

PHYSICAL EDUCATION TEACHERS' VIEWS OF BEST PRACTICE ON PHYSICAL EDUCATION TEACHING IN HUNGARY IN THE PERIOD OF INTRODUCING DAILY PHYSICAL EDUCATION

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Abstract: In Hungary, the Act CXC of 2011 on Public Education has drawn squarely. In primary and secondary schools five physical education classes per week were ordained compulsory in ascending system. Our questioning was oriented on identifying the factors of the best practice. In our cross-sectional study we have chosen stratified sampling. The number of the examined persons is 1,161. From the total number, 542 participants answered the open ended questions related to the best practice. These answers' analysis gave the core material of this research. Data was acquired during the 2013/2014 school year. The instrument of our cross-sectional study was a questionnaire built by six question-groups. Answers, given to the question of best practice, have been interpreted as narratives, which were formed in definable context. According to the results of our research, we have specified the three most important factors determining supremely the best practice of physical education (School infrastructure, facilities and equipment, Space and location and its spaciousness, sports events and activities involving the whole school); statistic figures have proved the coherence and consciousness of the answers. Our research lightened those details of physical education that might play important role in the future methodological expansions and also in regulative decisions.

Keywords: physical education, daily PE, best practice, school infrastructure, facilities and equipments, space and location and its spaciousness, sports events and activities

1. Introduction

The issue of daily physical education in Hungary is not recent at all. Our famous scientist, physiologist, Albert Szent-Györgyi, who discovered vitamin C and won medicine Nobel Prize, once said: "I was informed that, to this day, there are schools where there are only two physical education classes per week, which means that pupils have to do sport every third day in advance. Are you, Gentlemen, able to drink, eat or sleep three days in advance?" (Szent-Györgyi, 1930b).

Almost seventy years later, a study upholds this idea as follows: "Based on the newest physiological studies of physical education states, the amount and timing of physical load is crucial in efficacy of both development and health promotion" (Gombocz, 1999). Thus, responsible physical educators and sport professionals cannot ignore the issue of physical education classes' frequency.

As the first step of the introduction of daily physical education in Hungary, the Act (LXI of 2003) made a stand for the daily sport activity. Let us bring two citations. The first one: "The school is obliged to establish conditions for daily physical education, also run a sports club – if in the school four year and at least one class per year operates. The time frame for physical education has to be settled within the time frame of daily obligatory and non-obligatory school hours." The second one: "During the 1-4 years of elementary school, physical activity has to be provided every day. Daily

physical activity comprises of physical education classes three times per week (it is prescribed in local curriculum) plus playful exercises”(Act LXI of 2003 on Amendment of the Act LXXIX of 1993 on Public Education, 2003).

The efficiency of the statutory provision was reduced by the following paragraph: in the 1-4 schoolyears “the duration of playful, health-generative exercises has to be at least thirty minutes per day, which can be divided into sessions of at least fifteen minutes. These playful, health-generative exercises can be organized as the integral part of a class, but only using the half of the 15 minutes break between the classes” (Act LXI of 2003 on Amendment of the Act LXXIX of 1993 on Public Education, 2003). The problem – or question at the same time – is not whether extracurricular physical education should be connected to curricular physical education. The problem is that a 10-15 minutes break is not enough time to teach and learn the physical education curriculum. Physical education classes contain pedagogical values only if its units are integrated.

The Act CXC of 2011 on Public Education has drawn squarely: in primary and secondary schools, five physical education classes per week were ordained compulsory in ascending system. This arrangement happened just in time, as general health and fitness condition of the young population is rapidly deteriorating and inactive lifestyle has become a characteristic of present times (Hamar, Biddle, Soós, Takács and Huszár, 2010).

Related to the Act on Public Education, a Government Decree (Government Decree of 110/2012 on the Announcement, Introduction and Application of National Basic Curriculum) was announced in June 2012, the National Basic Curriculum version No.4. First version was issued in 1995, second one in 2003, and the third one in 2007. According to the 4th version (NAT4), schools are obliged to organize physical education five days per week. From these five classes, no more than two classes per week can be used for other sport activities-mentioned among NAT physical education and sport literacy-area mentioned sport activities (swimming, folkdance, team and other sport games, outdoor sports, hiking, tourism) or according to the possibilities of the school (different sport activities like authentic Hungarian historical sports, movement-, skillful games, team games). These two classes per week can be replaced by training in school sports club or – due to a request of the students – by doing any certified sport activity in other sports clubs or sports organizations.

The international literature also approaches the introduction of daily physical education. A journal from the USA summarizes as follows: “The governmental decision makers decided to introduce daily PE in all schools. Now the sport scientists and PE teachers have the responsibility to fill this opportunity with content that is more effective. We believe that schools should learn more from successful models and pay more attention to new teaching and diagnostic methods using technology” (Bánhidi and Hamar, 2014).

The preoccupation for finding solutions to raise the number of physical education classes can be also found in Romania: “The Romanian Framework Plan for Primary Education provides 2 hours of PE and sports per week for elementary school and 1 hour of play and movement per week for Grades 3 and 4. In addition to these, a number of proposals are still under discussion. Education officials intend to introduce a routine of 30 minutes per day of physical movement in kindergarten (15 minutes at the beginning of the program and 15 minutes at the half of the program) and 40 minutes of the same routine for pupils in Grades 1 to 4. Also, they want to double the number of PE and sports hours in gymnasium and high school from 1 hour per week to 2 hours per week” (Georgescu and Grosu, 2014).

In Europe, after the 2007 resolution of the European Parliament, a considerable progression has been observable. This resolution raised the issue of physical education statuses of member countries, approached especially from the point of view of children’s health. Moreover, under the society’s pressure, at least three physical education classes per week must be introduced in the public education system (Hardman, 2011).

Raising the number of physical education classes and organizing daily physical education are difficult tasks. In Hungary, according to a rough guess, hundreds of gymnasiums miss, and a considerable part of the existing infrastructure does not suit to the requirements of hygiene regulations. Underfinanced infrastructural background, low salaries of the teachers are innate problems, which are hard to change.

These problems are not typical Hungarian difficulties; Ken Hardman's many studies prove this fact (Hardman, 1995, 2009, 2011). The author, among other international issues, lists e.g. the negative attitude towards physical education, the huge lack in infrastructure and equipment. Without proper infrastructure, school physical education is not able to work. Philip Hall Coombs (1968) has recognized this long ago. He was an educator and an economist in one; he has handled educational issues considering financial point of views. "Expensive education can be bad, but the quality education is never cheap".

In the Act CXC of 2011 on National Public Education – on daily physical education – contradictions appeared from the very beginning. First confliction was the possibility to replace two physical education classes (from five) into "afternoon sport" in sport clubs by proved activities.

In this context, daily physical education could be attained only if the school schedule would include all five physical education classes and only if these classes would be attended by all pupils. Unfortunately, there are parents and doctors (and others more) who find ways (by fake proving) to help pupils avoid daily sport activities. Furthermore, inserting all five physical education classes into the time schedule presents difficulties for schools, which are also confronted with the lack of graduated physical education teachers (Hamar, 2016).

According to Ken Hardman, the negative judgement of this specific discipline represents one of the main issues of physical education teaching. In order to support that, a study done in Hungary (2013/2014) states: "About one-third of the teachers questioned believe that physical education has the same status as the other subjects. In the period of the introduction of daily physical education, more than a quarter of the PE teachers said that the PE teachers' position was worse compared to other teachers" (Hamar, Karsai, Csirkés, Csepela and Soós, 2016).

2. Research Questions and Hypotheses

Our questioning was oriented on identifying the factors of the best practice. By analyzing the narratives of physical education teachers in an earlier study, we have made an attempt to categorize the components of the best practice of school physical education (Hamar, Karsai and Prihoda, 2017). Summarizing the narratives, we identified 35 different categories, which – according to the rules of content analysis – contain all of the narratives given by the respondents. The categories have been analyzed according to the forms of work of physical education measuring and evaluating, also from the point of view of the procedures of physical education. Here and now we open up the depths of those categories, which contain the most important components.

The concept of daily physical education gives a formal and professional frame to school physical education. The success of physical education (and best fulfillment) depends on the appropriate regularization, the appropriate professional frames and the activity of physical education teachers. Educators, the physical education teachers realize, use, customize and transform – in definite frames – the methods and procedures.

Since teachers are the educators, they have a special role from the point of view of the unity of frames and contents of teaching and learning. Their feedback, opinion, and experience are extremely important to realize this unity. The more we are aware of the everyday components of physical education, the better the frame factors can be formed successfully. Indeed, the weekday practices can give inspiration for science and creators of teacher trainings.

After analyzing the narratives of physical education teachers, we tried to individuate the answers regarding the components which might be considered in the evaluation of the level of educational management that defines pedagogical frames used to create the professional evaluation forms related to physical education. As relevant research questions, we could present the following: "which components define the best practice of physical education teachers", and "how can these factors be understood from the point of view of the defining optimal ways".

The analysis of the narratives has been accompanied with the assumption that the answers of the teachers create – in our case, a conscious and integrated – system. This assumption can be considered as a hypothesis, which states that the focus of the best practice is not going to change depending on the chosen preferences in the targets of teaching.

3. Material and Methods

3.1. Participants

In our cross-sectional study we have chosen stratified sampling (regions of Hungary 1-7; sustainer: state, church, other; type of school: elementary school, secondary school; the size of the school: small or a big school). The questionnaire was applied to every physical education teacher from all chosen schools. The number of the examined persons was 1,161. From the total number, 542 participants answered the open ended questions related to the best practice. These answers' analysis gave the core material of this research. The distribution of these persons is presented in Table 1:

Table 1. Distribution of data of participants (person/%)

N = 542 (100)					
		Male		Female	
		Person	%	Person	%
Primary School Teachers	Under 45 years	3	4,8	59	95,2
	Over 46 years	4	7,0	53	93,0
Physical Education Teachers	Under 45years	109	57,4	81	42,6
	Over 46 years	120	51,5	113	48,5

3.2. Instrument

The instrument of our cross-sectional study was a questionnaire with six question-groups, which has been an alloy of two previous studies (Hamar, Karsai and Soós, 2016). By means of this questionnaire, the respondents could explain their points of view on almost all details of school physical education. The question-groups have sorted the questions of the questionnaire:

- I. Questions on the personal data of the respondents (anonym)
- II. Questions on the micro-environment and the legislation of physical education (situation of the subject and the teachers, the relationship between teaching physical education and extracurricular activities)
- III. Questions on physical education curriculum: goals, tasks, content, control and evaluation, issues of equal opportunities for all (problems of children with disadvantages)
- IV. Listing of the existing facilities and equipment also the personal conditions: infrastructure, equipment, employment status
- V. Questions on the difficulties, problems of school physical education
- VI. Questions on the best practice of school physical education

Respondents were allowed to give open ended answers to the 6th question-group. The following is an example of a question belonging to the 6th question-group: “Give an example for the best practice of physical education! Review ONE example where the best practice has been realized – with no more than 100 words. This can be e.g. an act or a program, a teachers’ activity in the field of physical education or any other case related to physical education.”

Besides this – in the context of the open ended answers – one of the requirements of the 3rd question group was: “Please list the most important tasks of elementary schools and secondary schools (e.g.: staying healthy, fitness, motor-ability development, physically active lifestyle, personal development, etc.)!” Due to the answers to our question, five different categories can be formed (keep healthy, motor development, educational effect, experiencing joy, general development), in which 1,130 from

1,161 respondent teachers' answer has been identified. The analysis of the answers belonging to the 3rd question group does not constitute the subject of this research; the detailed evaluation will be presented in another study.

Data was acquired during the 2013/2014 school year. School directors have approved the research protocol.

3.3. Data analysis

Answers, given to the question of best practice, have been interpreted as narratives, which were formed in definable context. Analysis of the answers was made by content parsing, by applying the rules and prescribed steps of qualitative research. Iterations have been used to content parsing, which means that the category system that perfectly reflects the text was created by reading the text again and again (Szabolcs, 1996). Analysis of the teachers' narratives was made by Microsoft Excel, which seemed appropriate to the organization of the content, to the transparency of the text and building up and creating categories, outlines during the analysis.

Focus of the questions in the questionnaire is the "best practice". This expression can be identified with the terminus techniques used in education practice, the "good practice". The study examined the professional meanings of the contents, and the variations of the understanding of "best practice". Whatever it might mean for the teachers, this question (or this focus) seems appropriate to bring out the contents of everyday physical education issues.

Besides descriptive statistics data (frequency) for each category regarding all respondents, distribution of the answers has been examined according to frequency and percentage distribution. To examine the relationship among dimensions – created during the analysis of best practice and categories of preference selection – Pearson's chi-squared test were used, the level of significance was set at $p < 0.05$. Statistical computations have been done by using IBM SPSS Statistics 23 program.

4. Results and Discussion

The process of analyzing teachers' narratives consisted of two parts. First of all, a system of categories, where all the answers have been evaluated, was created. Secondly, interpretation of that category where the three utmost narratives have been involved (by separating the text into three parts – the subject of the narratives ("What?"), attributives related to subject ("What sort of?") and that part of the text which describes the relationship between the answer and best practice (How is it related to?)) was performed (Table 2).

Table 2. The three most important components related to best practice of physical education (categories)

The most important factors to realize best practice (categories)	What?	What sort of?	How is it related to?
School infrastructure, facilities and equipments	Type of the infrastructure, facilities or equipment	Characteristics of the infrastructure, facilities and equipment	How the infrastructure, facilities and equipment related to the best practice
Space and location and its spaciousness	Location of the lesson	Description of the size of the space for the lessons	How the location, the size of the space (narrow or roomy) is related to the best practice

Sports events and activities involving the whole school	Activities and events that involve the entire school	Characteristics of these activities and events	How these events and activities are related to the best practice
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Before a deeper interpretation of the answers given to the main question of our study was performed (example to the best practice of physical education), we have conducted a comparison test to unfold whether the narratives classified into categories were related with the answers of another question of our study (List, prioritize the most important tasks of elementary and high school physical education). According to our idea, the answer to our hypothesis can be found in the relationship (or discrepancies) of the main factors of the best practice and the tasks of physical education.

After comparing the respondents' answers (chosen tasks) to the best practice question with the narratives in three emphasized categories, the following relationship resulted (Figure 1):

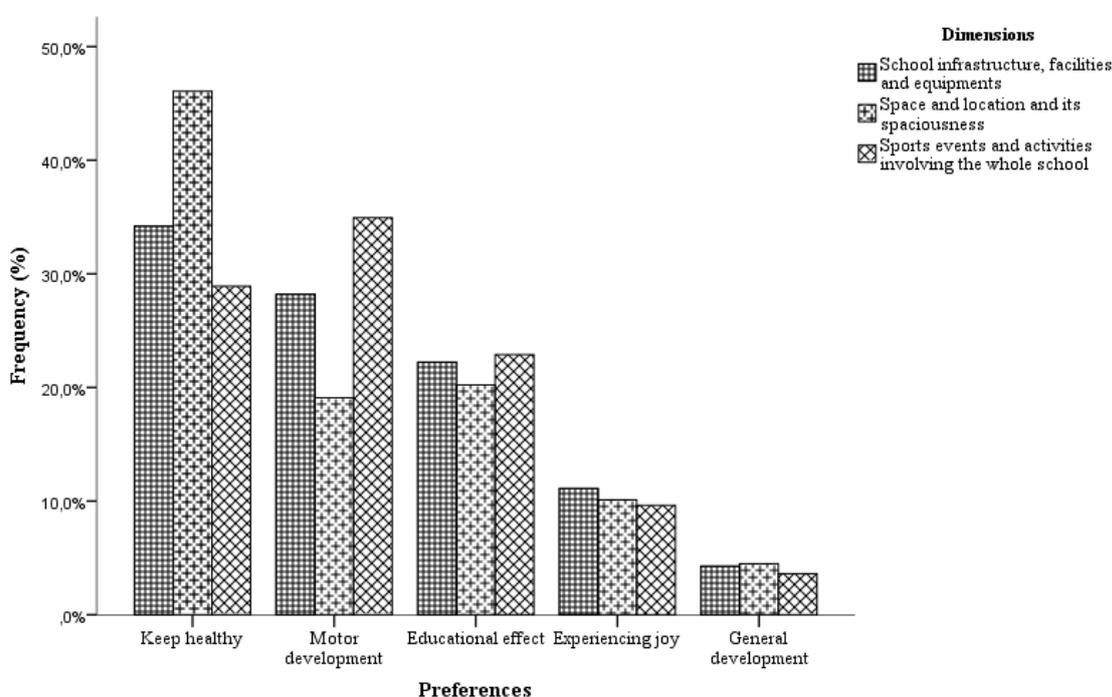


Figure 1. Relationship between physical education tasks and best practice

Figure 1 shows that whatever preference was chosen among tasks, the priority of the three most important content categories did not change. The preference variable from the statistics point of view does not change the occurrence of the narratives in different categories. From one side this result proves the coherences of the answers, from other side confirms the accuracy of the content analysis.

Further, the contents of the three most important categories of the best practice will be analyzed.

1. School infrastructure, facilities and equipment

In this category, 121 narratives were involved. The subject of the category “sport facilities” or “sport equipment” was named by respondents as: gymnasium, sports hall, balls and equipment of the pupils. Mostly the quality, the size and the amount of these subjects were emphasized. Narratives in this

category have been attached to the best practice by the versatile, high level and fluent education, and according to the answers this category helps to plan the lessons itself. Based on the contents of the answers belonging to category "School infrastructure, facilities and equipment" it can be said, that it is the most important factor of daily physical education, from the very beginning until the most creative teachers' solutions.

2. Space and location and its spaciousness, as determinant of physical education practice

The second most determinant category includes 92 narratives that refer to the places and its size-characteristics, used during physical education lessons. To define the appropriate space and place, the determinant factor has been usually the number of the pupils in the class (enough roomy gym for one, two or even three classes). The appropriate size of a gym is related to the importance of the children's space-demand and the characteristics of each class. This category in the narratives is related to the success of teaching physical education, also the movement needs of pupils and the freedom.

3. Sports events and activities involving the whole school

146 narratives have built this category, where extracurricular sport events, physical activity-kind events, programs are the subjects related to the best practice, realized in school or out of school territories. The main characteristic of these physical activity based events is the regularity (sometimes the traditionalism). To strengthen the social relationships, living the joy and belonging to a community have been the points where this subject connects with best practice. Narratives of category "Sports events and activities involving the whole school" have been showing a strong relationship with physical activity and sport, and also with other literacy areas.

To continue the analysis of these three emphasized categories would be very much obvious. The given narratives have showed so many creative, innovative, unique physical education theoretical and practical solutions that might be a lot more highlighted. But in this study another focus was the intention, and even a full open-up of a category could not show every single detail of the practice.

5. Conclusions

According to the results of our research, we have specified the three most important factors determining supremely the best practice of physical education; inferential statistic have proved the coherence and consciousness of the answers. Our research lightened those details of physical education that might play an important role in the future methodological expansions and also in regulative decisions.

Developing school infrastructure, expanding the number of facilities and the equipment is indispensable in 21st century's schools. Creative and experienced physical education teachers can temporarily manage the situation caused by the lack of facilities. From this point of view, we hope that the gym-building action started in 1990's will continue and that new swimming pools, school yards (outdoor facilities) and cycle tracks are going to be built (Hamar, 2016). This problem is very much related to the space-and room-needs of the physical education teaching, which is a question – not only – of development of psychomotor area, also affective area of the pupils (see movement-needs of the children, and freedom-needs). In this category of education, organizing issues appear as well (adjusting to the number of the classes).

The third category we have highlighted was "Sports events and activities involving the whole school". In this case, extracurricular activities are important. This is very much consistent with a thought of Zoltán Báthory (2000): the school class is not exclusive and not even primary scene of school teaching and learning. Functional aspects like open up motivation effects of teaching and adaptation of differentiated teaching oblige a lot more program getting into the extracurricular area, to the sphere out of school class learning. In democratic schools, "the second" school comes into "the first" school.

An increased respect towards teacher's narratives describing the best practice and also a deeper analysis are very important not only because it gets us closer to the everyday practice of school physical education, but because these teachers are the ones who have the direct and complex feedback of the pupils' results and performances. Considering the pedagogic factors, the most important criteria is the teacher himself/herself. The utmost guarantee of effective school education for the challenges of the 21st century is the highly prepared, professionally and pedagogically, (physical education) teachers. Physical education teachers have a special position in the educational system because they are concerned not only with the development of the body, but also with the general welfare of the pupils. Sometimes, PE teachers have to make hard decisions, all in the interest of the children and of the community of the school (Hamar, 2016).

Finally, the introduction of daily physical education class has had positive effects on every single aspect of the physical education activity. In order for it to be a success-story for a long time, it is a must that we acquire all possible information about the practice of physical education.

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