Reforming the educational system: An opportunity to promote good practices focusing on physical activity, well-being, and health

Prof. Marc CLOES

Department of Sport & Rehabilitation Sciences – University of Liege

Active Living through Exercise and Sport Sciences: Future Trends for Global Creativity and Sustainability

ICPESS 2021 - Jakarta
1) Presentation of the Belgian educational context

2) Description of the last educational reform implemented in Federation Wallonia-Brussels

3) Illustration of resources and good practices
Belgium is a federal state characterized by 3 national languages and 3 economical regions. Communities in charge of what deals with the people (language) and Regions in charge of what deals with the goods (geography) are the key divisions. Communities (languages – people) include Teaching, Youth, Culture, Sports, Justice. Financial support to the sports federations (high level > sport for all), Coach education, Anti-doping, School policy, PE curriculum, School facilities, PETE+inservice are among the activities supported.
A major reform in school education ...

Pact for Excellence in Education (PEE)

- Since 2015, the Federation Wallonia-Brussels prepares the implementation of a substantial reform of its educational system
- One of the axes of that project deals with a deeply modification of the core curriculum that will emphasize 8 domains
- Among these domains, one directly involves physical education (PE): “Physical Education, Wellbeing and Health”

PE(H) teacher is invited to:

- get involved in a school policy focused on physical activity, wellness, and health
- act during the specific course (inclusive quality physical education, societal transfer)
- stimulate extracurricular physical and sport activities
- galvanize and strengthen active transportation
- initiate adjustments to the school environmental management
- encourage collaborations in the context of interdisciplinary activities

Nice but there is too much to do!

It means that it redefines PE teachers’ missions and priorities
As a consequence, new content and didactical knowledge is needed

We are here!
In 2017, the Ministry of Education mandated a group of experts (the “CAPBES”) from the 12 French-speaking institutions involved in physical education teacher education (PETE) mission to identify, design and share teaching resources respecting the principles advocated by the PEE and aiming to promote physical activity, wellbeing and health. The approach that was adopted laid on the collaboration between teacher educators and practitioners in line with the collaborative didactic engineering model (Goigoux, 2012; Sénéchal, 2016).
Identification and description of good practices

Validation of projects in the specific context of the FWB’ schools

Web platform available for teachers ‘e-classe’

Consortium Physical Activity, Wellness, And Health

Distribution of the analysis sheets
<table>
<thead>
<tr>
<th>J. Development of the playground</th>
<th>Purposes</th>
<th>Validation type</th>
<th>Approaches</th>
<th>Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Measures the level of physical activity through a living environment.</td>
<td>- Evaluate the impact of a device co-built with educational actors (teachers, teacher in physical education, management) whose goal is to meet the objectives targeted by the teaching team (management of social reports, level of physical activity).</td>
<td>Longitudinal study</td>
<td>- Mixed methodology: Qualitative, Quantitative</td>
<td>Samples of 30 students per school, mixed and equal (8 schools).</td>
</tr>
</tbody>
</table>

| 2. Nutrition | - Bring each participant to improve the quality of their diet by increasing and diversifying the consumption of fruits, vegetables and dairy products. | Longitudinal study | Quantitative | 72 students (41 girls and 31 boys). |

| 3. Obélix: move, play, compete! | - To propose an original educational method aimed at combating physical inactivity in adolescents and testing it with at least 1,000 young Europeans aged 11 to 15 years old. - Help young people to adopt healthy behaviors (diet, health behaviors), promote autonomy through expression and decision-making (management of emotions), involve the young person's entourage (parents, family, school, associations) in its efforts to combat a sedentary lifestyle. | Quasi-experimental study | - Mixed methodology: Qualitative, Quantitative | Students: 118 - Teachers: 5 - Teaching staff: 8 - Directors: 4 |

| 4. MAP (Physical Activity Program at School) | - Allow students to meet their need for physical exertion in the classroom. - Promote physical activity. - Reduce periods of inactivity. - Improve attention, concentration and focus on students' tasks following this break in learning. | Case study | - Mixed methodology: Qualitative, Quantitative | 20 teachers of primary schools |

| 5. DARE to come to school! | - Analyze the impact of a first aid cycle, taught in physical education classes, on the theoretical knowledge and practical skills of students in secondary S-4, secondary II, and primary S-6. | Quasi-experimental study | Quantitative | - 5-6 secondary: 155 students, 5 teachers. - Secondary II: 112 students, 5 teachers. - 5-6 primary: 180 students, 5 teachers. |


**Bonni et al. (2019)**
Examples of good practices ...
A model to guide PE teachers to become changing agents

Prof. Marc CLOES
Department of Sport and Rehabilitation Sciences
University of Liege, Belgium

CEREPS+ Summit – HIPE 2020
Quality physical Education – What does it mean, and how should it look like?
Campus Belval, Luxembourg – November 16-19, 2020

Cloes (2020)
Approach of teaching PE(H) ensuring that what is learned in the gym lesson can be practically used by students in their everyday life

Cloes (2020)

Societal transfer

Competencies linked to the daily life

Cloes & Pire (2018)
Preparing physically educated citizens in physical education. Expectations and practices
Preparar ciudadanos físicamente bien educados en Educación Fisica. Expectativas y prácticas
Marc Cloes
University of Liege (Belgium)

Pleasure  Achievement  Movement  Interaction  Autonomy

Oblomov: Move, play, create

School saves lives

Cloes (2020)
SCHOOL SAVES LIVES

ONE EDUCATED TEACHER

THOUSANDS STUDENTS PREPARED TO THE ACTION TO SAVE LIVES

https://ecolesauvedesvies.be/
School saves lives

Collaboration between the Belgian Francophone Rescue League (LFBS) and the University of Liege (SIGAPS) + non-profit organization + FWB

Recruitment of physical education teachers at 3 levels of education (scientific validation):
- 5th and 6th grades – 10 to 12 year-old children – 5 PE teachers
- 9th grade – 12-13 year-old adolescents – 5 PE teachers
- 11th and 12th grades – 16-18 year-old adolescents – 11 PE teachers

Grade specific inservice teacher education (5h):
- Upgrading on CPR + Early defibrillation
- Presentation of the didactical and pedagogical equipment (loan)

Dare to save a life at school – Content

1. Competence/certificate «I can call help and compressions»

2. Competence/certificate «I can call help, compressions, and defibrillate»

3. Competence/certificate «I can call help, compressions, defibrillate, and insufflate (+ teach CPR to my relatives)»
### Dare to save a life at school - Knowledge

<table>
<thead>
<tr>
<th></th>
<th>n = 186</th>
<th>n = 112</th>
<th>n = 307</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>97♀ 89♂</td>
<td>65♀ 47♂</td>
<td>166♀ 141♂</td>
</tr>
<tr>
<td></td>
<td>10,7±0,8 year-old</td>
<td>14,5±0,9 year-old</td>
<td>17,1±0,8 year-old</td>
</tr>
<tr>
<td><strong>Before</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T0</td>
<td>4,80/20 ±3,69</td>
<td>5,11/20 ±2,99</td>
<td>6.82/20 ±3,59</td>
</tr>
<tr>
<td>p</td>
<td>p&lt;0,000</td>
<td>p&lt;0,000</td>
<td>p&lt;0,000</td>
</tr>
<tr>
<td><strong>After</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td>11,75/20 ±3,60</td>
<td>13,71/20 ±3,15</td>
<td>15,86/20 ±3,19</td>
</tr>
<tr>
<td>p</td>
<td>p&lt;0,000</td>
<td>p&lt;0,000</td>
<td>p&lt;0,000</td>
</tr>
<tr>
<td><strong>3 months</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T2</td>
<td>11,09/20 ±3,40</td>
<td>11,62/20 ±3,49</td>
<td>15,92/20 ±2,97</td>
</tr>
<tr>
<td>p</td>
<td>p&lt;0,000</td>
<td>p&lt;0,000</td>
<td>p&lt;0,000</td>
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Mouton et al. (2018a)

### Dare to save a life at school - Practice

<table>
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<td>14,5±0,9 year-old</td>
<td>17,1±0,8 year-old</td>
</tr>
<tr>
<td><strong>After</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td>17,08/20 ±1,82</td>
<td>9,77/20 ±2,55</td>
<td>15,3/20 ±1,96</td>
</tr>
<tr>
<td>p</td>
<td>p&lt;0,04</td>
<td>p&lt;0,06</td>
<td>p&lt;0,17</td>
</tr>
<tr>
<td><strong>3 months</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T2</td>
<td>15,53/20 ±2,16</td>
<td>10,31/20 ±2,25</td>
<td>14,5/20 ±1,83</td>
</tr>
</tbody>
</table>

Mouton et al. (2018a)
Today, you feel able to provide first aid to a cardiac arrest people

Mouton et al. (2018a)

10-12 year-old

Before

After

3 months

Mouton et al. (2018a)

The above diagrams show the improvement in the ability to provide first aid over time for 10-12 year-olds. The data suggests a significant increase in the number of participants who feel able to provide first aid after the intervention.

12-13 year-old

Before T0

After T1

3 months T2

Mouton et al. (2018a)

The diagrams for 12-13 year-olds show a similar trend, with a noticeable increase in the percentage of participants able to provide first aid after the intervention period.
« Today, you feel able to provide first aid to a cardiac arrest people »

Mouton et al. (2018a)

![16-18 year-old](chart)

**Strengths**
- Fast results on lifesaving skills
- Students motivation
- Limited need for sport facilities
- Physical literacy/accountability
- PE role highlighted in society
- Certificate delivered
- **Effectiveness**

Mouton et al. (2016)
Mouton et al (2018b)
A pedagogical methodology aiming to tackle the inactivity problem among 11/13 year-old children

“Oblomov: bouger, jouer, créer!”

Co-funded by the Erasmus+ Programme of the European Union
General principles applied in Liege

Remacle et al. (2018)

Open scenario

High Intensity Interval Training

Health messages

Video production

Open scenario - Theater

Remacle et al. (2018)

- The Open Scenario is based on an Italian theatrical approach called “canovaccio”
- The scenario of a piece is left open in a way to combine different subjects
- In the Oblomov case, the subjects are physical activity, theatre, health

“The novelty of the educational approach of the “Oblomov methodology” is to let students acting and doing physical activity while narrating; to lead them to know their own body, accepting its limitations and characteristics, while understanding what can help and what can harm it, and to interact with other actors while acting on stage”
High Intensity Interval Training

- Short-to-long bouts of high-intensity exercises interspersed with recovery periods
- Low volume ⇒ time-efficient
- Variety of forms: <10 sec (≥ 100% VO₂max) ⇒ 45 sec <T< 3 min (high- but not maximal intensity (≥ 90% VO₂max)

- Shorter distances and duration
- Less boring and funnier than Moderate Intensity Training
- Easier planning of team play-game
- Similarity to natural intermittent children’s movements
- Obese kids’ opportunity to compete with others

Remacle et al. (2018)
Eddolls et al. (2017)
Buchheit & Laursen (2013)

THEATRE IS USED AS MOTIVATION TO DO SPORT

Vitale (2018)
Project overview

- Primary school (5th/6th grades)
- One unit of 10 PE lessons of 60'

<table>
<thead>
<tr>
<th>Imaginary world</th>
<th>Lesson 1</th>
<th>Lesson 2</th>
<th>Lesson 3</th>
<th>Lesson 4</th>
<th>Lesson 5</th>
<th>Lesson 6</th>
<th>Lesson 7</th>
<th>Lesson 8</th>
<th>Lesson 9</th>
<th>Lesson 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Geographic</td>
<td>Eurosport and the Olympic Games</td>
<td>24</td>
<td>Survivors</td>
<td>Ninja Warrior</td>
<td>Fort Boyard</td>
<td>The Simpsons</td>
<td>Preferred lesson</td>
<td>Video</td>
<td>Video</td>
<td></td>
</tr>
<tr>
<td>HIIT Protocol</td>
<td>10 x 20s Rest = 90s (Ratio 1:4)</td>
<td>10 x 20s Rest = 90s (Ratio 1:4)</td>
<td>10 x 30s Rest = 90s (Ratio 1:3)</td>
<td>10x30s Rest = 90s (Ratio 1:3)</td>
<td>10x40s Rest = 90s (Ratio 1:2)</td>
<td>10x40s Rest = 90s (Ratio 1:2)</td>
<td>10 x 45s Rest = 90s (Ratio 1:2)</td>
<td>10 x 45s Rest = 90s (Ratio 1:2)</td>
<td>Video</td>
<td>Video</td>
</tr>
<tr>
<td>Health topic</td>
<td>Hydration</td>
<td>Recommendations Physical activity</td>
<td>Breathing and effort management</td>
<td>Balance food</td>
<td>Posture, back ergonomics</td>
<td>Sleep</td>
<td>Sedentary, inactivity</td>
<td>General knowledge about sport</td>
<td>Video</td>
<td>Video</td>
</tr>
</tbody>
</table>

Remacle et al. (2018)
SWOT analysis

Remacle et al. (2018)

**STRENGTHS**
- Name of the project
- School principals’ interest and satisfaction
- Support for the schools and hospital stakeholders
- Children’s behaviour and interest
- PE teachers’ interest
- Overall interest about health topics
- Gamelike approach appreciated by the pupils
- Selection of the scenarios focusing on TV series
- Enthusiasm of the pupils for videos
- Quality of the videos produced by the pupils
- Availability of the booklets
- Adapted use of the approach by the practitioners
- Integration into PE teacher education

Remacle et al. (2018)

**WEAKNESSES**
- Lack of diversity of the conditioning exercises
- Lack of motor engaged time (???)
- Short duration of the project for concrete effects on lifestyle
- Decrease of some PE teachers’ motivation for open scenario
- Lack of imagination of some PE teachers
- Scenarios considered as for young children by 6th graders
- Length of the unit focusing on a single aspect
- Difficulty to manage the timing of the lesson and children’s skills
SWOT analysis

Opportunities

- Long term follow up on lifestyle
- Collecting and sharing of good practices
- Enrichment of the scenarios
- Development of a video data bank
- Additional preparation for PE teachers to use open scenarios
- Proposing tools for creation of new scenarios
- Use of the approach with other public (adaptation)
- Proposing shorter units or using Oblomov during short bouts of lessons
- Promote use of health messages and video production by children

Remacle et al. (2018)

Threats

- Lack of support for sustainability
- Time requested for the video preparation
- Lack of interest of the parents about the health messages
- Boredom when overuse

Remacle et al. (2018)
What are Project Deliverables?

Deliverable = Something Produced or Provided as a result of a process.

Input
- Documents
- Plan
- Equipment
- Money
- Software

Process

Consultation
Project Plan
Tool
APP

Output

Due Dates (Milestones)
Outcome
An Online Software Tool

Project Management Deliverables

Product Deliverables

Hardware
Software
Data
Concept
Assignment

Videos produced by the pupils

Oblomov: bouger, jouer, créer!

"LE TOUR DU MONDE"
réalisé par les élèves de 6èmes de Montfort

Oblomov: bouger, jouer, créer!

"LES BANDITS A NEW YORK"
réalisé par les élèves de 6èmes de Verlaine

Oblomov: bouger, jouer, créer!

"LES JEUX VIDEO"
réalisé par les élèves de 6èmes de Saint-Michel Esneux
9 booklets for physical educators

https://www.oblomovproject.eu/fr/ecole/

Some videos from practitioners

Volley-ball Warrior 2019
Four key messages for PETE

- Importance of the identification of good practices that emphasize the meaning of the teaching
- Need of validation of the original teaching designs by communities of practitioners
- Need of resources enabling to share interesting projects
- Translation in multiple languages to increase the available references
C'était un professeur, un simple professeur
Qui pensait que savoir était un grand trésor
Que tous les moins que rien n'avaient pour s'en sortir
Que l'école et le droit qu'à chacun de s'instruire.
Il y mettait du temps, du talent et du cœur
Ainsi passait sa vie au milieu de nos heures
Et loin des beaux discours, des grandes théories
A sa tâche chaque jour, on pouvait dire de lui
Il changeait la vie.

He was a teacher, a simple teacher
Who thought that knowing was a great treasure
That all the second class people had to get away
That school and the right of everyone to learn

He put time, talent and heart into it
So spent his life in the middle of our hours
And far from the rhetoric, the great theories
To his task every day, one could say of him
He changed the life.

He changed the life

http://hdl.handle.net/2268/259975
References


Could you have made a difference?

https://youtu.be/etogiZqxsDE
Oblomov : bouger, jouer, créer

Théâtralisation

Oblomov : bouger, jouer, créer

HIIT (High Intensity Interval Training)
Oblomov : bouger, jouer, créer

*Messages santé*