

For Whom and to What End? - the Challenges of the Subject Physical Education and Health Seen through Various Perspectives

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Physical education has long been both called into question and sought after in public debate in westernized countries. The development of society has led to both realistic and unrealistic expectations of the subject's contributions. This article aims to illustrate, from a multidisciplinary perspective, how different studies of young people, physical activity and health frame the focus and the objective of the subject. The article is based on a purposeful sample of studies. The subject's learning value in terms of knowledge qualities such as motor and social development, physical experience and the significance of its intrinsic value for well-being are seldom mentioned in studies focusing on physical activity and health which have a medical-physiological focus— but all the more so when educational sociologists discuss the content and importance of the subject. The article points to future challenges for Physical Education if the goal of the subject is to both support public health and the individual wellbeing. New strategies for the acquiring of sustainable and lifelong attitudes to exercise and well-being are needed. A conclusion from the overview is the problems inherent in the fact that researchers from different disciplines so rarely come together to make joint recommendations.

Keywords: physical education, public health, physical activity.

Introduction

Physical education and health has long been both called into question and sought after in public debate in several westernized countries in the world. The development of society has led to both realistic and unrealistic expectations of the contribution the subject physical education and health can make. The legitimacy of the subject has gone from the nation's need for disciplined

bodies to the need to reduce society's incapacity rates—and interest is also now being focused on children and young people. The subject's learning value for the individual in terms of knowledge qualities, such as motor and social development, physical experience and the significance of its intrinsic value for well-being are less frequently mentioned in political contexts—but all the more so when educational sociologists examine the content and importance of the subject (Kirk, 2006; Evans, 2004; Gard, 2003; Gard & Wright 2001).

This article aims to, through a purposeful sample of studies (Patton, 2002), to illustrate from a multidisciplinary perspective, how different studies of young people, physical activity and health frame the focus and the objective of physical education and health. The article ends with conclusions based on the various research findings presented and a brief discussion of the problems inherent in the fact that researchers from different disciplines so rarely come together to make joint recommendations on the subject.

The public debate regularly emphasizes how different research studies indicate that children and young people have become more and more inactive, and increasingly heavier and weaker with impaired motor activity. The Swedish multidisciplinary study *Skola-Idrott-Hälsa* (School-Sport-Health [SIH]), for example, revealed a considerably higher average Body Mass Index (BMI) among fifteen-year-olds in comparison with reference material from 1987. Regarding physical capacity, reduced arm, abdominal, and leg strength were found in several groups of pupils, though not in all (Ekblom, 2005). The pupils' physical activity varied significantly among the forty-eight schools that participated in the study. There was similar variation in the number of pupils who were overweight or obese (from approximately 5% to approximately 55%), and in physical capacity. According to the evaluation template drawn up, the survey of motor activity showed that four out of ten pupils in Year 6 had deficiencies in this respect (Nyberg & Tidén, 2002; 2006).

The sports medicine part of the study reported a large number of pupils with pains in their bodies for no known reason. In both 2001 and 2004, more than half of the pupils reported pain. The physically active pupils reported less pain, fatigue, and depression than their less physically active classmates. Girls in particular reported increased ill-health as they became older. There was also a tendency for an increase in injuries related to physical education with increased age. Above all, girls were injured during ball sports and boys during apparatus gymnastics (Brun Sundblad 2006).

With regard to the pattern of physical activity among Swedish adolescents, this had changed in comparison with reference data from 1968. The proportion

of pupils not active in sports had increased and the inactive pupils were inactive both in physical education and health lessons and in their free time. Approximately 40 per cent of the pupils studied (SIH 2001) did not attain the level of being 'active every day at a moderately strenuous level' and doing a more strenuous activity at least three times a week (Engström, 2004, a). Data also showed that the inactive pupils had fewer friends who participated in sport, a poorer standard of economic well-being, lower grades in physical education and health, and they were not members of any sports club. To a large extent, the physical activity performed by the pupils studied consisted exclusively of organized training, usually within the sports clubs and in physical education lessons at school (Engström, 2002; p. 7-11; 2004 b, p. 10-15).

The results of the SIH study also indicated that *active commuting to school*, i.e. walking or cycling to school, represented a considerable and important volume of physical activity in relation to the recommended levels of physical activity for children and young people. This applied throughout Sweden, irrespective of the size of the schools' catchment areas (Dang et. al., 2006, p. 14-16).

Is it watching TV and playing computer games that are affecting children's and young people's level of physical activity, or how should we explain that, on average, they seem to be less physically active now than in the past? International research highlights the difficulties in finding reliable causal relations. And the wide range of organized sports activities does not seem to be able to prevent the decline in physical activity among young people, despite the fact that there has never before been such a wide range of organized activities as at present (Engström 2004b ; Biddle, Cavill & Sallis, 1998; Kirk 2005). One point on which the researchers agree is that the polarization between the active and inactive groups has become more pronounced. The requirements for how physically active children and young people need to be to avoid the risk of cardiovascular disease and diabetes in the future have also been increased. The previous recommendation of at least 60 minutes' activity per day at a moderately strenuous level, supplemented by two sessions per week of strength-building and muscle-training activity, has been increased to at least 90 minutes per day of strenuous activity (Andersen et. el. 2006). But how do these findings stand in relation to the school subject physical education?

Does the Subject Physical Education and Health 'Promote Health'?

We can ask the question what expectations we can have for a school subject that Swedish primary and secondary school pupils have, on average, twice a week, for approximately 60 minutes at a time (Lundvall & Meckbach 2004; 2008). The reduction in compulsory time for our upper secondary school pupils, which came

into effect in connection with Lpf 94 (the curriculum for the non-compulsory school system in Sweden), halved the previous time allocation, which means there are not sufficient hours for all three years. A current evaluation report from the Swedish Council on Technology Assessment in Health Care (SBU) demonstrates that the subject physical education and health is important for the least active children and young people. The subject can, with extra time allocation and continuing professional development of teachers, help to increase pupils' level of physical activity. Results from intervention studies also show that more time for the subject both reduces the increase in BMI and increases pupils' motor skills, as well as impacting on their concentration and cognitive ability (Ericsson, 2003; Sollerhed, 2006; Raustorp et al., 2007). When the level of physical activity of Swedish children and young people is measured using pedometers, it becomes apparent that there are groups of children far below the recommended level, and, among others, Anders Raustorp shows in his studies that the subject physical education and health contributes to these pupils' level of activity (Raustorp et al., 2004; see also Vincent et al., 2003).

Like the SBU report, Sallis and Owens (1999) show in a review of school-based physical activity programmes that it is possible to change the quality of physical education lessons by, among other things, increasing the scope, changing the focus of the physical activity, and providing the teachers with more training. Sallis and Owens point out that if there is a desire to bring about 'lifestyle changes' and health promotion among teenagers through physical education in schools, this will require the content of the teaching to concentrate on activities with a 'lifelong' physical activity perspective, i.e. activities that pupils can do in their free time and that can be done all through life. These should not require the involvement of too many people, expensive equipment and/or special facilities. Moreover, they emphasize that if pupils are to attain health-related targets in physical education and health, this requires the pupils to be physically active. Only the subject's more 'cognitive' targets can be attained without physical activity. Other targets, such as motor, emotional, social, and skills development, require movement as a starting point.

These two health promotion and physical activity researchers believe that children and young people are doing too little physical activity during the lesson. In Sweden too, reports confirm that the teaching time actually devoted to physical activity can vary anywhere between 30 and 60 per cent of the lesson (Ekberg & Ekberth, 2000).

As all children are taught the school subject, Sallis and Owens believe it has enormous health-promotion potential, but, at the same time, they emphasize that very few of the research findings available form the basis of current practice.

They also state that few physical education teachers feel they have been trained in how to increase and support children's physical activity, both in and outside school. Similar data emerged in the Swedish project; SIH 2001 and SIH 2002: none of the teachers interviewed said that they had gone into the fairly complex area of 'health' or health work in greater depth (Thedin Jakobsson, 2005, p. 99-122; Meckbach, 2004).

Other researchers again have studied how the social, cultural, and local context as well as ethnicity and gender influence children's and young people's physical activity—and how these factors help to shape children's and young people's everyday lives, and their opportunities and preferences for physical activity in and outside school. For example, Dagkas et al. and Macdonald et al. comment on how psycho-social and socio-economic factors impact on the feasibility of the physical activity, which is dictated by availability, accessibility, opportunity, economic frameworks, encouragement, and motivation (Dagkas, et al. 2007; MacDonald et al.2004; Larsson, 2008). The study conducted by Dagkas et al. in the United Kingdom shows that physical education teachers seemed to be more important as an 'encouraging and accompanying' person for pupils in well-off schools than for pupils attending financially strapped schools. Moreover, single-parent pupils had less experience of organized physical activity in their free time than classmates who lived with both parents.

Is it the case that a changed pattern of social structure in society, with ever fewer opportunities for regular everyday physical activities, and the significance of the family's socio-economic status mean that the subject has an emerging new role to take on? The new measurement methods for physical activity are now starting to make demands on the subject's contribution in terms of 'physical activity here and now' from a medical-physiological perspective.

Pupils' and Teachers' Voices

In The Swedish National Assessment of the Subject Physical Education and Health [*Nationella utvärderingen av skolämnet idrott och hälsa*] (NU-03), it was noted that, in comparison with NU-92, more pupils felt that the subject helps to improve fitness, strength, and agility, and provides increased knowledge of how to look after your body. Both teachers and pupils thought that the most important aspects of the subject were 'having fun exercising', 'learning to work as a team', and 'the chance to try a large number of sports activities'. Although almost as many girls as boys in the younger age groups participated in organized sport, it was, nevertheless, apparent that fewer girls than boys had a positive attitude to the subject physical education and health (Eriksson et al. 2003). Children's and young people's perception of the subject was also investigated in the SIH study

based on aspects, such as ‘approval’, learning, and level of participation. The base study of SIH (2001) and the follow up study in 2007, both showed that the majority of the pupils had a positive attitude to the subject. This attitude was completely dominant among the younger pupils, but changed negatively as pupils got older. When the pupils commented on what they learned, a picture emerged of sports activities and the fact that you get exercise and achieve a good level of fitness by participating in the subject. In SIH 2001, the pupils in Year 9 responded that they had a good skills level in ball sports but that this was significantly lower in outdoor life and dance (Lundvall, Thedin Jakobsson, Meckbach, 2002, p. 17-20, Lundvall & Meckbach 2008; p. 345-364).

The proportion of boys with higher grades in NU-03 has increased since NU-92. But gender is not seen as the only possible explanation for why boys are awarded higher grades than girls in the subject. More important influencing factors highlighted in the report were what sports the pupil does and parents’ level of education and cultural capital. The conclusion was that the assessment of acquired knowledge in the subject physical education and health seemed to be highly dependent on what the pupil does in his or her free time (Eriksson et al. 2003, p. 161, see also Redelius, 2004; Björnsson, 2005).

The studies of the Swedish PE-teachers in both SIH 2001 and 2007 shows that the teachers structure the subject based on a broad objective. Key starting points for the PE teachers in both studies were that the subject conveys ‘joy of movement’ and that the ‘pupils think it is fun to take part and get some exercise’. A high degree of confidence can be seen among the teachers that the subject can help the pupil to develop an active and healthy lifestyle. But when the teachers in SIH 2007 were asked to rank their targets and these targets were then set in relation to the activities that they claimed to carry out, the objective narrowed in practice to focus primarily on sports activities, dominated by ball sports and ball games. The teachers stated that they were working against a number of external parameters that limited the subject’s objective: lack of time, large groups of pupils, poor facilities, and a large number of work tasks, but perceived lack of time did not impact on distribution of content (Lundvall & Meckbach 2004, p. 70-80; Lundvall & Meckbach, 2008, p. 345-364).

Time and Place for Outdoor Life?

When the content of the subject is discussed, views are expressed that the subject content is less varied than before. Several studies have commented on the marginalization of outdoor life (Backman, 2004; Lundvall, Thedin Jakobsson & Meckbach, 2002, p. 17-20). Concurrent with research findings concerning the importance of green spaces to well-being, there are now also studies that stress

the link between having, as a child, regularly spent time in forests and open countryside and going to green areas, as an adult, to pursue healthy activities that also entail emotional engagement and a feeling of coping (Thompson & Aspinall, 2007; Arnegård, 2006). The significance of this type of data requires careful consideration when it comes to influencing the prerequisites for outdoor life within the framework of school activities.

Pupil Participation?

When teachers and pupils in NU-03 evaluated the working methods within the subject, a picture emerged that there was rarely any discussion or reflection during the lessons. According to the teachers in NU-03, the least important factors for the pupils were 'learning to compete' and 'developing critical abilities'. The authors of the report commented that the latter was noteworthy, as the steering document for schools stipulates that knowledge development should be stimulated through reflection, conversation, and discussion. The pupils stated that they had a certain degree of influence over choice of content (boys more than girls), but that they were not able to influence the working methods and how much time was devoted to specific content. A majority of the teachers and pupils in SIH 2007 indicated that pupil influence is part of the teaching—but the results say nothing about how the pupils influence content, working methods, and time allocation. Approximately half of the pupils in NU-03 and SIH 2007 felt that the teacher did not find out about what they could do before embarking on a new area or activity (Eriksson et al. 2003; Lundvall & Meckbach, 2008).

Coming Together across the Field of Research

The table below provides an overview of how the Swedish subject physical education has changed over time and what has constituted the subject's legitimacy base (Lundvall & Meckbach, 2004). This basis, which can be seen as a commonly held thought-form on which the parties in society have in different periods more or less agreed on, has influenced the subject's steering document, name, and content, as well as how the teaching of it has been organized.

Table 1. The change in the subject physical education in Sweden

Gymnastics	Gymnastics with games and sport	Gymnastics	Sport	Physical Education and Health	?
Elementary School 1820	1928	1969	1980	1994	2010
Secondary grammar school/upper secondary school 1842	1919	1970	1987	1994	2011
Ling gymnastics		Physiological training, sport, social interaction		Health and lifestyle	Health promotion?
Two different forms of gymnastics (one for boys and one for girls, taught separately)		Single-sex teaching	Co-education		Individual and in groups?
Medical health/hygiene discourse		Physiological discourse	Pedagogic discourse		Public health science?

The studies we have commented on have all sought to contribute data in order to be able to change and develop children’s and young people’s physical activity health and/or participation in the subject. Some data highlight the importance of activity; others highlight the visibility of social class, gender, and ethnicity—factors that in an enlightened way should govern the teacher’s teaching. Other studies again indicate the need to be able to reflect on the subject content and learning. Our text shows that the physical education teacher of the future will need a greater awareness of where he/she works in order to be able to influence both the school and the local environment in which the school is situated with a view to finding suitable strategies for the subject. The higher education institutions and teacher training need also to live up to the requirement for continuing professional development in health work and health promotion for physical education teachers. By using knowledge within the new specialization of public health science, there are opportunities to design new strategies for the subject with the focus on a sustainable and lifelong attitude to exercise and well-being.

Perhaps school curriculum development in Sweden as well as in other countries, has come to a point where the subject’s place in curriculum needs to be jointly discussed based on the results the subject seeks to achieve. Researchers from various disciplines could then contribute to an interdisciplinary knowledge base, ensuring for example that sufficient time for PE is made available, or that the assumed responsibility for the local environment’s means providing pupils

with opportunities for spending time in green spaces in connection with physical activity or that the learning 'in motion' where the experience takes centre stage, irrespective of age and gender could be given attention. An ending reflection from this limited overview of research about young people, physical activity and health in relation to the subject physical education points to the need for united voices of a future direction for the subject.

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