



HOW TO PAVE THE ROAD TO A BETTER FUTURE FOR PHYSICAL EDUCATION

*This text was originally presented on the occasion of the 100th anniversary
of the HILO at Ghent University (September 2007)*

Bart Crum

Introduction

*"Those who cannot remember the past
are condemned to repeat it"*
George Santayana

Reflecting on the approach to my assignment – (to speak about the “future of physical education (PE)¹”) – my first option was to deliver a paper focusing solely on a futuristic perspective. However, mindful of the Arab saying “prediction is difficult, in particular when it is about the future” and considering that I would not come much further than forcing open doors, e.g. forecasting that in the coming decade IT technology will become a major factor in the delivery of PE lessons, I dropped the idea of a futuristic approach. Instead I decided to present a paper that, starting from a solid theoretical basis, focuses on the question ‘what are the changes the PE profession needs to carry out in order to secure a solid position within the core curriculum of the schools of the future?’. In keeping with the sentiment expressed in the motto above (borrowed from Santayana) my lecture on the future of PE will be solidly grounded in reflections and analysis on the past and the present status of PE.

In the coming 40 minutes you can expect:

1. a brief description of symptoms of the current misery,

2. a diagnosis of problems related to the quality of PE and a theoretical explanation of the causes (at least some of them),

3. some proposals for improvement interventions.

1. A brief description of the current misery

That PE sails on a turbulent sea and has to cope with legitimization pressure has been going on for a long time. It has been almost 40 years since Konrad Paschen [29] wrote about the “Schulsportmisère”. In the not too distant past Larry Locke [26] made the critical statement “If PE is to have a significant presence in the secondary schools of the 21st century, it is better to chuck the dominant model and start over from scratch” (p. 362) and Bart Crum [12] concluded that PE suffers from a serious identity crisis.

More recently – in particular after the Berlin World Summit of PE (1999) – a choir of plaintive and warning voices could be heard. I’m not going into details, but will confine myself to a series of catchwords which are largely extracted from the worldwide survey by Hardman & Marshall [20], the comparative study by Pühse & Gerber [32] and a recent report for the European Union by Ken Hardman [21].

Of course, also concerning the situation of PE, there are substantial differences between countries (there are even some countries where PE is flourishing and on the rise), but the following problems and deficiencies have been observed in many countries and worldwide:

- low status of the subject
- decline and marginalization

¹ In my mother tongue (Dutch) the term PE is mostly avoided because of its dualist connotation. In the Netherlands the school subject is increasingly labeled as (*teaching*) *movement and sport*.

- reduction of curriculum time
- neglect of PE in primary education
- poor conditions / facilities
- lack of teacher competence
- low standard of programs
- weak PETE programs
- discrepancy between curriculum as text and curriculum in action
- credibility gap.

Recently in an USA PE Newsletter, an Academy Director stated: "If PE was a business, we would have gone bankrupt about 15 years ago". Fortunately PE is not a business, but it is obvious that its deficiencies have to be tackled if PE will survive as a school subject.

The above listed issues are doubtlessly interrelated. Nevertheless it makes sense to distinguish between problems which have rather a political-financial character (e.g. reduction of time, neglect of PE in primary education, poor facilities) and problems which are due to the lack of quality of the PE profession itself. Tackling the first category demands political lobbying by national and international PE organizations (e.g. BVLO, KVLO, EUPEA), while the second category requires first and foremost theorizing and research by sport pedagogy scholars in order to reveal the causes of the deficiencies.

2. A diagnosis of the quality problems and a theoretical explanation

Currently in PE discourses the term *quality PE* is increasingly used. Alas, often without specifications of what is actually meant. However, for an analysis of the present misery and for the plotting of courses of action for the future, clear quality benchmarks are needed. So, let me tell you what my conception of *quality PE* is. Since speaking time is rather limited, I'm going to do so in telegram style.

The first issue is *legitimization*. How can PE in a plausible way be justified as a subject that deserves a place in the core curriculum of our schools? I summarize my answer in three theses, which should be seen as successive steps in a line of argumentation.

Thesis 1: In modern societies – in which due to transport and labor technology body and embodiment are more or less sidetracked –

participation in movement culture (an umbrella concept for movement, play, exercise, sport and dance) contributes to the quality of life for many.

*Thesis 2: A **personal, self-reliant**, lasting and satisfying participation in movement culture demands a repertoire of movement competencies, which does not come automatically to people, but requires an organized teaching-learning process.*

Thesis 3: Given that every youngster goes to school for at least 12 years and that schools are provided with professional PE teachers, the responsibility for the introduction into movement culture and the acquisition of a repertoire of movement competencies should be in the hands of the school.

In conclusion: legitimization of teaching movement and sport should be given analogous to legitimization of teaching language and literature. While the latter introduces youngsters into a language culture, the first introduces youngsters into a movement culture. For an extensive treatment of this concept the reader is referred to Crum, [6] or [11] or [13].

The second issue regards the *objectives (the desirable outcomes)* of teaching movement and sport (PE if desired). On a more abstract level the general objective can be formulated as follows: on the one hand giving students opportunities to develop a personal movement identity and on the other introduction into movement culture in such a way that students can acquire the competencies needed for a self-reliant, sensible, lasting and satisfying participation in movement culture. It is about personal development and social equipment as two sides of the same coin.

Learning outcomes should have utility value, relevance for the students for now and later in their lives. Then, on a more concrete level, the following desirable outcomes can be specified:

- a personal movement identity,
- development of a positive bond with exercise, play, sport and dance (if you don't learn to like it you will not develop an active life style) – I label this as *affective learning*,
- competence in solving technomotor problems – these are movement problems in the narrow sense; e.g.: to catch a ball, to

close or to open a passing line, to serve a tennis ball, to jump across an obstacle, to run a specific distance, to dive into the water, to swim across the water, etc. – here *technomotor learning* is the goal,

- competence in solving sociomotor problems – these are interpersonal problems that are inherent to movement and sport situations; think for example of how to deal with winning and loosing, to know oneself as a player or dancer while having empathy for the sport identity of others, to accept help from others and to give help – I label this as *sociomotor learning*,
- knowledge and reflective capacity which are needed to organize and rule one's own exercise and sport activities (examples: knowledge and reflective capacity to solve a rule problem or to organize a school tournament or to plan an exercise program for the enhancement of one's own endurance) – here *cognitive-reflective learning* is the goal,
- enrichment of the school life (especially through organizing extra-curricular activities).

Consequently it can be said that a PE program demonstrates *quality* (and this is the 3rd issue), when it has utility value, and to the degree that it contributes to:

1. development of a personal movement identity
2. affective learning concerning movement / exercise / sport / dance
3. technomotor learning
4. sociomotor learning
5. cognitive-reflective learning concerning movement / exercise / sport / dance
6. enrichment of school life.

Alas, we must conclude that coming up to these quality standards is an exception rather than the rule. Why is that? A first answer was given by Larry Locke [25] stating that the community of physical educators does not unanimously accept and give priority to the proposition that a physical educator's primary function is to help pupils learn. It seems that many physical educators, maybe even the majority, are not really committed to teaching as the essential and central element of their

profession. A disconcerting conclusion! How could this have happened?

The answer can be found in my '*theory of the self reproducing failure of PE*' [9, 11]. I will briefly elucidate this (partly still speculative) theory with the help of the 'vicious circle' graphic below (see Figure 1)

My explanation starts with the box 'conventional PE ideologies' at the bottom of the figure. I believe that the precarious situation of the PE profession can, at least partly, be explained by the ideological legacy of the profession. Since the beginning of the 20th century two ideologies, which were constructed to gain recognition in the educational world, continue to negatively influence the perspectives of physical educators and their practices, either in a conscious or in a more subconscious way.

The first ideology – characterized by the idea of '*education-through-the-physical*' – has its roots in German and Austrian pedagogical idealism. Adherents of this ideology believe that movement (especially the traditional canon of gymnastics, play and dance) has a special potential for the cognitive, aesthetic, social and volitive development of children. Central is the idea of *funktionale Bildung* (functional education), which claims that the described effects on character and personality development come more or less automatically simply by taking part in movement activities with the ascribed educational potential. This idea seduces many physical educators into believing that intentional teaching is superfluous, that their task is just to organize in good order and atmosphere the activities with the educational potential.

The second ideology stems from Sweden and Denmark and is rooted in biological reductionism. The main idea is '*training-of-the-physical*'. The human body is seen as a machine, an object, that has to be kept in good shape by physical exercise. In former days PE was justified as a guard against tuberculosis, today as a weapon against cardio-vascular disease and obesity. Consequently the objectives of PE are formulated in terms of training effects and the content is described in terms of exercises that are classified according

pretentious claims for outcomes. Even though evidence shows that these claims can not be substantiated under school conditions (see e.g. Brettschneider,[1]; Evans, [16]; Evans, Rich & Davies,[17], the PE profession still returns to fitness and character building whenever it is called to justify itself by public opinion.

- Both induce non-teaching PE practices. While the first ideology easily leads to PE classes that have the character of supervised recess or entertainment, the second ideology leads to PE as fitness training. This can be fatal in times in which schools are held accountable for good teaching and relevant learning outcomes.

The further elucidation of the 'vicious circle' model can be done by following the steps in the loop of the circle.

Step 1: Due to conventional PE ideologies, a considerable percentage of physical educators hold non-teaching perspectives about their work [18, 5, 7]. The two ideologies, either apart or in combination, also influence the official curriculum documents and have impact on professional perspectives of PE teacher education (PETE) faculty as well as on public opinion concerning the sense of PE.

Step 2: As consequences of non-teaching perspectives held by physical educators, and the many misleading, vague directions of formal curriculum documents, the activities in PE classes often do not display teaching-learning character, but rather are oriented towards fitness training or entertainment [5, 7,30]. Very recently, research carried out in The Netherlands revealed that – even in a country in which the PE conceptions of the PE authorities, the objectives and content as formulated in the official curriculum as well as the supporting manuals are fully in line with the aforementioned quality standards – only 15% of the PE teachers in secondary education meet the quality standards and that as much as 70% arrange their classes on the basis of an 'entertainment' idea [37].

Step 3: The non-teaching character of many PE classes leads to poor learning outcomes. The less talented students especially will have problems finding good learning experiences [5, 7, 8].

Step 4: In PE classes with a focus on fitness training and/or entertainment, in particular students who already possess athletic talents and attachment to exercise and sport will gain positive experiences. For them it is also easy to identify with their physical educator and to see PE as a possible career. Lortie [27] pointed to the strong impact of what he called *the apprenticeship of observation*. The biographical experiences, that prospective teachers collect during 12 years of PE classes at school, may strongly influence their later professional perspectives. It can be assumed that during their apprenticeship of observation many PETE recruits attended PE classes that were organized according to non-teaching principles, causing recruits' professional orientations to reflect primarily fitness-training and entertainment ideas. Thus, a considerable part of the potential PETE recruits are started on the wrong foot.

Moreover, PETE institutions often fail to present themselves explicitly as teacher education schools, instead profiling themselves as sport schools by selecting recruits on the basis of athletic tests. In doing so they perform their gate keeping function in a careless or non-enlightened way, thus sending the wrong message by allowing the entry of less eligible or inappropriate recruits [14, 24].

Step 5: PETE programs often have a weak impact in comparison with the strength of the *apprenticeship of observation*. Many PETE programs suffer from a lack of consistency and PETE faculty do not have a shared technical culture because they were self socialized in a climate of confusion about professional ideology. Therefore, such programs can hardly be instrumental in leading prospective physical educators to a clear teaching-oriented PE conception [10].

Step 6: Even if a PETE program succeeds in accomplishing the desired PE teaching perspective, there is a great chance that these changes will appear to be cosmetic once student teachers or beginning teachers confront the constraints of the real work in schools. Because many supervising cooperating teachers, older colleagues, principals, parents and students hold non-teaching perspectives and expectations

concerning PE, the old perspectives will be reinforced [15, 19, 28, 30, 36]

The circle is closed. The conventional professional perspectives of physical educators bring about a practice in which entertainment and fitness-training principles have a prominent place. The daily practice of PE strongly affects the conceptions of recruits entering PETE programs. The lack of consistency in preparation programs causes that the earlier developed non-teaching perspectives of the student teachers are not systematically replaced by correct teaching perspectives. Moreover, the 'wash out' effect of entry into schools enhances the backslide of teachers into entertainment and fitness-training practices. This in turn affects the PE conceptions of a new generation of recruits. And so on.

3. How to break the vicious circle?

In my view there are three obvious points in the vicious circle where interventions for change can be launched. They are: (1) PETE, (2) curriculum development, and (3) the reality of PE classes. I present some intervention proposals concerning each of these three areas.

3.1 Strengthening the power of PETE programs

PETE is undoubtedly the paramount agency for the realization of changes in the desired direction. However, I am compelled to make a marginal comment. Maybe my view is colored too much by the situation in the Netherlands, but I have some concerns about recent developments in higher education. I'm afraid that the consequence of the Bologna treaty – implementation of the BA-MA structure in European higher education – will be harmful. I think not only of the extra bureaucratic load for the teaching staff, but also of the increase of overhead costs at the expense of the interests of the students, the loss of transparency in the curriculum and the loss of time for the 'core business' of teacher education due to the major-minor structure. Yet, I strongly hope that the European PETE colleges will find enough time and energy to pay attention to the following issues.

• Conceptual Cohesiveness Among Faculty

I paraphrase Pat Dodds' warning: When primary socializing agents neither share nor value a common PE perspective, and when differences among professors may be even greater than those between one professor and one cooperating teacher, trainees' views of PE will be shaped by random influences in field experiences rather than coordinated messages reiterating a familiar programmatic PE perspective [15]. In other words: as long as the professor of biomechanics teaches a different message about the essence of PE than the pedagogy professor and as long as the games methodology teacher has a different PE perspective than the teacher for gymnastics methodology (just to give some examples), a PETE program will never be able to defeat the power of the apprenticeship of observation.

An essential condition for breaking the vicious circle is that in PETE colleges the conceptual needles of the faculty point to the same compass direction, that the old ideologies with their non-teaching practices are abandoned and that the faculty (including student teaching supervisors / cooperating teachers) think and act on the basis of the idea that PE should be a teaching-learning enterprise. In this respect in many colleges there is still a world to be conquered.

• Careful Gatekeeping

Careful recruitment and gatekeeping is another point needing attention. PETE institutes should make themselves known as real teacher education institutes, not as sport institutes. If a PETE college attracts more high school graduates than can be accommodated, selection procedures with a predictive validity for success in the teaching profession should be used rather than only sport skill tests.

An interesting strategy for coping from the very beginning with possible inappropriate PE perspectives, which the recruits acquired during their apprenticeship of observation, is to make their PE perspectives and experiences explicit by taking them as the main theme of an introductory analysis seminar in the first weeks of the

program. Such a confrontation with one's own tacit prejudices, perspectives, and expectations and the discovery that others have different ones can function as the start of an unfreezing process and may be a sound entry to a reflective PE teaching perspective.

• Program Coherence – Pedagogical-Content Knowledge Central

A third point concerns the structure and content of the PETE program. I am afraid that there are still many PETE programs that suffer from either 'sportification' or 'scientification'. In the first case the program is overloaded with skill

performance lessons. In the second case the disciplines (the biological or the social-scientific or both) are more or less self-sufficient and consume too large a part of the program time. Thus, it is overlooked that these program elements only have to function in support of the development of pedagogical-content knowledge, which forms the heart of a teacher's competency [19].

Figure 2 presents a scheme of the relationships between program elements that can be useful when developing a coherent program directed toward the education of professional PE teachers.

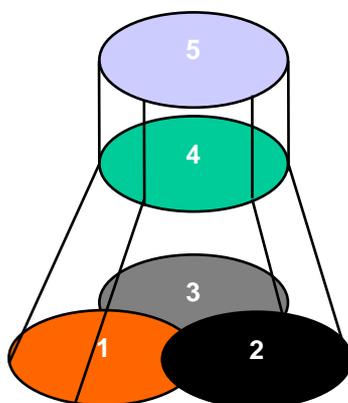


Figure 2 Model of Hierarchical Relationships between Program Elements Course Contents

Circle 1 (red) represents all the program elements that are directed to the improvement of the students own sport performance. Circle 2 (black) represents the coursework in the theoretical-scientific disciplines (such as biomechanics, exercise physiology, history of PE, psychology, sociology and general educational science). Circle 3 (grey) represents the coursework and practical experiences directed toward sport political and organizational competence. Circle 4 (green) represents the courses and practical work directed at the enhancement of curriculum knowledge (how to plan a curriculum, how to design a series of lessons, how to evaluate own teaching) and of pedagogical-content knowledge (see further). Finally, Circle 5 (blue) represents the student teaching experiences (micro-teaching and the first induction of the student teachers into schools).

Special attention should be given to the element of circle 4 which has been labeled as 'pedagogical-content knowledge. According to Shulman [35, p.8] this is the "special amalgam of content knowledge and pedagogy that is uniquely the province of teachers, their own form of professional understanding". It is his/her pedagogical-content knowledge that enables a PE teacher to transform knowledge about and experience in movement activities and sport (think e.g. of biomechanics, exercise physiology and own sport skills / experiences) into pedagogical actions by the arrangement and (if necessary) the modification of movement situations that invite to learn. It also comprises an understanding of what makes the solving of a specific movement problem difficult or easy for students of different ages, talents and backgrounds. I underline that the concrete filling-in of pedagogical-content knowledge is strongly

dependent on the PE perspective that is supported. Starting from my view of PE, pedagogical-content knowledge is knowing how to arrange, how to 'cook' a particular movement activity (e.g. basketball) so that technomotor learning can be realized and at another moment, how to use a different 'cooking' style for the realization of sociomotor and/or cognitive-reflective learning outcomes.

Now attention to the relationships between the circles. First, the figure tries to express that the program elements comprising PE teaching experiences (Circle 5) should be rooted in and based on the program elements represented by the other four circles. A second message is that the program content belonging to the Circles 1, 2, 3 and 4 should be chosen and organized as a function of the content of Circle 5. A special role should be reserved for the program elements belonging to Circle 4. They form the transmitters between the courses in basic scientific knowledge, one's own sport skills, and political-organizational coursework on one side and the student teaching practice on the other side. As such the program work in the area of Circle 4 – courses in sport pedagogy, didactics and methodology – should function as a focusing lens and an organizer of program coherence and cooperation between faculty.

• Continuous Professional Development

If PETE colleges fulfill their assignment with quality, then they deliver PE professionals

who are critically reflective and open to new ideas. PE teachers don't work within stable and simple environments; they rather have to cope with complexity, instability and change. Change in the organizational structure of schools, change in the movement culture, change in the attitudes and preferences of youngsters. Consequently the ability to respond to, and manage change is a central requisite for a professional PE teacher [21]. Therefore professional development is not completed with initial teacher education; it should be a continuous process. Well organized continuous professional development (CPD) can play a key role in the enhancement of the quality of PE.

There are countries that have already organized programs for CPD. Alas, there are

also EU member states where CPD is not yet developed. I think that it is urgent that PETE colleges start collaboration with PE teacher associations in order to build up a well-structured CPD program with a variety of courses. I also think that yearly participation in at least one course should become compulsory for every PE teacher and that official registration at school level of the fulfillment of that duty should become a rule.

3.2 Development of longitudinal and ecological curricula

A second agency that can play a key role in breaking the 'vicious circle' is curriculum development. I think that in many countries exists an urgent need to re-write PE curricula. Often the official curriculum documents are still rooted in the old, traditional PE perspectives. Thus, they start PE teachers on the wrong foot and fail in giving concrete guidance for teaching-learning practices. I recommend devoting energy in the development of curricula that clearly start from the idea that PE should be directed to relevant learning in the domain of movement and embodiment. Of course there should remain enough range for the acceptance of diverse ideas about teaching and learning. Special attention should be given to (a) longitudinal planning, and (b) development of 'ecological' curricula.

• Longitudinal Planning

In many countries PE in primary education is characterized by low quality. Often the facilities are poor, but the most serious problem is deficiency in the teaching competence of the generalist teacher responsible for the delivery of PE. This is most regrettable since in primary education – in particular in the upper grades – the children are very receptive to learning how to solve movement problems. Analogous to the teaching of language, in primary school PE should provide a solid basis of 'movement vocabulary' and 'movement grammar'. Therefore longitudinal planning of the teaching-learning processes is required.

A few years ago the Dutch Institute for Curriculum Development (SLO) has published a manual which is very supportive for teaching PE

in primary education [33]. Recently a following manual for teaching 'movement and sport' in the first 3 grades of secondary education was published [33]. Thus the learning in PE in secondary school can be arranged as a continuation of the learning in primary school. Both books have been produced in cooperation between SLO and the Dutch PE teacher association. In my view these manuals form excellent examples of longitudinal planning.

In both documents the idea of longitudinal learning lines is central. Starting from the core objectives for PE as formulated in official Dutch PE curricula, the authors have selected a range of key movement activities and then present extensively the didactical-methodological aspects of how to arrange movement situations, which give children the possibility to reach (intermediate and final) goals on different performance levels. I strongly recommend these longitudinal planning documents to you.

• Ecological Curricula

It has been 15 years since Tinning & Fitzclarence [38] sounded the alarm by stating that they observed considerable discrepancies between what is going on in PE classes and what is going on in the movement culture of youngsters outside the school. It appears that not much has changed, for recently the same conclusions have been drawn [1, 27]. Again the complaint is that the traditional content of PE classes has little relevance for the students and does not fit with their life-styles.

In my view it is of vital importance, especially for students of 16 yrs and older, to overcome the stifling de-contextualization of their PE movement experiences by breaking the restrictions of the traditional time table, the old-fashioned equipment in the gym and the compulsory grouping of students according to their grades. I think it is high time to respond to changes in the movement culture and in the needs of youngsters. Assuming that a longitudinal PE curriculum in primary school and the lower grades of secondary school has laid a firm basis of 'movement vocabulary' and 'movement grammar', I recommend beginning experiments in the development of what I label as an 'ecological' PE program for students

beyond the age of 15. I emphasize that the keyword for an ecological program is 'relevance' and certainly not just fun (for the students).

An ecological PE program is characterized by the following elements:

- inclusiveness, which means that it provides to each student chances for relevant
- learning; thus it is not only performance oriented;
- students are obliged to choose out of a number of thematic options; for example: 'physical activity, health and fitness' or 'games, competition and cooperation' or 'nature sports, challenge and adventure';
- students get the option to choose for a particular teacher (teachers specialize in teaching specific thematic units);
- learning experiences are presented in thematic units and relatively long time units (e.g. a whole afternoon or a project week);
- the learning experiences are as much as possible provided in real settings (qua facilities as well as qua staging);
- institutional openness, which means that the PE department of a school strives for cooperation with sport providers in the direct environment and with community work agencies;
- students have a substantial share in the planning, organization and evaluation of programs;
- the sport specific know how of particular students is intentionally and intensively used.

I am aware of the fact that the realization of an ecological PE program requires a substantial de-schooling of PE. However, I am convinced that only ecological programs can expel the de-contextualization and the related 'de-motivating' conditions, which are so typical in traditional programs.

3.3 Control of quality of PE classes

The third key to break the 'vicious circle' is regular control of the quality of 'what happens in the gym' (or at the playground). Quality control and transparency of the daily reality of PE should not only be seen as an obligation to school management, students and parents, it gives also feedback to the teachers themselves. Thus it

makes them aware of their strong and weak points and might stimulate them to improve.

In speaking about quality control a distinction can be made between output-oriented control and input-oriented control. While the first relates to the students learning outcomes, the second is directed at the teaching process (Krick, 2006).

Regarding the control of output, PE has a unique position when compared to the other so-called 'academic' subjects. Learning outcomes and more specifically grading in subjects like math, physics and languages are important for selection and allocation of the students in the light of continuing education. Therefore in these subjects control of output is done by standardized achievement tests and exams. Setting aside the meaning of grading in PE for some very specific training programs (related to the military, police, fire brigade or sport), I believe that standardized grading in PE makes no sense. First, desired outcomes in the sociomotor and the affective domain are very resistant to adequate operationalization in achievement tests. Moreover, and more importantly, in PE it should be the intention to motivate each student for an active life style and to equip each of them with the needed competencies (which are very personal and surely not standardized). Standardized grading is reductionistic and very de-motivating and thus counter-productive for the less talented movers. Consequently, I strongly advocate that PE learning progress should be measured along a subjective scale.

Which options for output control do we have if we abandon a standardized assessment of learning outcomes? First, the use of '*learner reports*' should be mentioned. Students (in the upper grades of primary school and of secondary school) are very well able to indicate what they learned from their PE lessons. By administering on a regular basis (e.g. twice per year) a simple questionnaire with a standard format to students, the PE teacher can obtain a useful impression of the extent and nature of student learning in his/her classes. The format could be as follows: a series of items all starting with "In the PE classes of the last half year I have learned that ... (or, how to ...)". At the place of the dots

specifications of technomotor, sociomotor, cognitive-reflective and affective outcomes, that were intended by the teacher are filled in [5]. Another option can be found in the digitalized student progress follow-up system (*Beleves*), which has been developed under the umbrella of the Dutch Institute of Curriculum Development (SLO). With this, easy to handle, instrument PE teachers can monitor the learning progresses of each individual student. Central in *Beleves* is that the learning lines for each key movement activity are operationalized in student achievement goals at four different levels. Level 0, which means that the student needs extra attention (e.g. remedial teaching); Level 1, a minimum achievement level that is reached by 90% of the students; Level 2, an average level attainable for 50%, and Level 3 that is attainable for only 20% [3, 4]. Currently a group of German sport pedagogy scholars in Bielefeld, starting from a similar idea, are developing *MOBAQ*, a system for the assessment on four levels of students' motor basis qualifications [23].

Finally, the issue of input-oriented control. Which indicators of quality depict what the physical educator is doing during class? Is he/she really teaching or is he/she 'just rolling out the ball' or is the teacher simply producing students who are just sweating? Here the focus should be directed to the question of how far the PE teacher provides the students with *opportunities to learn*. Standards for the assessment of opportunities to learn have been developed for math in the USA and Finland [22]; however, a similar approach has yet to be developed for PE. In this regard *PEPOI* (Physical Educator Profile Observation Instrument), an observation instrument for the assessment of the degree to which a PE teacher sends to his/her students either 'learning' messages or 'fun and entertainment' messages or 'fitness training' messages, could be an useful tool [8]. With the help of such an instrument colleagues in a PE department could give each other now and then feedback.

Ladies and gentlemen, I hope that my recommendations concerning PETE, curriculum development and quality control can materialize. If so, there is a good chance that the 'vicious circle' will eventually be broken and only then

can I see a bright future for PE in the schools of the 21st century.

Acknowledgement:

I would like to thank dr. Gary T. Barrette for his assistance in editing this paper.

BIBLIOGRAPHY

1. Brettschneider, W.-D., Prohl, R. et al. (2006). DSB-Sprint-Studie. Aachen: Meyer & Meyer.
2. Brettschneider, W.-D. (2007). Mozart macht schlau und Sport bessere Menschen. Transfereffekte musikalischer Betätigung und sportlicher Aktivität zwischen Wunsch und Wirklichkeit. Paper Tagung DVS Sektion Sportpädagogik, Augsburg Juni 2007.
3. Consten, A. & Mooy, C. (2005). Belevés. Lichamelijke Opvoeding, 93, 8, 30-33.
4. Consten, A. & Vuurst, J. v.d. (2006). Belevés – leerlingvolgsysteem bewegingsonderwijs. Zeist: Jan Luiting Fonds.
5. Crum, B.J. (1985). The use of learner reports for exploring teaching effectiveness in physical education. In: G. Graham & M. Pieron (Eds.), Sport pedagogy (pp. 97-102). Champaign, IL: Human Kinetics.
6. Crum, B.J. (1986). Naar een geïntegreerd beleid voor lichamelijke opvoeding en sport. Rapport in opdracht van de Ministeries van O&W en CRM, Rijswijk 1986.
7. Crum, B.J. (1987). Professional profiles of physical education teachers and students' learning. In: G.T. Barrette & R.J. Feingold (Eds.), Myths, models and methods in sport pedagogy (pp.143-149). Champaign, IL: Human Kinetics.
8. Crum, B.J. (1990a). Design and validation of the physical educator profile observation instrument. In: M. Lirette & C. Paré (Eds.), Physical education and coaching; Present state and outlook for the future (pp 54-59). Sillery: Presses Université du Québec.
9. Crum, B.J. (1990b). The self reproducing failing of physical education. In: R. Telama et al. (Eds.), Physical education and life-long physical activity (pp. 294-303). Jyväskylä, Finland: Foundation for Promotion of Physical Culture and Health.
10. Crum, B.J. (1990c). Shifts in professional conceptions of prospective physical education teachers under the influence of preservice professional training. In: R. Telama et al. (Eds.), Physical education and life-long physical activity (pp.286-293). Jyväskylä, Finland: Foundation for Promotion of Physical Culture and Health.
11. Crum, B.J. (1993a). Conventional Thought and Practice in Physical Education: Problems of Teaching and Implications for Change. *QUEST*, 45, 3, 339-356.
12. Crum, B.J. (1993b). A Crise de Identidade da Edacao Fisica – Ensinar ou nao Sereis a Questado (The Identity Crisis of PE – To Teach or Not To Be, that is the Question). *Boletim*, 1993, 7/8, 133-148.
13. Crum, B.J. (1999). Changes in Modern Societies – Consequences for PE and School Sport. In: J.C. Bussard & F. Roth (eds.), *Quelle Éducation Physique pour Quelle École?* (45-54). ASEP / SVSS Verlag.
14. Dewar, A.M. (1989). Recruitment in physical education: Toward a critical approach. In: T.J. Templin & P.G. Schempp (Eds.), *Learning to Teach* (pp. 39-58). Indianapolis: Benchmark Press.
15. Dodds, P. (1989). Trainees, field experiences, and socialization into teaching. In: T.J. Templin & P.G. Schempp (Eds.), *Learning to Teach* (pp. 81-104). Indianapolis: Benchmark Press.
16. Evans, J. (2003). Physical education and health: A polemic, or, let them eat cake! *European Physical Education Review*, 9, 87-103.
17. Evans, J. Rich, E, & Davies, B. (2004). The Emperor's New Clothes: Fat, Thin, and Overweight. The Social Fabrication of Risk and Ill Health. *Journal of Teaching in Physical Education*, 23, 372-391.
18. Fishburne, G.J. & Borys, A.H. (1987). A comparison between elementary school teachers' and student teachers' conceptions of successful teaching. Paper presented at ICHPER/CAHPER Conference, University of British Columbia, Vancouver, Canada.
19. Griffin, G.A. (1985). Teacher induction: Research issues. *Journal of Teacher Education*, 36, 1, 42-46.
20. Hardman, K. & Marshall, J. J. (2000). Worldwide survey of the state of school physical education, Final report.. Manchester: University of Manchester.
21. Hardman, K. (2007). Current situation and prospects for physical education in the European Union. Report for the Directorate General Internal Policies of the Union. Brussels
22. Krick, F. (2006). Bildungsstandards – auch im Sportunterricht? *Sportunterricht*, 55, 2, 36-39.
23. Kurz, D., Fritz, T. & Tscherpel, R. (2007). Motorische Basisqualifikationen von Kindern – Mindeststandards für den Sportunterricht? Paper Tagung DVS Sektion Sportpädagogik. Augsburg, Juni 2007.

24. Lawson, H. (1983). Toward a model of teacher socialization in physical education: The subjective warrant, recruitment and teacher socialization. *Journal of Teaching in Physical Education* 2, 3, 3-16.
25. Locke, L.F. (1987). Research and the improvement of teaching: The professor as the problem. In: G.T. Barrette, R.S. Feingold (Eds.), *Myths, Models, Methods in Sport Pedagogy* (pp. 1-26). Champaign, IL: Human Kinetics.
26. Locke, L.F. (1992). Changing secondary school physical education. *QUEST*, 44, 361-372.
27. Lortie, D. (1975). *Schoolteacher: A sociological study*. Chicago: University of Chicago Press.
28. O'Sullivan, M. (1989). Failing gym is like failing lunch or recess: Two beginning teachers' struggle for legitimacy. *Journal of Teaching in Physical Education*, 8, 3, 227-242.
29. Paschen, K. (1969). *Die Schulsport-Misere*. Braunschweig.
30. Placek, J.H. (1983). Conceptions of success in teaching: Busy, happy and good? In: T.J. Templin & J.K. Olson (Eds.), *Teaching in Physical Education* (pp. 46-56). Champaign: Human Kinetics.
31. Placek, J.H. & Dodds, P. (1988). A critical incident study of pre-service teachers' beliefs about teaching success and nonsuccess. *Research Quarterly*, 59, 4, 351-358.
32. Pühse, U. & Gerber, M. (eds.) (2006). *International Comparison of Physical Education: Concepts – Problems – Prospects*. Aachen: Meyer & Meyer.
33. SLO (2004). *Basisdocument Bewegingsonderwijs voor de Basisschool*. Zeist: Jan Luitng Fonds.
34. SLO (2007). *Basisdocument Bewegingsonderwijs voor de Onderbouw van het VO*. Zeist: J.L.F.
35. Shulman, L.S. (1987). Knowledge and Teaching: Foundations of the New Reform. *Harvard Educational Review*, 57, 1-22.
36. Tannehill, D. (1989). Student teaching: A view from the other side. *Journal of Teaching in Physical Education* 8, 3, 243-253.
37. Timmers, E. (2007). Wat gebeurt er in het bewegingsonderwijs? In: H. Stegeman (red.), *Naar beter Bewegingsonderwijs*. Mulier Instituut / Arko Media.
38. Tinning, R. & Fitzclarence, L. (1992). Postmodern Youth Culture and the Crisis in Australian Secondary School Physical Education. *QUEST*, 44, 3.

Accepted: November 2012

Published: February 2013

Correspondence

Bart Crum
bartcrum@planet.nl

Quality physical education can play a critical role in helping students become more active, physically literate, and develop the skills and interests to remain physically active throughout their lives. The healthy, physically active student is more likely to be academically motivated, alert, and successful in school.Â to understand how to identify best practices for creating. a positive learning environment for all students including. those with disabilities.Â education settings? How can these salient features be leveraged to inform future practice in the field? (5) How do the viewpoints of students with disabilities and physical education teachers converge or diverge when considering salient features of the physical. education context? Physical education is the training in physical fitness and in skills that engages psychomotor learning promoting such fitness. It is the education through physical activity for the total development of the body and mind of a person. It was once excluded in most societies, giving more importance to literacy.Â These people of the 1700â€™s and the things they did began paving the road to where we are today. During the 1800â€™s, physical education programs were finding their way into universities which contributed to many things we have today.Â Kinesiology, which is the study of how the muscular system moves the bony structure of the body. Biomechanics, which is the study of the human body as a mechanical system, utilizing principles and applications from physics. Senior Lecturer â€“ Health, Physical Education And Sport, School of Education Manager, Physical Activity. Adrian Gray Debbie Law. Chris Leach.Â Consideration is given to how existing developments and innovation might be scaled to achieve better value for public health and the public purse by broadening participation, particularly in areas of social disadvantage and ensuring co-benefits and action of policy activities.Â Parental concerns about road safety [39] is another important barrier that can be addressed through a combination of built environment modifications, public education and programs. There is strong evidence that parental attitudes are a primary determinant of their childrenâ€™s participation in this form of physical activity. Education paves the road to your career. A Companion of Prophet Mohammed (PBUH) records "Seek Knowledge even if you have to go as far as China." Compared to this, education is but a simple way to satisfy an important duty â€œSeeking knowledge is obligatory upon every Muslim.â€ Well that depends on what you mean by EDUCATION. So far the answers have been â€œatypicalâ€ not really thinking outside the box.