

The physical education teacher as a physical activity promoter

Current developments

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Four topics

- The role of school in PA promotion
- The dimensions of PA at school
- The action that PE teacher can play
- The role of PE teacher educators

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Role of the school in PA promotion

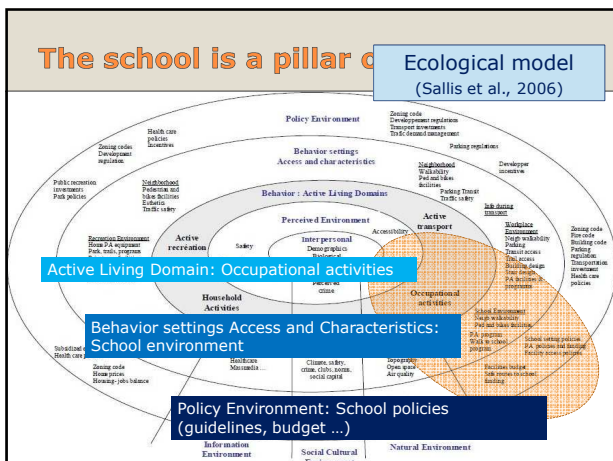
The school is a pillar of the society

- Compulsory education → All children and adolescents can access to PA opportunities
- Specialized educators
- Access to facilities

Bar-Or (2005)
Trost & Loprinzi (2008)

Ecological model
(Sallis et al., 2006)

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The school is recognized as a partner in health promotion

- In the 90', WHO launched the European Health School Network
- Development of the 'Active School' concept → Several models

Nutbeam (1992)
OMS Europe (1993)

Cale (1997)
Ontario Physical and Health Education Association (2006)

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There are several opportunities to be physically active at school

- Common opportunities (all pupils/students)
 - ☞ Physical education lessons
 - ☞ Recess during the morning, midday and afternoon
- Specific opportunities (school related)
 - ☞ Welcome service
 - ☞ Extra-curricular activities
 - ☞ Other events
- In primary school
 - ☞ Classroom movement breaks

Guinhouya (2010)

Bartholomew & Jowers (2011)
Mahar et al. (2006)

The part of the school in youth PA is not well documented

- No standardized methodology → No clear picture for comparison on (inter)national level(s)
- Analyses do not take PE into account
- Primary school
 - ☞ USA – 9,8y boys
 - ☞ 125' of MVPA for days with extracurricular sports
 - ☞ 95' of MVPA for days without

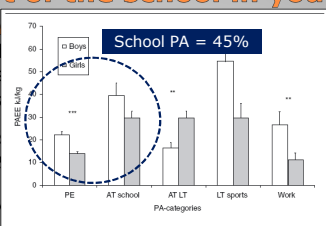
Wickel & Eisenmann (2007)



11% - PE
16% - Recesses
23% - Sports
50% - Unstructured

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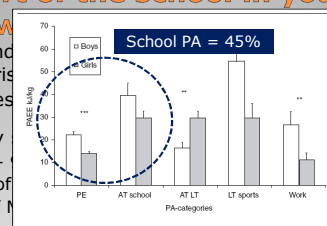
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- Secondary school
 - ☞ NED – 15,7y boys+girls
 - ☞ Physical activity energy expenditure (PAEE) for days with PE lesson



Slingerland et al. (2012)

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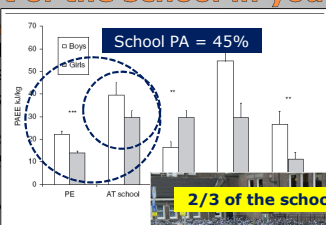
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2/3 of the school PA

The evidence is not yet established

van Sluijs et al. (2007)

57 papers presenting data of interventions aiming to promote PA in youth (<18 y)

Variables	Children (33 studies)		Adolescents (24 studies)	
	No of studies	Level of evidence	No of studies	Level of evidence
Intervention type:				
Educational	19	No	17	No
Environmental or policy	4	Limited	1	Inconclusive
Multi-component	10	Inconclusive	6	Strong
Setting:				
School	13	Inconclusive	14	Inconclusive
School plus community or family	14	Inconclusive	6	Strong
Family	4	No	1	Inconclusive
Community	2	No	1	Inconclusive
Primary care	0	No	2	Inconclusive
Target group:				
One sex only	5	No	9	Inconclusive
Ethnic minority populations	10	No	0	No
Low SES populations	3	Limited	2	Inconclusive

The evidence is not yet established

Biddle et al. (2012)

- ECSS
- This paper summarises such evidence by using a lifespan approach with physical activity behaviour change for children and adolescents, adults and older adults
- What about the youth?

- School interventions (children): inconclusive evidence.
- School plus family or community environment interventions (children): inconclusive evidence.
- Family interventions (children): no evidence.
- Community interventions (children): no evidence.
- Primary care interventions (children): no studies.
- School interventions (adolescents): inconclusive evidence.
- School plus family or community environment interventions (adolescents): strong evidence of effectiveness, including two large high-quality trials.
- Family interventions (adolescents): inconclusive evidence.
- Community interventions (adolescents): inconclusive evidence.
- Primary care interventions (adolescents): inconclusive evidence.

More encouraging findings

Cale et Harris (2006, p. 415)

- Specific school interventions

Conclusion


The evidence reviewed here has revealed that school-based physical activity interventions can be effective and achieve a range of positive outcomes, suggesting that teachers' efforts to promote physical activity through PE programmes can indeed be worthwhile. Further, and despite limitations in the existing literature precluding definitive guidelines for schools to be made, consideration of the key trends and issues concerning the physical activity interventions clearly has implications for practice and has been used to inform a number of recommendations for the future direction of formal and informal physical activity programmes, initiatives and interventions. Until a stronger evidence base becomes available, schools and teachers should be encouraged to plan, implement and evaluate programmes and draw on such recommendations to inform their practice.

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More encouraging findings

Demetriou & Höner (2012)

- 129 papers
- Positive impact on :
 - ⇒ BMI - 28%
 - ⇒ Motor performance - 69.7%
 - ⇒ Physical activity - 56.8%
 - ⇒ Knowledge - 87.5%
 - ⇒ Self-esteem - 30%
 - ⇒ Attitudes - 43.8%



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A real positive message

Heath et al. (2012)

Physical Activity 3

Evidence-based intervention in physical activity: lessons from around the world

Gregory W Heath, Diana C Parris, Olga L Samiainen, Lars Bo Andersen, Neville Owen, Shafiqo Gaenko, Felipe Montes, Ross C Brownson, for the Lancet Physical Activity Series Working Group*

Comprehensive school-based strategies encompassing PE, classroom activities, after-school sports, and active transport can increase physical activity in young people

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PA promotion at school: The dimensions

The main dimensions

Pate et al. (2006)

Circulation American Heart Association
JOURNAL OF THE AMERICAN HEART ASSOCIATION
Learn and Live.

Promoting Physical Activity in Children and Youth: A Leadership Role for Schools: A Scientific Statement From the American Heart Association Council on Nutrition, Physical Activity, and Metabolism (Physical Activity Committee) in Collaboration With the Councils on Cardiovascular Disease in the Young and Cardiovascular Nursing
Russell R. Pate, Michael G. Davis, Thomas N. Robinson, Elaine J. Stone, Thomas L. McKenzie and Judith C. Young
Circulation 2006;114:1214-1224; originally published online Aug 14, 2006; DOI: 10.1161/CIRCULATIONAHA.106.177052

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The main dimensions

- Scientific Statement from the American Heart Association Council (Pate et al., 2006)
 - ☞ Physical education
 - ☞ Sport at school (links to the community)
 - ☞ Active transportation
 - ☞ Life environment (recesses, spaces)
 - ☞ Physical activity in the classroom

Strong school policy!

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The role of PE teacher as PA promotor

The PE teacher should be the corner stone of PA promotion ...

JOURNAL OF TEACHING IN PHYSICAL EDUCATION, 2004, 23, 261-299
© 2004 HUMAN KINETICS PUBLISHERS, INC.

**Physical Education:
A Cornerstone for Physically Active Lifestyles**

Marlene K. Tappe
Purdue University

Charlene R. Burgeson
National Association for Sport and Physical Education

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... against the PE worldwide crisis

- PE's serious concerns (Hardman, 2005)
 - ☞ Decline and marginalization of PE
 - ☞ Curriculum time allocation, subject status, material, human and financial resources, inadequacies in facility and equipment supply, low remuneration of teachers)
- Questions about PE quality
 - ☞ Teaching process
 - ☞ Inadequate school-community co-ordination
 - ☞ Focus on competition performance sport
 - ☞ Lack of interest on 'basic human movement'

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It means to adapt the action

- PE and public health
 - ☞ PE teachers should adopt a new role
 - ☞ Need of QPE (Sallis & McKenzie (1991))

Prepare youth for a lifetime of PA

Provide them with PA during PE classes

SPARK
CATCH
TAAG
LEAP

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What changes since 1991?

- Sallis et al. (2012)
 - ☞ The gym is half full (↗ support of PE; ↗ systematic analysis)
 - ☞ The gym is half empty (↘ PE time; no consensus about QPE; lack of implementation)

Research Quarterly for Exercise and Sport
©2012 by the American Alliance for Health, Physical Education, Recreation and Dance
Vol. 83, No. 2, pp. 125-135

***Health Optimizing PE**

Physical Education's Role in Public Health: Steps Forward and Backward Over 20 Years and HOPE for the Future

James F. Sallis, Thomas L. McKenzie, Michael W. Beets, Aaron Beighle, Heather Erwin, and Sarah Lee

Mainly focused on ↗ MVPA

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What changes since 1991?

- Grow of a first concept
 - **Physical literacy** (Whitehead, 2007; Mandigo et al., 2009)
 - PE for what?
- Physical literacy
 - is linked to the acquisition by the youth of knowledge, skills and attitude that will make them **physically educated persons** for their whole life (NASPE, 2004)
 - means that PE has a concrete mission to follow learning objectives that are useful and usable **outside the school walls**


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What changes since 1991?

- Grow of a second concept
 - **Accountability**
 - PE for what?
 - Underlining the concrete effects
- PE = Developmental activity
 - Motor dimension
 - Physical dimension
 - Cognitive dimension
 - Affective dimension
 - Social dimension

Acquisition of a healthy lifestyle

Collecting data ?



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What changes since 1991?

- Grow of a third concept
 - Emphasis on **Quality Physical Education**
- AIESEP Specialist Seminar in Jyväskylä (2013)
 - QPE reaches the objectives for all students
 - Objectives should reflect the specific cultural contexts
 - QPE classes should allow students to have positive individual and collective learning experiences where they develop knowledge, skills and dispositions that allow them to be autonomous and **responsible decision makers relative to engagement in PA and sport in their lives**

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What changes since 1991?

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Awards

- IOC President Prize
- Best Posters Awards
- Young scholar
- Fellows

Other

- Links
- New publications
- AIESEP statements on PE-CPD
- AIESEP statement on Sport Pedagogy
- AIESEP Position Statement on Physical Education Teacher Education

AIESEP General Assembly and Election of the Board (2014-2018)

President: Prof. Marc CLOES (University of Liege, BEL)
 Secretary General: Prof. Mary O'SULLIVAN (University of Limerick, IRL)
 Treasurer: Prof. Uwe PÜHSE (University of Basel, SUI)
 Board members: see 'Board of Directors' for more info

Flash Newsletters (see the last info)

n° 107 - Normal issue (May 5, 2014)
 n° 107 - Special edition (May 5, 2014)

www.aiesep.ulg.ac.be/


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What does it mean?

- PE should be focused on current society needs and requirements
- Sports and cultural physical activities → Tools for general aims and not final objectives


Pühse et al. (2010)
- PE teachers have to show what they are doing
- Development of a Pedagogical Model for Health-Based Physical Education

Haerens et al. (2011)



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Never again: Utopia?



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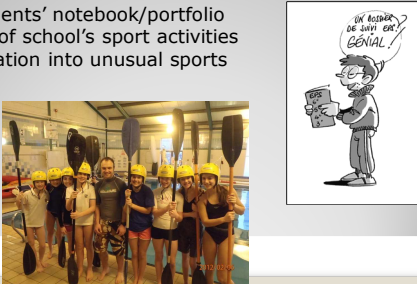
The specific role of PE teacher

- **Basic role** of PE in the promotion of an active lifestyle (Cloes, 2010)
 - ☞ Fight against inactivity (representations)
 - ☞ Water safety; basic life support; automated external defibrillation
 - ☞ Warming up; cooling down; stretching; fitness
 - ☞ Ergonomic principles, respiratory control; relaxation
 - ☞ Selection of ones working intensity; heart beats checking; muscles and body functioning
 - ☞ Improvement of motor skills (balance, manipulative skills, work in high situation, running ...)
 - ☞ ...
 - ☞ And – of course – learning of sport activities !

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The specific role of PE teacher


- **Specific actions** of PE in the promotion of an active lifestyle (Cloes et al., 2009)
 - ☞ Diversified activities
 - ☞ Students' notebook/portfolio
 - ☞ Out of school's sport activities
 - ☞ Initiation into unusual sports




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The specific role of PE teacher

- Other examples
 - ☞ Students' projects ...
 - ☞ Collaboration with other teachers/ partners
 - ☞ Using available resources
 - ☞ Using technology (HRM, computers, video, iPad ...)



Fahey et al. (2007)




Castelli (2013)

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The specific role of PE teacher

- Other examples
 - ☞ Transposition to students' level of notions of physiology, anatomy, biomechanics ...
 - ☞ Production of written material that will be useful for the students (and the school community)
 - ☞ Dissemination of extracurricular 'ready to use' examples of PA
 - ☞ Information about PA opportunities available in the community



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The specific role of PE teacher


- **Newer role** of PE in the promotion of a healthy lifestyle (Cloes, 2010)
 - ☞ Nutrition (hydration, sport dietetics ...)
 - ☞ Sleep
 - ☞ Stress (relaxation in daily life situations ...)
 - ☞ Smoking, alcohol, drugs, medicine
 - ☞ Sex, risk behaviours (driving)
 - ☞ Hygiene

→ Health and Physical Education ??

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Other activities

- **Collaboration with the classroom teachers**
 - ☞ Interdisciplinary lessons (Lamon et al., 1999)
 - ☞ PA breaks in classroom lessons
 - ☞ Development of projects (video – sequences)



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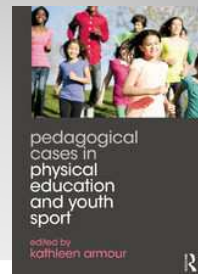
Other activities

- **Implementing PA projects**
 - Involvement in the school policy
 - Regular analysis of the PA level of the school
 - Increase of the marketing towards the other actors of the school environment (colleagues, parents ...)
 - Development of the relationships with the community
 - Creation of networks with other PE teachers (communities of practice) in order to produce and disseminate good practices

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How to prepare teacher now?

- **New approach** of PETE (Armour, 2014)
- Pedagogical cases
 - Scenarios
 - Sport science experts
 - Sport pedagogy expert



Pre and in-service teaching

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How to prepare teacher now?

- **One-day training** (Aelterman et al., 2013)
 - Theoretical background principles SDT
 - Overview of motivating/need-supportive teaching strategies illustrated by case studies and video images
 - Application exercise



Development and evaluation of a training on need-supportive teaching in physical education: Qualitative and quantitative findings

N. Aelterman^{a,c,*}, M. Vansteenkiste^a, H. Van Keer^b, J. De Meyer^c, L. Van den Berghe^d, L. Haerens^{d,e}

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Take home message

To become a PA promoter...

... the PE teacher should:

- be a model
- update his/her own knowledge
- know his/her students' needs
- implement new teaching strategies
- integrate communities of practice

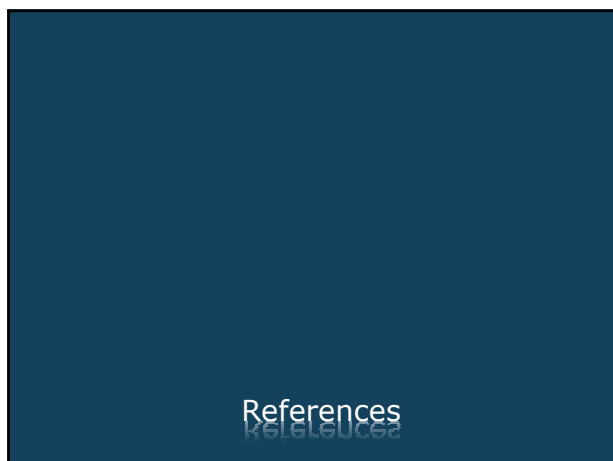
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To reach this dream ...

... the PE teacher educators should:

- emphasize the new educating strategies
- develop concrete material and resources
- contribute to create communities of practice
- provide evidence based data supporting the effectiveness of the new approaches

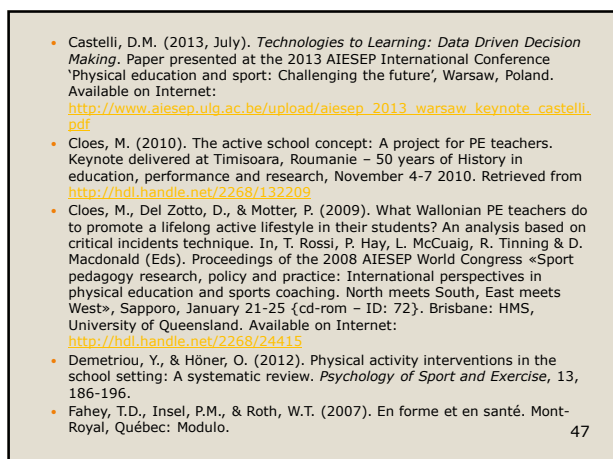
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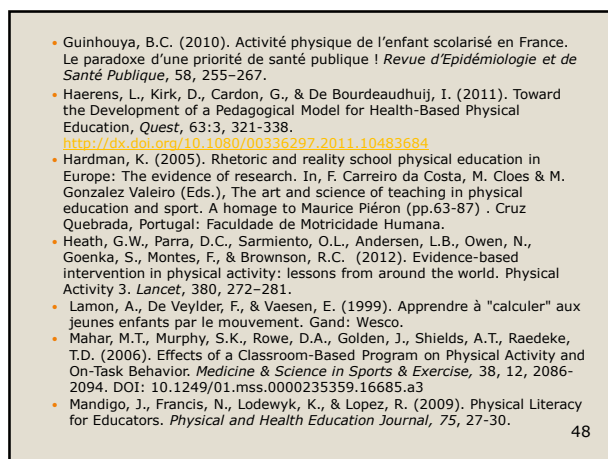
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