Preparation physically educated citizens in PE
Expectations and practices

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Four questions .... among others

• What does the society expect from PE?
• Does PE meet the expectations?
• What the PE teacher should do for that?
• How to go in this direction?
Every human being has a fundamental right to physical education, physical activity and sport without discrimination on the basis of ethnicity, gender, sexual orientation, language, religion, political or other opinion, national or social origin, property or any other basis.
Anatomical and physiological variables

"Physical education is the most effective means of providing all children and youth with the skills, attitudes, values, knowledge and understanding for lifelong participation in society."

A great responsibility

The Ministers meeting at the 5th International Conference of Ministers and Senior Officials Responsible for Physical Education and Sport (MINEPS V), held in Berlin (28-30 May 2013)

What kind of effects?

- Very short term (during the lesson)
  - Excitement, enjoyment, energy expenditure
  - Muscular soreness, frustration, boredom
- Short term (next days)
  - Feeling of well-being, speak about the lesson with friends, family, interest in PA topics
  - Critics about the lesson to others, fatigue, DOMS
- Middle term (next weeks, months)
  - Positive reactions towards PE, curiosity towards PA, involvement in PA
  - PE avoidance (medical excuses), sedentary lifestyle
What kind of effects?

- Long term (until the end of schooling)
  - Sustain PA, speak positively about PE
  - Regular sedentary lifestyle, recall negative events
- Very long term (during the whole life)
  - Remain physically active, encourage ones’ children to be active
  - Resistance to PA promotion, denigrate PE

‘Usually, the main satisfaction of one PE teacher: student decision to become physically active outside of the school’

A PE worldwide crisis

- 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
What’s the PE impact?

- Half full?
- Half empty?

Half empty

- Achievement of the PE objectives in Flanders
  - Too rarely in 57% of 182 adults and 49% of 1730 students
- Development of a physically fit and healthy lifestyle
  - Too rarely in 48.1% of students
- Development of self-image and social functioning
  - Too rarely in 45.1% of students
- Development of motor competencies
  - Too rarely in 43.1% of students

Huts et al. (2004)
7 group interviews with 5 to 6 15-year-old girls + individual follow up interviews at 21. They...
- Did not see the real purpose of PE
- Criticized the choice of the activities (generation gap, mainly team sports)
- Blamed the lack of physical challenge (number of students, length of the lessons)
- Considered that PE failed helping skill development

Flintoff & Scraton (2001)

7 group interviews with 5 to 6 15-year-old girls + individual follow up interviews at 21. They...
- Reproached for teachers’ attitudes and expectations
- Criticized clothing
- Regreted mixity

Flintoff & Scraton (2001)
Half empty

- Interviews of 46 9th graders (USA)
  - Only the 19 athletes planned to continue to do sport
    Portman (2003)

- Questions to students at the end of secondary school (Wallonia)
  - Only 2.3% totally agree that school motivated them to be physically active lifelong
    Cloes et al. (2009b)

Half empty

- PA declines within people entering in higher education
  Bodson (1997)
  Gomez-Lopez et al. (2010)
  Kwan & Faulkner (2011)

- Long term effect
  - Negative testimonies

Le sport à l’école, école de l’humiliation?
Long term effect: from school to adulthood
  A real doubt is highlighted against practitioners’ usual believes

Mission impossible? Reflecting upon the relationship between physical education, youth sport and lifelong participation

Ken Green*
University of Chester, UK; Norwegian School of Sport Sciences, Norway

Long term effect
  The explanation could be found in the PE teachers’ action (matchs, drills without challenge)
Interventions on PE are effective

- Meta-analysis based on 57 papers
- **During PE**: Positive changes on PA when increasing the lesson number, improving the teachers’ education and providing equipment
- **Overall PA level**: Few modifications
- Mediation by the students’ involvement and other variables (socio-ecological model)

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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.
129 papers (interventions in PE and/or other dimensions of school PA)

Categories of objectives
- Health and fitness
- Behaviours (PA)
- Psychological determinants

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

Effectiveness of PE (and school sport) about 3 main outcomes (23/27,410 papers)
- Promoting high levels of physical activity participation
- Movement skill instruction and practice
- Active learning strategies with an emphasis on enjoyment

Positive impact in:
- 79% of the studies focused on PA in the lesson
- 100% of the studies focused on motor skill
- 43% of the studies focused on enjoyment

Methodological weaknesses
Meta-analysis
- Implementation of a project aiming to MVPA during PE
- 14 papers

Positive impact:
- PE-based interventions can increase students' MVPA during lessons by about 24% compared with usual practice
- Professional learning focused on teacher pedagogy and behavior offers considerable potential for increasing physical activity in youth

But...
- Long term effects of these modifications is not yet documented

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

Prepare youth for a lifetime of PA
Provide them with PA during PE classes

SPARK
CATCH
TAAG
LEAP
To summarize

- 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)

*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

PE is identified as one key element

Heath et al. (2012)

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


Comprehensive school-based strategies encompassing PE, classroom activities, after-school sports, and active transport can increase physical activity in young people
To be a PA promotor means …

The PE teacher should be the cornerstone of PA promotion …

Physical Education:
A Cornerstone for Physically Active Lifestyles

Marlene K. Tappe
Purdue University

Charlene R. Burgeson
National Association for Sport and Physical Education
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

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?
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

The PAMIA principles

- P - Foster play/pleasure: give meaningfulness and increase pleasure
- A - Foster achievement and learning: 70-80% («delicious uncertainty») through individualizing (levels +1 et -1; individual goals)
- M - Foster movement: propose activities situations that lead students to move, to expand energy
- I - Foster interactions: increase contact with others and with the environment
- A - Foster autonomy: give students opportunities to make decisions
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)

Never again: Utopia?

DANGER INFECTION WASTE

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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!

The specific role of PE teacher

• **Specific actions** of PE in the promotion of an active lifestyle (Cloes et al., 2009a)
  ➢ Diversified activities
  ➢ Students’ notebook/portfolio
  ➢ Out of school’s sport activities
  ➢ Initiation into unusual sports
The specific role of PE teacher

• Other examples
  ➢ Students’ projects ... (pentathlon)
  ➢ Collaboration with other teachers/partners
  ➢ PE book
  ➢ Using technology (HRM, computers, video, iPad ...)

Fahey et al. (2007)

Castelli (2013)

• 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
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 ...)

**Health and Physical Education ??**

- Smoking, alcohol, drugs, medicine
- Sex, risk behaviours (driving)
- Hygiene

Other activities

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

**Improvement of the PE teacher’s status**
Other activities

6 dimensions of PA at school (Snyers et al., 2014)

- PA school policy
- Physical education
- Active transportation
- ‘Sport’ at school
- Physical activity in the classroom
- Life environment (recesses, spaces)

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
Five management axes

- Be a model
  - Show that it is possible to adopt an active lifestyle
- Update one’s knowledge
  - Be curious about PA and its promotion
- Create a network
  - Develop collaboration, get support
- Become a project manager
  - Analyze, plan, implement, coordinate, assess
- Behave like a professional
  - Assume the central role

Ciotto & Fede (2014)
Erwin et al. (2014)

New competences, new preparation
The PE teacher has the current required competences

- He just has to learn to use them
  - Emphasis on the societal anchoring of the course
  - Action research during teaching field practices
  - Reflective practice
The PE teacher has the current required competences

- He just has to learn to use them
  - Papers’ writing

  Charlotte LAUBENT, Alexandre MOUTON & Marc CLOES
  Exploitation du concept de « physical literacy » dans le cadre d’une séance
d’ergonomie et de manutention

  Monia MASROUKI & Marc CLOES
  TRAVAIL DE DIFFERENTES DISCIPLINES COLLECTIVES SOUS
FORME DE CIRCUIT

  Gilles DUBRU & Marc CLOES
  Séance de renforcement musculaire utilisant des objets du quotidien

How to prepare teachers now?

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

Pre and in-service teaching
How to prepare teachers 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

How to prepare teachers now?

• And the inservice teachers
  - Specific sessions
  - Mentors-PE students
  - Online resources
And for those who want to read more

- Corbin (2002): What every PE educator should know about promoting lifelong PA
- Cale & Harris (2006): Guidelines to implement PA promotion at school
- Hodges Kulinna et al. (2012): Changing school physical activity
- Erwin et al. (2013): Comprehensive school-based PA promotion. A review
Four key messages for PETE

- PE teachers should become the real cornerstones of the PA promotion at school
- They have to be involved in PE as well as in the other dimension of PA at school
- They have to collaborate (they are not alone)
- Pre service and inservice PETE have to be adapted to show the way and change the mentalities

Three key messages for researchers

- Studies focusing on long term effects of PE are needed
- Implementation of new teaching approaches in the schools should be more documented
- Need of evidence-based teaching resources
http://orbi.ulg.ac.be/handle/2268/188875

Many thanks for your interest

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References


• Flintoff, A., & Scraton, S. 2001 Stepping into active leisure? Young women’s perceptions of active lifestyles and their experiences of school physical education. Sport, Education and Society, 6, 1, 5-21


