

# POPULARITY OF SPORT AMONG PUPILS OF PRIMARY SCHOOLS IN SERBIA

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## Abstract

*The aim of this study was to determine which sports are most popular among pupils of primary school in Serbia, in order to determine which sports would be advisable to introduce in the classes of physical education to increase the level of interest of pupils to actively participate in PE. The sample included 8120 students, of which 30% are actively involved in sports, 28 % drop out and 42% had never engaged in sports. Most students would like to introduce as an optional sport basketball, swimming, volleyball, football, handball, karate and at least students would like to introduce acrobatics, orienteering, rhythmic gymnastics. Obtained were statistically significant differences according to gender (boys would like to be introduced basketball and football and girls would like volleyball and swimming), success (excellent pupils would most like to be introduced swimming and volleyball; pupils with very good, good and enough success preferred basketball) and sport (pupils involved in sports and those who retreated would like to be introduced basketball and swimming and those who have never been involved in sports would like volleyball and basketball). The results indicated that for the students of primary schools in Serbia basketball the most popular sport and that on promotion of other sports in the school environment should still be done.*

**Key words:** elective course, sport, primary school.

## Introduction

In order to solidify the presence of physical education in schools, it is important to, not only argue for space in the overall school curriculum, but to also consider the interests and needs of the students when planning curriculum (Ennis, Mueller, & Hooper, 1990; Greenwood & Stillwell, 2001; Strand & Scantling, 1994; Tannehill, 1998). That is, physical education stands a better chance of survival if it includes activities that students find attractive since curriculum has been found to be the primary consideration for both males and females in determining their attitude toward physical education (Luke & Sinclair, 1991).

Roslow Research Group (2009) research showed that the most common sport/physical activity taught and/or offered by schools in Canada are: basketball 93%, fitness and volleyball (each at 88%), soccer (83%). It was also found that there were differences according to type of school. Hockey, athletics and kickboxing were significantly more likely to be taught/offered in middle school vs. high school. Sports as baseball, bowling, golf, lacrosse and rock climbing were as likely to be offered in middle schools as in high schools. At least taught/offered sports in all type of schools were martial arts, swimming, skiing and boating (e.g., canoeing, kayaking, sailing).

Results of Hill & Clevon (2005) indicated that basketball (70.7 %), football (60.2 %), bowling (56.5 %), softball/baseball (55.3 %), swimming (53.8 %), and volleyball (52.1 %) were the most preferred activities among pupils of IX grade in California. Girls were more likely to select individual and noncontact activities while boys were more likely to select

contact activities. Of the 37 possible activity choices, boys selected basketball, football, bowling, softball/baseball as their top five activities, while girls selected basketball, volleyball, swimming, dance and softball/baseball as their top five activity choices.

Greenwood & Stillwell (2001) utilizing an Activity Interest Inventory found that a majority of middle school boys selected archery, basketball, bicycling, bowling, soccer, swimming and wrestling, while a majority of middle school girls selected basketball, bicycling, gymnastics, soccer, softball, swimming, tennis and volleyball. The least popular sport was orienteering.

Some of the activities were preferred by a significantly higher percentage of girls than boys: swimming, volleyball, contemporary dance, aerobics, gymnastics, social dance and rope jumping. These findings reinforce the contention that girls are more likely than boys to prefer noncontact and recreational activities (Ennis, 1999; Kovar et al. 2001; Napper – Owen et al. 1999; Prusak & Darst, 2002). Girls may also prefer these activities because of biomechanical advantages they generally have in activities that require balance, such as dance and gymnastics (Finkenberg & DiNiucci, 1995).

Milanović & Radisavljević – Janić (2011) found that 55 % pupils of primary school in Belgrade (capital of Serbia), except at PE, additionally practice some sports in their free time; respectively 54 % of girls are involved in some sports activity, while the percentage of boys involved in various sports activities is 57%. Authors conclude that taking into account the percentage of all students who are involved in extracurricular sports activities, it can be noticed that in Serbia the percentage is lower than in some other countries: according to the data from Norway, 77% of elementary school pupils are involved in some sports activity (Klomsten et al., 2005) in their free time. They also found that team sports were the most frequent at pupils in Belgrade: basketball (25.2%), volleyball (21.2%), soccer (12.9%). The most popular sports for girls were volleyball and dance, while the majority of boys involved in sport, opt for team sports with basketball and soccer.

### *Problem of Research*

So, the problem of the research was examination of popularity of 27 different kind of sports among pupils of primary schools in Serbia, according to gender, level of sport's involvement and general success from the previous grade.

### *Research Focus*

Focus of the research was put on determination of popularity of sports among pupils so the few of the most popular sports might be potentially involved in PE classes as elective course.

## **Methodology of Research**

### *General Background of Research*

#### Variables

##### Independent variables:

- Sports involvement – actively, drop out and not involved at all
- Students' general success from the previous grade classified in five categories (insufficient, sufficient, good, very good and excellent).

The control research variable was students' gender: male and female.

The dependent variable was the chosen sport (among 27 offered: athletics, aerobic, aikido,

acrobatics, badminton, bicycling, judo, fitness, soccer, gymnastics, karate, basketball, volleyball, orienteering, swimming, rhythmic gymnastics, handball, wrestling, synchronized swimming, skiing, dance, table tennis, shooting, taekwondo, tennis, water polo, rowing).

### *Sample of Research*

The sample included 8120 pupils (4031 males and 4089 females) of primary schools from all parts of Serbia, 11-15 years old. The sample included 8120 students, of which 30% are actively involved in sports, 28 % drop out and 42% had never engaged in sports. According to the students' general success from the previous grade there were 0 % insufficient, 3 % sufficient, 15 % good, 27 % very good and 55 % excellent pupils.

### *Instrument and Procedures*

The research instrument was the questionnaire consisting of:

1. One question about students' general success from the previous grade
2. One question about students' Sports involvement
3. Check list with 27 offered sports as elective course. Pupils had to choose one of 27 offered sports, which they would like to be their elective course.

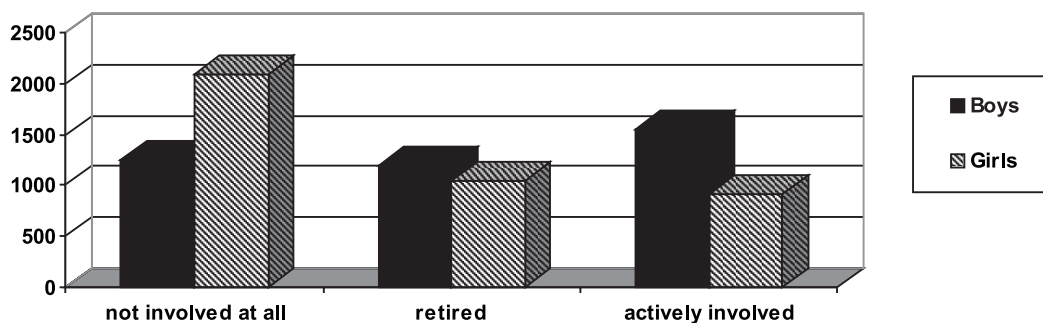
The data were collected in the classroom environment and the research was anonymous.

### *Data Analysis*

The data were processed with the SPSS program version 13.0. The following techniques of analysis were used: chi-square test and frequencies.

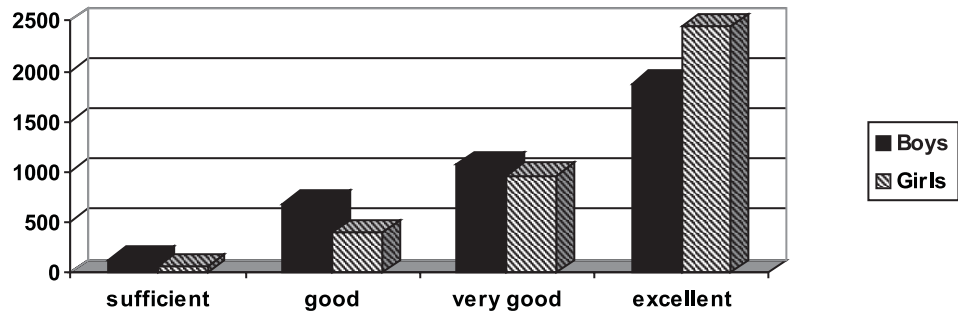
## **Results of Research**

In the examination of the difference between sport's involvement and gender, there was statistically significant difference ( $\chi^2 = 393,519$ ;  $df = 10$ ;  $p < 0.000$ ). Girls were less involved in sport than boys.



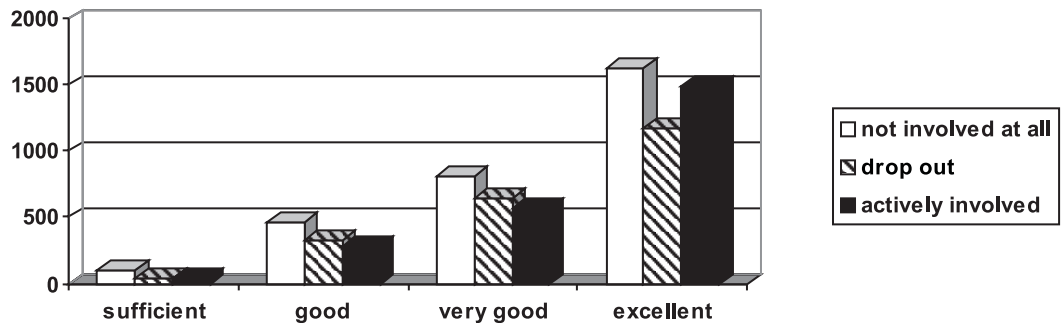
**Figure 1: The difference between gender and level of sport's involvement of pupils (data were showed in frequencies).**

In the examination of the relation between gender and students' general success from the previous grade there were statistically significant differences ( $\chi^2 = 185,747$ ;  $df = 4$ ;  $p < 0.000$ ). Girls had better general success from the previous grade than boys.



**Figure 2: The difference between gender and students' general success from the previous grade (data were showed in frequencies).**

In the examination of the difference between sport's involvement and students' general success from the previous grade there were statistically significant differences ( $\chi^2 = 554,661$ ;  $df = 40$ ;  $p < 0.000$ ). No matter on pupils' general success from the previous grade, most of the pupils from all categories were not involved in sport at all. Pupils with excellent general success from the previous grade were more actively involved in sports than other three categories.



**Figure 3: The difference between sport's involvement and students' general success from the previous grade (data were showed in frequencies).**

The data indicated that for the students of primary schools in Serbia basketball the most popular sport. Most students would like to introduce as an optional sport basketball, swimming, volleyball, football, handball, karate and at least students would like to introduce acrobatics, orienteering, rhythmic gymnastics.

**Table 1. The results of popularity of sports among pupils according to gender (data were showed in frequencies).**

Sport	Total	Gender		Sport	Total	Gender	
		Boys	Girls			Boys	Girls
Basketball	1056	743	313	Fitness	186	16	170
Swimming	928	395	533	Rhythmic gymnastics	180	9	171
Volleyball	884	278	606	Aikido	165	94	71
Soccer	628	551	77	Skiing	143	65	78
Handball	536	316	220	Water polo	138	119	19
Karate	410	256	154	Judo	110	79	31
Tennis	356	106	250	Badminton	78	19	59
Table tennis	328	226	102	Taekwondo	74	38	36
Shooting	322	226	96	Synchronized swimming	72	4	68
Dance	295	18	277	Rowing	63	50	13
Bicycling	288	177	111	Orienteering	44	17	27
Gymnastics	241	39	202	Wrestling	29	26	3
Aerobic	200	9	191	Acrobatics	15	7	8
Athletics	196	69	127	Total	8120	$\chi^2 = 1901,321$ ; df = 26; p < .000	

Obtained were statistically significant differences according to gender: boys would like to be introduced basketball and football and girls would like volleyball and swimming.

**Table 2. The results of popularity of sports among pupils according to general success from the previous grade (data were showed in frequencies).**

Sport	Total	General success from the previous grade				Sport	Total	General success from the previous grade			
		Sufficient	Good	Very good	Excellent			Sufficient	Good	Very good	Excellent
Basketball	1056	40	192	258	502	Fitness	186	0	22	52	108
Swimming	928	8	87	217	544	Rhythmic gymnastics	180	0	14	37	116
Volleyball	884	23	113	238	467	Aikido	165	3	31	44	77
Soccer	628	13	101	181	293	Skiing	143	2	5	32	95
Handball	536	17	89	149	254	Water polo	138	4	13	46	68
Karate	410	11	78	105	166	Judo	110	6	26	29	44
Tennis	356	4	33	91	216	Badminton	78	0	4	12	57
Table tennis	328	7	51	92	170	Taekwondo	74	2	7	18	42
Shooting	322	11	41	88	177	Synchronized swimming	72	1	5	13	51
Dance	295	2	26	61	186	Rowing	63	2	14	19	28
Bicycling	288	2	39	67	160	Orienteering	44	0	2	8	33
Gymnastics	241	5	22	48	147	Wrestling	29	3	4	11	10
Aerobic	200	1	17	42	131	Acrobatics	15	0	1	6	8
Athletics	196	4	21	43	112	Total	8120	$\chi^2 = 356,843$ ; df = 104; p < 0.000			

Obtained were statistically significant differences according to general success from the previous grade: excellent pupils would most like to be introduced swimming and volleyball; pupils with very good, good and enough success preferred basketball.

**Table 3. The results of popularity of sports among pupils according to level of sport's involvement (data were showed in frequencies).**

Sport	Total	Level of sport's involvement			Sport	Total	Level of sport's involvement		
		Not involved at all	Drop out	Actively involved			Not involved at all	Drop out	Actively involved
Basketball	1056	420	307	321	Fitness	186	84	57	44
Swimming	928	369	259	299	Rhythmic gymnastics	180	81	51	47
Volleyball	884	425	229	226	Aikido	165	56	55	51
Soccer	628	194	196	233	Skiing	143	56	42	46
Handball	536	209	131	195	Water polo	138	33	38	65
Karate	410	196	103	103	Judo	110	42	34	34
Tennis	356	171	94	92	Badminton	78	41	21	15
Table tennis	328	101	94	133	Taekwondo	74	25	26	23
Shooting	322	108	103	110	Synchronized swimming	72	26	24	22
Dance	295	147	76	70	Rowing	63	21	20	23
Bicycling	288	115	87	83	Orienteering	44	22	8	14
Gymnastics	241	118	61	60	Wrestling	29	8	3	18
Aerobic	200	99	51	47	Acrobatics	15	6	7	2
Athletics	196	73	49	73	Total	8120	$\chi^2 = 313,796;$ $df = 260; p < 0.012$		

Obtained were statistically significant differences according to level of sport's involvement: pupils involved in sports and those who drop out would like to be introduced basketball and swimming and those who have never been involved in sports would like volleyball and basketball.

## Discussion

The results showed that in Serbia girls were less involved in sport than boys. This result is consisted with those of Višnjić et al. (2011) that the boys are more involved in sports whether actively or recreationally than girls who were more often not involved at sports at all. About 58 % of pupils participated at least for some time in some kind of sport's activity: 30% of pupils are actively involved in sports, 28 % drop out and 42% had never engaged in sports, which is consisted with conclusion of Milanović & Radisavljević – Janić (2011). Girls had better general success from the previous grade than boys which is consisted with previous results of Višnjić et al. (2011) at Serbian pupils. No matter on pupils' general success from the previous grade, most of the pupils from all categories were not involved in sport at all which is . Pupils with excellent general success from the previous grade were more actively involved in sports than other three categories.

Most students would like to introduce as an optional sport basketball, swimming, volleyball, soccer, handball, karate and at least students would like to introduce acrobatics, orienteering, rhythmic gymnastics. Greenwood & Stillwell (2001) also found that the least popular sport was orienteering.

Similar results were obtained by Hill & Cleven (2005) - basketball (70.7 %), football (60.2 %), bowling (56.5 %), softball/baseball (55.3 %), swimming (53.8 %), and volleyball (52.1 %) were the most preferred activities among pupils of IX grade in California.

Obtained were statistically significant differences according to gender. Boys would like to be introduced basketball and soccer and girls would like volleyball and swimming and this result was consisted with some previous research (Hill & Clevin, 2005; Milanović & Radisavljević – Janić, 2011; Greenwood & Stillwell, 2001). Excellent pupils would most like to be introduced swimming and volleyball; pupils with very good, good and enough success preferred basketball. Pupils involved in sports and those who retreated would like to be introduced basketball and swimming and those who have never been involved in sports would like volleyball and basketball.

Obtained results supported Koivula's (2001) opinion that girls generally opt more for those sports in which aesthetic component is stressed, while boys opt for those sports characterized by power, competing, challenge, velocity and team spirit. The interests of our students in particular sports greatly coincide with the interests of boys and girls in other countries, except that it must be noted that, when it comes to the selection of sports, good results achieved by our national teams play an important role in the children's opting for these sports, especially basketball, swimming and volleyball. So for example, good results of the female volleyball national team attracted attention of great number of girls who, for this very reason, would like to introduce volleyball in PE classes. Fore selection of soccer reason might be popularity of this sport in our society and Europe generally. Coakley (2004) claimed that society appears to exert a significant influence in directing youth to mainstream activities. Also, these sports are the most whithespread in our country and pupils might have selected them because they were most familiar with them, since many classes of regular PE curriculum is dedicated to the team sports and the most of primary schools had conditions for these sports. Other factors that may have contributed to students selecting these sports are availability of equipment, facilities, expertise of physical education teachers.

Boys were at least interested in acrobatics, aerobic, rhythmic gymnastics, synchronized swimming and girls' acrobatics, wrestling and rowing. Possible reasons for these differences are societal standards and cultural norms. Specifically, it may not appear to be "feminine" for many girls to row. Girls may be discouraged from participating wrestling because of a perception that they will look less feminine by becoming muscular in appearance. Finally, wrestling may not be as attractive to females because of the emphasis on body contact and aggressiveness rather than socialization and beauty (Lirgg, 1994). Furthermore, adding to this cultural norm is the lack of available female role models for girls in these activities (which is especially case with water polo in Serbia. Water polo in males competition is after basketball the most trophy sport in Serbia. In females competition we hardly have about 70 of all ages in whole country).

## Conclusions

The aim of this study was to determine which sports are most popular among pupils of primary school in Serbia, in order to determine which sports would be advisable to introduce in the classes of physical education to increase the level of interest of pupils to actively participate in PE. Most students in Serbia would like to introduce as an optional sport basketball, swimming, volleyball, football, handball, karate and at least students would like to introduce acrobatics, orienteering, rhythmic gymnastics. But, there were some differences: boys would most like to be introduced basketball and football and girls would most like volleyball and swimming. The unpopular sports were acrobatics, orienteering. Respectively, boys wouldn't like to be introduced aerobic, acrobatics, rhythmic gymnastics, orienteering, synchronized swimming, fitness, dance and girls wouldn't like acrobatics, wrestling, rowing, water polo. The results indicated that for the students of primary schools in Serbia basketball the most popular sport among boys and volleyball among girls and that on promotion of other sports in the school environment should still be done.

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