Co-funded by the Erasmus+ Programme of the European Union

Physical activity, emotional intelligence and food habits of Belgian pupils: effects of the Oblomov methodology

Oblomov
obesity and low motility victims

FRANCK, Nicolas, MOUTON, Alexandre, REMACLE, Maurine & CLOES, Marc

AIESEP 2019

Introduction

- Belgium : only 2% of the 6-9 year reach PA recommendations! *(Wijtzes et al., 2016)*
- PE : effective tool to encourage pupils to adopt a physically active lifestyle… *(McLennan & Thompson, 2015)*
  … **BUT** doubt exists regarding the link between PE and PA. *(Green, 2014)*
- Multiple reasons :
  - ✓ Activities in PE : task automation, drills, matches *(Boudreau, 2014)*
  - ✓ Psycho-physical difficulties for sedentary pupils (embarrassment, self-esteem,…) *(Vitale, 2018)*
  - ✓ Performance goals and feeling of incompetence *(Williams & Gill, 1995)*
  - ✓ Physical conditioning : direct instruction *(Vitale, 2018)*

2

What is Oblomov ?

➢ ObLoMoV = original approach ⟹ motivating pupils to move :
- ✓ HIIT
- ✓ Dramatization and imaginary context

Oblomov
obesity and low motility victims

3

What is Oblomov ?

1. HIIT = at least as <u>efficient</u> as moderate intensity endurance training (MIT) and... *(Eddolls et al.,2017)*

1. *Time-efficient*
2. *Shorter distances and duration*
3. *Obese/sedentary kids can participate with others*
4. *Natural children's movements are mostly intermittent*
5. *Less boring and funnier*

(Vitale, 2018 ; Bailey et al., 1995 ; Milanovic et al., 2015)

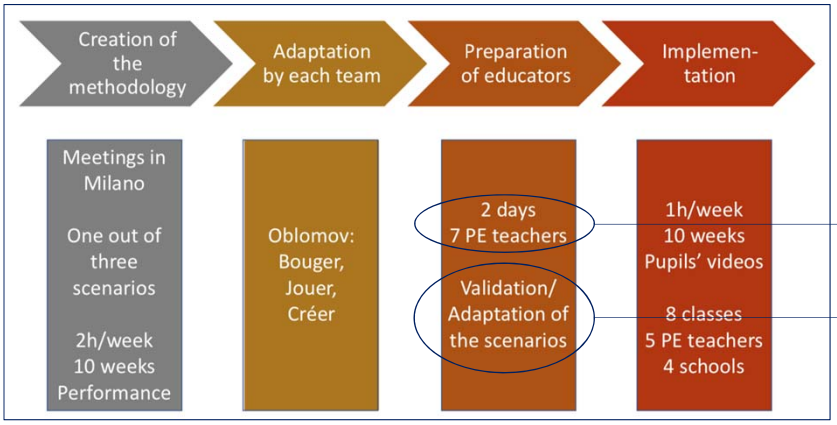
2. Imaginary context of the exercises/lessons = <u>motivation</u> to be physically active… *(Pasetti, 2018)*

1. *Complete transformation of an ordinary lesson by the imaginary context*
2. *Imagination = fun and engagement factor*
3. *Distracts from the strenuousness of the effort*
4. *Makes possible to repeat exercises without realising it*

(Brougère, 2010 ; De Sousa Morgado & Jidovtseff, 2017 ; Terré, 2015)

4

Origin of the Oblomov approach



- 3 scenarios (*Sleeping Beauty, Pirates of the Caribbean, Harry Potter*)
- 2h/week
- 10 weeks
- Performance at the end

- 1 scenario (*popular TV shows in Belgium*)
- 1h effective/week
- 10 weeks
- Video creation by the pupils

5

Purposes of this study

1. To analyse the impact on pupils of a 10 lessons-unit applying Oblomov's principles :
   - Effects on pupil's physical activity ?
   - Effects on pupil's emotional intelligence ?
   - Effects on pupil's food habits ?
   - Effects on pupil's health knowledge ?

2. To propose improvement opportunities from the participants' perspectives in order to increase the effectiveness of the approach

6

Methodology - Participants

Class	School	Year	Pupils	Girls	Boys	Principals
C1	A	P5	17	11	6	P1
C2	A	P6	24	15	9	
C3	B	P5	19	6	13	P2
C4	B	P6	16	6	10	
C5	C	P5	7	4	3	
	C	P6	12	7	5	
C6	D	P5	15	9	6	P3
	D	P6	17	9	8	
C7	E	P6a	24	6	18	P4
C8	E	P6b	25	8	17	
			176	**81**	**95**	

1 5 schools nearby Liege

2 8 classes (80 Oblomov lessons)

3 176 pupils took part in the project

4 Majority of boys (95>81)

5 5 PE teachers trained to the Oblomov pedagogy

7

Methodology – Overview of the approach

	L1	L2	L3	L4	L5	L6	L7	L8	L9-L10
Open scenario	National Geographic	Eurosport and The Olympic Games	24	Survivors	Ninja Warrior	Fort Boyard	The Simpsons	Favorite lesson	Video
HIIT Protocol	10 x 20s Rest = 90sec (Ratio 1 :4)	10 x 20s Rest = 90sec (Ratio 1 :4)	10 x 30s Rest = 90sec (Ratio 1 :3)	10 x 30s Rest = 90s (Ratio 1 :3)	10 x 40s Rest = 90s (Ratio 1 :2)	10 x 40s Rest = 90s (Ratio 1 :2)	10 x 45s Rest = 90s (Ratio 1 :2)	10 x 45s Rest = 90s (Ratio 1 :2)	Video
Health Topic	Hydration	Physical Activity	Breathing and Effort Management	Balance Food	Back Ergonomics	Sleep	Sedentari-ness and Inactivity	General knowledge about sport	Video

1 **Scenario :** Caught by their TV, children are going to travel from one TV show to another

2 **HIIT :** ✓ Progressive increase of the effort duration (20 to 45s)
✓ Variety (exercises, objectives, muscles involved)

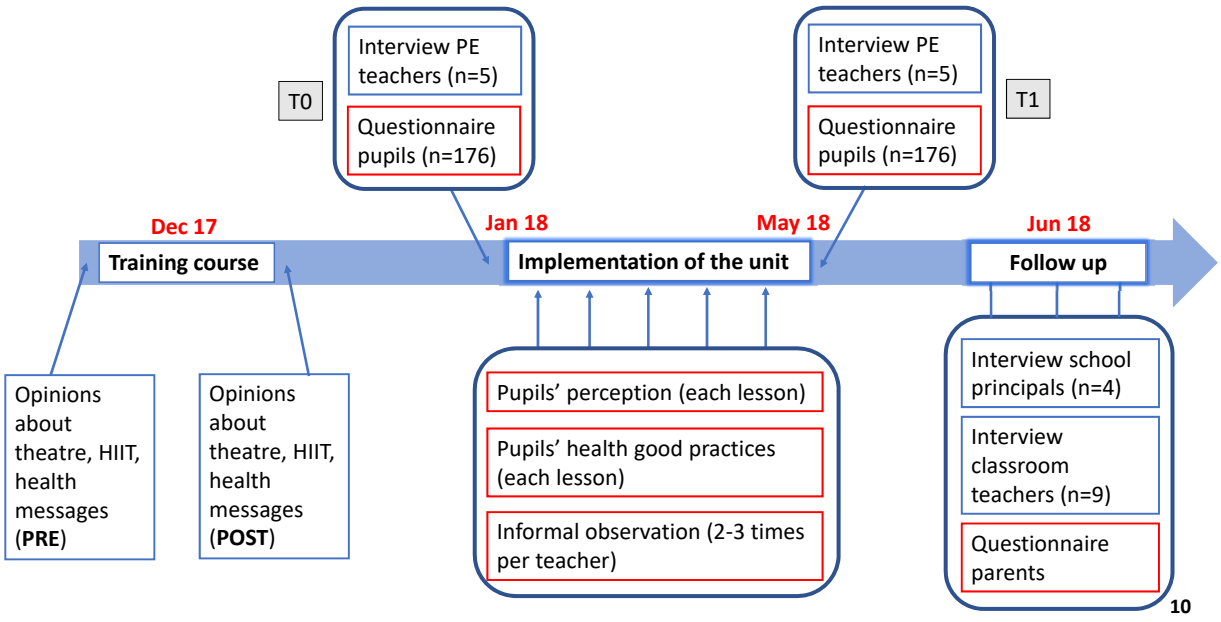
3 **Health :** ✓ Interactive and playful activities (Quiz, true or false, brainstorming,…)
✓ Transfers towards the house thanks to health good practices (***accountability***)

4

8

Methodology – Video creation

Methodology – Design



10

Methodology – Questionnaire pupils

1. Physical activity

- PAQ-C *(Kowalski et al., 2004)*
- Self-reported PA
- Last 7 days

2. Emotional intelligence

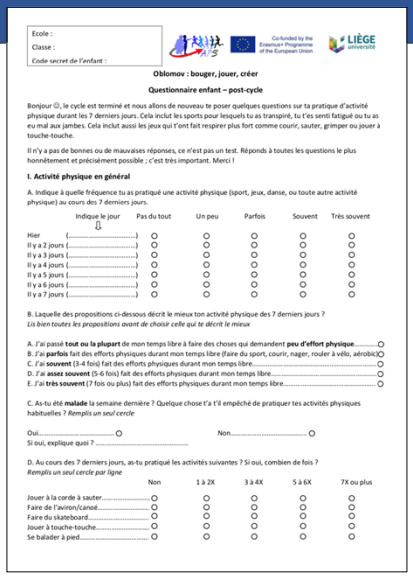
- TEIQue-ASF *(Petrides, 2009)*
- Emotions management
- 30 items

3. Food habits

- Adolescent Food Habits Checklist (AFHC) *(Johnson et al., 2002)*
- 23 items

4. Health knowledge

- 10 questions
- Related to Oblomov's health topic



Ecole :
Classe :
Code secret de l'enfant :

Co-funded by the Erasmus+ Programme of the European Union

Oblomov : bouger, jouer, créer

Questionnaire enfant – post-cycle

Bonjour ☺, le cycle est terminé et nous allons de nouveau te poser quelques questions sur ta pratique d'activité physique durant les 7 derniers jours. Cela inclut les sports pour lesquels tu as transpiré, tu t'es senti fatigué ou tu as eu mal aux jambes. Cela inclut aussi les jeux qui t'ont fait respirer plus fort comme courir, sauter, grimper ou jouer à touche-touche.

Il n'y a pas de bonnes ou de mauvaises réponses, ce n'est pas un test. Réponds à toutes les questions le plus honnêtement et précisément possible ; c'est très important. Merci !

I. Activité physique en général

A. Indique à quelle fréquence tu as pratiqué une activité physique (sport, jeux, danse, ou toute autre activité physique) au cours des 7 derniers jours.

Indique le jour ⇩	Pas du tout	Un peu	Parfois	Souvent	Très souvent
Hier (.....)	○	○	○	○	○
Il y a 2 jours (.....)	○	○	○	○	○
Il y a 3 jours (.....)	○	○	○	○	○
Il y a 4 jours (.....)	○	○	○	○	○
Il y a 5 jours (.....)	○	○	○	○	○
Il y a 6 jours (.....)	○	○	○	○	○
Il y a 7 jours (.....)	○	○	○	○	○

B. Laquelle des propositions ci-dessous décrit le mieux ton activité physique des 7 derniers jours ?
Lis bien toutes les propositions avant de choisir celle qui te décrit le mieux

A. J'ai passé **tout ou la plupart** de mon temps libre à faire des choses qui demandent **peu d'effort physique**..... ○
B. J'ai **parfois** fait des efforts physiques durant mon temps libre (faire du sport, courir, nager, rouler à vélo, aérobic) ○
C. J'ai **souvent** (3-4 fois) fait des efforts physiques durant mon temps libre..... ○
D. J'ai **assez souvent** (5-6 fois) fait des efforts physiques durant mon temps libre..... ○
E. J'ai **très souvent** (7 fois ou plus) fait des efforts physiques durant mon temps libre..... ○

C. As-tu été **malade** la semaine dernière ? Quelque chose t'a t'il empêché de pratiquer tes activités physiques habituelles ? *Remplis un seul cercle*

Oui..... ○ Non..... ○
Si oui, explique quoi ? .....

D. Au cours des 7 derniers jours, as-tu pratiqué les activités suivantes ? Si oui, combien de fois ?
Remplis un seul cercle par ligne

	Non	1 à 2X	3 à 4X	5 à 6X	7X ou plus
Jouer à la corde à sauter.....	○	○	○	○	○
Faire de l'aviron/canoé.....	○	○	○	○	○
Faire du skateboard.....	○	○	○	○	○
Jouer à touche-touche.....	○	○	○	○	○
Se balader à pied.....	○	○	○	○	○

11

obesity and low motility victims

Results

12

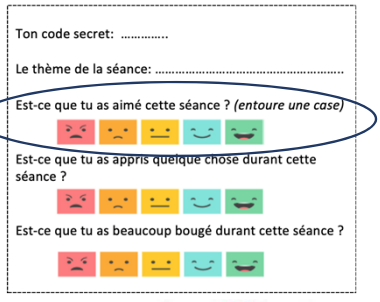
Results & discussion

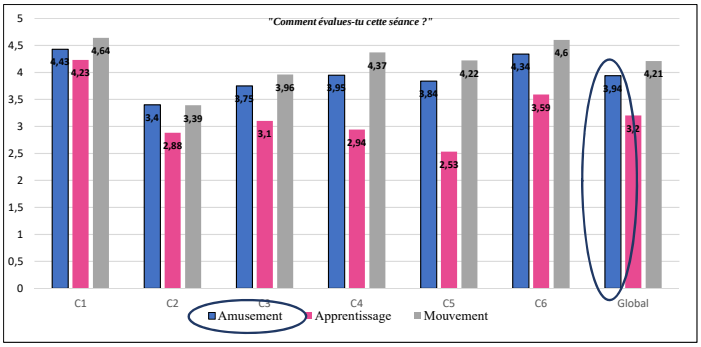
	T0	T1	p-value
PAQ-C	3,09	3,26	<0.000
TEIQUE-ASF (/210)	143,61	144,15	0.77
Food Habits (/23)	13,88	13,55	0.24
Health knowledge (/10)	3,22	4,37	<0.000

13

Results & discussion – (1) Physical activity

- Positive influence on self-reported PA (3.09 Vs 3.26 ; p-value<0.000)
- Related to ***pleasure perception*** *(Biddle et al., 1998; Carroll et al., 2001; Cavill et al., 2001)*





Fun perception is rated 4/5

14

Results & discussion – (1) Physical activity

- Influence of the ***weather*** ? *(Cuypers et al., 2016)*

- Influence of the ***gender*** ?

	Boys	Girls	p-value
T0	3.21	2.96	0.0048
T1	3.31	3.21	0.311

✓ Boys = more physically active than girls *(Biddle et al., 2004; Van Mechelen et al., 2000; Vilhjalmsson et al., 2003)*
✓ **BUT** Girls : bigger improvements after Oblomov lessons

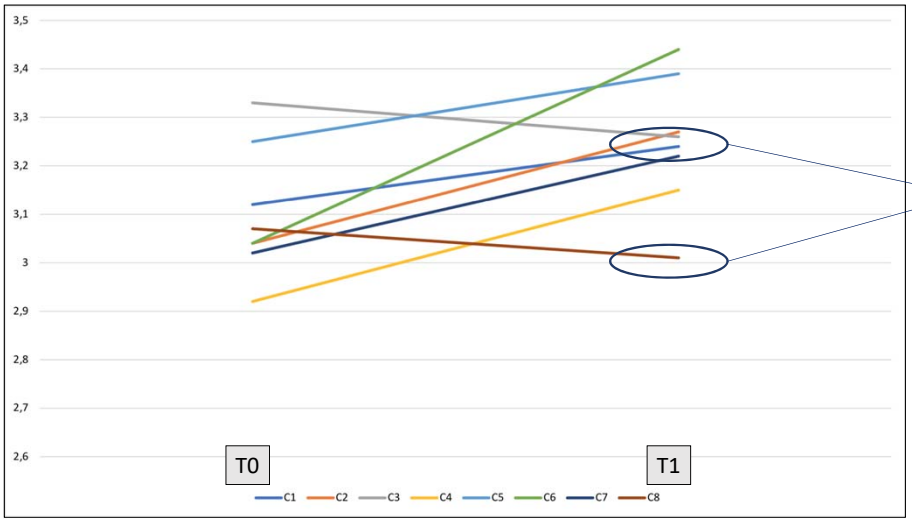
Why ?
✓ Oblomov = non-competitive & task-oriented approach
✓ Closer to girls' motivational characteristics *(Nicholls, 1984; Roberts & Walker, 2001)*

Oblomov = approach which encourages girls to be more active ?

15

Results & discussion – (1) Physical activity

- Major differences from one **class** to an other



Negative evolutions (n=2)

16

Results & discussion

	T0	T1	p-value
PAQ-C	3,09	3,26	<0.000
TEIQUE-ASF (/210)	143,61	144,15	0.77
Food Habits (/23)	13,88	13,55	0.24
Health knowledge (/10)	3,22	4,37	<0.000

17

Results & discussion – (2) Emotional Intelligence

*"The ability to monitor one's own and other people's **emotions**, to discriminate between different **emotions** and label them appropriately, and to use **emotional** information to guide thinking and behaviour"*

(Salovey & Mayer, 1997, p.10)

- Literature showed HIIT in PE was able to improve EI & creativity *(Ruiz-Ariza et al., 2018)*
- Oblomov = focused on cooperation, fun & social interactions
- **BUT** : not able to induce improvements of EI

18

Results & discussion

	T0	T1	p-value
PAQ-C	3,09	3,26	<0.000
TEIQUE-ASF (/210)	143,61	144,15	0.77
Food Habits (/23)	13,88	13,55	0.24
Health knowledge (/10)	3,22	4,37	<0.000

19

Results & discussion – (3) Food habits

- No influence on children's food habits (13.88 Vs 13.55 ; p-value=0,24)

- Major determinant = parents' food habits ➡ **mother** +++ *(Vereecken et al., 2004)*
- **BUT** one predictive factor = children's health knowledge *(Yperman & Vermeersch, 1979)*
- BUT important issue on children's food habits : intervention duration
  - ➡ 10 weeks = too short to modify life habits
  - ➡ Health part of the Oblomov = one shot ?

1. Long-term intervention on health issues
2. Cooperation with classroom teachers
3. Parents engagement

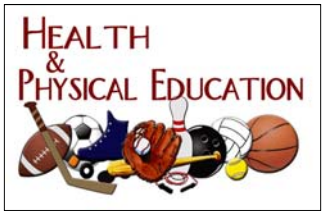
Results & discussion

	T0	T1	p-value
PAQ-C	3,09	3,26	<0.000
TEIQUE-ASF (/210)	143,61	144,15	0.77
Food Habits (/23)	13,88	13,55	0.24
Health knowledge (/10)	3,22	4,37	<0.000

21

Results & discussion – (4) Health knowledge

- Positive influence on children's health knowledge (3.22 Vs 4.37 ; p-value<0.000)
- Significant improvement
  BUT also significant deficiencies !
- Underlines the need of actions to improve pupil's health knowledge
- Health education was not Oblomov primary goal
  → No teaching, no lessons → games, quiz, playful activities



1. PE = effective tool
2. PE & PE teacher : role to play in health education
3. // PE Curriculum reform in Federation Wallonia-Brussels

obesity and low motility victims

Conclusion

23

Conclusion – SWOT Analysis

Strengths	Weaknesses
1. ***Playful*** approach 2. Children's interest for ***health*** education activities 3. ***Scenarios*** based on popular TV shows 4. Original ***video*** production by the pupils 5. Sharing of health ***good practices***	1. Lack of ***variety*** (exercises) 2. Lack of ***parents'*** engagement 3. ***Length*** of the unit 4. 6th grade: scenarios sometimes too ***childish***
Opportunities	**Threats**
1. ***Enrichment*** of the scenarios 2. Creation of ***new scenarios*** for some lessons (L3, L7) 3. Sharing of ***video production*** 4. Transfer to other classes 5. Collaboration with the ***parents*** (health-related activities)	1. ***Sustainability*** of the projet *(« What remains of Oblomov in those classes? »)* 2. ***Abandonment*** of health education activities (requires time and investment for the PE teacher)

Video Creation

Scenarios

Parents

24

Co-funded by the Erasmus+ Programme of the European Union

obesity and low motility victims