

STUDENTS' ATTITUDE TOWARD PE LESSONS ACCORDING TO SELF-PERCEIVED PHYSICAL FITNESS

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ABSTRACT

The main aim of our paper is to describe the attitude of pupils to physical education (PE) regarding their gender and self-perceived physical fitness (SPF). We conducted the survey in 2012 during the teaching practice of PE student teachers and we used the questionnaire "Diagnostics of PE lesson for pupils" to collect relevant data. Altogether 1,537 questionnaires (711 from girls and 826 from boys attending secondary and high schools) were analyzed. Regarding the content, PE lessons with games prevailed (35% of them – basketball). In boys, statistically significant differences were found in four scales, an additional scale and in total evaluation between the upper and lower halves of classes in terms of SPF. There was found no significant difference for girls. Regarding the analysis of the relationship to PE in terms of popularity, in both genders a significantly positive relationship toward realized PE lesson was found by a group that likes PE. To conclude, SPF is not reflected in the pupil's relationship toward PE lessons, but the popularity of PE has a positive association with the evaluation of PE lessons.

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Keywords: Questionnaire, popularity of PE, gender, physical fitness, relationship

INTRODUCTION

Although school work is typical by its sedentariness, school as an institution has undoubted potential to influence students' physical activity. As McKenzie (2003) points out, schools are responsible for a support of physical activity of their pupils also because of time a human spends within the school environment (9 years at least). The main task of school physical education (PE) is in creation of positive attitudes to be physically active on a lifelong basis (Fairclough, Stratton, & Baldwin, 2002; Rychtecký, 1997).

At schools in the Czech Republic, school PE as an obligatory subject is realized by two 45-minute-long lessons a week with an option of extension by one extra lesson. According to Fialová (2001) 7% of high schools give three lessons of PE a week and 21% have three lessons at least for some classes (usually for lower grades). The author generally considers this situation to be unsatisfactory because 80% of schools engage obligatory PE only in two lessons a week.

Decline of interest in the school PE with growing age of adolescents on the one hand and when compared to previous years on the other hand is alarming (Heath, Pratt, Warren, & Kann, 1994; US Department of Health and Human Services, 1996). The number of students totally exempted from the school PE rises (Sigmundová, Frömel, Havlíková, & Janečková, 2005). Nevertheless, PE remains to be the most popular school subject for 49% girls and 94% of girls are convinced that the physical activity positively influences health status of an individual (Slepička & et al., 2000). To improve efficacy of the school PE, it is needed to overcome contradictions between needs, wishes, preferences, interests or inclinations and physical activity at school (Frömel, 2001).

If pupils are satisfied with school and have good academic achievements, they also have better relation to particular subjects. It was proven that girls has been always more satisfied than boys when taking a sex of respondents into account (Metsämuuronen, Svedlin, & Ilic, 2012). We can presume that also self-evaluation of physical fitness can play a role in relation of pupils to the PE as a school subject. If pupils assess their own physical fitness on high level they may have more positive attitude toward PE lesson. According to Malina, Bouchard, and Bar-Or (2004), various concepts of "self" (e.g. self-efficacy, self-concept, self-esteem etc.) belong in general to the correlates assumed strongly influencing physical activity of an individual.

The main aim of our paper is to describe the attitude of pupils to physical education (PE) regarding their gender and self-perceived physical fitness. The partial aim was to evaluate the attitude of pupils toward PE lessons regarding their expressed popularity of the subject in the school curriculum.

METHODS

Since the survey was conducted in 2012 during the teaching practice of PE student teachers at the Faculty of Physical Culture, we used the questionnaire "Diagnostics of PE lesson for pupils" to collect relevant data. This questionnaire contains 24 questions which are divided into 6 dimensions (cognitive, emotional, health, social, attitudinal, and creative) and one additional dimension "pupil's role" containing 8 selected questions. The questionnaire is anonymous, distributed at the end of PE lesson and its completion takes five minutes. Altogether 1,537 questionnaires (711 from girls and 826 from boys attending secondary and high schools) were analyzed. Regarding the content, PE lessons with games prevailed (35% of them – basketball) (Figure 1). Basic descriptive statistics was performed using the statistical software IBM SPSS 19.0. We compared in each gender always two groups; the first analysis was according to their own expressed physical fitness (self-perceived physical fitness - SPF) and the second according to their declared popularity of PE. To analyze the differences between groups non-parametric Mann-Whitney U test and coefficient of "effect size" d (Cohen, 1988) were used. To calculate the coefficient of "effect size" formula: $d=2|Z|/\sqrt{N}$ was used.

RESULTS

Regarding the analysis of the relationship to PE in terms of its popularity, in both genders a significantly positive relationship toward realized PE lesson was found by a group that likes PE.

Table 1 Description of analyzed questionnaires

		N	%
Gender	Girls	711	46.3
	Boys	826	53.7
School	Secondary school	783	50.9
	High school	754	49.1
Self-perception of physical fitness (SPF)	High	949	61.7
	Low	588	38.3
Popularity of PE	Favorite	765	49.8
	Unpopular	772	50.2

Content of PE lessons (in %)

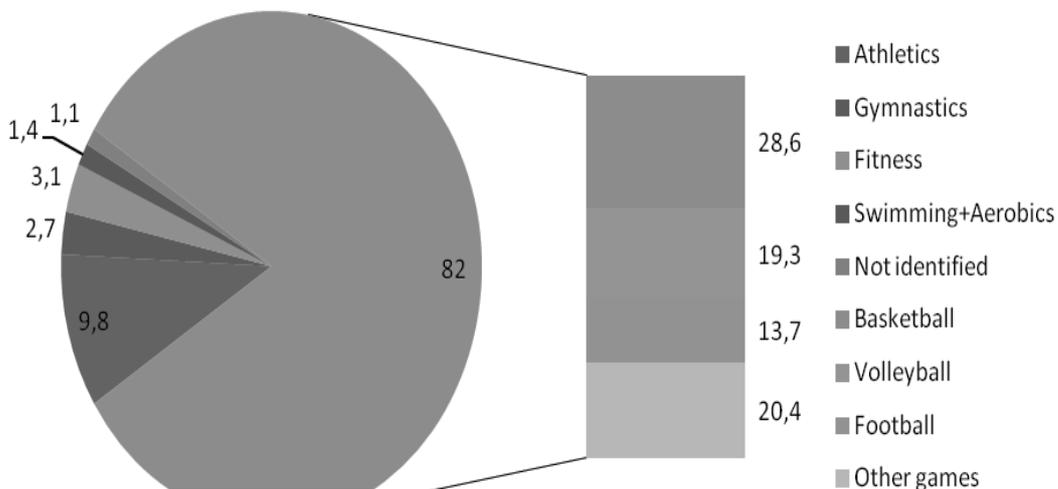


Figure 1
Description of analyzed PE lessons according to the content

In boys divided according to SPF, statistically significant differences were found in four dimensions (cognitive: $Z=2.47$, $p<0.05$, $d=0.17$; emotional: $Z=2.99$, $p<0.01$, $d=0.21$; social: $Z=2.63$, $p<0.01$, $d=0.18$; attitudinal: $Z=2.73$, $p<0.01$, $d=0.19$), and additional dimension ($Z=3.43$, $p<0.01$, $d=0.24$) and in total evaluation ($Z=3.27$, $p<0.01$, $d=0.23$) between the two groups in terms of self-perceived physical fitness (Figure 2). Effect size coefficients confirmed a small effect on the total evaluation and an additional scale.

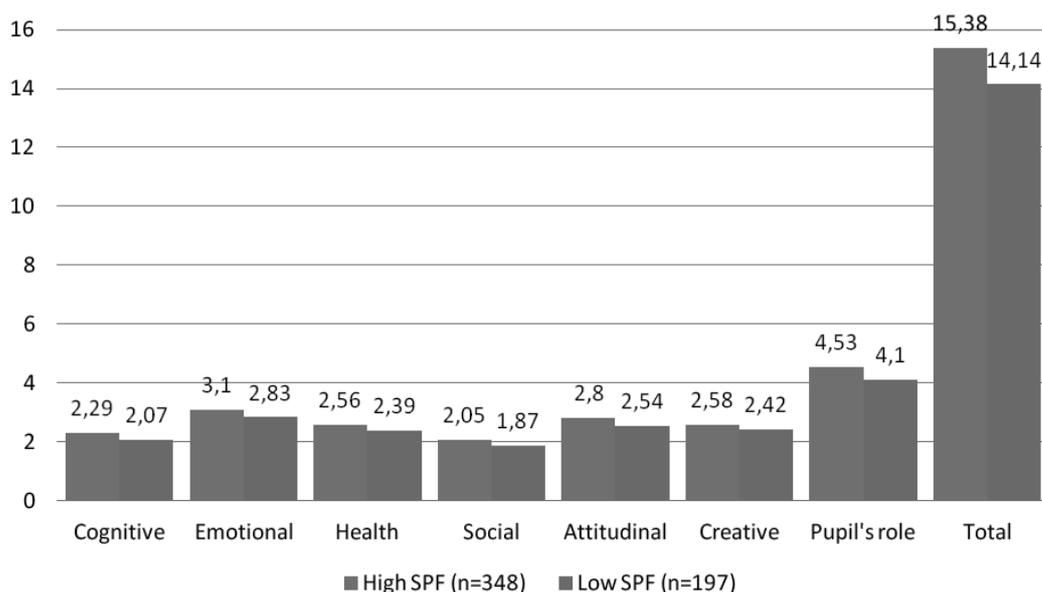


Figure 2
Attitude of boys toward PE lessons – according to self-perceived physical fitness

There was found no significant difference for girls (according to SPF) in majority of dimensions. Small difference was found in cognitive scale ($Z=2.52$, $p<0.05$, $d=0.19$) but it was not confirmed by effect size (Figure 3).

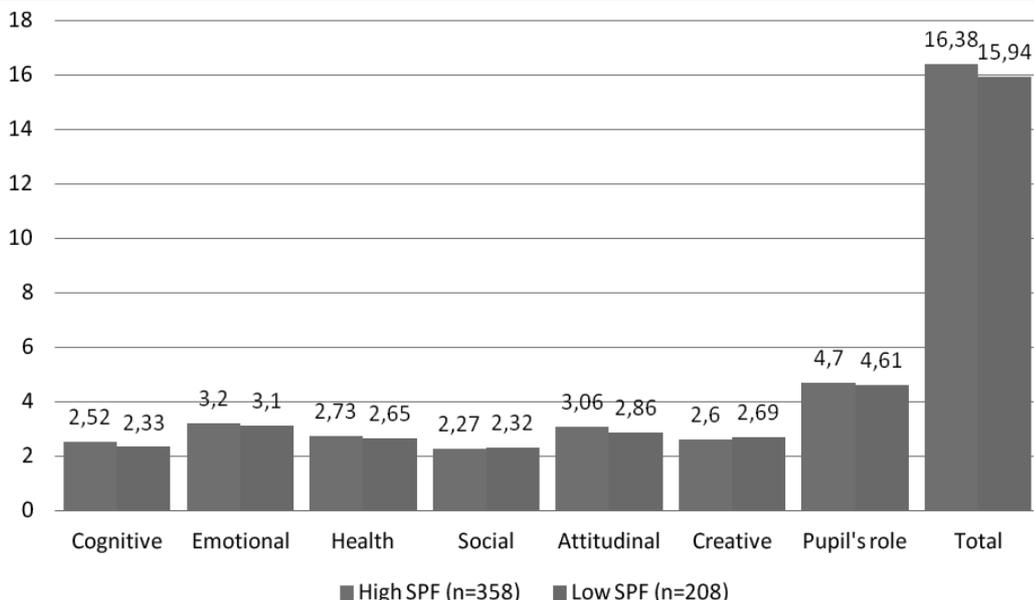


Figure 3
Attitude of girls toward PE lessons – according to self-perceived physical fitness

In boys divided according to popularity of PE, there was found significant differences in all dimensions except creative dimension (cognitive: $Z=3.12$, $p<0.01$, $d=0.22$; emotional: $Z=4.87$, $p<0.01$, $d=0.34$; health: $Z=3.17$, $p<0.01$, $d=0.22$; social: $Z=2.06$, $p<0.05$, $d=0.14$; attitudinal: $Z=5.81$, $p<0.01$, $d=0.40$; total: $Z=4.71$, $p<0.01$, $d=0.33$; pupil's role: $Z=3.38$, $p<0.01$, $d=0.24$). All differences were significant on the level $p<0.05$ and effect size was small except for social dimension (Figure 4).

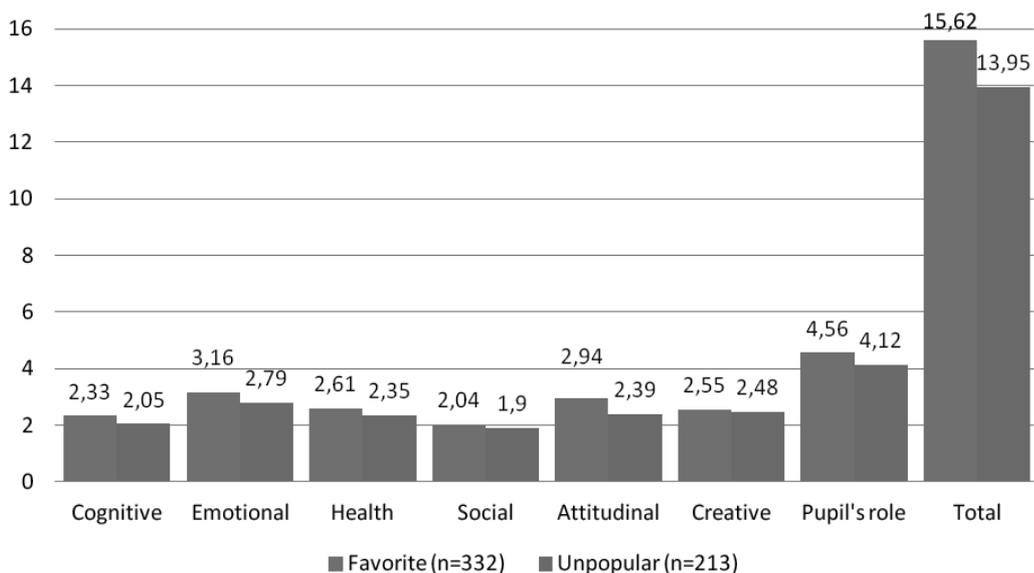


Figure 4
Attitude of boys toward PE lessons – according to popularity of physical education

In girls divided according to popularity of PE, we found out significant differences in all dimensions except creative and social dimension on the level $p<0.05$ (cognitive: $Z=3.70$, $p<0.01$, $d=0.28$; emotional: $Z=3.31$, $p<0.01$, $d=0.25$; health: $Z=2.18$, $p<0.05$, $d=0.16$; attitudinal: $Z=6.34$, $p<0.01$, $d=0.48$; total: $Z=5.15$, $p<0.01$, $d=0.39$; pupil's role: $Z=2.88$, $p<0.01$, $d=0.22$). But coefficients of effect size were small in cognitive, emotional, attitudinal, pupil's role and total dimensions (Figure 5).

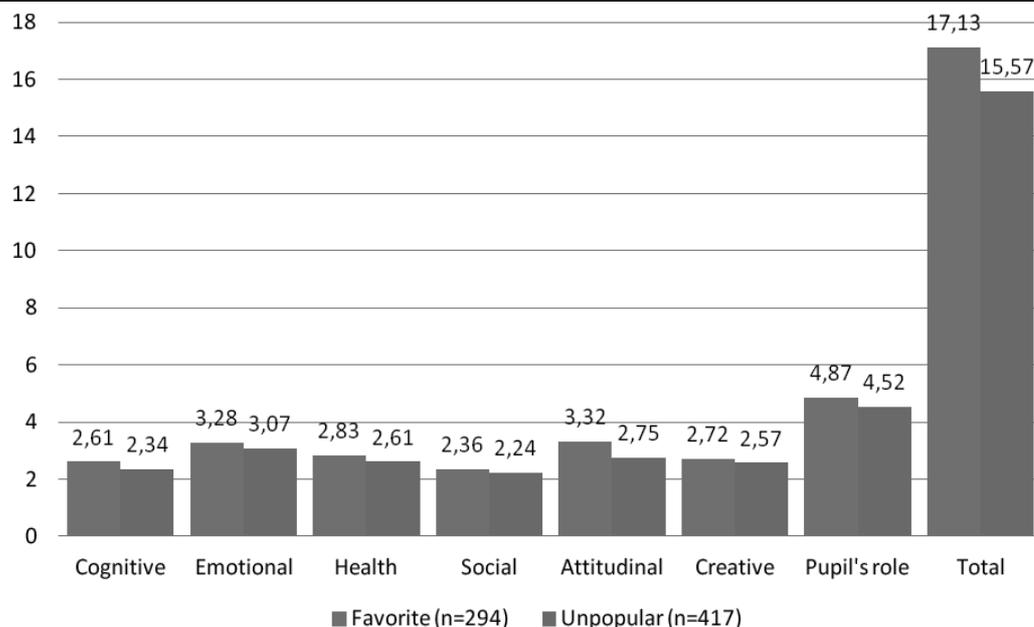


Figure 5

Attitude of girls toward PE lessons – according to popularity of physical education

DISCUSSION

According to our expectations, pupils who indicated higher self-perceived physical fitness and higher popularity of PE had slightly more positive attitude toward realized PE lessons. This difference is more evident in the groups of boys so it can be presumed that girls are less critical to and more satisfied with these lessons (also as seen when comparing the total evaluation scores between boys and girls in Figures 2 to 5) while the grouping factor "self-perception of physical fitness" does not seem to be as strong as in boys.

Better evaluation of the PE lessons by girls from secondary and high schools is mentioned also in a study of Frömel, Novosad, and Svozil (1999). In particular, girls have better attitude toward classes with contents of athletics, gymnastics, conditioning (fitness training), and sports games when compared to boys. Furthermore, the authors underline that while boys favor lessons with higher physical load, girls prefer PE lessons with lower physical demands.

Based on our results, popularity of the PE as a school subject tends to be stronger attitude-like factor than self-perception of individual physical fitness although this variable has probably some more or less important impact too. However, rather lower values of effect size coefficients in inter-group comparisons displayed above discourage us to put forward any stronger conclusions based on such associations. Undoubtedly, any interventions targeting on improvement of popularity of the school PE or (in coherence) physical fitness of students are required.

Subjectivity of involved pupils when grouping themselves, heterogeneity of content of realized PE lessons, variety of PE student teachers leading the classes etc., can be limiting factors to this study.

CONCLUSION

To conclude, popularity of PE is positively associated to the evaluation of PE lessons while self-perception of physical fitness can be denoted as somewhat weaker when reflecting the relationship of students toward PE lessons. However, strength of both analyzed factors needs to be confirmed in further analyses.

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