The Triple Consistency Illustrated by e-tivities to Help Understand National and International Policies in e-learning

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Compte rendu d'expérience

Abstract

The authors describe the conception and use of e-learning activities (called e-tivities in this article) in the context of a distance education course titled "National and International Policy in Open and Distance Learning (ODL)" which is imbedded in a Master degree program named "Information Technology in Distance Education". This article focuses on the triple consistency between objectives, methods and evaluation.

Résumé

Les auteurs décrivent la conception et l'utilisation d'e-tivités, mot forgé pour designer des activités menées dans le cadre d'un cours à distance appelé « Politique nationale et internationale dans l'enseignement ouvert et à distance », lui-même inclus dans un diplôme de maîtrise intitulé « Technologie de l'Information en Enseignement à Distance ». L'article se concentre sur la triple concordance entre les objectifs, les méthodes et le système d'évaluation, et sur la représentation de cette triple concordance.

Context

The Lithuanian Distance education network (LieDM) was established in 1998. It is grounded in the program called "Information Technologies for Education and Training (2001-2006)" (ITMiS) which is supported by the dictate of Education Minister N° 115 as of January 30, 2001. The goal of LieDM is to generate and coordinate higher education studies and continuous training systems based on information and telecommunication technologies in order to develop the information society in Lithuania. At the present time, there are two videoconference studios in Kaunas Technological University (KTU) and Vilnius University (VU), in addition to 17 remote distance education classes spread across the entire country. In this context, a National Distance Education Development Project (NDED project) has been launched (The Lithuanian Distance Education Network, www.liedm.lt), in which Kaunas University of Technology, Vilnius University and Vilnius Gediminas Technical University have initiated a new Master Degree program called "Information Technology in Distance Learning" (ITDL). The main objective of this program is to prepare the professionals who design, lead and support distance learning in their institutions (Matickas, 2002). The course "*National and International Policy in ODL*" is one of the modules, included in this Master degree program. The duration of the course is 160 hours or 4 credits distributed over 16 weeks. The part of this course that has been developed in the Form@sup context will be reported in this article. The professor expresses her gratitude to LabSET team, and, especially, to her supervisor Mr. Dominique Verpoorten for the useful and just in time advice and guidance he provided.

1. Needs Analysis

At the individual level, we considered that every professional who works in the field of ODL should be familiar with national and international policy aspects and trends of development in ODL. This includes: Main features of ODL policy in EU; Role of international organizations in development of ODL; National ODL policy: case studies of European countries; Lithuanian policy in ODL; ODL financial models and machinery and ODL policy in higher education, Virtual Universities, and others.

At an institutional level, the project "*National and International Policy in ODL*" as well as the entire Master degree program corresponds with a series of international principles[1].

2. Analysis of Existing RESOURCES and ConstrainTs

2.1 Analysis of the existing resources

The new Master Degree program "Information Technology in Distance Learning" was initialised only in 2002 (Matickas, 2002). It is a fairly new curriculum in Lithuania. There are relevant programs that exist in other countries (Europe, USA, Canada) which were helpful sources of inspiration for the new program.

Almost all of these programs include a course similar to "European policy in Distance Education (DE)" or "International policy in DE". So it was a decision to include the module "*National and International Policy in ODL*" in the Lithuanian Master Degree program as well as to put more emphasis on the Lithuanian national policy in distance education.

2.2 Analysis of constraints and opportunities

Since the course "National and International Policy in ODL" is delivered in a distance mode and since learners are dispersed all over Lithuania, the following resources were used:

- Video lecturing (students have an access in the remote classes and at any internet connected

- Work place – using video lecturing system ViPS, 2 hours per week)
- A password protected Course in WebCT (for asynchronous self-learning of course material, activities and assignments, communication and collaboration)
- Face-to-Face consultations and lecturing (an initial meeting plus two additional meetings for consultation and interim reporting on work in progress).

3. Conception (Objectives-Methods-Evaluation)

We specified the course objectives, defined the students activities (including the 2 "e-tivities"), the course material and finally the evaluation strategy.

3.1 Objectives of the course and of the e-tivities

Course objectives were analysed according to Leclercq's (1997, p. 72) "Architecture of Long terms Competencies". We attributed five specific (content-bound) objectives to the course.

We also decided that the course should help our students acquire the transversal (non-specific to a domain) competencies such as the abilities to learn on their own, i.e. to become autonomous learners (Rowntree, 1996), to continue to study after the course (lifelong learning) and to apply efficiently their previous experience (Parker, 2004, pp. 385-388). For the purpose of contributing to the acquisition of those long term and general competencies, we operationalized them into more practical, limited and proximal objectives in three "transversal" categories: instrumental, self-knowing and motivational (involvement) objectives (Leclercq, 1999; Leclercq & Poumay, 2005).

The Table 1 presents the set of objectives for the course and those that will be the focus of the two e-tivities (far right column).

The two e-tivities developed for the course aim to address 8 out of the 9 learner's objectives identified.

3.2 Pedagogical methods of our 2 e-tivities

Student's actions can be described in terms (in bold letters hereafter) of Leclercq and Poumay's (2005) 8 Events of Learning. These activities are planned as follows (the order is important) :

e-tivity 1 : Students …

1. **Receive (read** "The National Program of Development of ODL in Lithuania" including videotaped lectures).
2. **Explore** the web for new data
3. **Practice** by analyzing a case according to a series of rules

e-tivity 2 : Students . …

Receive the different roles from the tutor.

A political counsellor who presents the "Strategy and program of ODL in Lithuania", initiates the discussion, answers the questions in debates etc,

An optimist, who sees no obstacles, only advantages…

A pessimist, who focuses on the gaps and the obstacles.

A theorist, a person who needs theories to base his/her views on.

A pragmatist, a person who relies only on concrete experience

and …

4. **Debate** and **create** by playing their own role (via a chat). The way he or she interprets it reveals their role to the others (who had previously to guess each participant's role).

Type of competencies	COURSE OBJECTIVES	
domain SPECific	SPEC 1 : To understand aspects and development trends of national, European, and international policy in the field of open and distance learning;	**X**
	SPEC 2 : To understand a variety of institutions of ODL, the main features of Lithuanian and EU policy in this field, the state control and market influence, the legal basis;	**X**
	SPEC 3 : To understand the main finance and control models, possibilities of using information and communication technologies (ICT) in ODL, the available ODL networks, ICT challenges to the universities, the tendencies of virtual universities establishment;	
	SPEC 4 : To recognize and to discuss the main dimensions of distance studies: democracy, ethics, internationalisation, accessibility, and academic interchange.	**X**
	SPEC 5 : To analyse the Lithuanian program of Development of ODL and to discuss its weaknesses, strengths, and benefits of its implementation.	**X**
INSTRumental	INSTR 1 : To gain the skills and experience in how to perform research (collecting references, realizing problems;, analyzing documents and other information resources, summarizing…)	**X**
	INSTR 2. To gain (improve) skills in online debates and in critical and creative thinking (The dynamic competencies (or motivational))	**X**
SELF knowledge	SELF 1 : To know one's weaknesses and strength (degrees of mastery) in the content	**X**
MOTIVational	MOTIV 1 : To position oneself in a debate ; e.g. to compare and judge different ODL policy strategies in different countries, including the Lithuanian program of development of ODL and to discuss its weaknesses, strengths, and benefits	**X**

Table 1 : Course Objectives

5. **Reflect** (metacognition) on the experience in role-playing by sending to participants a file (max 300 words) on the day after the chat.

6. **Reflect** (metacognition) on the e-tivity via a debate on the **forum**

3.4 Triple consistency

The concept of triple consistency has been stressed by Tyler (1949), who argues that there is a need for consistency between objectives, methods and evaluation. They are presented hereafter, in a table that helps to make clear the relations between (column 1) the learning methods, (column 2) the objectives of the e-tivity and (column 3) the evaluation methods.

The Table 2 illustrates seven important principles of the Triple Consistency:

1. Each arrow means "hypothesis of consistency with Objectives". The consistency, for instance between pedagogical Methods and Objectives, is hypothetical and based on literature (construct validity). The measurement of achievement (evaluation column) and the

informal observation of the whole process will help provide useful information about this hypothetical consistency. These data will not provide definitive confirmation or rejection since we are not in an experimental setting with experimental and control groups, and a series of intervening variables will have to be taken into consideration to interpret the data. The consistency between Evaluation methods and Objectives is also based on theoretical rationale (construct validity again) and will also be permanently a point of discussion... and improvement.

2. Several Methods (activities) can contribute to the attainment (potentially mastery) of a given Objective (if the consistency hypothesis is fulfilled).
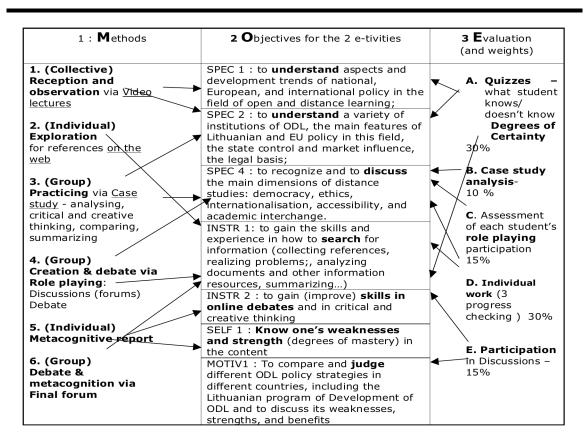
1 : **M**ethods	2 **O**bjectives for the 2 e-tivities	3 **E**valuation (and weights)
1. (Collective) Reception and observation via <u>Video</u> <u>lectures</u>	SPEC 1 : to **understand** aspects and development trends of national, European, and international policy in the field of open and distance learning;	**A. Quizzes –** what student knows/ doesn't know **Degrees of Certainty** 30%
2. (Individual) Exploration for references <u>on the</u> <u>web</u>	SPEC 2 : to **understand** a variety of institutions of ODL, the main features of Lithuanian and EU policy in this field, the state control and market influence, the legal basis;	
3. (Group) Practicing via <u>Case</u> <u>study</u> - analysing, critical and creative thinking, comparing, summarizing	SPEC 4 : to recognize and to **discuss** the main dimensions of distance studies: democracy, ethics, internationalisation, accessibility, and academic interchange.	**B. Case study analysis**- 10 %
	INSTR 1: to gain the skills and experience in how to **search** for information (collecting references, realizing problems;, analyzing documents and other information resources, summarizing…)	**C.** Assessment of each student's **role playing** participation 15%
4. (Group) Creation & debate via Role playing: Discussions (forums) Debate	INSTR 2 : to gain (improve) **skills in online debates** and in critical and creative thinking	**D. Individual work** (3 progress checking) 30%
5. (Individual) Metacognitive report	SELF 1 : **Know one's weaknesses and strength** (degrees of mastery) in the content	
6. (Group) Debate & metacognition via Final forum	MOTIV1 : To compare and **judge** different ODL policy strategies in different countries, including the Lithuanian program of Development of ODL and to discuss its weaknesses, strengths, and benefits	**E. Participation** in Discussions – 15%

Table 2 : Seven immmportant principles of the Triple Consistency

3. Several Evaluation methods can contribute to measure the degree of mastery (or of achievement) in an objective (same remark).

4. Each Objective is addressed by at least one activity or method and by at least one evaluation process.

5. The consistency between Methods (M) and Evaluation procedures (E) should be realised by the transitivity principle and via Objectives (O) : if O is consistent with M and E is consistent with O, then E should be consistent with M. This, again, is hypothetical and needs to be confirmed (or infirmed) by further research.

6. In the e-tivities, there is a variety of Learning Events (Leclercq & Poumay, 2005). For instance, in e-tivity 1, observation, reception, exploration and practice have taken place, and in e-tivity 2, there was creation, debate and metacognition. Only experimentation (problem solving) has not. The "variety principle" is also of hypothetical nature since Leclercq & Poumay

(2005) suggest it is the best formula to impact a combination of objectives (from the most motivational to the most cognitive ones). This also has to be repeatedly confronted to experience.

7. The 3-columns and arrows-loaded presentation of the Triple Consistency is a convenient way to display the complexity of (hypothetical) relations between O, M and E. Again, users' reactions will indicate whether this presentation really helps in avoiding redundancy and whether it contains necessary and sufficient pieces of information to address all the relevant questions related to instructional design. Should this presentation be simplified or complexified? By what should it be complemented? Is it excessively complicated for practical purposes?

4. Realization

4.1 WebCT

The professor of this course had experience using WebCT and consequently had the skills to manage this environment without any assistance. She also used Hot Potatoes software, which offers various types of evaluation tools, for other e-tivities (e.g. interactive crosswords).

4.2 VIPS

The Interactive Video Presentation and Lecturing System (ViPS) were used for video lectures. This system (http://distance.ktu.lt/vips/vips.php?lang=en) allows the students to attend the lectures from any internet access as well as to keep the records of the lectures for reviewing.

4.3 Course design

The course front page, where the main icons are presented, gives an idea of the content:

- Learning material (Video lectures, Virtual library, Online glossary),
- Evaluation (Tests, e-tivities, My grades)
- Communication (Discussion area, Chat, e-mail)
- Information (About Module, Learning events, Calendar).

5. Experimentation

Students like chats and use them for communication with friends and peers; this communication tool is not very new for them. The most difficult task for the professor was to moderate the activity because students had difficulties to keep their roles. Nevertheless, the chat was successful and the students' opinions were mainly positive: they liked this new type of activity, and found it a useful experience: "*My role was PRAGMATIC. It was difficult to play this role because I was OPTIMISTIC as well. The game was interesting and attractive. I like it.*" Students prefer to have different kinds of activities: "*I would like to participate in such activities in the future as well. Thank you for a new experience. It will be nice if other teachers also use such attractive methods of learning.*" In addition, we could observe via their input in the discussions that they learned a lot from it.

6. Regulation

The regulation process never stops, as every year new students will take the course that means new experiments, new challenges... new improvements. The Role-play e-tivity requires some minor improvements: Evaluation criteria should be defined more clearly for students (Jackson & Harper, 2001, p. 7) :

- The roles and actions should be analysed more carefully and maybe new roles or new materials for discussion should be considered (How could we avoid that the "pessimistic" will not overlay the "pragmatist"? Would it be efficient to introduce a nonsense talker and an indecisive person?);
- e-tivity should be more flexible so that it could be played on chat or on the discussion board in small groups, so that students could choose their roles by themselves or receive them from the tutor. Some adjustments were already carried out after the first experimentation in May: layout was changed, links to online glossaries were added, more activities (crossword, self-quizzes) were included. Other modifications and improvements still need to be made to the course.

7. Conclusion

It was a challenge for the professor to develop animation and evaluation methods for the course objectives she defined. The difficulty lay in the fact that once the different methods were decided, the Tutor (here the professor herself) had to manage these e-tivities, what Leclercq (1998, p. 104) calls "didactical polyvalence". For instance, s/he should be an e-moderator in role-

playing, an instructor and an evaluator of reports content. The professor discovered that even a potentially "boring" subject as "Policy in ODL" could be experienced by students in an attractive way and that students are able to build their competencies as autonomous learners.

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Notes

[1] The Lithuanian National Conception of the Development of Information Society (The decision of the Government of the Republic of Lithuania No 220, 2001 02 28); Program of Implementation of Information Communication Technology into Education System (The decision of the Government of the Republic of Lithuania No 315, 2002 02 28); eEurope+ 2003. A co-operative effort to implement the Information Society in Europe. Action plan prepared by the Candidate Countries with the assistance of the European Commission; eEurope 2005. An information society for all; Life Long Learning memorandum, 2001.