

Creative Physical Education, Sport and Health Teachers: Post Pandemic Opportunities and Challenges

Marc CLOES

Department of Sport and Rehabilitation Sciences
University of Liege, Belgium



*2nd International Seminar of Physical Education, Sport and Health
Physical Education, Sport, and Health in Post-Pandemic Hybrid Work
Universitas Pendidikan Indonesia, Bandung – October 12, 2022*







Content of this presentation

What's the purposes of the presentation?

- 1) Description of a model designed to help P(H)E teachers to increase their chances to change the lives of their students
- 2) Reflection about what the Covid-19 pandemic taught us and how PETE could take it into account



Introduction

- PE teachers are considered as the cornerstone of the promotion of a healthy and active lifestyle (Tappe et Burgeson, 2004)
- Such mission is identify in a worlwide policy (UNESCO, 2017)



KAZAN ACTION PLAN

1.3 Foster quality physical education and active schools

Active schools, in which physical activity is placed at the heart of the school, support the establishment of healthy lifestyles, behaviour and learning. In addition, quality physical education is a necessary component of primary and secondary education. It supports the building of physical skills and fitness, life skills, cognitive, social and emotional skills, and values and attitudes that frame socially responsible citizens. This is most attainable when it is fully resourced, respected and valued for its holistic merits. Fostering quality physical education and active schools needs provision that is varied, frequent,

challenging, meaningful and inclusive. Learning experiences in physical education are most effective when they are positive, challenging and developmentally appropriate, to help children and young people acquire the knowledge, skills, attitudes and values necessary to lead a physically active life, now and in the future.

Introduction

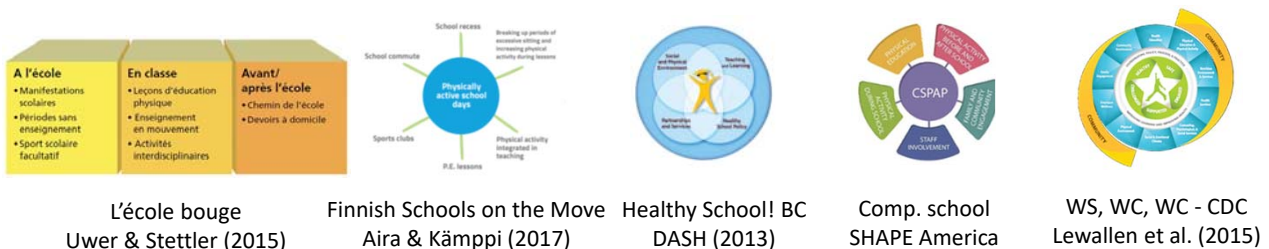
- To achieve such mission, literature proposes numerous resources providing
 - ▶ A scientific support (Cale & Harris, 2006; Corbin, 2002; Erwin et al., 2013; Harris & Cale, 2018)
 - ▶ Guidelines for practitioners (Harris & Cale, 2018)
 - ▶ Support to implementation on the field (Healthy School! BC, nd; Turcotte et al., 2021)
 - ▶ Proposals for PETE (Flemons et al., 2018; Kwon et al. 2019)



9

Introduction

- Several models for physical and health promotion at school are proposed
 - ▶ Active school models
 - ▶ Comprehensive school models (for a review, see Webster et al., 2020)

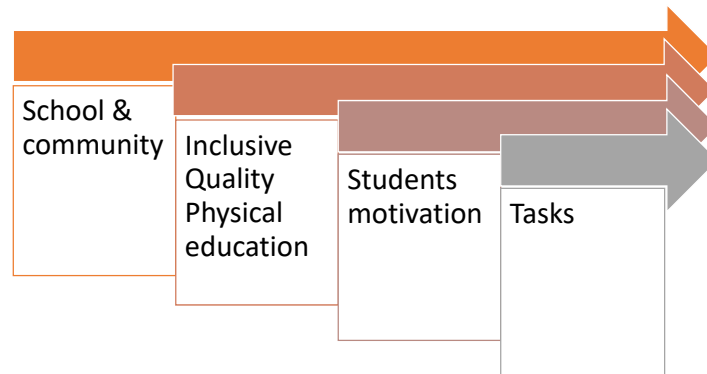


- They are mainly focused on the macro level (school and community) and identify context of actions

10

Introduction

- To help PHE teachers to structure their actions, integrating micro level decisions seems also needed



11

In this presentation ...

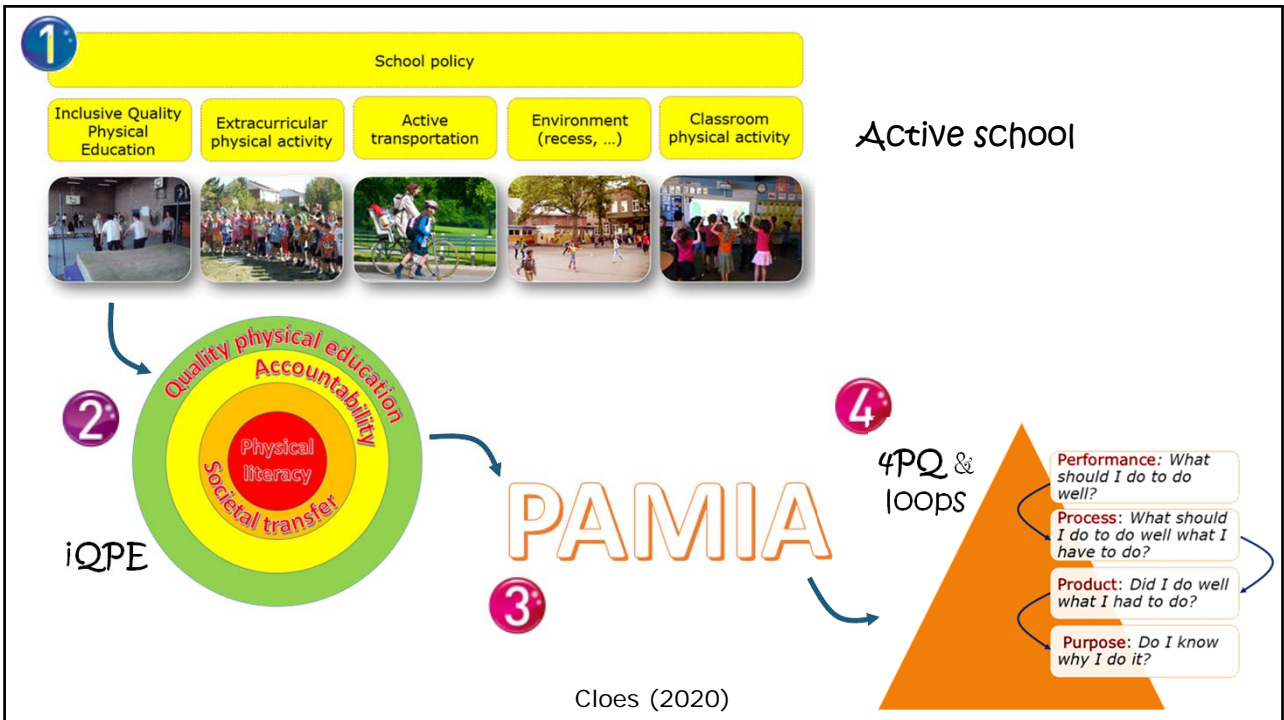
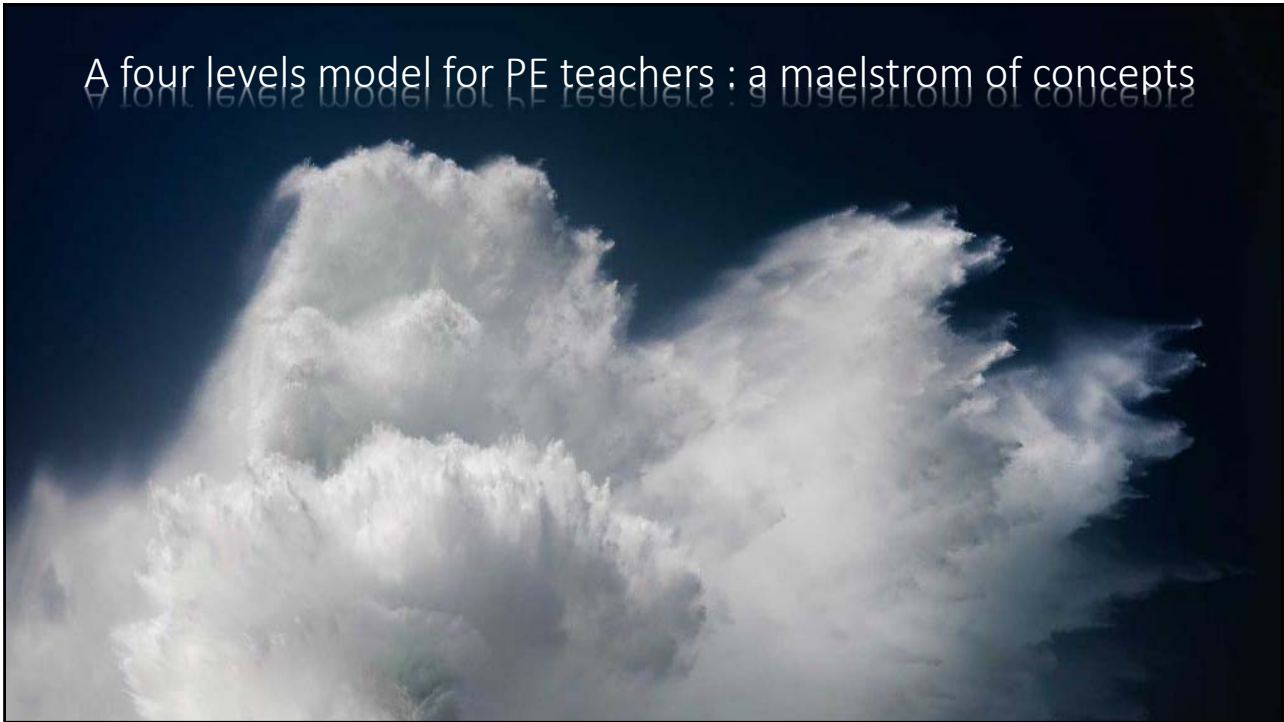


- Describe a model identifying four action levels structuring PHE teachers work at school

Four Levels Model for PE Teachers – 4LMfPET

12

A four levels model for PE teachers : a maelstrom of concepts



1st level – An active school is the starting point

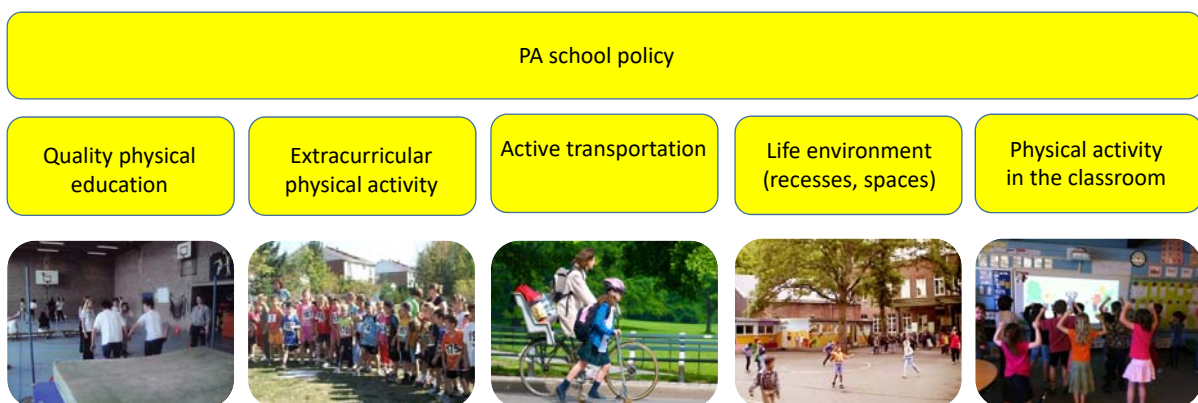
- PE teachers coordinate the PA promotion at school
- They have to be involved in PE as well as in the other dimensions of PA at school
- They have to collaborate (they are not alone)



15

Six dimensions of an active school

Snyers et al. (2014)



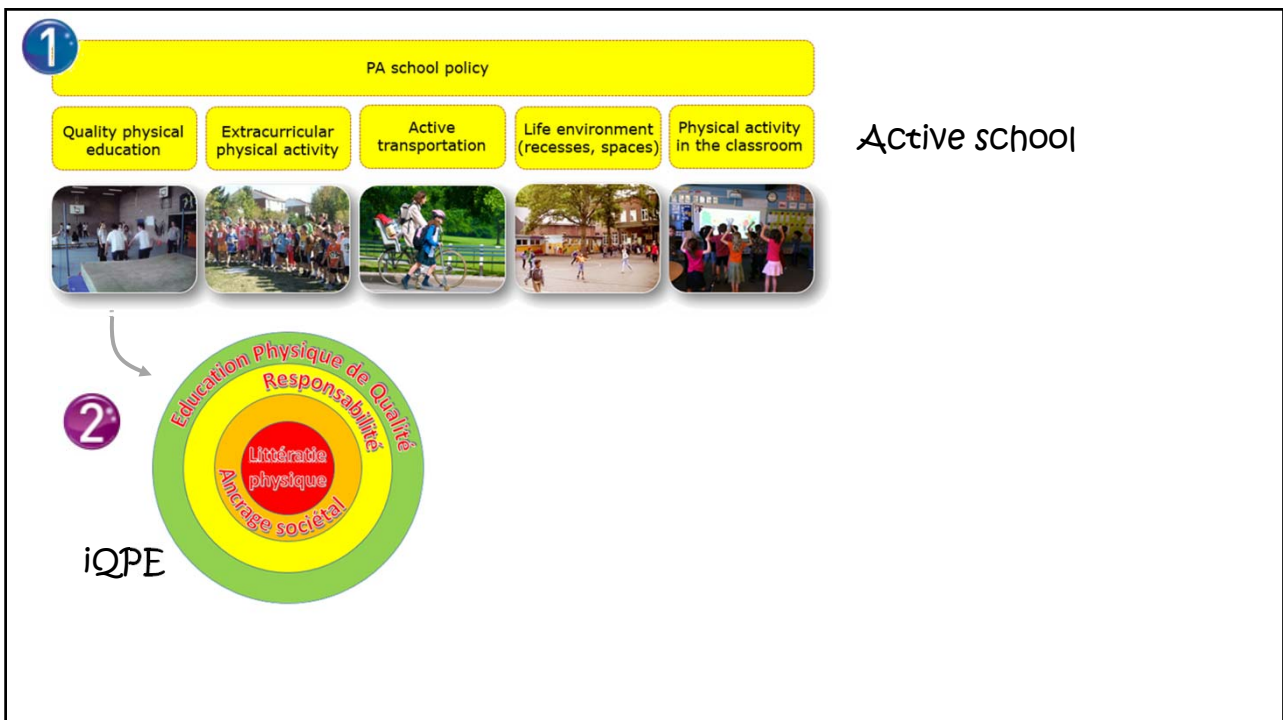
16

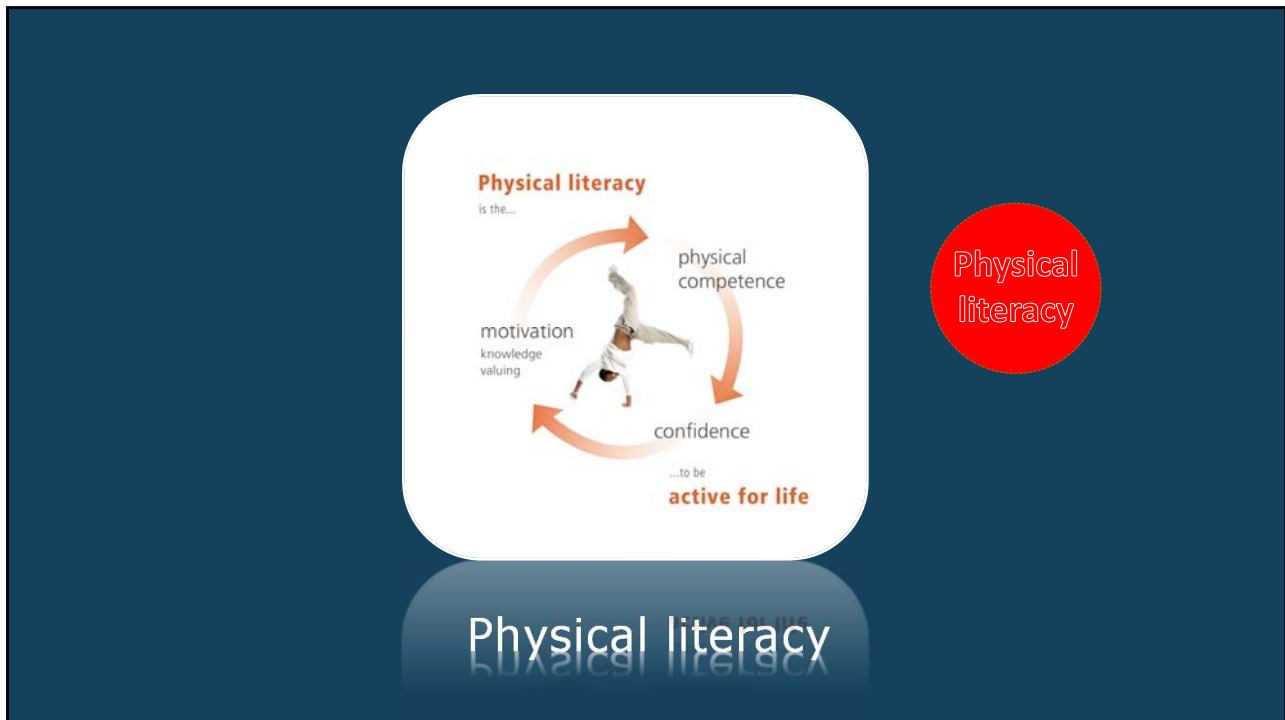
2^d level – Inclusive Quality Physical Education

- The first pillar of an active school



17





Physical literacy

- Physical literacy can be described as the motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life (IPLA, 2017)



Physical literacy

- Development of the motor skills (running, throwing, catching, jumping ...) and the fundamental physical qualities (endurance, strength, speed, flexibility) needed by all children
- Acquisition of the fundamental knowledge and development of positive attitude towards PA

Motor competence
Physical fitness
Knowledge

Self-esteem
Self-confidence

Motivation
Pleasure

Participation



Walk



Run



Skip



Jump



Throw



Balance



Catch



Kick

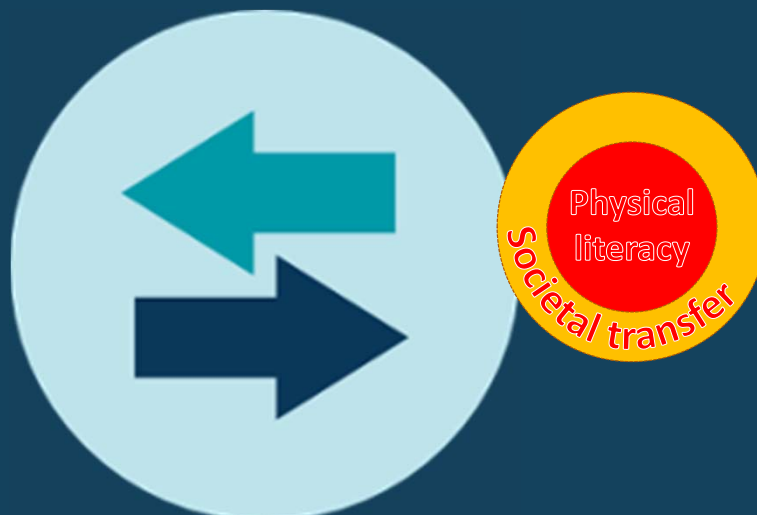


Strike



Stork
Stand

21



Societal transfer

Societal transfer

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



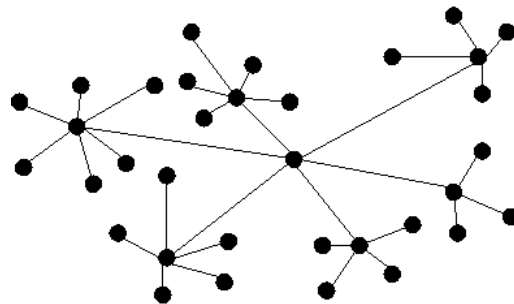
Cloes (2017)

23

Societal transfer

- It involves:
 - ▶ Linking learning to students' life contexts
 - ▶ Planning interventions in the short, medium and long term rather than react to opportunities
 - ▶ Promoting students' awareness of the possible concrete applications of what is learnt in PE

Cloes (2017)



24

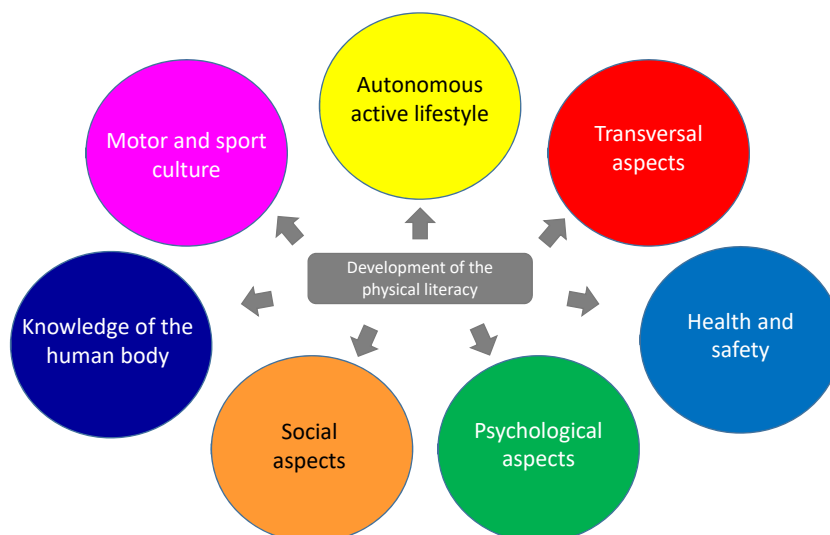
Societal transfer

Cloes (2017)

- 5th level of the 'Teaching Personal and Social Responsibility model' (Hellison, 1995)
"Transfers responsible behaviors to life settings outside the gym, personal responsibilities for actions"
- Link to the concept of authentic instruction/connectedness (Newmann & Wehlage, 1993)
- Link with the 'transposition didactique' (Amade-Escot, 2006)
- Concept of « meaningful PE » (Fletcher et al., 2021)



25



Societal transfer: 7 dimensions

Cloes (2020)
Cloes & Pire (2021)

Autonomous active lifestyle

- Elements allowing the student to practice any physical activity and / or sport independently and responsibly (e.g. give a training plan for running)



Transversal aspects

- Elements that do not have a direct link with sports practice but can be used in everyday life (ICT, interdisciplinary activities, budget management, organization of an activity, information on geography or history, etc.).) (e.g. proposing notions of the road traffic regulations)



Health and safety

- Elements allowing to acquire a better hygiene of life and to adapt oneself to different levels of danger (e.g.: to learn first aid, questions related to hydration during effort ...)



Psychological aspects

- Elements allowing personal development (e.g. learning refereeing to develop self-confidence ...)



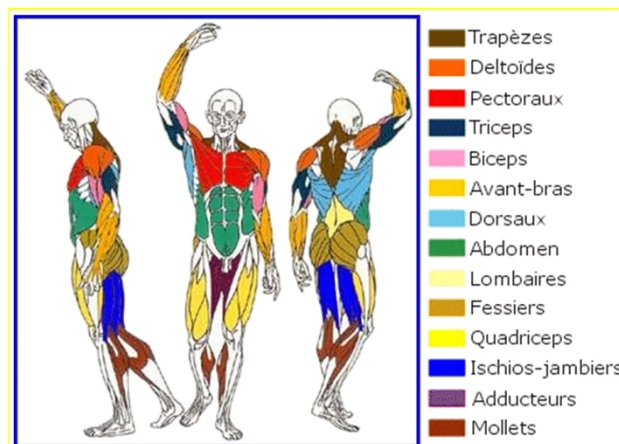
Social aspects

- Elements for improving social life and integration in society (e.g. working blind, collective challenges ...)



Knowledge of the human body

- Elements allowing to understand the functioning of the human body (e.g. to explain to the students the stretched muscles ...)



Motor and sports culture

- Elements enabling the student to understand the field of physical and sporting activities (e.g. talking about famous athletes, the history of sport, its organization ...)



POINTS VERTS



Accountability

- Production of concrete changes by the pupils/students = Impact of the teaching
- Direct link with the objectives
 - ▶ Motor, physical, cognitive, psychological, emotional, and social dimensions
 - ▶ Adoption of a healthy lifestyle

Pate et al. (2011)



Accountability

- Change of the philosophy of the teachers' work →
 - 'Does my teaching bring real changes in pupils/students' life?'*
 - ▶ Implementation of the social transfer goals
 - ▶ Real planning with a strategy
 - ▶ Regular follow up
 - ▶ Use of a panoply of tools (questionnaires, personal diaries, tables of discussion ...)

The PE teacher as a PA&H counselor



In the first image, it is assumed that everyone will benefit from the same supports. They are being treated equally.

In the second image, individuals are given different supports to make it possible for them to have equal access to the game. They are being treated equitably.

In the third image, the supports are removed because the systemic barrier was removed. The systemic barrier has been removed.

Inclusive Quality Physical Education

Inclusive quality physical education (UNESCO)

McLennan & Thompson (2015)

- This teaching philosophy of physical education brings a planned, progressive, and inclusive learning
- It acts as the foundation for a lifelong engagement in physical activity and sport
- It aims the acquisition by the students the psychomotor skills, cognitive understanding, and social and emotional skills they need to lead a physically active life



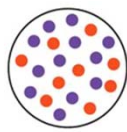
Inclusive Quality Physical Education

- For each pupil/student

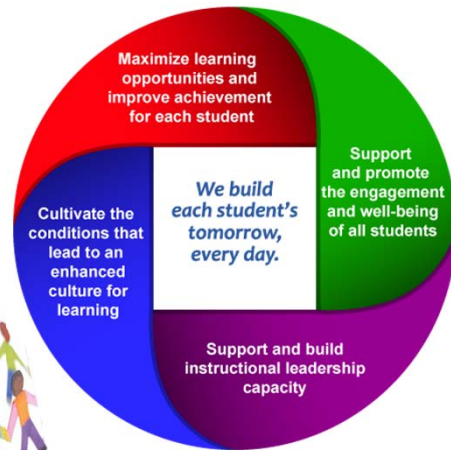
- ☞ Individualizing: adapting
- ☞ Integration: feeling of being accepted
- ☞ Inclusion: rightful place



INTÉGRATION



INCLUSION

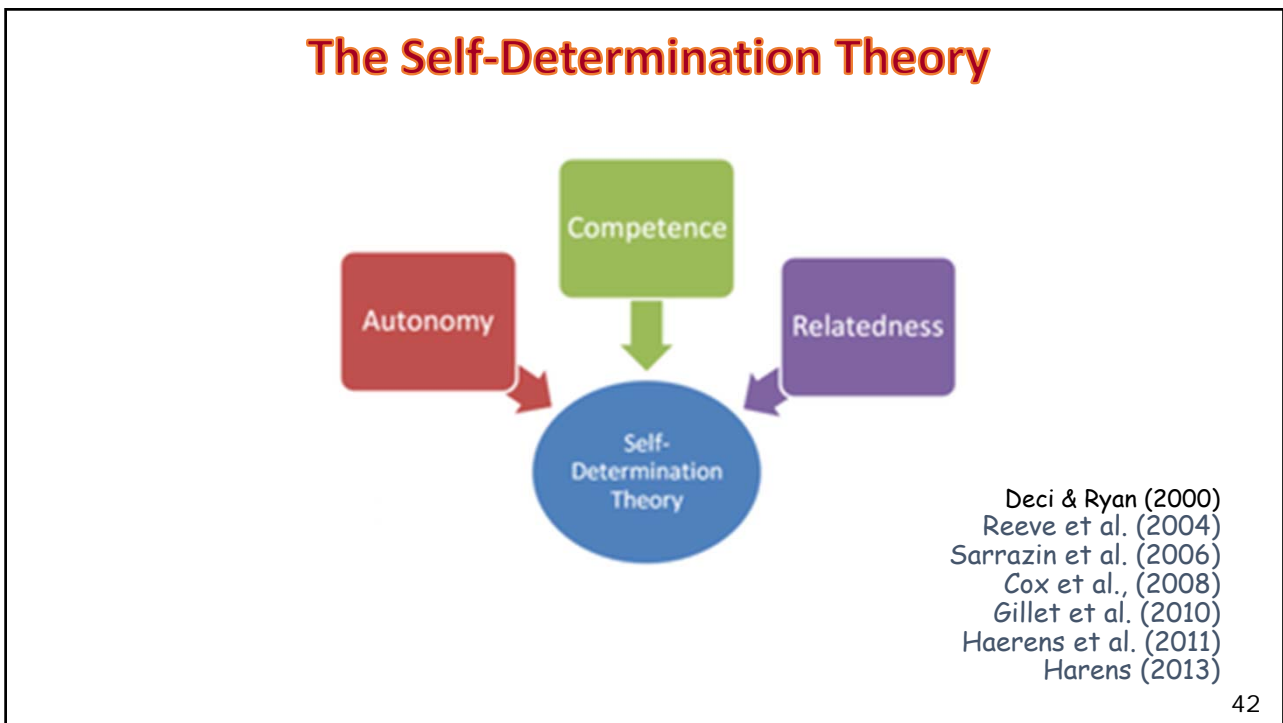
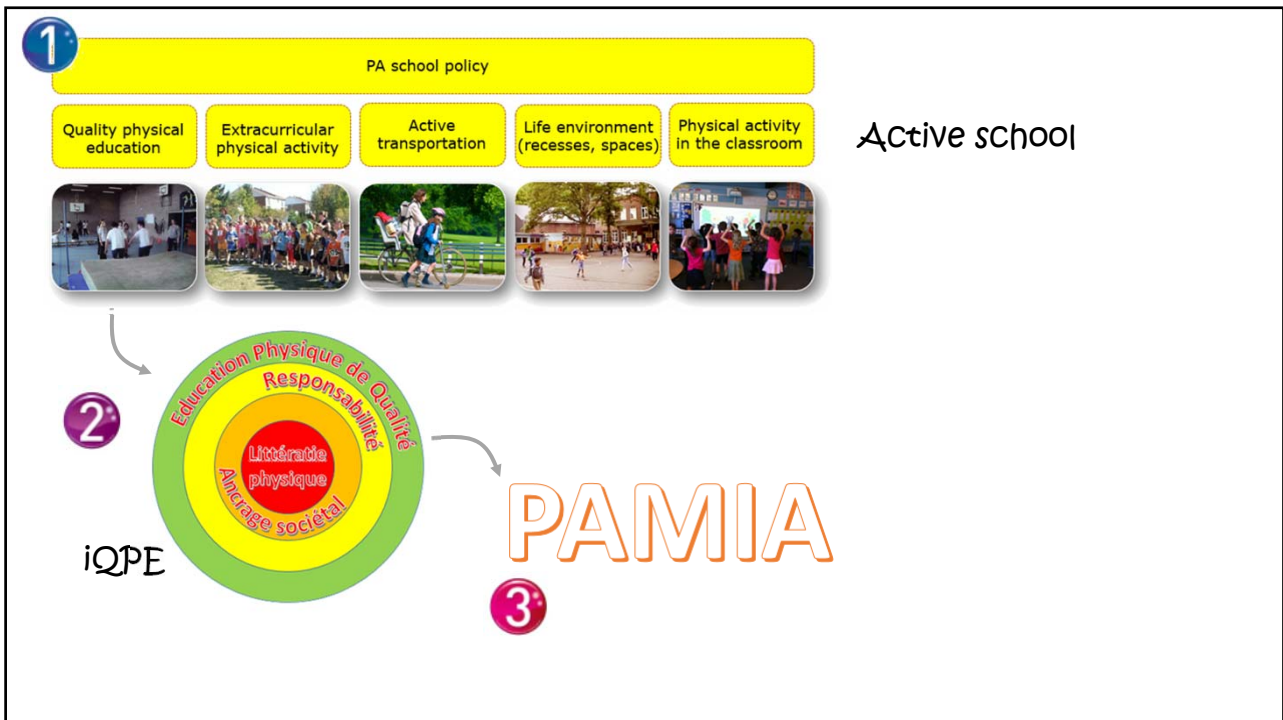


3rd level – The PAMIA Principles

Cloes (2017)

- A way to plan, teach and reflect PE(H)





PAMIA

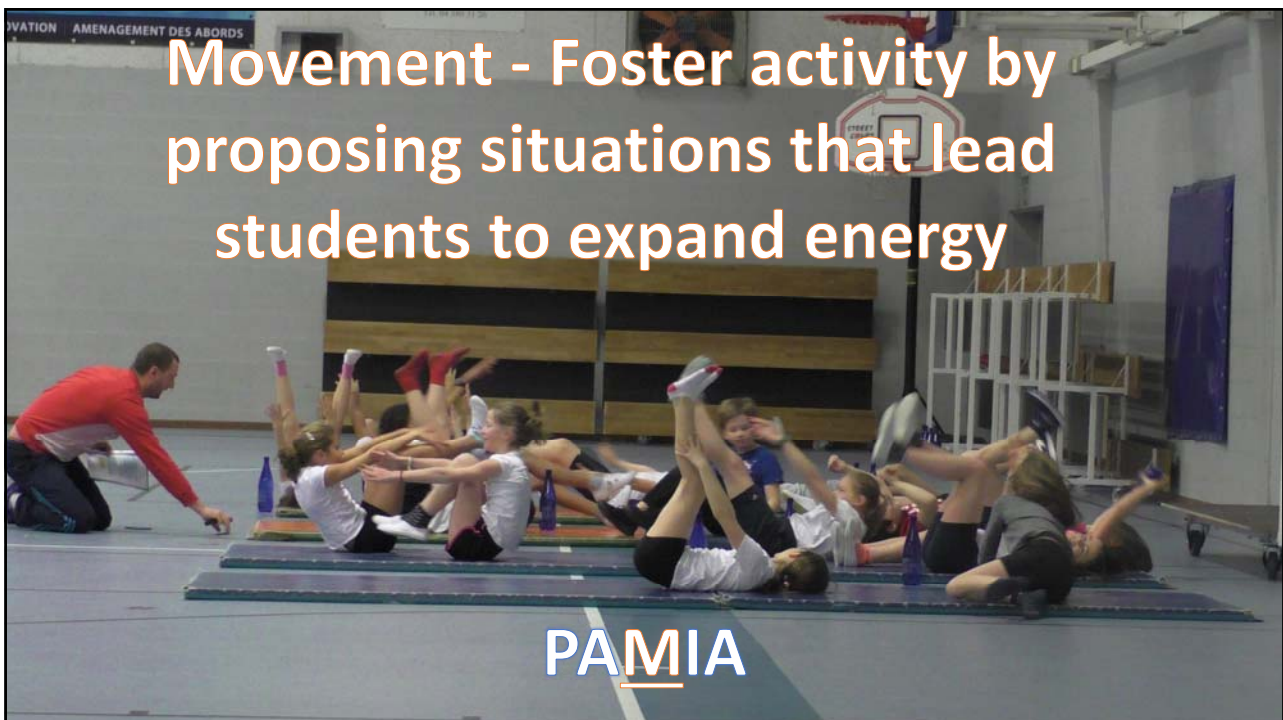
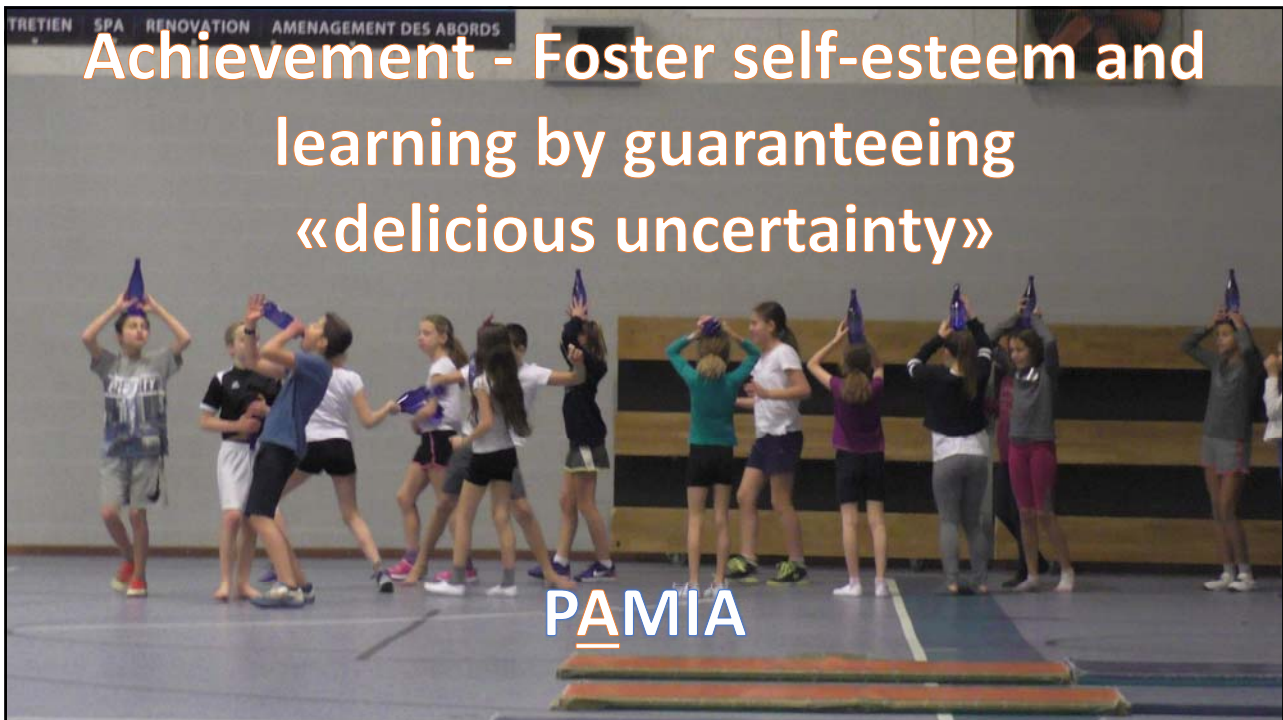
2017, *Retos*, 31, 245-251

© Copyright: Federación Española de Asociaciones de Docentes de Educación Física (FEADEF) ISSN: Edición impresa: 1579-1726. Edición Web: 1988-2041 (www.retos.org)

Preparing physically educated citizens in physical education. Expectations and practices **Preparar ciudadanos físicamente bien educados en Educación Física. Expectativas y prácticas**

Marc Cloes
University of Liege (Belgium)







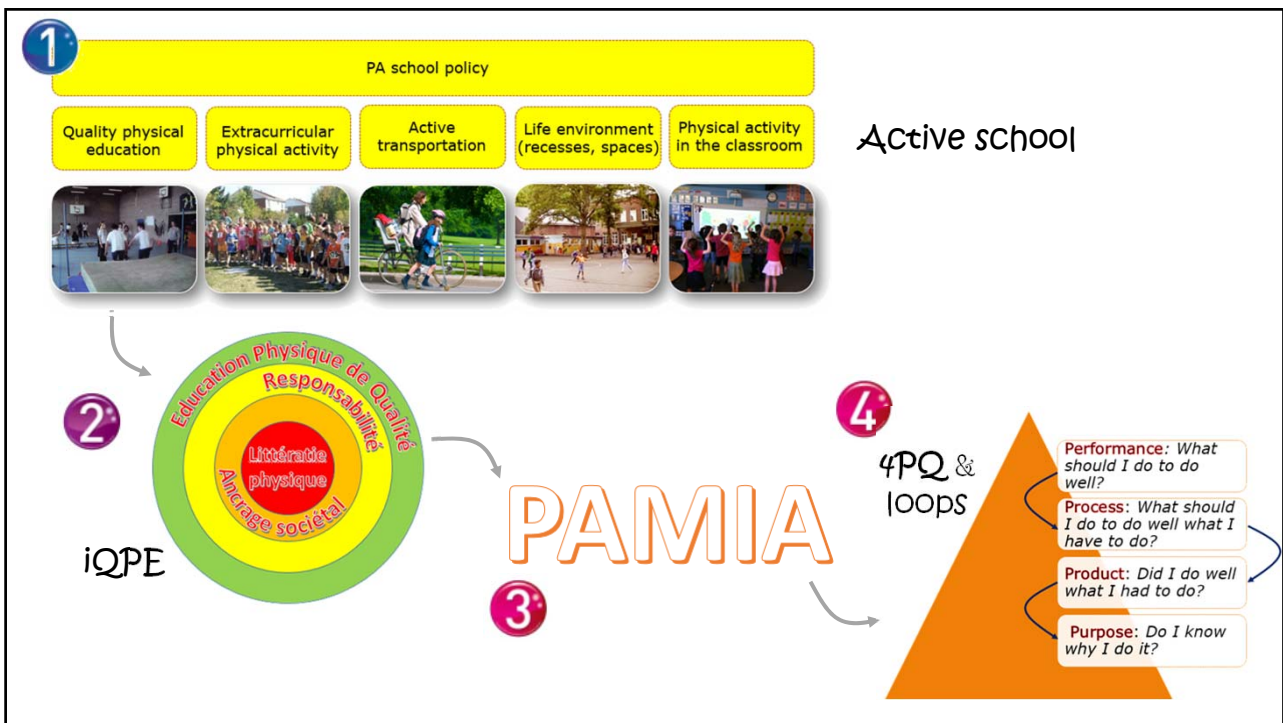
4th level – The 4Ps' questions and the loops

- The very micro and latest concept

4PQ & loops



49

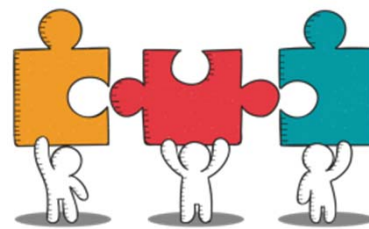


Learning tasks

- A task corresponds to any activity that the teacher proposes to reach the objectives
- But does the learners know 'the name of the game' ?
- If not, how to expect their involvement?



Mediating process paradigm
Socio constructivism



*As a PE teacher, do I give my students
a chance to take benefit of each task?*



When a pupil/student has to do a task ...

- He/She should be able to answer to four questions

Performance: *What should I do to do well?*

Process: *What should I do to do well what I have to do?*

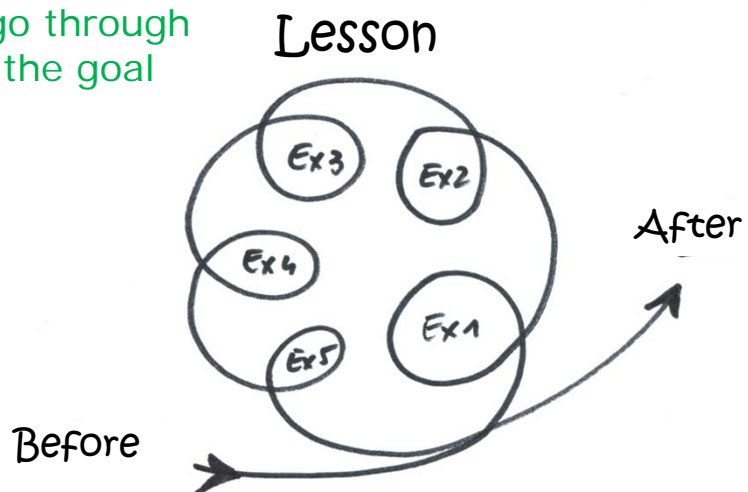
Product: *Did I do well what I had to do?*

Purpose: *Do I know why I do it?*

53

When a pupil/student follows a lesson ...

- He/She should go through a logical way to the goal



54

The 4Ps' questions and the loops

- Why ?

Meaningfulness
Self-esteem
Relevance
Involvement

55



P(H)E and the pandemic

Impact of the pandemic

- Curricular and extracurricular Physical Education (PE) has been restricted or even cancelled
- Role of the school (PHE)
 - ▶ Great diversity around the world according to the official instructions and teachers' initiatives
 - ▶ Mainly use of digital tools during lockdown periods
 - ▶ Main focus on health and PA promotion, simple tasks, few interaction

Adamakis (2021)

PE and the 'pandemic'

- Support PHE



Landstrasse 62 - 8750 Glarus - Switzerland
info@eupea.com - www.eupea.com

**EUROPEAN PHYSICAL EDUCATION ASSOCIATION (EUPEA) POSITION
STATEMENT ON PHYSICAL EDUCATION IN SCHOOLS, DURING THE
COVID-19 PANDEMIC**

NO EDUCATION WITHOUT PHYSICAL EDUCATION

<https://www.wgi.de/wp-content/uploads/EUPEA-Position-Statement-FINAL.pdf>

58

Impact of the pandemic

- Main tools of distance teaching

- ▶ Example of a survey in Indonesia

Platform	N	%
Zoom	102	23.6
Google Classroom	75	17.4
WhatsApp	41	9.5
Google Meet	26	6.0
Microsoft Teams	15	3.5
Facebook	8	1.9
Telegram	7	1.6

Nurulfa et al. (2022)

Impact of the pandemic

- Kind of activities proposed to the pupils/students (CHE, SCO, FRA, QUE)

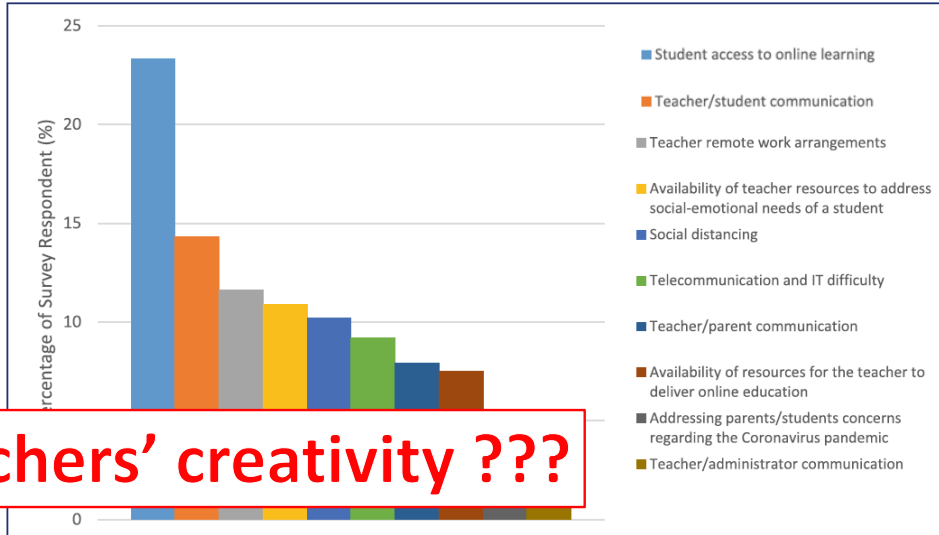
- ▶ Videos of the teachers doing required tasks
- ▶ Sheets describing tasks and identifying criterion
- ▶ Tutorials available on Internet
- ▶ Theoretical resources on health and sports activities
- ▶ School portal
- ▶ Selected websites
- ▶ Students invited to take videos of them doing tasks
- ▶ Challenges between schools
- ▶ Involvement of the parents for family activities
- ▶ Follow-up of the students through a personal PA diary/online training log

Lenzen et al. (2022)

Also: live lessons, webinars, phone calls, emails, meetings outdoor ...

Impact of the pandemic

- Most significant challenges to teaching during the COVID-19 pandemic (school-based individuals - USA) Pavlovic et al. (2021)



Teachers' creativity ???

Impact of the pandemic

- Feeling of the students
 - ▶ Highschool

Perceived social support	Prior to the spring lockdown		During the spring lockdown	
	Canada	Belgium	Canada	Belgium
Strong or very strong support	902 (32.6)	253 (28.9)	549 (19.9)*	171 (19.5)*
No strong support	1,869 (67.4)	626 (71.1)	2,203 (80.1)*	705 (80.5)*

*Significantly different ($p < 0.05$) from "prior to the spring lockdown".

Dubuc et al. (2021)

Impact of the pandemic

- Dramatic decrease of the youth quality of life in Europe
 - ▶ Decrease in motor development, particularly in coordination and aerobic endurance capacity
 - ▶ Significant psychological impact (stress, anxiety and loneliness)
 - ▶ Declines in mental health and wellbeing
 - ▶ Stronger negative impact for youth at risk and women/girls

Kornbeck et al. (2022)

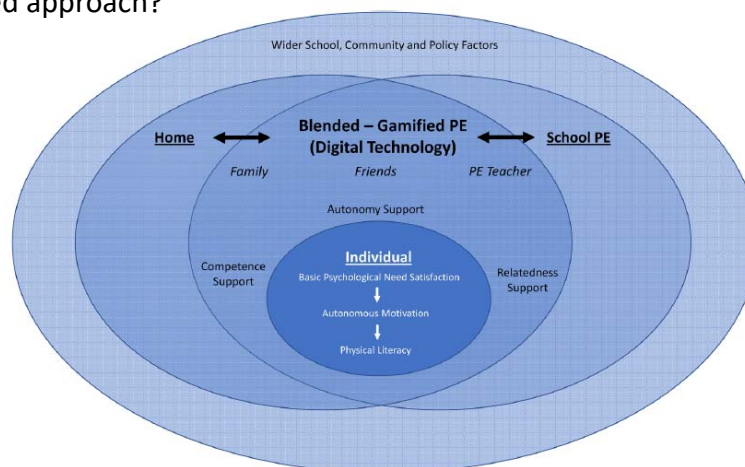
- Same situation worldwide



Neville et al. (2022)

Impact of the pandemic – The future

- New approach
 - ▶ Integrating the online resources in the 'traditional' PE model: towards a blended-gamified approach?



Blain et al. (2022)

Impact of the pandemic – The future

- Three kinds of challenges and risks
 - ▶ A PHE that would not sufficiently contribute to the overall and long-term development of children and adolescents
 - ▶ An outsourced PE that would forget the "E" in PE
 - ▶ A standardized PE that would fall back through a “one-size-fits-all approach”

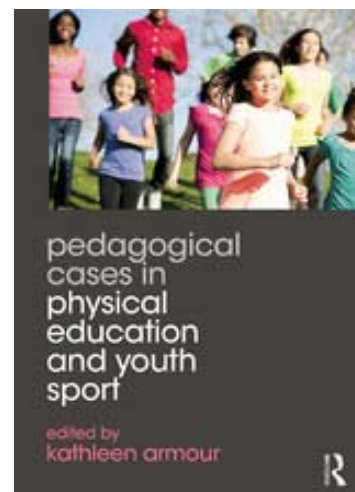
Lenzen et al. (2022)

Impact of the pandemic – The future

- New PE teachers' training approaches

- ▶ Pedagogical cases (Armour, 2014)
- ▶ Scenarios + Experts in Sport Sciences + Experts in Sport Pedagogy
- ▶ Example: see Cloes et al. (2014)

- ▶ Communities of practice
- ▶ Action research

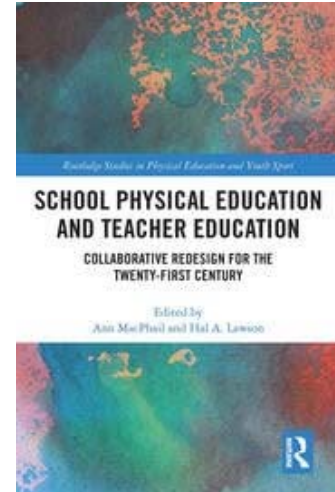


66

Impact of the pandemic – The future

• New PE teachers' training approaches

- ▶ Collaborative Redesign PHE and PETE (McPhail & Lawson, 2020)
- ▶ Capacity to learn with, and from, each other
- ▶ Example: University-School Partnerships (Harris et al. (2020)

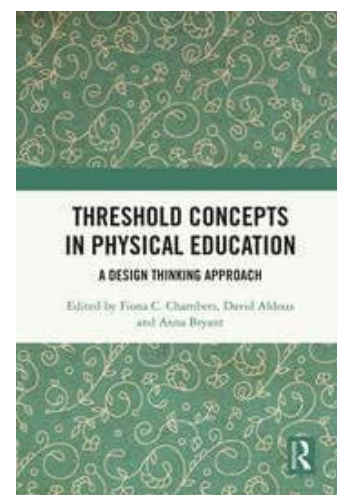


67

Impact of the pandemic – The future

• New PE teachers' training approaches

- ▶ Design thinking (Chambers et al., 2021)
- ▶ Non-linear, iterative process used to understand users, challenge assumptions, redefine problems and create innovative solutions to prototype and test
- ▶ Example: threshold concepts in parkour (Coolkens et al., 2021)



Pre- and in-service
training

68

Impact of the pandemic – The future

- A concrete example



69

Impact of the pandemic – The future

- Seminar at the University of Basel (Prof. Pühse and his PE students)
- Imagining solutions according to 3 scenarios
 - ▶ Teachers and students are working from home after a complete lockdown has been declared, home schooling is demanded
 - ▶ Schools present a pathway to provide in-person instruction safely through consistent use of prevention strategies → outdoor PE lessons with universal and correct use of masks and physical distancing
 - ▶ Indoor PE lessons are permitted with the use of masks and physical distancing

Brügger et al. (2021)

Impact of the pandemic – The future

- Seminar at the University of Basel (Prof. Pühse and his PE students)

With just a little creativity, many uses can be created and with the right application, students can be motivated accordingly.

SPIKESBALL
Spikesball is a sport that has become increasingly popular in various parks since the Corona crisis. The sport has unique advantages with equipment, but unlike volleyball, it allows for a great alternative in playing fields. For this reason, Spikesball is already listed as a promotion concept in some sports in the event of a crisis situation with level 2.

Spikesball is a trend that has become increasingly popular in various parks since the Corona crisis.

Some concept
Spikesball is a 200-degree sport that requires only little equipment. The sport can be played in many places around the city. The necessary equipment (net, net posts, net) is not expensive. The player of the net can play in a group of 4-6 people. During the game, the player must be at least 1.80 m away from the net. After that, each player has three seconds to touch the ball by the net. If a player is allowed to touch the ball, he must do so within 10 seconds. The ball must also not touch the edge of the net. A game is played in 11, 13 or 21 points each, with the team that reaches the required points for winning.

Equipment
• There are different sizes of nets and balls that can be used depending on the number of players and the number of courts to be used.
• A number of courts can be used.

Material
• Spikesball net with net and ball.
• Alternatively, Spikesball net and net posts balls available in the sports hall.

Adaptation for the promotion concept
The game can also be played with a 100-degree game after each team has its own half. For each team, players can also use their own ball. Otherwise, the sport is not a 200-degree sport.

Barriers, time rules and info
https://spikesball.eu

BAD WEATHER ALTERNATIVES
In the afternoon, introduction to playing and playing, working and preparation in groups or alone in a sport-specific topic, action and feedback analysis of critical situations and decision-making.

In the theory/practice or similar online content, functional anatomy, strength training, introduction to nutrition and regeneration with Spikesball.

Outdoor challenge: ball or strengthening. Moreover, this allows the players to keep their routine and strengthen their team spirit, and improve, understand it, and feel more around.



Available in the AIESEP members' corner

Brügger et al. (2021)

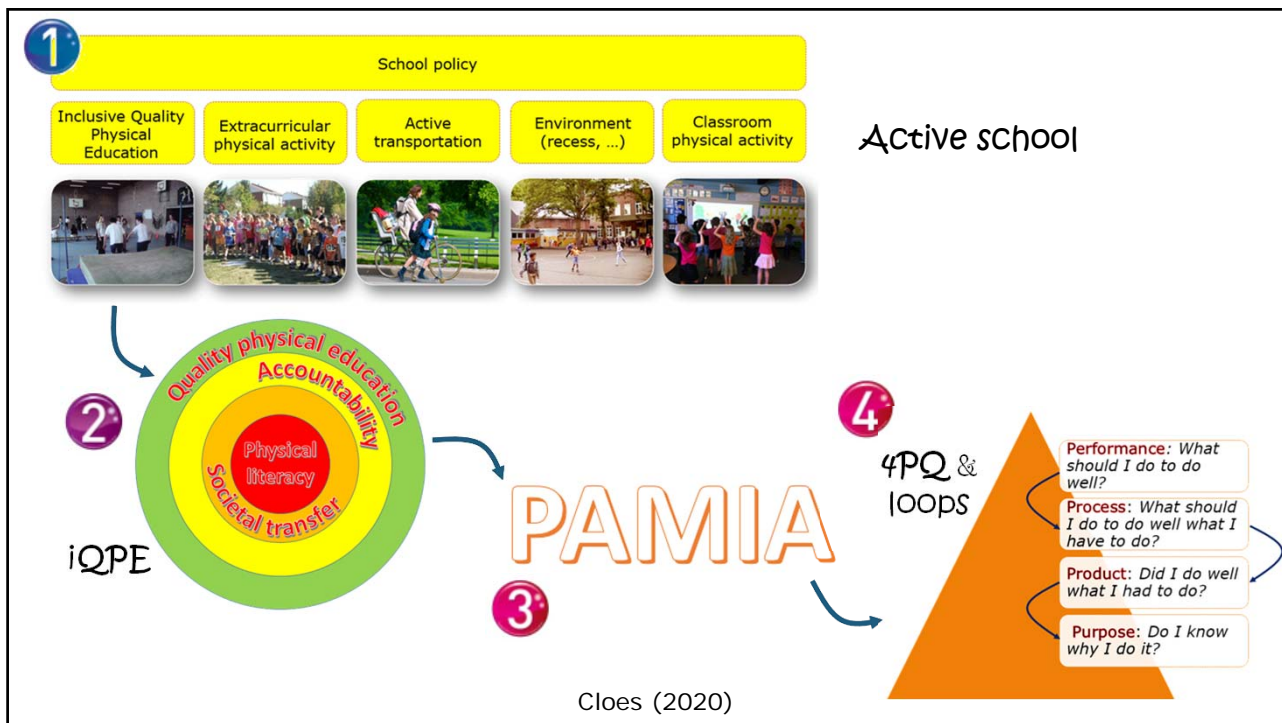


*Take home message

HOWE WEARDS

Four Levels Model for PE Teachers 4LMfPET

Lessons of the Covid-19 pandemic



Five key messages for PETE



Presenting the model to PE students can help them to structure their approach of teaching

75

Five key messages for PETE



In in-service training, teachers explained that the model allowed them to confirm their field observations

76

Five key messages for PETE



Stakeholders and parents said that such vision of PHE would have changed their own experience

77

Five key messages for PETE



That is finally not a revolution but the realization that PE teachers can easily become agents of change

78

Five key messages for PETE

5

Covid-19 pandemic underlined that PHE is a key subject and needs more collaborative/reflective teachers

79

Do not forget

Priority #1

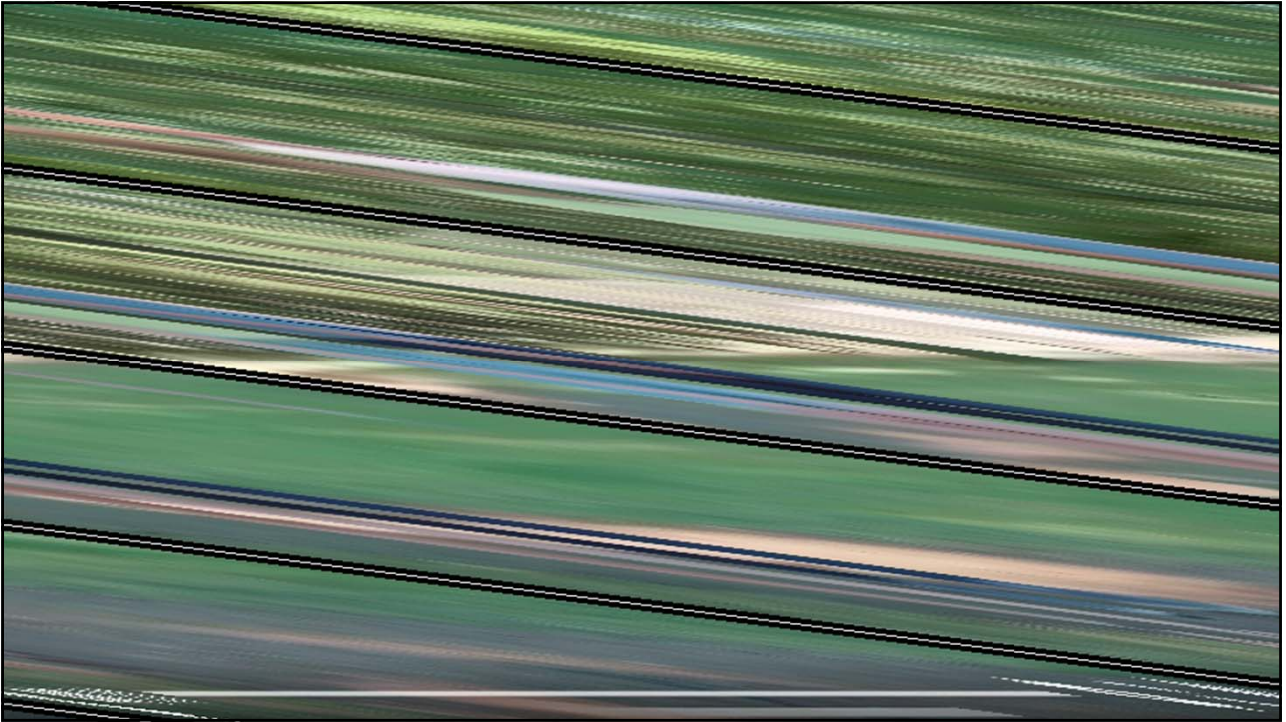
Priority #2

Priority #3

Educating
the whole
child

Ennis (2011)

80

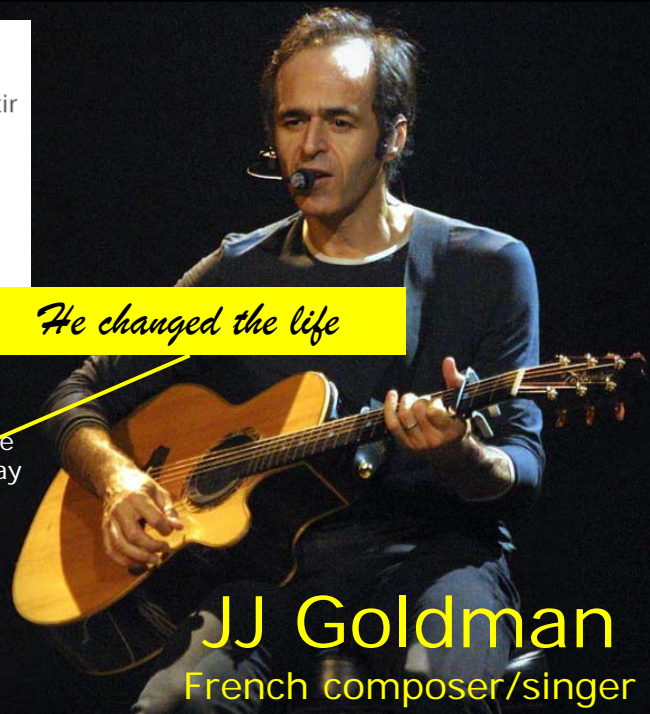


C'était un professeur, un simple professeur
 Qui pensait que savoir était un grand trésor
 Que tous les moins que rien n'avaient pour s'en sortir
 Que l'école et le droit qu'a chacun de s'instruire

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

JJ Goldman
 French composer/singer

References

References

- Adamakis, M. (2021). Resurgence of Physical Education and physical activity in the COVID-19 era: Policy inconsistencies, implications and future considerations. *International Journal of Physical Education & Sports Sciences*, 58(2):29-40. Doi : 10.5771/2747-6073-2021-2-29
- Aira, A. & Kämpfi, K. (eds)(2017). *Towards more active and pleasant school days Interim report on the Finnish Schools on the Move programme 2015-2016*. LIKES Research Reports on Physical Activity and Health, 335. Available on https://www.liikkuvakoulu.fi/sites/default/files/lk_valiraportti_111017_en.pdf
- Armour, K. (2014). *Pedagogical cases in physical education and youth sport*. London: Routledge.
- Blain, DO., Standage, M. & Curran, T. (2022). Physical education in a post-COVID world: A blended-gamified approach. *European Physical Education Review*, 28(3) 757–776. Doi: 10.1177/1356336X221080372
- Brügger, J., Gallmann, S., Hintermann, J., Kellenberger, T., Pieters, L., & Quadri, N. (2021). Physical education during time of crisis. Seminar «Sport und Gesundheit in pädagogischen Feldern». Basel: Department of Sport, Exercise and Health, University of Basel.
- Cale, L., & Harris, J. (2006). School-based physical activity interventions: effectiveness, trends, issues, implications and recommendations for practice. *Sport, Education and Society*, 11, 4, 401-420.
- Chambers, F., Bryant, A., & Aldous, D. (2021). *Threshold concepts in physical education. A design thinking approach* (pp. 87-97). London: Routledge.
- Cloes, M. (2017). Preparing physically educated citizens in physical education. Expectations and practices. *Retos*, 31, 245-251. Available <http://recyt.fecyt.es/index.php/retos/article/view/53497/32304>
- Cloes, M. (2020 September). *A model to guide PE teachers to become changing agents*. Keynote presented at the CEREPS+ Summit – HIPE 2020. Quality physical Education – What does it mean, and how should it look like? Esch-sur-Alzette, Grand-Duché de Luxembourg. Available on Internet : <http://hdl.handle.net/2268/252485>

- Cloes, M., Hody, S., Jidovtseff, B., Etienne, A-M., & Mouton, A. (2014). Laura. Enduring – or enjoying – endurance training. In, K. Armour (Ed.), *Pedagogical cases in physical education and youth sport* (pp. 198-210). London: Routledge. <http://hdl.handle.net/2268/170424>
- Cloes, M. & Pire, C. (2021 June). *PE for what? A project to make teachers aware of the importance of societal transfer*. Paper presented at the 2021 AIESEP Virtual Conference - Descending the mountain : Exploring the impact of research on pedagogy and practice. Banff, Canada. Available on Internet : <http://hdl.handle.net/2268/260052>
- Coolkens, R., Vanhole, N., & Cloes, N. (2021). Towards the identification of the threshold concepts in parkour – A case study. In, F. Chambers, A. Bryant & D. Aldous (Eds.): *Threshold concepts in physical education. A design thinking approach* (pp. 87-97). London: Routledge. Available on <https://orbi.uliege.be/handle/2268/258507>
- Cox, A. E., Smith, A.L., & Williams, L. (2008). Change in Physical Education Motivation and Physical Activity Behavior during Middle School, *Journal of Adolescent Health* 43, 506–513. doi:10.1016/j.jadohealth.2008.04.020
- Dedicated Action for School Health (DASH) (2013). *Healthy Schools! BC. Comprehensive school health knowledge guide*. Vancouver BC: DASH. Available on https://healthyschoolsbc.ca/wp-content/uploads/2019/10/csh_knowledge_guide_-_electronic_copy_final_2013.pdf
- Deci, E. L., & Ryan, R. M. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology* 25, 54–67.
- Dubuc, MM., Remacle, M., Goudreault, M., Berrigan, F., Beaudoin, S., Turcotte, S. & Mouton, A. (2021). Exploring social and school support for physical activity during the COVID-19 pandemic lockdown in youth. In, D. Krnjaz, D. Novak & B. Antala (Eds.), *Physical activity and health aspects of Covid-19 pandemic* (pp. 109-124). Zagreb: Fédération Internationale d'Éducation Physique et Sportive (FIEPS Europe). Available on <https://hdl.handle.net/2268/288711>

87

- Ennis, C.D. (2011) Physical Education Curriculum Priorities: Evidence for Education and Skillfulness. *Quest*, 63:1, 5-18, Doi: 10.1080/00336297.2011.10483659
- Erwin, H., Beighle, A., Carson, R.L., Castelli, D.M. (2013). Comprehensive school-based physical activity promotion: A review. *Quest*, 65, 412-428. doi: 10.1080/00336297.2013.791872
- Flemons, M., Diffey, F., & Cunliffe, D. (2018). The role of PETE in developing and sustaining physical literacy informed practitioners. *Journal of Teaching in Physical Education*, 37, 3, 299-307.
- Gillet, N., Vallerand, R.J., Amoura, S., & Baldes, B. (2010). Influence of coaches' autonomy support on athletes' motivation and sport performance: A test of the hierarchical model of intrinsic and extrinsic motivation. *Psychology of Sport and Exercise*, 11, 155-161. doi:10.1016/j.psychsport.2009.10.004
- Haerens, L. (2013, July). *Physical education teachers inspiring young people towards a physically active lifestyle?!*: *Motivational dynamics in physical education*, Paper presented at the 2013 AIESEP International Conference 'Physical education and sport: Challenging the future', Warsaw, Poland.
- Haerens, L., Kirk, D., Cardon, G., & De Bourdeaudhuij, I. (2011). Toward the Development of a Pedagogical Model for Health-Based Physical Education, *Quest*, 63:3, 321-338. <http://dx.doi.org/10.1080/00336297.2011.10483684>
- Harris, J. & Cale, L. (2018). *Promoting Active Lifestyles in Schools*. Champaign, IL: Human Kinetics.

- Harris, J., Wilson, K., & Cloes, M. (2020). The Alignment and Coherence Challenge: Developing University-School Partnerships for the Simultaneous Improvement and Redesign of School Programmes and Teacher Education. In, A. MacPhail & H.A. Lawson (Eds.). *School Physical Education and Teacher Education: Collaborative Redesign for the 21st Century*. London, United Kingdom (pp. 34-45). Abingdon: United Kingdom: Routledge/T&F. Available on <http://hdl.handle.net/2268/246025>
- Healthy School! BC (nd). Guide-ressource sur l'enseignement et l'apprentissage. Available on <https://healthyschoolsbc.ca/fr/wp-content/uploads/sites/2/2019/10/teaching-and-learning-final.pdf>
- International Physical Literacy Association. (2015). International Physical Literacy Association homepage. Retrieved from <https://www.physical-literacy.org.uk>
- Kornbeck, J., Petkovic, S., & Naul, R. (2022). The impact of the covid-19 pandemic on the physical activity and health and well-being of children and adolescents in Europe. *Acta Universitatis Carolinae Kinanthropologica*, 58 (1), 5–17.
- Lenzen, B., Houssin, É., Forest, E., & Borges, C. (2022). L'éducation physique en temps de pandémie : quelles leçons en tirer pour le « monde d'après » ? *Raisons éducatives*, 26, 25-44. <https://doi.org/10.3917/raised.026.0025>
- MacPhail, A. & Lawson, H.A. (2020). *School Physical Education and Teacher Education: Collaborative Redesign for the 21st Century*. London, United Kingdom. Abingdon: United Kingdom: Routledge/T&F.
- NaulMcLennan, N. & Thompson, J. (2015). *Quality Physical Education. Guidelines for Policy-Makers*. Paris, France : UNESCO.
- Neville, R.D., Lakes, K.D., Hopkins, W.G., Tarantino, G., Draper, C.E., Beck, R., & Madigan, S. (2022). Global Changes in Child and Adolescent Physical Activity During the COVID-19 Pandemic. A Systematic Review and Meta-analysis. *JAMA Pediatrics*, 176(9), 886-894. doi:10.1001/jamapediatrics.2022.2313

89

- Nurulfa, R., Anggraini Motto, C., Dlis, F., Tangkudung, J., Lubis, J. & Junaidi (2021). Physical Education Survey during the COVID-19 Pandemic in Eastern Indonesia. *International Journal of Human Movement and Sports Sciences*, 9(4), 668-675. DOI: 10.13189/saj.2021.090410
- Pate, R., O'Neill, J., & McIver, K. (2011). Physical activity and health: Does physical education matter? *Quest*, 63(1), 19-35.
- Pavlovic, A., DeFina, L.F., Natale, B.L., Thiele, S.E., Walker, T.J., Craig, D.W., Vint, G.R., Leonard, D., Haskell, W.L., & Kohl, H.W. (2021). Keeping children healthy during and after COVID-19 pandemic: meeting youth physical activity needs. *BMC Public Health*, 21, 485. Doi: <https://doi.org/10.1186/s12889-021-10545-x>
- Reeve, J., Deci, E.L., & Ryan, R.M. (2004). Self-determination theory: a dialectical framework for understanding socio-cultural influences on student motivation. In D.M. McInerney & S. Van Etten (Eds.), *Big Theories Revisited*, Greenwich, CT, Information Age Press, 31-60.
- Sarrazin, P., Tessier, D., & Trouilloud, D. (2006). Climat motivationnel instauré par l'enseignant et implication des élèves en classe : l'état des recherches. *Revue française de pédagogie*, 157, 47-177. Consulté sur Internet : <http://rfp.revues.org/463>
- Snyers, J., Halkin, A.-S., Lejacques, T., Schmit, J., Williot, J., Cloes, M. (2014). Multidimensional Analysis of the Importance Given to Physical Activity Promotion in Secondary Schools of French-Speaking Belgium. *The Global Journal of Health and Physical Education Pedagogy*, 3, 3, 212-227. Available on Internet: <http://hdl.handle.net/2268/171066>
- Tappe, M.K. & Burgeson, C.R. (2004). Physical Education: A Cornerstone for physically active lifestyles. *Journal of Teaching in Physical Education*, 23(4), 281-299.

90

- Turcotte, S., Marchand, V., Boutin, L., Gignac, C., Nolin, J., Massé, É. et Grand'Maison, S. (2021). Guide de l'enseignant en ÉPS responsable des projets d'activités physiques à l'école. L'accompagnement de l'équipe-école (2e éd.). Fédération des éducateurs et éducatrices physiques enseignants du Québec
- UNESCO (2017). Kazan Action Plan - MINEPS VI. SHS/2017/PI/H/14 REV (pp.7-8). Available on : <https://unesdoc.unesco.org/ark:/48223/pf0000252725>
- Uwer, S. & Stettler, K. (2015). «*l'école bouge*». Mobilesport.ch, 9. Available on https://www.mobilesport.ch/assets/lbwp-cdn/mobilesport/files/2015/09/l_ecole_bouge.pdf
- Webster, C.A., Rink, J.E., Carson, R.L, Moon, J., & Lux Gaudreault, K. (2020). The Comprehensive School Physical Activity Program Model: A Proposed Illustrative Supplement to Help Move the Needle on Youth Physical Activity. *Kinesiology Review*, 9(2), 1-10. DOI: [10.1123/kr.2019-0048](https://doi.org/10.1123/kr.2019-0048)