

18 - SPORTS FACILITIES AND EQUIPMENT AT BRATISLAVA GRAMMAR SCHOOLS IN SLOVAKIA

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Spatial - material conditions in physical education and sports are an inseparable part of teaching process. Not only these conditions directly influence teaching process, they also determine it. Important preconditions for optimal teaching of physical education and sports are the optimal material conditions and equipment of schools. These conditions and aids are often limiting factors for realization of physical education and sports at schools. The situation at a number of schools is inconvenient in the long term, mainly in the field of teaching aids, apparatus, equipment, operation, reconstruction, maintenance and construction of physical education and sports buildings and facilities (GABOVIC – ANTALA 1990, MELICHER – VARGA 1994, MORAVEC – ŠIMONEK 1997, MELICHER 2006, ROZBORIL 2010). Components of physical education and sports facilities are buildings (gymnasiums, sports halls, swimming pools, etc.) with their inner architecture (equipment, dressing rooms, sanitary facilities etc.) and didactic aids (equipment of teachers` offices - didactic aids). Among the most important and the most used physical education and sports facilities at schools there are gymnasiums and rooms adjusted for physical education and sports. They provide covered space for over all physical activity.

The aim of the study was to update knowledge of the condition of physical education and sports facilities at schools in Bratislava and to compare the results with the results from the year 1990 (GABOVIC – ANTALA, 1990).

METHODS

The research was realized by questionnaires and interviews with chairmen of subject committees (for physical education and sports) and with teachers of physical education and sports at grammar schools in Bratislava, as well as by personal visits of the schools. Out of 28 visited schools 20 (71, 4%) agreed to be involved to the research. Research sample consisted of 15 state grammar schools (70%), 2 private grammar schools (15%) and 3 church grammar schools (15%). Grammar schools were located in counties of Bratislava I - V. In the research sample there were 4 - year's grammar schools, sport grammar schools, church grammar schools, bilingual grammar schools and elementary schools joined with grammar schools. At all of the grammar schools there was taught physical education and sports according to the valid norms and regulations of the State Educational Programme 2008. Gathered data were processed and analyzed by standard mathematical and statistical methods and some were processed to graphic representation.

RESULTS

All of the researched grammar schools own or rent at least one gymnasium for purposes of physical education and sports (Fig.1). Only 45% of the grammar schools have athletic complex. With regard to the sport games, the best situation is for basketball fields - they are located at 55% of the schools. Football and volleyball fields are located at 35% of the schools. The number of handball fields is insufficient - only 25% of the schools can include handball to their curriculum, however this number is an improvement when compared to the situation in the past. Present situation with swimming pools is the worst. Only one grammar school owns a functioning swimming pool. According to the results 40% of grammar schools rent different facilities to upgrade physical education and sports, mainly swimming pools, gymnasiums, athletic complexes. More than 60% of schools in research sample have got rooms adjusted for physical education and sports, which are used mainly as a space for bodybuilding gyms or gymnastic studios.

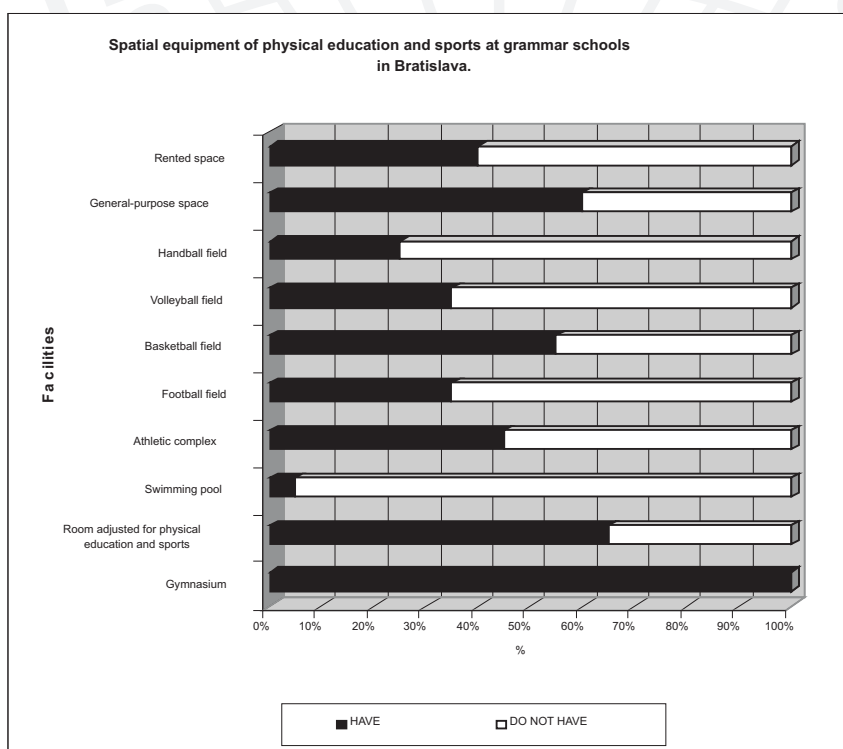


Fig. 1: Spatial equipment of physical education and sports at grammar schools in Bratislava.

In the area of equipment and apparatus, there are the best conditions for teaching sport games such as basketball, volleyball, football. The situation of providing apparatus for artistic gymnastics is worse (e.g. lack of quality gymnastics mats, carpet foam floor rolls) as well as situation of athletics (e.g. lack of spiked running shoes, starting blocks), rhythmic gymnastics and handball (e.g. lack of ribbons, hoops, small and big trampolines).

A part of material - technical conditions of teaching process of physical education and sport are didactic and technical aids. Nowadays those aids are considered to be in less satisfying state (LABUDOVA 2003). Teachers of physical education and sports frequently use radio or CD - player (85% of grammar schools). Further aids used are DVD - players, DVD records (mainly as a didactic aid for skiing). 45% of schools use projector and 30% use a computer. Less frequently used aids are cameras, walkie-talkies, visual aids like books and posters (Tab.1).

Table 1: Most frequently used technical and didactic aids in physical education process

Didactic and technical aids	Type
Electronic teaching aids	projector
	computer
	video camera, photo camera
Visual or acoustic teaching aids	radio
	CD player, DVD player
	books
	posters
Technical devices and tools	stopwatches
	measuring tape

Comparison of the situation of physical education and sports facilities in 1990 and 2010.

Another field of interest of our research was if there has been any change in the comparison with the past (year 1990). The sample of the research in 1990 consisted of 11 grammar schools (GABOVIC – ANTALA, 1990) and the sample in 2010 consisted of 20 grammar schools, therefore we had to convert the facilities to the same weights - to calculate separate facilities per one school (e.g. the number of gymnasium in 2010 is $28 = 28/20 = 1,4$ gymnasium per one school).

In Table 2 there are mentioned all the facilities, conversion to weights in the both years and percentage decrease or increase for compared years. After the conversion, the most significant decrease occurred for sport games facilities and athletics. The number of volleyball fields decreased for 53, 5% and the number of athletic complexes decreased for more than 17%. The number of gymnasiums decreased for 10% over 21 year's period. The most significant increase occurred in renting of the facilities of other schools or organizations for improving the physical education process. Nowadays schools rent a 120% more facilities compared to year 1990 (mainly swimming pools and gymnasiums). Significant increase (37, 5%) occurred in the number of handball fields. Number of football and basketball fields increased for 10%.

Table 2 Comparison of spatial equipment of PE and sports

Spatial provision	Sum in 1990	Sum in 2010	Per school 1990	Per school 2010	Index 2010/1990	Increase/decrease
Number of schools	11	20				
Gymnasium	17	28	1,5	1,4	90,6	-9,4
Room adjusted for physical education and sports	8	17	0,7	0,9	116,9	16,9
Swimming pool	1	1	0,1	0,1	55,0	-45,0
Athletic complex	6	9	0,5	0,5	82,5	-17,5
Football field	4	8	0,4	0,4	110,0	10,0
Basketball field	7	14	0,6	0,7	110,0	10,0
Volleyball field	13	11	1,2	0,6	46,5	-53,5
Handball field	2	5	0,2	0,3	137,5	37,5
General-purpose rooms	4	14	0,4	0,7	192,5	92,5
Rented space	3	12	0,3	0,6	220,0	120,0

When comparing the past and present equipment and apparatus provision, the most significant changes occurred in athletics facilities. Just one out of 20 schools has suitable spiked running shoes (in 1990 it were 6 out of 11 schools), which means 91% decrease. There was also decrease in the number and quality of starting blocks (-29%), in high jump kits (-63, 3%) and landing areas (-86, 3%), etc. In artistic gymnastics there was a decrease in the number of carpet foam floor rolls (-63%), mats (-23%), trampolines (-50%), as well as horizontal bars, beams, parallel bars. On the other hand there was almost 200% increase of barbells, dumbbells, skipping ropes and fitness equipments.

In general we can say that there was slight decrease in the number of gymnasiums, athletic complexes and more significant decrease of volleyball fields. On the other hand there was an increase of the number of handball fields, basketball fields, and general-purpose rooms. There were no significant changes in the overall number of physical education and sports facilities, however their structure changed.

Inseparable part of physical education process are students. Optimal number of students in the physical education

classroom enables effective management of physical education process. High number of students in the class causes problems mainly in class organization and in ensuring safety of the students. A part of our research was also determining the number of the students at schools, average number of students per class and number of groups of physical education and sports. In 1990 the average number of students was 582, in 2010 it was 576, which can be considered as an approximately the same situation (Tab. 3). There was more significant change in the average number of student per class. In 1990 the average number was 34, 5 students per class and in 2010 it were 27 students per class, which is 22% decrease. There was a change in the average number of students per physical education group - in 1990 the average was 17, 7 students per group and in 2010 it was 15, 2 students per group, which is 14, 1% decrease. The number of groups of physical education increased for 9, 1%. We suppose that lower number of students in groups could have positively influenced the quality of teaching process.

Table 3 Comparison of the number of students in the given years.

Students/Year	1990	2010		%
Average number of students	581,70	575,90	99,00	-1,00
Av. numb. of students/class	34,70	27,00	77,81	-22,19
Number of P.E. group	32,90	35,90	109,12	9,12
Ave. numb. of students/group	17,70	15,20	85,88	-14,12

Opinions of the teachers

According to the opinions of the physical education and sports teachers 60% of grammar schools do have sufficient material and spatial conditions for realization of physical education and sports. Many teachers think that facilities at several schools are obsolete and schools do not have financial sources for repair and renovation of those facilities. 30% of teachers think that the conditions are less suitable and that repair of the facilities is inevitable. 10% of schools have insufficient conditions for teaching physical education, according to the opinions of teachers (Fig.2).

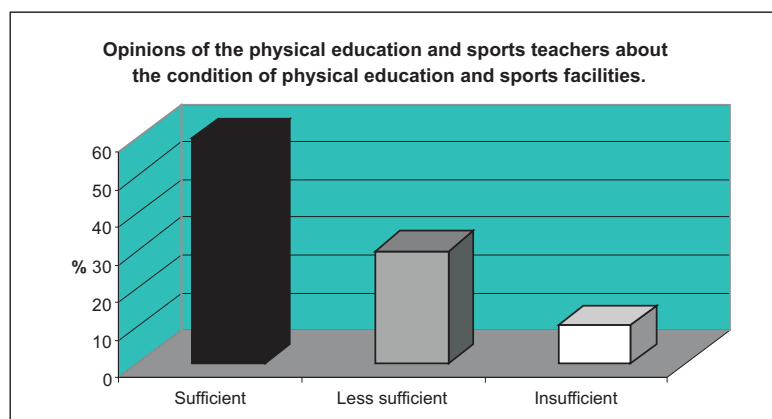


Fig.2: Opinions of the physical education and sports teachers about the condition of physical education and sports facilities.

CONCLUSION

It is obvious from the results that there are still reserves in spatial - material equipment of physical education and sports at grammar schools in Bratislava. Contemporary curriculum allows the schools to adjust the content of classes to material and spatial conditions and to the interests of student, which is exploited by majority of schools. The schools can include physical education and sports activities which do not require demanding spatial and material conditions to the teaching process. There is a certain stagnation of building new physical education and sports facilities, which is a result of insufficient funding of regional school systems, as well as of improperly set system of management of funds received from renting spaces and buildings to the public. Building and reconstruction of the missing physical education and sports facilities could be nowadays solved by schools and their promoters through European structural funds and becoming involved in the projects of the Ministry of Education, Science, Research and Sport of the Slovak republic, such as "Open School" and "Bring Sport Back to Schools", where there are resources for building, reconstruction and equipment of the sport facilities set aside every year. Also updating of direction of material - technical conditions and equipment for physical education and sports at schools would be beneficial for the quality of teaching process.

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SPORTS FACILITIES AND EQUIPMENT AT BRATISLAVA GRAMMAR SCHOOLS IN SLOVAKIA**ABSTRACT**

In our study we deal with the issue of physical education and sport facilities at grammar schools in Bratislava. The aim of the study was to update and extend knowledge of spatial - material equipment of physical education and sports at schools in Bratislava and to compare the results with the results from the year 1990 and to evaluate opinions of teachers of physical education and sports about these issues.

KEY WORDS: physical education and sports, physical education and sports facilities, material equipment, spatial equipment

INSTALAÇÕES DESPORTIVAS E EQUIPAMENTOS EM ESCOLAS SECUNDÁRIAS DA BRATISLAVA, ESLOVÁQUIA**RESUMO**

Em nosso estudo lidamos com a questão da educação física e instalações esportivas em escolas secundárias na Bratislava. O objetivo do estudo foi atualizar e ampliar o conhecimento sobre o espaço/material da educação física e do esporte nas escolas na Bratislava, e comparar o resultado com os resultados do ano de 1990 e avaliar opiniões dos professores de educação física e esporte sobre essas questões.

PALAVRAS-CHAVE: educação física e esportes, educação física e instalações desportivas, equipamento material, equipamento espacial.