#### **FACTA UNIVERSITATIS**

Series: Physical Education and Sport Vol. 13, No 2, 2015, pp. 229 - 240

Original research article

# THE DIFFERENCES IN THE ATTITUDES OF ELEMENTARY AND HIGH SCHOOL CHILDREN ON THE IMPORTANCE AND DEVELOPMENT OF SCHOOL SPORT

UDC 796.37.13.3

# Zvezdan Savić, Nikola Stojanović, Nebojša Ranđelović, Nenad Stojiljković

Faculty of Sport and Physical Education, University of Niš, Serbia

**Abstract**. The importance of, the need for and development of school sport over the past few years has been an important field of study by both professionals and research institutes alike in Serbia. This research represents only one of the many studies which were meant to offer certain answers. The sample of participants consisted of 329 schoolchildren, divided into two subsamples. The first subsample consisted of 176 elementary school children, while the other one consisted of 153 high school students, all from the Republic of Serbia. The data were collected using a questionnaire, consisting of twenty-four items - claims. The questionnaire was in the form of a fivepoint Likert scale. The responses were provided in the form of grades from 5 to 1. In order to process the data in this study we used the appropriate nonparametric statistics procedures: frequencies, percentages and the Mann – Whitney U test for determining the significance of the differences between the studied subsamples of schoolchildren. The analysis of the results indicated that there are significant differences in the case of individual claims between elementary and high schoolchildren, especially in terms of the development of school sport. It has also been determined that high school students had more positive attitudes, that is, had a more mature was of expressing themselves than the elementary school children.

Key words: attitudes, schoolchildren, significance, development, differences, school sport

## INTRODUCTION

In our practice so far, the positive influence of regular physical activity on the improvement in the quality of life, the decrease in the risk of the occurrence of various illnesses, as well as an increase in psychological and emotional well-being has been

Received March 23, 2015/ Accepted May 05, 2015

Corresponding author: Nikola Stojanović

Faculty of Sport and Physical Education, University of Niš, St. Čarnojevića 10a, 18000 Niš, Serbia

Phone:+381 18 510 900 • E-mail: nikola987\_nish@hotmail.com

determined (World Health Organisation, 1995; Sallis & Owen, 1998). The increased in physical activity among school children has a positive effect on: the decrease in the adipose (fatty) tissue (Rowlands, Eston & Ingledew, 1999; Berkey et al., 2000; Barbeau, Litaker, Howe, Barry & Gutin, 2003), cardiovascular fitness (Armstrong, Balding, Gentle, Williams & Kirby, 1990; Falgairette, Gavarry, Bernard & Hebbelinck, 1996; Janz & Mahoney, 1997), decrease in blood pressure (Hagberg et al., 1983; Ewart, Young & Hagberg, 1998), muscle strength and endurance (Pfeiffer & Francis, 1986; Faigenbaum, Westcott, Loud & Long, 1999), bone density (Bass et al., 1998; Duncan et al., 2002), the reduction in anxiety and depression (Norris, Carroll & Cochrane, 1992; Vilhjalmsson & Thorlindsson, 1992; Sanders, Field, Diego & Kaplan, 2000), self-confidence (Strong et al., 2005), academic achievement (Shephard, 1997; Dwyer, Sallis, Blizzard, Lazarus & Dean, 2001; Sibley & Etnier, 2003), and so on.

School as an educational institution represents the most important environment for the promotion of the physical activity of schoolchildren (Telama, Yang, Laakso & Viikari, 1997). Physical education and sport, in addition to their indirect influence on the development of motor skills, primarily enable the increased physical activity of children during physical education classes and extracurricular activities (Sallis et al., 1997; Bailey, 2006). It is desirable that school sport be a part of the educational process. For that reason some authors rightly point out that sport is of multi-dimensional importance and should be studied from several aspects. They agree on one thing, and that is that school sport creates a versatile and educated individual. This paper presents the first empirical findings of the study on the differences among elementary school and high school students in terms of the importance and development of participating in school sport in the Republic of Serbia. In addition, this study points out the fact that what is always at the center of this process is the human being – the student, who is viewed from the aspect of social sciences, that is, the position of the individual in the social environment, but in collaboration with other social factors.

We can agree that school sport represents a significant part of society which indirectly influences the physical development of an individual, and directly contributes to the health and well-being of a nation. In terms of attitudes towards physical education and school sport, the schoolchildren who are actively involved in the physical education process and extracurricular activities (school sport teams), have more positive attitudes when compared to physically inactive students (Koca & Demirhan, 2004). Physical education and school sport competition content can considerably contribute to the overall extent of physical activity, as well as contributing to most students having positive attitudes towards it (Trudeau & Shephard, 2005). We also have to mention the fact that there are differences in the physical activities of elementary and high school students, in favor of elementary schoolchildren (Radisavljević-Janjić, Milanović & Lazarević, 2012). Thus, this study should also in part answer the questions related to the current understanding of school sport in Serbia today.

The outcome of the study can be reduced to the adequate representation of differences in the attitudes of elementary and high schoolchildren, and overcoming them in practice. The subject matter of this study could be viewed in terms of the immediate significance, development, that is, the inclusion of school sport in elementary and high schools in the Republic of Serbia. In part, the research problem indirectly refers to the immediate realization of school sport content within the curriculum of physical education in elementary and high schools. The aim of this research is viewed through several aspects: 1) how to determine the

differences in the attitudes of elementary and high schoolchildren to the importance and development of school sport and 2) how to determine the structure of the attitudes of the elementary school students, as well as high school students.

### THE METHOD

#### The sample of participants

The sample of participants in this study was chosen from a population of elementary and high schoolchildren from certain locations in Serbia. The sample of participants consisted of 329 students, divided into two sub-samples. The first sub-sample consisted of 176 eighth-grade students from Niš, Zaječar, Žitorađe, Boževac, Kraljevo and Čačak, while the other sub-sample consisted of 153 high-school students from Požarevac, Beograd, Niš, Grdelica, Surdulica and Blace. This number of participants fully satisfied the conditions for the quantitative analysis, considering the number of variables and possibilities for result generalization. This research did not take into account the health status, or gender of the students, which did not decrease its importance. The questionnaire was distributed after written consent was obtained from the schools and parents.

## The sample of measuring instruments

The data were collected using a questionnaire made up of twenty-four items – claims. The claims were presented in a clear, unambiguous and precise fashion, following a predetermined order. The questionnaire had the form of a five-point Likert scale. The responses were given in the form of grades ranging from 5 to 1 and the participants had to circle one of the grades for each of the offered responses. In this pilot study we used two variables. They were defined in the following manner: 1) the first variable was included in the first 10 items of the questionnaire and defined as the significance of school sport, 2) the second variable was included in the remaining 14 items and defined as the development of school sport in that particular school.

### A description of the research

The research was carried out in April 2014, in the schools located in the aforementioned towns, during regular physical education classes. Prior to the distribution of the questionnaire, the researchers gave certain instructions to the schoolchildren about how to fill out the questionnaires.

#### Statistical data analyses

The results presented in this research were obtained by means of the appropriate nonparametric statistical methods. The data were classified over various categories, in which case the distribution deviated only slightly from the normal values (Malacko & Popović, 2000). Due to the specific nature of the research, that is, the use of a five-point scale, we calculated the frequencies and percentages for each claim. In order to determine the differences in the claims of the two independent subsamples, we used the Mann-Whitney U test to compare the medians of the ranked data (Nikolić, 2012). The data were processed using the STATISTICA 7.0 package for Windows (StatSoft, Inc., Tulsa, OK).

## RESULTS

Table 1 shows the basic descriptive and statistical significance of the Kolmogorov-Smirnov test and the difference of average values between the tested variables at the initial and final measuring.

**Table 1** An overview of the frequencies and percentages of the attitudes of elementary school students

Claim / extent of agreement  No. Importance:	Agree completely	Party agree	Undecided	Partly disagree	Completely disagree
Taking part in school sport can help studying at school     Taking part in school sport can be a cause of great satisfaction	36 (20,5) 134 (76,1)	. , ,	<b>41 (23,3)</b> 6 (3,4)	13 (7,4) 2 (1,1)	17 (9,7) 2 (1,1)
Taking part in school sport develops esthetic values among students	75 (42,6)	60 (34,1)	33 (18,7)	3 (1,7)	5 (2,8)
Taking part in school sport prevents the occurrence of deformities among children and the young	104 (59,1)	51 (29,0)	8 (4,5)	7 (4,0)	6 (3,4)
<ol><li>Taking part in school sport decreases aggression among male and female students</li></ol>	52 (29,5)	66 (37,5)	29 (16,5)	13 (7,4)	16 (9,1)
<ol><li>Taking part in school sport develops discipline</li></ol>	88 (50,0)	56 (31,8)	19 (10,8)	7 (4,0)	6 (3,4)
7. Male and female students who take part in school sport	59 (33,5)	67 (38,1)	21 (11,9)	12 (6,8)	17 (9,7)
are more popular among members of the opposite sex  8. Taking part in school sport affects the proper growth and development of the body	147 (83,5)	18 (10,2)	7 (4,0)	-	4 (2,3)
9. Taking part in school sport develops team spirit	105 (59,7)	47 (26.7)	20 (11,4)	2 (1,1)	2 (1,1)
10. Taking part in school sport develops proper hygiene	` , ,	47 (26,7)		13 (7,4)	12 (6,8)
habits	- (, -,	(==,,,	(==,.,	(.,.,	(0,0)
Development:	5	4	3	2	1
11. My school encourages school sport	68 (38,6)	50 (28,4)	17 (9,7)	25 (14,2)	16 (9,1)
12. My school has enough courts and gyms	51 (29,0)	55 (31,3)	18 (10,2)	25 (14,2)	27 (15,3)
13. There are sports clubs in my school	47 (26,7)	45 (25,6)	32 (18,2)	38 (21,6)	14 (8,0)
14. In my school athletes who compete for the school club	60 (34,1)	71 (40,3)	31 (17,6)	5 (2,8)	9 (5,1)
are appreciated					
15. Our homeroom teachers encourage taking part in school	63 (35,8)	28 (15,9)	28 (15,9)	31 (17,6)	26 (14,8)
sport					
16. Only athletes from sports clubs take part in school sports competitions		, , ,	, , ,	20 (11,4)	43 (24,4)
<ol> <li>Our physical education teacher also tries to include other students in sports activities who are not members of school sports clubs</li> </ol>	84 (47,7)	34 (19,3)	12 (6,8)	34 (19,3)	12 (6,8)
18. All students should have the same conditions for taking part in sport	140 (79,5)	20 (11,4)	9 (5,1)	4 (2,3)	3 (1,7)
<ol> <li>Schools organize inter-class and intra-class sports competitions</li> </ol>	82 (46,6)	43 (24,4)	, , ,	10 (5,7)	15 (8,5)
20. The school organizes selective sports competitions	52 (29,5)	49 (27,8)	45 (25,6)	12 (6,8)	18 (10,2)
21. The school took part in national competitions	51 (29,0)	36 (20,5)	51 (29,0)	10 (5,7)	28 (15,9)
22. School sport athletes enjoy certain benefits at school	. , ,	45 (25,6)		18 (10,2)	15 (8,5)
23. Taking part in school sport offers the possibility for	41 (23,3)	51 (29,0)	54 (30,7)	16 (9,1)	14 (8,0)
personal promotion of the teachers and students 24. I would like to compete as a member of my school sports team in a sports competition	119 (67,6)	24 (13,6)	12 (6,8)	8 (4,5)	13 (7,4)
tour in a sports competition					

The measures of distribution forms do not exceed unacceptable coefficients, and for this reason can be considered satisfactory. A certain deviation regarding the skewness values present in the LDL at the final measuring can be explained by the positive asymmetry, i.e. the grouping of results in areas of lower value, which, in any case, explains the improved results during the final measuring of the variables for the estimation of bad cholesterol as it is the inverse metric. The kurtosis values of the variables mentioned during the initial and final measuring have distinct tapered distribution, e.g. most of the results are grouped around the arithmetic mean, which increases the homogeneity of the distribution and makes it leptokurtic. Based on the statistically significant value of KS test, it can be concluded that the distribution does not differ significantly during the initial and final measuring, and that the use of parametric statistical methods is justified.

A general analysis of the results in the table, the first ten items which answer the question of the significance of school sport, indicates that the greatest response frequencies concentrated in the higher grades (5–4), that is, the positive attitudes, in a range of 20,5% to 83,5% for the claim that "school sport influences the proper growth and development of the human body". What is also positive is that the claim "school sport is a cause of satisfaction for students" is accepted by as many as 76,1% of the school children. The number of undecided individuals was expected and ranges from 4,0% to 26,7%. There were also those with negative responses which ranged from 1,1% to 9,7% usually to the claim that "school children who do not take part in school sport are more popular among members of the opposite sex". The respondents were not sure whether school sport made them more appealing and interesting for members of the opposite sex.

By analyzing the responses of the students in the remaining 14 items, which deal with the development of school sport, we can note that the students had similar attitudes towards the offered claims. Here too we have a greater percentage of positive claims of the students, ranging from 18,8% to 79,5%, where the students are all in agreement that "all of the students should have the same conditions for taking part in school sport". What is surprising is that 36,9% percent of the children were not decided in terms to the claim that "school sport athletes enjoy certain benefits in school". What is also interesting are the responses that "not only school athletes take part in sports competitions" (24,4%). A number of the students opted for the claim that school athletes should have special conditions for training and work, which is generally a positive attitude. What is positive in the claims is that in our elementary schools, "intra-class and inter-class competitions are organized" (46,6%). In the case of many participants, we find the desire to "be members of school team for some competition" in as many as 67,6%, while only 7,4% would not like to compete on the school team.

Table 2. shows the statistical results collected from the questionnaire distributed to the high school participants. At first glance we note certain differences in the part related to the more positive claims, grade 5, which were not as frequent as they were among elementary school students. The significance of school sport was rated with a high grade in a range from 21.8% to 68.6%. The percentage of undecided students is much smaller (5.9%-22.9%). A smaller number of students were not in agreement with the claims which characterized the significance of school sport. Another interesting conclusion is that "taking part in school sport does not reduce aggression among male and female students", which was the response of 13 of the participants (8.5%). One student claimed that "taking part in school sport does not develop the esthetic values of school children" (0.7%). The high school students also claimed that "taking part in school sport is a cause of great satisfaction", as many as 62.7%.

Table 2 An overview of the frequencies and percentages of the attitudes of high school

Claim / extent of agreement	Agree completely	Partly agree	Undecided	Partly disagree	Disagree completely
No. Importance:	-		_		0
Taking part in school sport can help studying at school     Taking part in school sport can be a cause of great satisfaction			26 (17,0) 15 (9,8)		11 (7,2) 3 (2,0)
<ol><li>Taking part in school sport develops esthetic values among students</li></ol>	62 (40,5)	53 (34,6)	30 (19,6)	7 (4,6)	1 (0,7)
4. Taking part in school sport prevents the occurrence of deformities among children and the young	88 (57,5)	35 (22,9)	14 (9,2)	8 (5,2)	8 (5,2)
<ol><li>Taking part in school sport decreases aggression among male and female students</li></ol>	, , ,		33 (21,6)	,	13 (8,5)
<ol><li>Taking part in school sport develops discipline</li></ol>	77 (50,3)	47 (30,7)	17 (11,1)	7 (4,6)	5 (3,3)
7. Male and female students who take part in school sport	54 (35,3)	41 (26,8)	34 (22,2)	12 (7,8)	12 (7,8)
are more popular among members of the opposite sex					
<ol><li>Taking part in school sport affects the proper growth and development of the body</li></ol>	105 (68,6)	33 (21,6)	9 (5,9)	4 (2,6)	2 (1,3)
<ol><li>Taking part in school sport develops team spirit</li></ol>	82 (53,6)	45 (29,4)	21 (13,7)	3 (2,0)	2 (1,3)
10. Taking part in school sport develops proper hygiene	48 (31,4)	50 (32,7)	35 (22,9)	13 (8,5)	7 (4,6)
habits					
Development:	5	4	3	2	1
11. My school encourages school sport	63 (41,2)	37 (24,2)	25 (16,3)	12 (7,8)	16 (10,5)
12. My school has enough courts and gyms					57 (37,3)
13. There are sports clubs in my school					24 (15,7)
14. In my school athletes who compete for the school club are appreciated	46 (30,1)	47 (30,7)	34 (22,2)	13 (8,5)	13 (8,5)
15. Our homeroom teachers encourage taking part in school sport	31 (20,3)	43 (28,1)	34 (22,2)	16 (10,5)	29 (19,0)
16. Only athletes from sports clubs take part in school sports competitions	32 (20,9)	43 (28,1)	25 (16,3)	18 (11,8)	35 (22,9)
17. Our physical education teacher also tries to include other students in sports activities who are not members of school sports clubs	56 (36,6)	46 (30,1)	28 (18,3)	11 (7,2)	12 (7,8)
18. All students should have the same conditions for taking part in sport	109 (71,2)	24 (15,7)	13 (8,5)	2 (1,3)	5 (3,3)
19. Schools organize inter-class and intra-class sports competitions	49 (32,0)	37 (24,2)	29 (19,0)	13 (8,5)	25 (16,3)
20. The school organizes selective sports competitions	40 (26.1)	49 (32.0)	30 (19,6)	11 (7.2)	23 (15,0)
21. The school took part in national competitions	48 (31,4)				29 (19,0)
22. School sport athletes enjoy certain benefits at school			46 (30,1)		26 (17,0)
23. Taking part in school sport offers the possibility for			45 (29,4)		7 (4,6)
personal promotion of the teachers and students	, , ,		, , ,	,	. (.,5)
24. I would like to compete as a member of my school sports	82 (53,6)	28 (18,3)	19 (12,4)	7 (4,6)	17 (11,1)
team in a sports competition					

The development of school sport was evaluated somewhat differently. Based on the responses, we note a smaller number of sports halls and courts in high schools (37,7%). There is a smaller number of positive claims – grade 5, from 19,0 % to 71,2 %, in the cases of the claim that "all students should have the same conditions for taking part in school sport" Most of the students would also like to compete for the school team, 53,6 %. A significant number of students were undecided in relation to the claim that "school athletes enjoy certain benefits" 30,1% and that "school sport offers personal affirmation"

29,4%. Positive responses were also noted for the claim that in school sport, it is not only the members of school teams who participate, but also other students as well 22,9%. In the case of the development of school sport, we should point out the fact that a smaller number of high schools take part in national competitions 19,0%, and that "certain schools do not encourage school sport" 10,5%. In addition, "regular sports events take place in schools" 58.2%.

**Table 3** The differences in the attitudes between elementary and high school students (Mann–Whitney U test)

Cla	im / extent of agreement	Rank Sum	Rank Sum	_		
	Importance:	_	HS (N=153)	U	Z	p-level
1.	Taking part in school sport can help studying at school	27586,0	26699,0	12010,0	-1,69	0,091
2.	Taking part in school sport can be a cause of great satisfaction	31033,0	23252,0	11471,0	2,32	0,021
3.	Taking part in school sport develops esthetic values among students	29371,0	24914,0	13133,0	0,38	0,701
4.	Taking part in school sport prevents the occurrence of deformities among children and the young	29626,5	24658,5	12877,5	0,68	0,496
5.	Taking part in school sport decreases aggression among male and female students	29678,0	24607,0	12826,0	0,74	0,458
6.	Taking part in school sport develops discipline	29056,0	25229,0	13448,0	0,02	0,985
7.	Male and female students who take part in school sport are more popular among members of the opposite sex	29448,5	24836,5	13055,5	0,47	0,635
8.	Taking part in school sport affects the proper growth and development of the body	30994,0	23291,0	11510,0	2,27	0,023
9.	Taking part in school sport develops team spirit	29934,5	24350,5	12569,5	1,04	0,299
10.	Taking part in school sport develops proper hygiene	28669,0	25616,0	13093,0	-0,43	0,666
	habits					
	Development:					
	My school encourages school sport	28779,5	25505,5	13203,5	-0,30	0,762
	My school has enough courts and gyms	32923,0	21362,0	9581,0	4,51	0,000
	There are sports clubs in my school	28706,5	25578,5	13130,5	-0,39	0,698
14.	In my school athletes who compete for the school club are appreciated	30793,5	23491,5	11710,5	2,04	0,042
15.	Our homeroom teachers encourage taking part in school sport	30312,5	23972,5	12191,5	1,48	0,139
16.	Only athletes from sports clubs take part in school sports competitions	28373,0	25912,0	12797,0	-0,78	0,438
17.	Our physical education teacher also tries to include other students in sports activities who are not members of school sports clubs	29703,0	24582,0	12801,0	0,77	0,441
18.	All students should have the same conditions for taking part in sport	30159,0	24126,0	12345,0	1,30	0,193
19.	Schools organize inter-class and intra-class sports competitions	31657,0	22628,0	10847,0	3,04	0,002
20.	The school organizes selective sports competitions	29582,5	24702,5	12921,5	0,63	0,528
	The school took part in national competitions	28926,0	25359,0	13350,0	-0,13	0,895
	School sport athletes enjoy certain benefits at school	29174,5	25110,5	13329,5	0,16	0,876
	Taking part in school sport offers the possibility for	27184,5	27100,5	11608,5	-2,16	0,031
24.	personal promotion of the teachers and students I would like to compete as a member of my school sports team in a sports competition	30948,5	23336,5	11555,5	2,22	0,027

Table 3. answers the posed questions and the research problem. Within it we find differences in the attitudes and perceptions of elementary and high school students. It shows the differences in the attitudes and perceptions of elementary and high school students.

In the section of the table which shows the differences in the general significance of school sport we can note a statistically significant difference in claim no. 2, "taking part in school sport can be a cause of great satisfaction" (0.021) in favor of the elementary schools children who had positive attitudes toward it. We can also note a statistically significant difference in claim no. 8 "taking part in school sport influences the proper growth and development of the body" (0.023), also in favor of the elementary school children.

In the section of the table which shows the development of school sport, we can also note a statistically significant difference in the following claims: no. 12 (0.000), no. 14 (0.042), no. 19 (0.002), no. 23 (0.031) and no. 24 (0.027). All of the aforementioned claims inspired more positive attitudes among the elementary school students, and so there are statistically significant differences in some of the claims. These results were expected, considering the chronological differences.

#### DISCUSSION

In the discussion section we must be very careful, considering the fact that these conclusions cannot be extended to the entire territory of the Republic of Serbia, since the research included only some cities. We are certainly familiar with the fact that some parts of Serbia differ in terms of economic and material development, and which is the cause of the significant variations in the claims of the students that schools do or do not possess gyms or courts intended for school sport. Generally speaking, in most schools in the Republic of Serbia there are no adequate conditions for the performance of physical education classes, especially in the high schools (Nikolić, 2002). Despite the current situation, there is a high motivation among physical education teachers to actively participate in school sport (Savić, Stojiljković, Ranđelović, Mitić & Stojanović, 2014). Students aged 10 to 18 have positive attitudes towards physical activities in school and school sport, which are more pronounced among the boys than the girls (Wersch, Trew & Turner, 1992; Trudeau & Shephard, 2005; Marković, Šekeljić, Višnjić & Ilčev, 2013). The difference in biological, physiological, cognitive and social development of the students is in favor of the high schools students, who are more mature and whose claims are more objective, while in the case of elementary school students we still come across less experienced responses. Based on these results, and the research of other authors, we must note that the elementary school students are more active in their physical education classes and in school sport (Radisavljević-Janjić et al., 2012). The roots of this can be found in the specific nature of the high-school experience. High school students are faced with greater stress, which is caused by the biological changes in puberty (Darst & Pangrazi, 2002; Sibley et al., 2002). In this period of their lives their school responsibilities are greater, as a consequence of the greater extent of the curriculum, which is why they have less time for physical activity and school sport (Protić & Prahović, 2007). In addition, the cause of reduced interest can be the exclusion of a greater number of students from school sport competitions where athletes usually have a privileged position (Shephard, Lavallée & Larivière, 1978), as well as fear of participation in sports competitions (Thompson, Humbert & Mirwald, 2003). The opinions of various researchers, which refer to the role of physical education teachers, also differ (Erbas, Güçlü

& Zorba, 2013). The research results which determine the significance of school sport indicate that there were no statistically significant differences between the elementary and high school students, and as the cause we list their indirect insight into the importance school sport in everyday practice. The differences in term of the development of school sport in the aforementioned cities obtained from the responses of the students are certainly in part a consequence of the material and social environment.

#### **CONCLUSION**

The aim of this quantitative study was to determine the significance and development of school sport in elementary and high schools in Serbia, with the ultimate goal of improving current practice. We were partly successful in this effort, considering that the schools where the questionnaires were distributed were from various regions. The research did not deal with the differences between genders, which would also have been an interesting point of analyses, and will be the subject matter of some future research. Our research results certainly open up certain polemics and discussions which should be studied in detail and by professionals. In addition, the results indicate that certain differences are in favor of the elementary school students. Even though there are differences in the reactions between the participants in terms of certain claims, they still had predominantly similar opinions regarding the key grades for the importance and development of school sport. The research results also indicate that the participants either confirmed or rejected the claims in an expected and objective manner, both in the entire questionnaire, or in some of its parts. It is an encouraging fact that in our schools interschool and national competitions still take place, which definitely contributes to the realization of the goals which originate from the curriculum for physical education classes. What is also positive is that physical education and the homeroom teachers highly motivate students to take part in school sport, which is why they are often awarded privileges in their everyday school responsibilities. The justification of these claims can in part be found in their social development. The students mostly gave positive estimations of the importance and development of school sport.

### PRACTICAL APPLICATION

The primary goals of physical education are certainly in part realized through immediate work in sports clubs, especially in terms of the creation of habits for daily physical exercise. The content of school sport can be understood as one of the permanent pedagogical processes in which education and upbringing intertwine, and where there is a tendency for achieving theoretical and motor knowledge and skills from the content of the educational process (sports and disciplines). Without an active and professional relationship towards involvement in school sport, it is impossible to achieve sublimated results. It is important to indicate that in our school there is still some modicum of regular sports competitions, which is a source of satisfaction for both the students and the school authorities.

The applicative value of this research is reflected precisely in immediate practice from the aspect of the influence of the more affirmative evaluation of the importance and development of school sport by elementary and high school students.

#### REFERENCES

- Armstrong, N., Balding, J., Gentle, P., Williams, J., & Kirby, B. (1990). Peak oxygen uptake and physical activity in II-to 16-year-olds. *Pediatric exercise science*, 2, 358.
- Bailey, R. (2005). Evaluating the relationship between physical education, sport and social inclusion. *Educational review*, 57(1), 71-90.
- Bailey, R. (2006). Physical education and sport in schools: A review of benefits and outcomes. *Journal of School health*, 76(8), 397-401.
- Barbeau, P., Litaker, M.S., Howe, C.A., Barry, K.T., & Gutin, B. (2003). Effect of a physical activity intervention on bone mineral density in black girls: relative contribution of changes in fat mass and fat-free soft tissue. Medicine & Science in Sports & Exercise, 35(5), 82.
- Bass, S., Pearce, G., Bradney, M., Hendrich, E., Delmas, P. D., Harding, A., & Seeman, E. (1998). Exercise before puberty may confer residual benefits in bone density in adulthood: studies in active prepubertal and retired female gymnasts. *Journal of Bone and Mineral Research*, 13(3), 500-507.
- Berkey, C.S., Rockett, H.R., Field, A.E., Gillman, M.W., Frazier, A.L., Camargo, C.A., & Colditz, G.A. (2000). Activity, dietary intake, and weight changes in a longitudinal study of preadolescent and adolescent boys and girls. *Pediatrics*, 105(4), 56.
- Darst, P.W., & Pangrazi. R.P. (2002). *Dynamic Physical Education For Secondary School Students*. San Francisco: Benjamin Cummings.
- Duncan, C. S., Blimkie, C.J., Cowell, C.T., Burke, S.T., Briody, J.N., & Howman-Giles, R.O. B.E.R.T. (2002). Bone mineral density in adolescent female athletes: relationship to exercise type and muscle strength. *Medicine and science in sports and exercise*, 34(2), 286-294.
- Dwyer, T., Sallis, J.F., Blizzard, L., Lazarus, R., & Dean, K. (2001). Relation of academic performance to physical activity and fitness in children. *Pediatric Exercise Science*, 13(3), 225-237.
- Erbaş, K.M., Güçlü, M., & Zorba, E. (2013). Effects of parental attitudes on physical education course attitudes among adolescents. Facta Universitatis-Series: Physical Education and Sport, 11 (3), 209-219.
- Ewart, C.K., Young, D.R., & Hagberg, J.M. (1998). Effects of school-based aerobic exercise on blood pressure in adolescent girls at risk for hypertension. American Journal of Public Health, 88(6), 949-951.
- Faigenbaum, A.D., Westcott, W.L., Loud, R.L., & Long, C. (1999). The effects of different resistance training protocols on muscular strength and endurance development in children. *Pediatrics*, 104(1), *e5-e5*.
- Falgairette, G., Gavarry, O., Bernard, T., & Hebbelinck, M. (1996). Evaluation of habitual physical activity from a week's heart rate monitoring in French school children. European journal of applied physiology and occupational physiology, 74(1-2), 153-161.
- Hagberg, J.M., Goldring, D., Ehsani, A.A., Heath, G.W., Hernandez, A., Schechtman, K., & Holloszy, J.O. (1983). Effect of exercise training on the blood pressure and hemodynamic features of hypertensive adolescents. *The American journal of cardiology*, 52(7), 763-768
- Janz, K.F., & Mahoney, L.T. (1997). Three-year follow-up of changes in aerobic fitness during puberty: the Muscatine Study. Research quarterly for exercise and sport, 68(1), 1-9.
- Živanović, N., Ranđelović, N., Stanković, V., & Pavlović, P. (2010). *Teorija fizičke culture (Theory of Physical Culture)*. Niš: Faculty of sport and physical education, Panotikum Niš.
- Zakon o sportu (Law on sports) (2011). Službeni glasnik RS (čl. 4, 24/2011 & 99/2011).
- Koca, C., & Demirhan, G. (2004). An examination of high school students attitudes toward physical education with regard to sex and sport participation. *Perceptual and Motor Skills*, 98, 754-758. doi: 10.2466/pms.98.3.
- Kožuh, B., & Maksimović, J. (2011). Deskriptivna statistika u pedagoškim istraživanjima (Descriptive statistics in pedagogical research). Niš: The Faculty of Philosophy, University of Niš.
- Lazarević, Lj. (1987). Psihološke osnove fizičke culture (Psychological Basis of Physical Education). Belgrade:
- Malacko, J., & Popović, D. (1997). Metodologija kineziološko antropoloških istraživanja (The methodology of kinesiology and anthropological research). Priština: Faculty of Physical Education.
- Marković, Ž., Šekeljić, G., Višnjić, D., & Ilčev, I. (2013). Stavovi adolescenata prema fizičkom vaspitanju razlike po polu (Attitudes toward physical education - differences by gender). Uzdanica (Jagodina), 10 (1), 155-166.
- Nikolić, M. (2012). Značaj statistike u medicinskom obrazovanju. Pitanje izbora i primene statističkih testova, Neobjavljeni master rad (The importance of statistics in medical education. The issue of choice and application of statistical tests, Unpublished Master's Thesis). Belgrade: Matematički fakultet.
- Nikolić, S. (2002). The proposition of space norms necessary for the teaching of physical education from the aspect of the school categorization in Serbia. *Fizička kultura*, 56(1-4), 63-73.
- Norris, R., Carroll, D., & Cochrane, R. (1992). The effects of physical activity and exercise training on psychological stress and well-being in an adolescent population. *Journal of psychosomatic research*, 36(1), 55-65.

- Pfeiffer, R.D., & Francis, R.S. (1986). Effects of Strength Training on Muscle Development in Prepubescent, Pubescent, and Postpubescent Males. *Physician and Sports medicine*, 14(9), 134-139.
- Protić, J., & Prahović, M. (2007). Sportski status i interes za sportsku aktivnost učenika prvih razreda srednjih škola grada Karlovca (Sports status and interest in the sport activity of the first-grade students of secondary schools of the city of Karlovac). In Findak V. (Ed.), 16. Ljetnja škola kineziologa Republike Hrvatske (16. Summer School of the Croatian kinesiologists), (pp. 477-481). Zagreb: Hrvatski kineziološki savez (Croatian Kinesiology Association).
- Radisavljević-Janić, S., Milanović, I., & Lazarević, D. (2012). Physical activity in adolescence: Age and gender differences. *Nastava i vaspitanje*, 61 (1), 183-194.
- Rowlands, A.V., Eston, R.G., & Ingledew, D.K. (1999). Relationship between activity levels, aerobic fitness, and body fat in 8-to 10-yr-old children. *Journal of Applied Physiology*, 86(4), 1428-1435.
- Sallis, J.F., McKenzie, T.L., Alcaraz, J.E., Kolody, B., Faucette, N., & Hovell, M.F. (1997). The effects of a 2-year physical education program (SPARK) on physical activity and fitness in elementary school students. Sports, Play and Active Recreation for Kids. *American journal of public health*, 87(8), 1328-1334.
- Sallis, J.F., & Owen, N. (1998). Physical activity and behavioral medicine (Vol. 3). SAGE publications.
- Sanders, C.E., Field, T.M., Diego, M., & Kaplan, M. (2000). Moderate involvement in sports is related to lower depression levels among adolescents. *Adolescence-San Diego*, 35, 793-798.
- Savić, Z. (2014). Osnove školskog sporta (The Basic of school sport). Niš: Fakultet sporta i fizičkog vaspitanja (Faculty of sport and physical education).
- Savić., Z., Stijiljković, N., Ranđelović, N., Mitić, P., & Stojanović, N. (2014). Motivisanost profesora sporta i fizičkog vaspitanja zaposlenih u školama da se angažuju i rade u školskom sportu (The motivation of physical education school techersto take part in and works on developing school sports). In S. Pantelić (Ed.), FIS Communications in Physical Education, sport and recreation, International Scientific Conference, (pp. 305–311). Niš: Faculty of Sport and Physical Education.
- Shephard, R.J. (1997). Curricular physical activity and academic performance. *Pediatric exercise science*, 9, 113-126. Shephard, R. J., Lavallée, H., & Larivière, G. (1978). Competitive selection among age-class ice-hockey
- Shephard, R. J., Lavallée, H., & Larivière, G. (1978). Competitive selection among age-class ice-hockey players. *British journal of sports medicine*, 12(1), 11.
- Sibley, B.A., & Etnier, J.L. (2003). The relationship between physical activity and cognition in children: a meta-analysis. *Pediatric Exercise Science*, 15(3), 243-256
- Strategija i akcioni plan razvoja školaskog sporta (The strategy and action plan for the development of school sport) (2014). Novi Sad: Pokrajinski sekretarijat za sport i omladinu Autonomne pokrajine Vojvodine.
- Strong, W.B., Malina, R.M., Blimkie, C.J., Daniels, S.R., Dishman, R.K., Gutin, B., ... & Trudeau, F. (2005). Evidence based physical activity for school-age youth. *The Journal of pediatrics*, 146(6), 732-737.
- Telama, R., Yang, X., Laakso, L., & Viikari, J. (1997). Physical activity in childhood and adolescence as predictor of physical activity in young adulthood. *American journal of preventive medicine*, 13(4), 317-323.
- Thompson, A.M., Humbert, M.L., & Mirwald, R.L. (2003). A longitudinal study of the impact of childhood and adolescent physical activity experiences on adult physical activity perceptions and behaviors. *Qualitative Health Research*, 13(3), 358-377.
- Trudeau, F., & Shephard, R.J. (2005). Contribution of school programmes to physical activity levels and attitudes in children and adults. *Sports Medicine*, 35(2), 89-105.
- Havelka, N., & Lazarević, Lj. (2011). *Psihologija menadžmenta u sportu (Psychology of management in sport)*. Beograd: Visoka sportska i zdravstvena škola strukovnih studija.
- Vilhjalmsson, R., & Thorlindsson, T. (1992). The integrative and physiological effects of sport participation: A study of adolescents. The Sociological Quarterly, 33(4), 637-647.
- Wersch, A., Trew, K., & Turner, I. (1992). Post-primary school pupils'interest in physical education: age and gender differences. *British Journal of Educational Psychology*, 62(1), 56-72.
- World Health Organisation/Federation Internationale de Medecine du Sport—Committee on Physical Activity for Health (1995). Exercise for health. *Bull World Health Organ*, 73, 135-136.

# RAZLIKE U STAVOVIMA UČENIKA OSNOVNIH I SREDNJIH ŠKOLA O ZNAČAJU I RAZVIJENOSTI BAVLJENJA ŠKOLSKIM SPORTOM

Značaj, potreba i razvijenost školskog sporta poslednjih godina u Republici Srbiji je značajno polje istraživanja od strane stručnih i naučnih institucija i pojedinaca. Ovo istraživanje predstavlja samo jedno u nizu pilot istraživanja koja bi trebalo da nam daju određene odgovore. Uzorak ispitanika istraživanja činilo je 329 učenika, podeljenih u dva subuzorka, prvi subuzorak činilo je 176 učenika osnovnih, a drugi 153 učenika srednjih škola sa teritorije Republike Srbije. Podaci su prikupljeni primenom kvestionera (anketiranjem), odnosno upitnika koga čine dvadeset četiri ajtema – tvrdnji. Upitnik je dat u obliku petostepene skale Likertovog tipa. Odgovori su iskazani u vidu ocena od 5 do 1. Za obradu podataka ovog istraživanja korišćeni su odgovarajući postupci neparametrijske statistike: frekvencije, procenti i Mann – Whitney U test za utvrđivanje značajnosti razlika između ispitivanih subuzoraka učenika. Analiza rezultata je pokazala da ima značajnih razlika kod pojedinih tvrdnji između učenika osnovnih i srednjih škola, naročito u delu razvijenosti školskog sporta. Takođe je utvrđeno da učenici srednjih škola imaju više pozitivnih tvrdnji, odnosno da se zrelije izjašnjavaju od učenika osnovnih škola.

Ključne reči: stavovi, učenici, značaj, razvijenost, razlike, školski sport.