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## **Sport didactics in Finland**

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# **Sports didactics – The shift towards pedagogical framework in Finland**

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## **Abstract**

The teaching of physical education (PE) to educators in Finland has shifted from didactic techniques focusing on teachers' actions towards more holistic pedagogy that questions how pupils learn. These changes can be seen in physical education teacher education (PETE) and study books and in the development of PE curriculums for basic education.

The national curriculum for basic education changes approximately every ten years and, recently, the national learning outcomes of PE of the two previous curriculums were evaluated. Reflecting on these learning outcomes, the latest research results and feedback from PE teachers, the groundwork for the latest PE curriculum was laid out. The objectives of the current PE curriculum are operationalised into physical, social and psychological functions, encouraging pupils to adopt physically active and healthy lifestyles. These are sought to be achieved by implementing pupil-centred teaching methods based on improving competence, autonomy and psychological relatedness and by creating task-oriented climates during PE lessons.

Research on sport psychology has been complementary to research on sport didactics and pedagogy, and the amount of PE-related research has increased in recent years. However, there is still a need to increase the number of multidisciplinary PE research studies. Future research should try to find ways to motivate pupils who do not enjoy PE lessons. The adolescent years are not an easy period, and the current lifestyle of many adolescents revolves around social media, which can negatively affect their emotional development and place them at risk of negative body image. In this context, PE can be a sensitive subject, and PE teachers face challenges in creating a supportive atmosphere. The search for new and innovative pedagogical and didactic solutions is important in order to promote children and adolescents to adopt healthy lifestyles and have a better quality of life.

Given the rapidly changing human environment, care should to be taken to ensure that new technological innovations improve human livelihoods. However, more and

more research is showing that technology in fact serves to alienate children from their bodies. PE is a sensitive school subject where pupils are faced with the shape and functional capacity of their own body.

Future research is needed to find ways to increase intrinsic motivation and to motivate children to be physically active during their lifespan. Therefore, there is a need for multidisciplinary research and methods to open the door for physically active and healthier lifestyles.

# 1. Historical Development of Sports Didactics

The wavelike development of sport pedagogy and didactics is evident in the Finnish teacher education and school system. First, to understand the development of Finnish educational culture, there is need to define some basic concepts.

In Finland, pedagogy is aimed at holistically answering the following question: What is good education? At the beginning of the 20th century, pedagogy was considered the most important issue in teacher education. The foundations for a good education were taken from philosophy (common virtues) and religion (Christian values) (Puolimatka, 2010). General pedagogical approaches were implemented through teacher education (school pedagogy), and general didactical guidelines were created for specific academic subjects typically taught in classrooms. However, it very quickly became obvious that general didactics did not answer all of the needs for subject-specific teaching. Subjects like “arts and crafts” (physical education, music, visual arts and handcrafts) highlighted the need for new subject-specific didactics (Uljen, 1997). Today, PE didactics include methods on how to teach physical activities and sport-specific skills and also how to impart knowledge for encouraging lifelong physical activity as part of an active lifestyle. In this field, sport is understood as goal-oriented practice geared towards specific sports (such as basketball, football, javelin throw, wrestling etc.). Targets are physical milestones to be reached by athletes or required to succeed in competitions. Thus, different sport practices are used for coaching athletes in different sport clubs, although these concepts may not necessarily be fit for Finnish PE (see Table 1 in Appendix).

As a school subject, PE was called “*urheilu ja voimistelu*” (Sport and Gymnastics) until the 1960s, reflecting its historical roots stemming back to 19th century Germany with pedagogy based on the ideals of GutsMuths, Jahn and Pestalozzi (Lahti, 2017). Later, at the beginning of the 20th century, Finnish PE was strongly influenced by the Swedish pedagogy of Ling (Lahti, 2017). In the 1970s, the name was changed to “*liikunta*” (Pietilä et al., 2017), a new, innovative Finnish concept without an appropriate English translation that encompasses physical activity, sport, exercise, practice and recreational activities. This new concept also changed the targets of PE in schools from the 1970s onwards. Naturally, this change – or revolution perhaps – was started in PE teacher educational curriculum in the University of Jyväskylä, Finland. The University of Jyväskylä had a strong history in creating school pedagogy and also

strongly influenced PE teacher education (Sääkslahti, 2020). One indication of this is the changing status of PE. During the 1970s, sport science was recognised as its own discipline, with sport pedagogy forming one of the core areas. After the 1970s, more and more PE teachers finished five-year studies to obtain a Master (MSc) in sport science, with one of the main subjects being sport pedagogy (Lahti, 2017). The most commonly referenced concept in the degree description is sport pedagogy. From the 1980s onwards, all PE teachers in Finland were required to have a MSc in sport pedagogy, and bachelor-level studies no longer qualified teachers to teach PE.

The teaching content and methods developed over the last few decades evidence additional changes. In Finland, didactic observation as a method was included in different teaching courses from the 1970s onwards (Heinilä, 2002). PE teachers were guided to focus their behaviour and relationship with their pupils' physical behaviour. The basic study course included didactic principles. It was expected that structured observations would be made of PE students during lessons as a part of practising and assessing their teaching skills. The best possible observation belonged the category "circle 10," which correspond with the situation when "the teacher observes pupils" and "the pupils are very physically active." In this regard, the physical activity or visible movement of pupils was highly valued, and the teacher's main role was to help pupils learn different motor skills. This period in PE teacher education strongly reflected mainstream behaviouristic learning theories. The reference book for sport didactics (Jääskeläinen, Korpilauri & Tikkanen, 1980) was very practical and written by a variety of PE teachers based on their own experiences, although integration with research was lacking.

During the 1980s, a new focus emerged aiming to understand teachers' teaching behaviour. It elevated the role of individual PE teachers, including their values, motivations and earlier experiences. Based on their experiences, PE students were guided to write their own teaching philosophy (Penttinen, 2003). However, this philosophy was based on literature, and PE students were asked to consolidate their philosophy based on practical examples from their own practice. Hence, the focus was relatively didactically oriented, as PE students were asked to categorise and describe their teaching behaviour according to a spectrum of teaching styles (Mosston & Ashworth, 2008). However, it was not until 2001 that Pirkko Numminen and Lauri

Laakso published the first Finnish teacher education book based on research for PE teacher education (Numminen & Laakso, 2001).

The typical feedback of PE students expressed a desire for more practical experiences. This was taken seriously, and education curriculums were changed to include more practical experiences with school children. A practicum in school was incorporated to every year of their five-year study programme (MSc). They learned to use the Spectrum of teaching styles (Mosston & Asworth 2008) as a didactic tool during their first year and, after that, the focus shifted to the learning environment. In this regard, PE students were asked to search for ways to modify their learning environment and to use appropriate techniques to encourage pupils to do sports and enjoy them. Teachers spoke of “apuopettaja [teacher’s assistant]” (Eloranta, 2003) in reference to different tools (such as beanbags, lines and sticks) to help pupils measure and achieve their optimal performance. During that time, staff members of sport pedagogy wrote the first scientific book in the Finnish language entitled “Näkökulmia liikuntapedagogiikkaan” (*Perspectives in sport pedagogy*) (Heikinaro-Johansson, Huovinen & Kytökorpi, 2003; Heikinaro-Johansson & Huovinen, 2007). The book included two sections: 1) theoretical chapters and 2) didactic chapters. The content of the book confirmed that sport-specific perspectives still prevailed and that theory was still partially separated from didactics.

## **2. Prominent Trends and Concepts in Sports Didactics**

In the earlier decades, PE teacher education curriculum included several didactic aspects such as the spectrum of teaching styles, the role of learning environments and writing each student’s own teaching philosophy. PE teachers were found to be good at teaching motor skills for sports, but there were still pupils who were not interested in PE. Accordingly, the focus of teacher education in PETE shifted towards pupils’ learning processes. As a result, didactical aspects lost their previous importance, and the role of pedagogy became more relevant.

Socio-constructive theories (such as Vygotsky, 1978) supported viewing each pupil as an individual with his or her own unique motives and experiences, which should be taken into account when teaching. Motivation was assumed to be mainly intrinsic (Deci & Ryan, 2000). In this regard, PE students were assumed to require more interactive skills and were encouraged to learn co-operational skills through social-emotional

learning (Klemola, 2009). They were taught to “listen to the pupil’s voice” and to learn why pupils avoid PE. Their interaction skills were thought to be a key element in guiding pupils towards a more physically active lifestyle. This period could be described as a shift from teacher-oriented didactics towards pupil individualisation, representing an important step towards pedagogy. Another important result was the practical study courses during each year of PETE study programmes.

After these changes, PE teacher curriculums did not have any study courses that included only didactic content. From approximately 2010 onwards, all didactic courses had strong pedagogical aspects. However, the names of the study courses continue to reflect their historical roots, including “Sport Didactics 1” (during first-year PETE studies) and “Sport Didactics 2” (during second-year studies). These courses included teaching PE in different environments, such as in the outdoors, nature, snow and water. The activities taught in these environments were allowed to vary, meaning that unusual combinations could be created. For example, football is different when played at an outdoor field or indoor gym or in the snow or forest. The focus was no longer placed on learning sport-specific skills and more on learning about oneself and his or her own body. Even though the names of the courses included the term “didactics,” the new content was pedagogically driven. The role of social learning was better understood and incorporated, and the theoretical background was mostly based on social constructive learning (Jaakkola, Liukkonen & Sääkslahti, 2017).

At the same time, the field of sport psychology has increased research-based knowledge of pupils’ motivations. Currently, PE students are taught to follow the self-determination theory of Deci and Ryan (2000) and to learn to create task-oriented climates for each PE lesson. PE students are taught to support their pupils’ autonomy, perceived competence and social cohesion as well as feelings of belonging and acceptance of their own personality. The study book “Liikuntapedagogiikka” (*Sport Pedagogy*) published in 2013 by authors Jaakkola, Liukkonen and Sääkslahti, with an updated version published in 2017, included evidence for more holistic perspectives on physical education. This book was important for PE students and also for in-service teachers to update their content knowledge and understand the latest national PE curriculum for basic education (OPS, 2014).

Although the teaching methods have changed over the decades, the main objective of school PE, as stated in the National Curriculum for Basic Education, has not



changed. During the last 40 years, the main objective of school PE has been to teach a healthy lifestyle and guide pupils to be physically active (National Core Curriculums: OPS 1970; 1985; 1994; 2004; 2014). However, the way to achieving this objective has changed. Once oriented towards didactics, the pathway has shifted towards holistic pedagogy and pupil-centred learning. Or, in other words, the focus has changed from “how to teach” to “how each pupil learns.”

### **3. Examples of Applications in the Educational Context (Primary and Secondary School)**

The current curriculum for basic education (OPS 2014) contains the official document that underline the changes in the pedagogical objectives of PE. Currently, for the first time in Finnish history, the PE curriculum defines three categories of objectives: physical, social and psychological functional capacities. The order reflects the importance of each category. Physical capacity is the first objective because PE is the only school subject geared towards increasing pupils’ physical activity and teaches physical well-being. The second objective is social capacity, which underlines the importance of social characteristics in physical education. Finally, psychological functional capacity is treated as increasingly important as pupils get older. All of these categories affect the assessment of pupils’ learning, or grade, in PE: Physical functional capacity constitutes half (50%) of the final grade and social and psychological functional capacities constitute the other half (50%). The curriculum also states that fitness test results are not allowed to be used as the basis for the grade, meaning that being a top athlete does not automatically mean that a pupil will have a high grade in PE (OPS, 2014, pp. 466–470).

Also, the focus of physical education has changed from physically oriented subject matter towards more versatile and holistic subjects that support personal growth. Good motor skills and physical fitness are considered more as tools than final targets. During the last curriculum review (OPS, 2014), more than 300 different sport disciplines were counted. Thus, the curriculum aims to place pupils on the path towards lifelong physical activity by fostering fundamental motor skills (Gallahue & Donnelly, 2003), creating the grounds for adapting these skills in different environments and during different seasonal activities, and learning more advanced motor skills.

The change in pedagogy can be observed during PE lessons. Today, PE teachers create environments to encourage pupils to try different activities using pupil-centred teaching styles, such as guided discovery and divergent teaching styles (Mosston & Ashworth, 2008). In this way, content is learned through playful learning more than through sport-specific motor techniques, like basketball dribbling and javelin throwing. In primary school, the activities are mainly playful, while in secondary school pupils, have more freedom to choose the content and their own activities (OPS, 2014).

Also, pupils are taught to do self-assessments. Typically, twice a year, teachers give evaluation criteria to pupils to assess themselves. Later, using the same set of criteria, teachers compare their own assessments with their pupils' assessment. If there are remarkable incongruities, teachers may have some insight into the psychological aspects of the pupil and can modify their teaching technique to support more relevant self-assessment (OPS, 2014, pp. 466–470).

#### **4. Current and Future Research**

Changes in the content of Finnish PE teacher education also reflect changes in sport pedagogy research. Much of current sport pedagogy as a discipline covers research on the mechanisms that promote a physically active lifestyle. A deeper understanding of these mechanisms can also help teachers and other educators to optimally support pupils' individual growth and development. In this chapter, I shortly present an overview of present and ongoing research in the field of sport pedagogy. Beforehand, it is worth mentioning that Finnish researchers in sport pedagogy understand pedagogy as methods for teaching physical education, exercise, coaching and interventions to increase the physical activity of children and adolescents. Therefore, the research themes are multiple and include concrete research questions relating to the skills and knowledge required to be physically active and exercise (e.g., physically literate), how to adopt and maintain a physically active lifestyle and how to educate and teach physical activities (Jaakkola et al., 2017, p. 13). At the present moment, there is a tendency towards multidisciplinary research; hence, many multidisciplinary research projects have been implemented. There are some easily recognisable and natural links between sport pedagogy and other disciplines such as psychology (motivation, personality, neurology and developmental pathways), medicine, sociology, technology and architecture that have been examined in several recent studies. At following, some of the current themes are briefly presented.

One multidisciplinary research theme in sport pedagogy and developmental psychology is motor development. Motor skill learning is an interesting theme because children's living environments have changed during the last several decades. Moreover, population-wide studies have documented a tendency of decreasing motor skills (Bardid et al., 2015; Niemistö et al., 2019). International comparisons have been made of widely used motor competence measurement tools, such as the Körper Koordination Tests Für Kinder (KTK; Kiphart & Schilling, 2007) and Test of Gross Motor Development (TGMD; Ulrich, 2019), in addition to researching the best possible environment to support children's motor development (Niemistö et al., 2019). Recent research has revealed the importance of outdoor activities and versatile environments in motor development, concluding that the Finnish environment and Scandinavian outdoor lifestyle support children's motor development (Laukkanen et al., 2020).

The decreasing trend in motor skills may be due to the decreasing amount of daily physical activity (Stodden et al., 2008). Technology combined with sport pedagogy research has enabled the creation of new tools to objectively measure pupils' physical activity levels in everyday settings. New devices such as accelerometers (e.g. Actigraph) allow researchers to measure activity levels in physical education lessons, evaluate the activity under different contents or combine the activity with that during school breaks (Finland's Report Card 2018). Furthermore, it is expected that physical activity breaks during classroom lessons can increase children's concentration, motivation and academic achievement (Syväoja et al., 2013).

In the field of sport psychology, a discipline that has fuelled the field of sport pedagogy through new motivation theories (such as the self-determination theory), interesting findings have been made on motor skill learning. Some of the most currently relevant research questions centre on, for example, how to create learning environments that support motor development or what kind of content supports children's academic achievement or prerequisites, such as cognitive functioning. Researchers in this field have also created and validated questionnaires that can be used or replicated by different research teams around the world. These international questionnaires need careful cultural translation but create interesting possibilities for comparative studies. In fact, in Finland, there are several ongoing research projects using these international tools (see Jaakkola et al., 2013 and Huhtiniemi et al., 2019).

Understanding pupils' motivations is important for PE teachers and sport pedagogies, and we share these same interests as a researcher. Supporting students' skill learning is a challenge for teachers and requires an examination of both teaching methods and feedback. It is also important to update teaching methods and feedback forms along with the curriculum every ten years. So far, physical education outcomes have been addressed in only two studies after the two most recent changes to national PE curriculum: Huisman (2004) measured the first curriculum outcomes (OPS, 1994) and Palomäki & Heikinaro-Johansson (2011) the most recent ones (OPS, 2004) using questionnaires at the national level administered to 9<sup>th</sup> grade pupils at the end of basic education. This tradition of assessment and use of the same measurement tools is important to continue; otherwise, it will be difficult to view trends over time.

Overall, most children are not physically active enough based on international health-related recommendations (Finland's Physical Activity Report Card, 2018; WHO, 2019). This is reflected in the decreasing physical fitness levels of school-aged children. One study combining sport medicine and pedagogy aimed to collect data on 5<sup>th</sup> and 8<sup>th</sup> graders physical functional capacity as part of the national Move! -measurements. Since 2016, measurements of endurance, strength, flexibility and motor skills have been made every year, and the results and current trends are available online ([www.oph.fi/fi/move](http://www.oph.fi/fi/move)).

However, earlier international studies have confirmed that fitness testing causes anxiety in PE students (Jaakkola et al., 2013). There are several international questionnaires developed by sport psychologists to measure pupils' emotional state, feelings of competence and motivational climate during fitness test lessons. In Finland, the latest research has shown that the motivational climate of PE lessons is mainly task oriented. This area of research is important for understanding how teachers can create positive, motivating and task-oriented climates for fitness testing (Jaakkola et al., 2013; Huhtiniemi et al., 2019), and the relationship of the testing environment with students' measured fitness levels should be further explored.

The amount of total daily physical activity decreases over the course of schooling. The older the pupils become, the longer the school days and the more sitting. It may be possible to establish new standards in this regard: The latest research results show that activity breaks during the day support pupils' overall learning (Syväoja et al., 2013). One new line of research is the search for teaching methods that support both

student learning and physical activity. This can be achieved through combining (neuro)psychological methods, sport pedagogy and evaluations of pupils' academic achievement. Other solutions have suggested decreasing the need for sitting (Pesola et al., 2017), improving classroom architecture and furniture and modifying the length and content of recess. Despite these changes during the school day, PE lessons are recognised as the most effective way to increase less active pupils' daily amount of physical activity (Finland's Report Card, 2018).

One way to increase students' physical activity is through physical activity-related homework. It would be interesting to investigate the kind of physical-activity homework that would be viewed as relevant and accepted by students. So far, in Finnish culture, students are not used to having PE homework, so there is a risk of negative attitudes towards its acceptance (Kääpä et al., 2019). More research is needed on innovative solutions and new combinations of subjects, such as combining theatre with PE or HIIT, a method currently promoted by the Oblomov project ([www.oblomovproject.com](http://www.oblomovproject.com), 2019). Hence, there may be possibilities to enrich PE teaching methods through combining theatre, drama pedagogy and sport pedagogy. Further, combining psychological measurement tools with research of innovative teaching methods might open new doors to understanding how PE teachers could support pupils' positive perceived physical competence.

Finally, it is worth noting that physical education arenas are public, and movements are visible to everyone. This requires self-confidence and a positive attitude towards one's own body. Positive body image and self-perception creates the basis of psychological well-being, and, therefore, these aspects should also be further studied, especially considering the potentially negative effect of social media on students' self-esteem and values. Teachers face new challenges in this environment and must learn the necessary skills for supporting healthy body image including, for example, recognising invisible bullying and protecting students from it. However, teachers are key figures that can help pupils to gain trust and confidence in themselves, partly because sometimes parents are not able to do it. For example, teachers can aim to create physical experiences that generate positive feelings in students about their bodies, which can contribute to self-acceptance. Thus, good pedagogical skills are able to create safe, physically active and psychologically appropriate learning

environments. These themes further underline the importance of multidisciplinary research within the realm of sport science.

## **5. Discussion and Prospects**

Finnish pupils have regarded PE positively over the decades (Heikinaro-Johansson & Telama, 2005; Laakso, 1998; Lahti, 2017; Yli-Piipari, 2014), but many Finnish stakeholders want to see more positive results. The Finnish government has made several investments to increase children's physical activity, such as the Schools on the Move and Join on Motion programmes (Finland's Report Card, 2018). Data have been collected in these programmes to assess Finnish pupils' physical activity, well-being and other related aspects (Ministry of Education and Culture, 2018). Unfortunately, the total amount of physical activity has not increased as much as hoped. Possibly, this is due to their focus on overall school culture. It may be necessary to invest more in pedagogical efforts and supporting facilities to see more effective results.

Sport psychology has strongly supported the role of teachers in increasing physical activity. PETE has made use of new psychological information, teaching knowledge and practical skills, which has been incorporated to pedagogy in schools. However, it is still unknown how well teachers are able to use these skills in the school environment. The teaching facilities, group size and physical environment should support the use of pupils-centred pedagogy. Appropriate group sizes allow teachers to become familiar with each pupil and to meet each pupil's needs. Under such a context, it is possible to individualise teaching and to identify the main barriers that prevent students from engaging in or enjoying physical activities. It is necessary to continue to collect data on children's physical activity, including indicators that may influence children's activity and motor skill levels. These data can highlight trends and enable politicians, stakeholders and school principals to "lead with knowledge" and make future decisions and establish future directions accordingly. Finally, this strategy can lead us in a direction where children and adolescents who have learned to lead physically active and healthy lifestyles will continue to do so in the future, improving their quality of life.

## **Appendix**

Table 1. Cultural translation of glossary in pedagogy from the Finnish perspective

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### **Pedagogy**

- General pedagogy - holistic understanding of good education
- School pedagogy – general pedagogy implemented in schools for children (7–17 years)
- Andragogy – pedagogy implemented for teaching adults (+18 years, typically when studying second profession)
- Physical education – pedagogy used for teaching children “to be physically active” and methods to teach “skills and knowledge through physical activities”
- Sport pedagogy – pedagogy implemented in PE

### **Didactics**

- General didactics – theoretical understanding of good teaching, including suitable methodology, mainly for academic subjects taught in classrooms (indoors)
- Didactics in PE – subject-specific didactics for physical education, including methodology for teaching different physical activities, sport-specific skills and knowledge targeting lifelong physical activities as part of physically active lifestyle
- Sport didactics – synonym for PE didactics

### **Sport**

- Sport – goal-oriented practice of specific sports targeting competitions and implemented in sport clubs
  - Sport practice – practices implemented in sport clubs to become better athletes
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