

# Comparative Analysis of the National Curriculum of Physical Education in Primary Education in Europe Based on Vector Model

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**Abstract** A series of studies show the positive effects of physical education (PE) on students' development, the effective functioning of the school and school systems. Stead and Neville [12] highlight the positive effects of PE teaching on academic achievement, cognitive function, classroom behavior, psychological and social effects, and motivation for school. This understanding of the PE concept is not limited to the curriculum [7] but also refers to the aspect of children's thinking about the subject and the inclusion of cultural trends [2] in society. It is implicitly and explicitly based on orientation towards positive effects from a student's perspective [9]. Bailey [1] presented the results of PE's contribution to student development in the physical, affective, social, and cognitive domains of life. The potential of PE is evident from the contribution to the development of each of these domains, especially to the extent that young people feel connected to the school, the amount of positive social behavior within the school, and the development of skills that make them an active citizen. Generally speaking, consistent participation in physical activity is associated with a longer and better quality of life, with a reduction in the risk of illness along with the psychological and emotional benefits that physical activity provides. The particular relevance of PE to society today is based on specific physical activity opportunities and experience gained through exercise, play, and sports. This paper compares contemporary PE concepts, focused on the

quality and standards of the PE curriculum. The purpose of this research is to compare national curricula of teaching PE on the primary education level as a basis for the determination of the status of this content in PE. Comparative analysis was used as a method on a sample of 27 official countries in the European Union. The obtained data provide a regional and individual national picture of PE in schools of EU countries, especially when looking at the findings of state bodies, although they do not detect all the problems that exist in practice. What contemporary research reveals, however, are congruent features in several areas of directing school policy toward PE and undoubtedly in some specific areas of practice.

**Keywords** Physical Education, Curricula, Vector Model, Comparative Analysis, Primary Education

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## 1. Introduction

Despite the great impact of globalization, and understanding of the awareness within international pedagogical communities about the context of principles and practices within national systems, physical and health education is the basis of a comprehensive approach for promoting physical activity through schools [11]. The

complexity of the curriculum concept and its analysis is reflected through a workable, organized and actually implemented education, with its many components, conditions, factors, perspectives, forms, etc. [6]. The core curriculum guidelines converge that the system of students' experiential learning is school sponsored [3], and any educational activity created within the school and its purpose take place inside and outside the school. In such educational settings, the PE can be defined according to the general orientation or the goal of education.

According to Naul [9], physical education in Europe is defined differently in terms of terminology and content. In some countries the English term (physical education) is translated as physical literacy (eg Italy, Spain, Portugal); in France the term physical and sports education is used; in Sweden the names idrott and hälsa (sport and health) are used, and in Germany Sportunterricht (sport teaching). In France the name sport is added and in Denmark and Sweden the original version of the concept of sport (idrott) was introduced. In Austria, the inclusion of sports activities did not lead to a terminological change (physical exercise). Similar, original versions of lichamelijke opvoeding are found in the Netherlands, where the traditional PE was added to the sport [6]. Moreover, the traditional concept of personal-interactive movement education in the Netherlands continued even when sports were introduced, although they were redesigned and crafted according to the educational purpose of the concept. Naul [9] highlights the diversity of PE treatments in the context of the curriculum, that is, in strict or liberal regulatory implementation through general or precise content recipes; in traditional and / or new goals, i.e. teaching or learning orientations towards sports or movement skills, and in the process and / or approach to a subject that is equally treated in the curriculum or marginalized by reducing its objectives. The curriculum means the path to securing, organizing, and initiating learning, influencing students in an adaptive way [6]. In recognizing the contribution of the PE, it is important to act on the part of teachers in educational institutions who need to have the skills and competencies acquired through education. In response to concepts of active lifestyles in the context of lifelong learning, the development of specific skills is essential in any redefinition of purpose and function, in order to adapt to broader educational outcomes, including health and connectedness with personal and social development. According to the Worldwide Broad Survey of School Physical Education - Final Report [14], educational reforms in some countries and responses to health education concepts related to active lifestyles and perceived obesity epidemics have either encouraged or led to changes in PE curricula. The link between physical education and health as well as personal and social development appears in some countries, as shown by the results of the EUPEA study on physical education (2010-2011) in a sample of 22

countries, i.e. educational autonomous regions of Europe, showing that exercise and health, physical activity learning, and social and personal development are actually the most commonly cited goals of the PE program. It is not atypical that curriculum goals, and especially, but not exclusively, in higher-income countries are those that encompass cognitive knowledge, psychomotor skills and affective attitudes and values, outcomes related to healthy living, an active philosophy of life and a connection with physical literacy and the term physically educated persons [5].

## 2. Materials and Methods

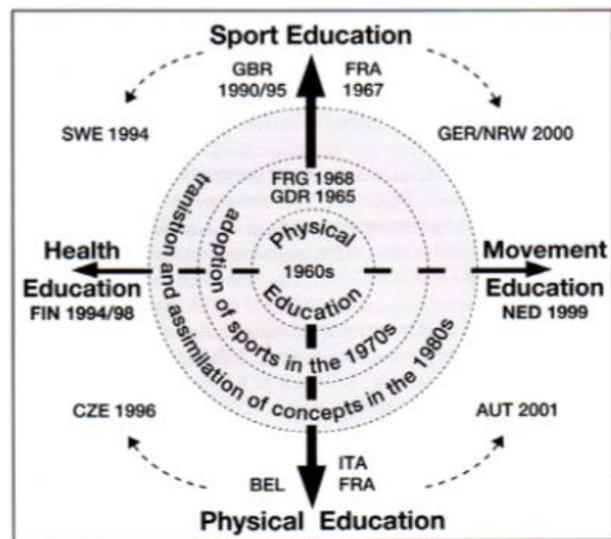


Figure 1. Naul's (2003) state of the European PE concepts - vector

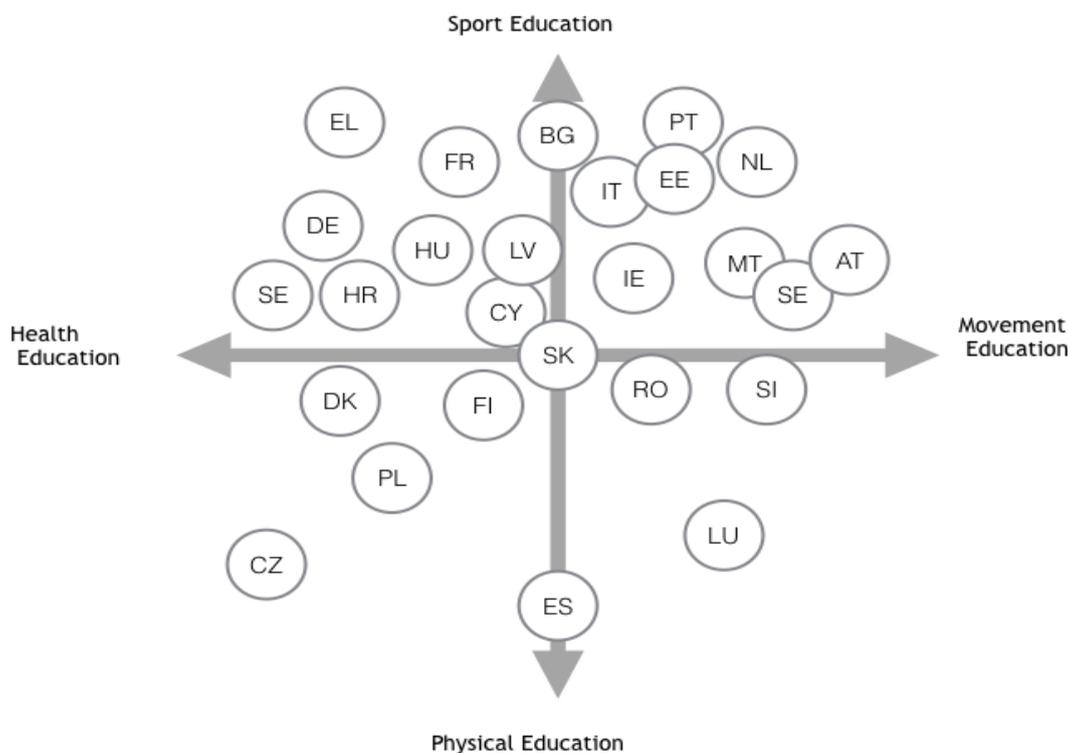
The application of comparative analysis requires special precision analysis [13] in the processing of certain indicators and caution in the conclusions because it is necessary to respect the conditions in which a particular or selected phenomenon exists. In order to compare the selected phenomenon, it was necessary to collect data (documents) and to do the analysis by drawing and repeating the procedures in a circular analysis, and analysis between cases. For this purpose, 27 countries were selected, that is, components of the PE curriculum in the selected countries. This process is repeated until the uniquely relevant information is obtained. Conclusions were made by identifying patterns and topics, finding plausible interpretations, grouping them into categories, using metaphors, counting, comparing and contrasting data, noting relationships between variables, decomposing variables, submerging the special under general and establishing conceptual coherence. The validity of such a method was determined by testing established patterns, and each result had data that deviated. Such, conditionally, marginal data is an indicator of the adequacy of the approach chosen, which helps to critically consider the

assumptions of the researcher and the theoretical basis on which they are based. Naul [9] states that, regardless of different body ideologies, assumptions about individual education and the role of physical education in a sociocultural context, and no matter how different physical activities are interpreted as movement or sporting skills within physical education, at least four elements to a greater or lesser extent are considered as constituent criteria of the concept of physical education: 1. The justification and legitimacy of physical education as a school subject; 2. Physical education goals; 3. Teaching methods and strategies for teaching physical education and 4. Assessment and evaluation of physical education as a school subject. However, a clear process of European exchange of all previous concepts and currently updated major development vectors is visible. This process is linked to the intention to align the educational purpose of the previous basic concepts of physical education, which has led to new smaller vectors (Figure 1.) for curriculum

development (inter-literary approaches) in some other countries. If this diffusion process is called the diversification of former national physical education concepts, as a total harmonization of physical education concepts in Europe [8], it could represent the European spectrum of physical education development vectors in this new millennium.

### 3. Results

The analysis of the PE area description shows the findings using a vector model (figure 2) with the exception of Lithuania for which no data are available. There may be some discrepancies due to the reforms in Italy and France, which are aimed at creating a positive attitude towards participation in the competition, team games, which are complemented by elements of health and physical activity [15].



**Figure 2.** Vector representation of the analysis of the educational area of PE

Bulgaria is the only representative to emphasize its focus on sport and all its forms in its description of the area. The broadest area is described in Slovakia, whose guidelines are designed with an emphasis on lifelong physical activity focused on health. Spain also stands out with a specific description of an area that seeks to develop well-rounded, healthy, and socially empowered people, improving academic grades, through time management, increasing self-sustainability and motivation. Teamwork and leadership skills are also important life skills that are acquired. The findings of the comparison show a further perspective of PE as countries operationalize the accepted importance of physical education for child development; describe consensus on the characteristics of quality PE programs; review current national, state and local education policies that affect the quality of physical education and examine barriers to quality physical education and solutions to overcome them. Physical education and school sports have a special pedagogical mission. In principle, PE is engaged in a (dual) task, not only in discovering the culture of sport and physical activity but also in promoting personality formation. The contemporary guidelines and curricula for comparative analysis summarize this basic pedagogical idea of physical education and school sports as a so-called dual mission: education for sport and education for sport should complement each other. In addition, physical education and school sports-related to specific goals also trigger motives related to sports, such as performance or team spirit and collaboration, and focus on educational concepts such as fair play, e.g. in the context of Olympic education. From an educational point of view, this approach can be summarized as collaboration, competition and understanding, health promotion or aesthetic education. Multiperspective physical education and sports learning aim to embrace different content (different sports and disciplines / areas of movement). Popular activities (athletics, running, jumping, throwing, gymnastics and dance, gymnastics and swimming, sports games, circus arts, water and winter sports, wave sports and martial arts) have an educational function.

#### 4. Conclusion

A comparative analysis of PE national curricula in different countries shows some differences that have emerged as a result of different cultural and political developments. It is clear that various sociocultural factors can influence the design of the subject area. However, there are some efforts to articulate common goals, and in this context, the White Paper on Sport [4] emphasizes that time spent in sport and physical activity, regardless of whether it is physical and health education at school or extracurricular activities, can have considerable educational and health benefits. With different guidelines,

each of the EU Member States is responsible for creating the PE curriculum in the education system, especially at the primary level. In recent decades, knowledge and learning have become a prominent motive in research on physical education [10]. The major concepts of physical education in the 1970s Sport and physical education were transformed to create a balanced image in several countries, while elsewhere the main concepts of movement education and health education continued to evolve. However, a clear process of European exchange of all previous concepts and currently updated major development vectors is visible. This process is aimed at aligning educational purposes which have led to new smaller vectors for curriculum development (inter-literary approaches) in some countries. This diffusion process is considered as a total harmonization of physical education concepts in Europe [8], and the diversification of former national physical education concepts. There are deviations that are related to differential variations between EU member states in the Middle East and Eastern Europe in 15 member states. There is an unjustified concept of the role of PE - if we serve to strengthen the sports performance of the competition aimed at achieving it, thus limiting the possibility of participation, and not expanding the horizons. The Council of Europe instructs pan-European research on PE policy in practice every five years as a priority.

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