. Introduction of the project

We are a research team from Univeristy.... and we are collaborating in a big European project ISOTIS that means *Inclusive Education and Social Support to Tackle Inequalities in Society*. In Greek ἰσότης means equality, evenness, fairness, parity.

In alignment with the Greek term, ISOTIS builds on the strengths and potential of culturally and linguistically diverse families, by giving them a voice in how to adapt early education systems and support services. The central goal of the project is to combat inequalities and increase inclusiveness.

It is a collaborative project funded by the European Union, that includes 17 partners and 11 countries.

We will work with teachers of the classroom of your child and we will use a Virtual Learning Environment, proposing activities that will allow children to discover their linguistic resources in several languages, to explore and play with languages and cultures. All children know more than one language: the Italian children, they may know dialects and all of them started to learn English; the children from families of different cultural and linguistic background, may speak a first language at home, or even more. .

##### 2. Introduction to the Focus Group

We are very happy to meet you and we are very interested to learn from you about your personal experience on these issues, that is to say on the use of languages in your family, if and how you encourage your children to use and learn different languages, on your ideas as well on your emotions and concerns on cultural diversity that you and your children experience. You already had the possibility to answer few questions in a questionnaire on linguistic experiences in families. This afternoon, we would like to get more into this topic through as a group.

As we did in the questionnaire, we remind you that you are not obliged to answer to our questions and you do not have to justify yourself because of that. Each of you will be able to share their own experience and point of view. Each experience is unique and thus, it is not wright or wrong: it is simply your experience. We are here to listen to your different experiences. We wish to thank the linguistic mediators (NAME OF THE MEDIATORS) who are here to help us to communicate altogether, even if we do not necessarily speak the same languages. (NAME OF THE MEDIATORS) are here to help

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those of us who are not fluent in (NAME OF THE LANGUAGE OF THE FOCUS GROUP). We kindly ask you to be patient if the discussion will be slow down by the translations. We ask you to listen to everybody, even when their experience might seem strange or far from your own. And we invite you to wait for your turn to share your opinion.

We will record the conversation so that we do not have to write everything down. During the questionnaire, you already signed the form where we guarantee you the maximum respect of your anonymity and confidentiality. We have here some extra copy of the form in cases some of you might have not signed beforehand.

To warm up, we propose you a very short clip from a movie called "Almanya: welcome to Germany". This film talks about a Turkish family living in Germany.

### **Projection of the initial clip to start the focus**

"Almanya-La mia famiglia va in Germania", min. 8H06-13H39

Themes of the clip:

- ✓ Management of plural identities and of the origins among peers at school and at home
- ✓ Short mention of the knowledge of mother tongue

### **THEME 1 Plural identities**

1. Goal: to grasp ideas about advantages, complexities and anxieties concerning plural identities

Questions: On the short clip of this movie, we saw that having more than one cultural identity is a rich, yet complex experience. Both foreign families and (NAME OF THE COUNTRY, in our case Italy) families have plural identities (-> Provide an example of plural identity for non-foreigners, e.g. different religions/city-rural areas etc.)

- ✓ *What do you think about it?*
- ✓ *What happens in your family?*
- ✓ *Do you think it is a complicated experience?*
- ✓ *Do you see any advantage?*
- ✓ *Do you have any concern about it?*
- ✓ *What do you think your children experience about this? Do they talk about it? Did they share any experience about it?*
- ✓ *What do you do to transmit your own culture? What kind of choices did you do concerning transmission of your culture? How? Do you use technologies?*

### **THEME 2: Multilingualism.**

#### Questions on multilingualism:

In the clip, there is a scene where a primary school kid is not accepted in the Turkish team because he doesn't speak Turkish. Yet, he is not accepted as German from his German peers. One of the aspects characterizing multicultural families is that they know and speak more than one language at home.

- ✓ *Do you consider important to keep your mother tongue or your dialects?*

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- ✓ *What are the positive and negative aspects of using more than one language in your everyday life (and at home)?*
- ✓ *Is the way you use languages born of an explicit decision you took as parents beforehand? Did it change through time?*
- ✓ *Do you consider as important that your children know your mother(s) tongue(s)? Or do you think that it is an obstacle to the learning (NAME OF THE LANGUAGE OF THE COUNTRY)? What were your choices concerning the transmission of your mother tongue?*
- ✓ *How do you teach or help your children to learn more than one language? Do you encourage the expression in your mother tongue? How?*
- ✓ *How do you transmit your language? Through which means? Do you use technologies at home to support the learning of your mother tongue? If so, which ones? And how?*
- ✓ *Do your children would like to learn and speak (if he can) your mother tongue or dialect?*

### **TEMA – EXPECTATIONS ON SCHOOL**

1. *What do you think school should do on these issues?*
2. *Concerning (NAME OF THE COUNTRY) national parents:*
  - ✓ *What is the experience of your children who are learning to live together with other cultures?*
  - ✓ *What do you think to have children in a school where there are many other students who are speaking several other languages beside Italian?*
  - ✓ *Do you consider it as an obstacle or a positive aspect of the school experience of your children?*
  - ✓ *What are your concerns – if you have some- on these issues?*

## Annexes to Chapter 6 . Country report – Czech Republic

### Templates of activities

#### ***Faces with bubbles/ Language feathers***

##### Approximate duration

- individual preparation at home
- in class approx. 2-3 hours

##### Age

8-12 years

##### What do you need

- list of languages spoken in the family
- paper with pre-printed faces in three sizes
- paper with pre-printed bubbles
- scissors
- glue
- pen/pencil
- crayons/watercolours
- dictionary
- tablet/computer (optional)

##### Steps (Faces with bubbles)

1. Teacher asks children to find out what languages are spoken among the family members, relatives and friends.
  - a. What languages do(es) your parent(s) speak? Which is the mother tongue, what is the second and other languages? Are any of these dialects?
  - b. What languages do your siblings, grandparents and other family relatives speak? Which is their mother tongue, what is the second and other languages? Are any of these dialects?
  - c. What is the level of comprehension and use of the individual languages? Do they speak these languages actively or passively?
  - d. Which of these languages they speak at home?
  - e. In what situations they use different languages?
2. In the classroom, children take three different sizes of faces and cut them out of paper
  - a. the largest head represents the child
  - b. the medium sized head stands for parents and siblings
  - c. the smallest face is for other family relatives or friends
3. Children cut the bubbles out too.
4. They write respective languages into the bubbles and glue them to faces of respective personas.

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5. They colour each language in different colour
  - a. blue - first language
  - b. red - second language
  - c. green - other languages
  - d. yellow - dialects
6. They choose three words, take the dictionary (book, online) and translate these words into the respective languages.
7. They draw/colour flags of countries where the languages they have on paper are spoken. If they do not know the flags, they can search in books or online.
8. Pupils present their work.
9. Children watch the video Two languages are better than one available at the VLE platform.

### Steps (Language feathers)

1. Teacher asks children to find out what languages are spoken among the family members, relatives and friends.
  - a. What languages do(es) your parent(s) speak? Which is the mother tongue, what is the second and other languages? Are any of these dialects?
  - b. What languages do your siblings, grandparents and other family relatives speak? Which is their mother tongue, what is the second and other languages? Are any of these dialects?
  - c. What is the level of comprehension and use of the individual languages? Do they speak these languages actively or passively?
  - d. Which of these languages they speak at home?
  - e. In what situations they use different languages?
2. In the classroom, children draw/paint faces of members of a tribe. Each pupil prepares his/her/its individual face. At the same time, the teacher forms several groups (tribes in which each child has his/her/its tribal name).
3. They draw or cut out feathers. Each feather will represent one language the child or family member speaks.
4. They insert or glue the feathers to the hat or head-band.
5. Pupils present their work.

### Questions for reflection

- How come you or your family relatives speak more than one language?
- Where did you/they learn it?
- In what situations do you use different languages? Why?
- Do you know what bilingualism is? Have you heard about it?
- Do you have any experience with switching between languages? How is it?
- What do you think about bilingualism/multilingualism? What are the positives/negatives? Why?
- What languages would you like to speak in your life? Why?

### ***Multilingual celebrities***

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### Duration

Approx. 2-3 hours

### Age

8-12 years

### What do you need

- list of multilingual celebrities
- pre-printed descriptions (short bio, including languages they speak)
- pre-printed images of their faces
- prepared sheets with questions
- pen/pencil
- crayons/watercolours
- dictionary
- atlas/tablet/computer (optional)

### Steps

1. Teacher prepares the picture and short description of the famous person children know, including languages the persons speaks.
2. Teacher hands out the descriptions, together with the work sheet containing questions.
  - a. What do you know about this person?
  - b. What made him/her famous?
  - c. How many languages he/she speaks?
  - d. Draw/paint the flag of the country they spoke these languages.
  - e. Can you translate the following words into languages the celebrity speaks? (there are four relevant words listed, for example if she is a singer, the words are *singer*, *music*, *woman*, *world*)
  - f. Try to draw your celebrity.
3. Children read the short bio and answer the questions/tasks in the sheet. They can use a dictionary (book, online), atlas, books, internet to find the flags, translations or some additional information about the persona.
4. They present the celebrities to their peers in the classroom.
5. They play the matching game in the ISOTIS VLE platform where they match the face to the short description.
6. They can watch videos, listen to songs or read some additional information about these celebrities online.

### Questions for reflection

- Do you know why we chose these particular celebrities?
- Why do you think they speak multiple languages? How come?
- Where/how did they learn to speak these multiple languages?
- When they started to learn these languages? Were they learning them at school or is it possible they started earlier?
- Is it an advantage to these people they speak multiple languages? How?

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- In what different situations they use particular languages?
- Do you know any other famous person who speaks more than one language?

### ***Languages around us***

#### Duration

Approx. 2-3 hours

#### Age

9-12 years

#### What do you need

- list of European countries
- printouts with the descriptions of the states (information about languages spoken, interesting facts)
- a map of Europe + a blind map of Europe
- pen/pencil
- crayons
- sheet of paper
- plasticine/coloured paper
- atlas/tablet

#### Steps

1. Teacher puts on the noticeboard some information about European states, including a map of Europe so that the pupils know where a given state is.
2. Teacher asks questions about the language children wanted to learn.
  - a. Which language do you want to learn?
  - b. Why do you want to know another language?
  - c. What are the advantages of speaking more languages?
  - d. Do you know someone who speaks more languages?
3. Children are given a blind map of Europe and their task is to find states which speak their desired language and colour them on the map.
4. Pupils are asked to find more information about their state, either based on the printouts or using a tablet and write/draw them on a sheet of paper.
5. Pupils further add which language they want to learn and why.
6. The last task is to create a dummy from plasticine or coloured paper and put it on the map, indicating a place they want to visit.

#### Questions for reflection

- What are the things you need to do to learn a new language?
- In which situation it would be useful to know another language?
- Do you have an opportunity to learn another language?
- Which activities you think concerned multilingualism?
- Why do you think you worked alone today, and not in groups?

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ISOTIS

**INCLUSIVE EDUCATION AND SOCIAL SUPPORT  
TO TACKLE INEQUALITIES IN SOCIETY**



This project has received funding from the  
European Union's Horizon 2020  
research and innovation programme  
under grant agreement No. 727069.