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COMPARISON OF THE STATE OF SPORTS FACILITIES IN BRATISLAVA GRAMMAR SCHOOLS BETWEEN 1990 AND 2010

Spatial - material conditions in physical education and sports are an inseparable part of teaching process. Not only do these conditions directly influence teaching process, they also determine it. Important preconditions for optimal teaching of physical education and sports are the schools' optimal material conditions and equipment. These conditions and aids are often limiting factors for the realization of physical education and sports at schools. The situation at a number of schools is inconvenient in the long term, mainly regarding teaching aid, apparatus, equipment, operation, reconstruction, maintenance and construction of physical education and sports buildings and facilities (Gabovič, Antala 1990, Melicher, Varga 1994, Moravec, Šimonek 1997, Peráčková 2004, 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 in teachers` offices - didactic aids). Among the most important and the most frequently used physical education and sports facilities at schools there are gymnasiums and rooms adjusted for physical education and sports. They provide covered area for all physical activities.

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 (Gabovič, Antala, 1990).

METHODS

The research was conducted using questionnaires and interviews with the 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 paying personal visits to the schools. Out of 28 visited schools 20 (71.4%) agreed to be involved in 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 five boroughs in Bratislava I - V. The research sample consisted of 4 - year grammar schools, sports grammar schools, church grammar schools, bilingual grammar schools and elementary schools joined with grammar

schools. At all of the grammar schools physical education and sports was taught according to the valid norms and regulations of the State Educational Programme 2008. Gathered data were processed and analyzed using standard mathematical and statistical methods and some were graphically represented.

RESULTS

The main interest of our research was to see if there has been any change in the contemporary situation in 2010 compared to the past (year 1990). The sample of the research in 1990 consisted of 11 grammar schools (Gabovič, Antala, 1990) and the sample in 2010 consisted of 20 grammar schools, therefore, we had to convert the facilities to the same measures - 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 1 all the facilities are given, with conversion to measures in 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 by 53.5%, and the number of athletic complexes decreased by more than 17%. The number of gymnasiums decreased by 10% over the 21-year 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 120% more facilities compared to year 1990 (mainly swimming pools and gymnasiums). Significant increase (37.5%) occurred in the number of handball fields, while the number of football and basketball fields increased by 10%.

Table 1. *Comparison of facilities for 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 was 6 out of 11 schools), which means there is a 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 equipment.

In general, we can say that there was a slight decrease in the number of gymnasiums, athletic complexes and more significant decrease of volleyball fields. On the other hand, there was an increase in 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 element 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 to determine the number of 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. 2). There was more significant change in the average number of students per class. In 1990 the average number was 34.5 students per class and in 2010 it was 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 a 14.1% decrease. The number of groups of physical education increased by 9.1%. We suppose that lower number of students in groups could have positively influenced the quality of teaching process.

Table 2. *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 PE groups	32.90	35.90	109.12	9.12
Ave. numb. of students/group	17.70	15.20	85.88	-14.12

TEACHERS' OPINIONS

According to the opinions of the physical education and sports teachers, 60% of grammar schools do have sufficient material and spatial conditions for the realization of physical education and sports. Many teachers think that facilities at several schools are obsolete and schools do not have financial sources to repair and renovate those facilities. 30% of teachers think that the conditions are less suitable and that repair of the facilities is inevitable. Also, 10% of schools have insufficient conditions for teaching physical education, according to teachers' opinions (Fig.1).

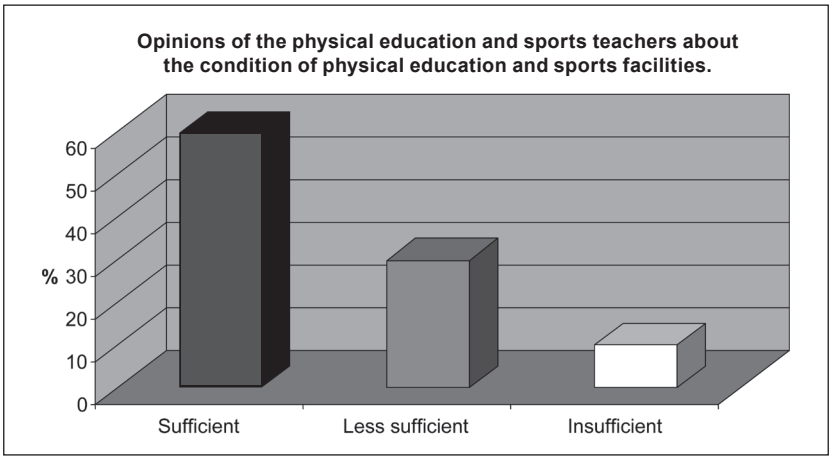

Fig. 1. *Opinions of the physical education and sports teachers about the condition of physical education and sports facilities*

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 students, 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 for 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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ABSTRACT

The study deals with the issue of physical education and sports 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, 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*