

Attitudes of students with disabilities towards physical education lessons: Reasons for their indifference and preference for leisure time activities

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Abstract:

The objective of this study is to analyze the attitudes of older students with disabilities (N = 140, 78 boys and 62 girls, age 13.5 ± 1.49 years) of three special elementary schools. The attitudes towards physical education (PE) of those students were examined in the sense of a school subject, reasons for PE lesson indifference in schools with regard of type of disability. In evaluation were not found any significant differences among students with disabilities with regards to the amount of effort required by PE lessons. Differences were found in opinions expressed by students with disabilities if for some reason a regular PE lesson is cancelled. The results show very significant differences as for the reasons for PE lesson indifference among the students with disabilities; while for students with physical disabilities the biggest reason of their inactivity during PE lessons was their laziness, for students who are deaf or hard of hearing, the biggest reason was inconvenient conditions, and students with visual disabilities were mostly discouraged from doing exercise in PE lessons because of their thoughts about their next subjects.

Key words: physical activity; special education; students with sensory and physical disabilities

Introduction

The aim of education in students with disabilities is, in addition to the overall objectives, to educate these students so that they can develop their own compensation mechanisms as much as possible, can fully perceive and live their own lives and create values. Within the educational process, it is necessary to set up a special environment for these students in order to educate them successfully and satisfy their special educational needs (State Department of Education, 2013).

One of the options for developing compensation mechanisms in students with disabilities is the field of sports, which may be implemented in the form of compulsory school physical education (PE) in both mainstream and special schools and should fulfil certain goals (Kurková, Scheetz, & Stelzer, 2010; Nemček & Bergendiová, 2013). One of the objectives of PE in mainstream or special schools is not only establish a constant and definitive relationship with PE, sport and health, prepare the pupil for accomplishing tasks in society, their lives and at work, but mainly to develop continuing interest in doing exercise (Labudová, 2011; Ministry of Education, Youth, and Sports, 2007).

Research papers not only refer to a lack of physical activities in leisure time in the adult population (Labudová & Vajcziková, 2009; Tóthová, 2002), but to the rather high percentage of mainstream students in elementary schools who do not participate in PE (Slezák, 2004) or who are absent from PE lessons for the health reasons or due to their laziness and general lack of interest in PE, as observed in secondary school students (Medeková, 2012). Students with disabilities engage in very little school based physical activity and they have less healthy leisure time activity and more sedentary amusement (Rimmer & Rowland, 2008). Despite the curricular reform, which is focused, among other things, on support provided to students' health in view of their specific needs, the negative trend is continuing (Antala, 2009; Antala & Labudová, 2006, 2011; Rimmer et al., 2010; Sigmund & Sigmundová, 2014).

Leisure time activities may significantly contribute to the development of positive attitudes towards PE in students with disabilities. Teachers, parents, sports instructors and other pedagogues should make every effort in order to persuade students with disabilities to modify their daily routines so that they fulfil their leisure time in a sensible manner (Kurková, Scheetz, & Stelzer, 2010). This means awakening and piquing their interest in leisure time activities that would enrich and develop young people, having positive effects on them. On the other hand, undesirable activities may represent considerable social and health risks (Biro & Wien, 2010; Caspersen,

Pereira, & Curran, 2000). For many individuals, developing sound life-long habits resulting in regular physical activities during the course of compulsory school attendance is the only source of skills and knowledge from the given area and PE at school establishes their motion literacy (Dieringer & Judge, 2015).

Due to the preventative function of leisure time within the context of physical, mental and social health, leisure time should be fulfilled with appropriate content, including physical and sports activities. This is particularly applicable to young people, with the aim to make them perform life-long physical activities that should be developed both in intact individuals and in people with disabilities (Arsic, Slavnic, & Kovacevic, 2012; Labudová, 2012).

The objective of this study is to map the attitudes of students with disabilities towards PE in the sense of a school subject (the amount of effort required by PE; response when a PE lesson is cancelled), reasons for PE lesson indifference in schools for students with sensory and physical disabilities (PD). Furthermore, this study should deepen the knowledge of the structure of leisure time activities in young people with disabilities to allow for a comparison of characteristic aspects with regard to the type of disability.

Method

Participants

The research sample was comprised of 140 students (78 boys and 62 girls, age 13.5 ± 1.49 years) attending the second stage of three special elementary schools in Bratislava (Slovakia). The elementary boarding school for children and students who are deaf and hard of hearing (D/HH) located in Drotarska Street was represented by 37 students (22 boys and 15 girls, age 13.3 ± 1.45 years), the elementary boarding school for the partially sighted and blind located in Svrčia Street was represented by 33 students (14 boys and 19 girls, age 13.4 ± 1.41 years) and Spojená škola in Mokrohájska Street in Bratislava was represented by 70 students with PD (42 boys and 28 girls, age 13.9 ± 1.62 years). Only those students who were not diagnosed with combined disabilities (for instance, combined intellectual, visual and physical disabilities) were included in the research.

Students were informed of the purpose of the research and the procedure for filling out the questionnaire, which was to be completed in the presence of their head teacher and the researcher. At the schools for students who are D/HH, we set up a procedure that ensured that students who are D/HH and used Slovak sign language properly understood all the questions in the questionnaire. Upon previous agreement and explanation of the purpose of the questionnaire, the actual questions were signed by a teacher who had perfect command of Slovak sign language and with whom the students were familiar. We proceeded by asking each item individually and then fact-checking to make sure that the students individually understood the questions. Students with visual disabilities (VD) had the use of a questionnaire with enlarged letters and the head teacher read the questions out loud to the students. Students with partial sight completed the questionnaire with the help of special aids. For students with PD, a questionnaire without any adaptation was used. Consent of the legal guardians of the students at the respective schools concerning their participation in the study was obtained well in advance.

Data collection

A structured questionnaire (Antala et al., 2012) was used to collect the data, of which four questions were selected. Those questions were related to attitudes towards PE lessons and preferences in leisure time activities and assessed: a) The amount of effort required by PE (Question 1: For me, Physical Education as a school subject is: very difficult, difficult, neither difficult nor easy, easy, very easy); b) The students' opinions when a PE lesson is cancelled (Question 2: If a PE lesson is cancelled: I am always happy, I am often happy, I am indifferent about it, I usually get upset, I always get upset); c) Reasons for indifference (Question 3: If you do not like a PE lesson, what is the most frequent reason? Question 4: Which of the following leisure time activities do you do most frequently?) In two questions, the students with disabilities expressed their subjective opinions using a 5-degree scale (1 was the highest level and 5 was the lowest level). The lower the average value of the replies, the higher the attitude level. In the third question, the students could mark a maximum of three reasons for PE lesson indifference. In the fourth question, the students could mark a maximum of three activities that they provide the most often in their leisure time.

Data analysis

Statistical analysis was undertaken using SPSS version 16.0 for Windows. The data were differentiated from the point of view of the type of school or, as the case may be, the type of disability. The data were quantified on a percentage basis. To carry out cross-group statistical testing of differences, we applied a ratio analysis with the help of the Chi-square test. The level of statistical significance was set at $p < .05$.

Results

Having evaluated the differences in the amount of effort required by PE lessons in students with disabilities, we did not find significant differences in opinions, neither from the view of the entire set (Fig. 1), nor among the evaluated groups of students (Table 1).

However, it was discovered that the students who are D/HH considered this school subject to be the easiest, while nearly 30% of the students found this subject "very easy", and 32.4% of the students "easy". They

were followed by students with PD, where 54.2% of them found PE as a school subject that is “easy” to “very easy”, while this opinion was shared by only 45.4% of the students with VD. Students with VD expressed PE to have the greatest amount of effort required (9.1%) or they had a neutral opinion (45.5%) towards the difficulty level of this subject in comparison to other students with disabilities involved in the research.

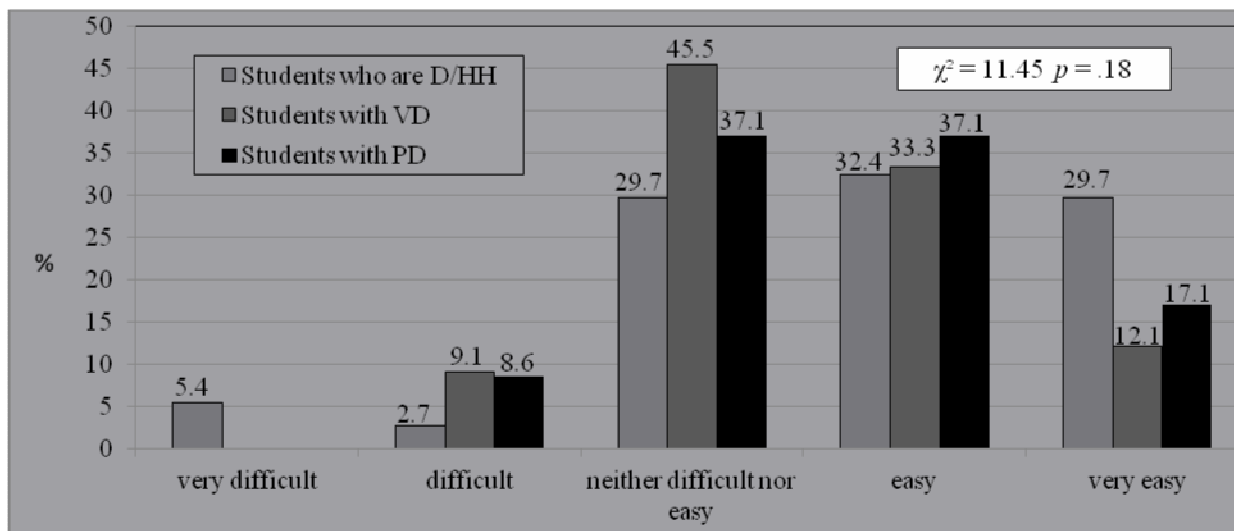


Fig. 1. The amount of effort required by physical education among students with disabilities
 Note. D/HH – deaf and hard of hearing; VD – visual disabilities; PD – physical disabilities

Table 1. Comparison of attitudes and leisure time activities of evaluated groups of students

Groups of students with disability	χ^2	<i>p</i>
The amount of effort required by PE as a school subject by the students		
Students who are D/HH versus Students with VD	6.72	.15
Students who are D/HH versus Students with PD	7.38	.14
Students with VD versus Students with PD	0.85	.95
Responses of the students if a PE lesson is cancelled		
Students who are D/HH versus Students with VD	24.50**	.00
Students who are D/HH versus Students with PD	9.83*	.05
Students with VD versus Students with PD	17.48**	.00
Reasons for PE lesson indifference by the students		
Students who are D/HH versus Students with VD	38.89**	.00
Students who are D/HH versus Students with PD	44.61**	.00
Students with VD versus Students with PD	20.22	.52
Leisure time activities of the students		
Students who are D/HH versus Students with VD	13.06	.29
Students who are D/HH versus Students with PD	20.55	.47
Students with VD versus Students with PD	12.68	.40

Note. D/HH – deaf and hard of hearing; VD – visual disabilities; PD – physical disabilities

*level of statistical significance $p < .05$

**level of statistical significance $p < .01$

There were very significant ($p < .01$) differences between the students with disabilities with regards to their opinions in the case that for some reason a regular PE lesson is cancelled (Fig. 2). The happiest group was the students with PD, who are always happy (25.7%) or happy very often (12.9%) if a PE lesson is cancelled. With regards to this kind of happiness, they are followed by the students who are D/HH, since 16.2% of them are always happy, or happy very often (13.5%); on the other hand, this group shows the highest level of indifference towards such a situation (59.5%) out of all the students involved in the research. The highest degree of pity in relation to a cancelled PE lesson was declared by the students with VD, since 45.5% of them feel upset or very upset (18.2%). The results clearly show that the students with VD expressed the highest degree of pity that a PE lesson was lost, in comparison with other students with disabilities, which can be supported by the very significant differences seen in the opinions expressed by different groups of students (Table 1).

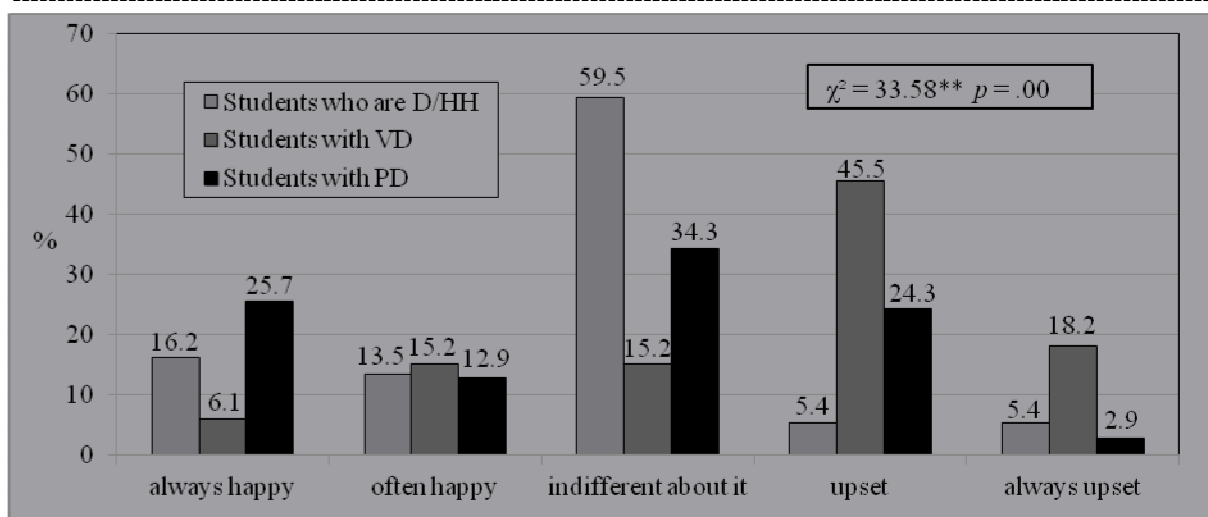


Fig. 2. Reaction among students with disabilities when a PE lesson is cancelled

Note. D/HH – deaf and hard of hearing; VD – visual disabilities; PD – physical disabilities

**level of statistical significance $p < .01$

Having analyzed the reasons for PE lesson indifference in the students, very significant differences ($p < .01$) were found among three groups of students with disabilities (Fig. 3). With regards to PE lesson indifference, the biggest differences were found among those students who are D/HH and the remaining two groups (VD and PD), and that at a significance level of 1%, while the smallest differences were found among those students with VD and PD (Table 1).

The results indicate that the biggest reason for inactivity in PE lessons in those students with PD was their laziness. The “I don't want to do exercise” opinion was declared by up to 60% of the students with PD. To a considerable degree, their lack of interest in doing exercise reflects the same attitude shown by other classmates (34.3%) and tediousness of the lessons (30%) as well as occupation with thoughts about the next lesson (30%). The most frequent reason for PE lesson indifference in those students who are D/HH were inconvenient conditions, which was expressed by more than half of the students (51.4%). Nearly thirty percent of the students who are D/HH just did not want to do exercise in PE lessons, 21.6% of the students consider PE lessons tedious, and the same number of students who are D/HH said that there is often an unfriendly environment during PE lessons. The biggest reason for PE lesson indifference in those students with VD was that they were occupied with thoughts about their next lessons (48.5%), which was followed by their laziness (42.4%) and then by the fact that the teacher favored more skilled classmates (24.2%) in comparison to the less skilled ones (Fig. 3).

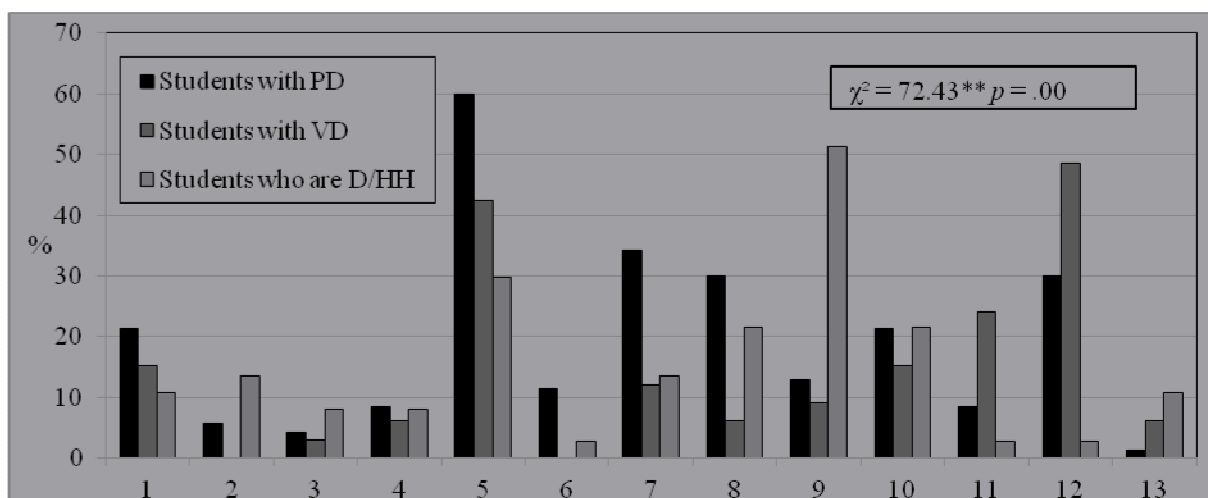


Fig 3. Reasons for PE lesson indifference in students with disabilities

Note. D/HH – deaf and hard of hearing; VD – visual disabilities; PD – physical disabilities

**level of statistical significance $p < .01$

Legend. 1. Unattractive content; 2. Lack of interest on the teacher's side; 3. Assessment method; 4. Inadequate requirements for performance; 5. I don't want to do exercise; 6. Inappropriate methodological approach; 7. Lack of interest on the classmates' side; 8. Tediousness of the lessons; 9. Inconvenient conditions; 10. Unfriendly environment during the lessons; 11. More skilled students are favored by the teacher; 12. Occupancy with thoughts about the next lessons; 13. Other.

We discovered that there were not any significant differences in students with disabilities with regards to their preferences in the field of leisure time activities, neither from the view of the whole set (Fig. 4), nor among the evaluated groups of students (Table 1).

Students with PD and students with VD spend their leisure time in a very similar way. Unfortunately, in both sets of students, activities of a sedentary character such as listening to music or working with a computer dominate (Fig. 4). However, it is gratifying to see in those students who are D/HH that sport activities clearly dominated, while for students with VD, sports activities are number three within their preferences for leisure time activities, and number five in the group of students with PD. It is obvious from the results that students with PD favor leisure time activities of a sedentary character most of the three evaluated groups. On the other hand, students who are D/HH move in their leisure time more than the other evaluated groups.

From the view of the particular types of leisure time activities (Fig. 4), it was discovered that most of the students with disabilities passively listen to music (63.9%). Sports took second place within the preferred leisure time activities of students with disabilities, at 45.4%, however, nearly the same numbers of students sit at a computer (45.2%) or in front of the TV set (38.1%).

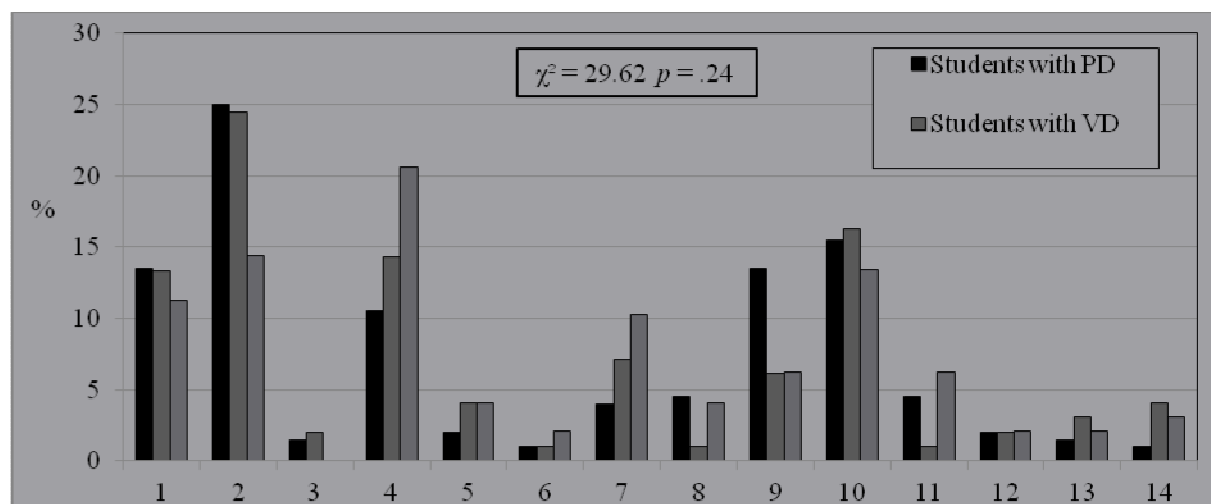


Fig. 4. Leisure time activities of students with disabilities

Note. D/HH – deaf and hard of hearing; VD – visual disabilities; PD – physical disabilities

Legend. 1. Watching TV; 2. Listening to music; 3. Listening to the radio; 4. Sports; 5. Visiting sports events; 6. Going to the theatre or cinema etc.; 7. Reading (books, magazines); 8. Artistic activities; 9. Sitting with friends; 10. Working with a computer; 11. Chores; 12. Self-culture; 13. Doing nothing – resting; 14. Other.

Discussion

Comparing our results with the results from a study that focused on the attitudes of students towards PE lessons in mainstream schools (Antala et al., 2012), the mainstream school students (N = 817) perceived PE as a school subject that did not require much effort, giving it 3.55 points on average; this subject was found to require more effort by girls (3.44 points), in comparison to boys (3.65 points). Compared to our set, we observed the lowest degree of effort required by the said subject in students who are D/HH, with an average of 3.78 points; even students with PD expressed a lower amount of effort required by the subject in comparison to intact students, with an average 3.63 points. It was only those students with VD who – out of all evaluated groups of students – expressed the highest degree of effort required by the subject and, with an average of 3.48 points, declared a greater amount of effort required by the subject than intact students. It was interesting that for the same age group from the Czech Republic, Physical Education was considered the subject with the least amount of effort required with an average 4.23 points, in comparison with Slovak students or students with disabilities, which was confirmed by the research done by Hrabal and Pavelková (2010).

The results from the research among students in mainstream elementary schools done by Čillík (2012) show 30.4% of intact students are happy if a regular PE lesson is cancelled. Compared to our research, this percentage is best approximated by students with D/HH, whose number was 29.7%; if a PE lesson is cancelled, more students with PD are happy (38.6%) compared to intact students. Another piece of research in mainstream school students (Görner & Starši, 2001) revealed a smaller number of students who are happy if they cannot do exercise compared to the number of students who are happy if their lesson is cancelled. In our case, this was true only in students with VD (21.3%). By subsequent comparison of the above-mentioned research, we can see that students with VD show the highest degree of pity if for some reason a regular PE lesson is cancelled (63.7%) compared to intact students (43.1%) or students with PD (27.2%) and students who are D/HH (10.8%).

Compared to our research, the results from the research conducted by Medeková (2012), focusing on reasons for PE lesson indifference in intact students, are similar, in particular at the point where two main reasons given by the students are laziness and occupancy with the next lesson. In both cases, own laziness and

focusing on the next lesson were shown to a more considerable degree by intact girls. Laziness was the most frequent reason for PE lesson indifference in students who do not do any sports in the above-mentioned research. However, it was the same in students with PD as well (Nemček & Bergendiová, 2013). A comparison of the reasons for PE lesson indifference between the group of intact students and the group of students with disabilities revealed a significant difference in the reason “Unattractive content of PE lessons”, which took second position in the intact students, while in our set this was expressed by only a very small number of students. This reason for the indifference was declared in the research conducted by Medeková (2012), mainly by intact students doing exercise or playing sports regularly, while in the research done by Nemček and Bergendiová (2013), this reason, in the case of students with PD doing exercise or playing sports, took sixth position. Yet another research study declared that the lack of interest seen in other classmates, which was the second most frequent reason expressed by our students with PD, was considered the biggest reason for PE lesson indifference by girls with PD (Nemček & Bergendiová, 2013). It is interesting to see that students who are D/HH face inconvenient conditions during PE lessons, which discourages them from doing exercise, but this reason was mentioned by mainstream students only marginally (6.1%) (Medeková, 2012).

In comparing the results from the research, we can say that in the set of students with PD and VD, listening to music is a dominating leisure time activity, which is observed repeatedly and within a long horizon in intact students of the same age group as a favorite and frequent leisure time activity as well (Medeková, 1997; Medeková & Pavlíková, 2012; Peráčková, 2008). Sports as a leisure time activity, which in our set is most favored by students who are D/HH, correspond to the preferences of leisure time activities in intact students, taking the same first position, and prevailing in boys (Medeková & Pavlíková, 2012). Comparing the results in our respondents with the results in intact students of the same age group, we found differences regarding work with a computer. For our respondents with PD and VD, this leisure time activity was the second most frequent, while in the mainstream elementary schools, it fourth (Medeková & Pavlíková, 2012). With regards to the lack of interest in sports and sports activities in general, we would like to draw attention to the fact that people with PD showed the least interest in sports as a leisure time activity, but they have better opportunities to visit tournaments and championships, even international events, compared to the intact population, since they often receive free (donated) tickets, are given access to the sections dedicated to wheel chairs that are closest to the playing field, and this may motivate them in the effort to achieve a better quality of life through sports. It is difficult to understand that young people with PD and VD, who, despite their disability and who have some limited scope of motion, do not play sports or do exercise at least in their leisure time in order to at least partially compensate for the sedentary way of life and deficit of natural locomotion. Unfortunately, they probably do not realize that regular participation in sports activities can help them to improve the quality of their life, especially in the field of self-service activities, as well in all daily routine activities, which brings them, when they get older, more independence from other people, and later provides even more opportunities for inclusion through work activities despite their serious disability (Nemček & Labudová, 2009; Nemček, Labudová, & Kraček, 2012; Nemček, Labudová, & Oršulová, 2014; Nemček & Wittmannová, 2013).

Conclusion

Having analyzed the results from the research, the following conclusions were made. First, there are not any significant differences among students with disabilities with regards to the amount of effort required by PE lessons; however, students who are D/HH consider this subject to be the easiest and students with VD consider it to require the most effort. Second, there are highly significant differences in opinions expressed by students with disabilities if for some reason a regular PE lesson is cancelled; the highest degree of happiness was observed in the students with PD, while the highest degree of pity was declared by students with VD. Third, the results show very significant differences as for the reasons for PE lesson indifference among the students with disabilities; while for students with PD the biggest reason of their inactivity during PE lessons was their laziness, for students who are D/HH, the biggest reason was inconvenient conditions, and students with VD were mostly discouraged from doing exercise in PE lessons because of their thoughts about their next subjects. Finally, the nature of leisure time activities favored by students with PD and students with VD is very similar, while sedentary activities, such as listening to music and working with a computer dominate in both sets of the students. Students who are D/HH move actively most of all as their dominating leisure time activity is active sports.

The results cannot be generalized, they only attest to the schools within the given region. This study was limited due to the low number of participating schools and the number of students with disabilities, as well as due to the lack of knowledge of the level of current fitness and overall health condition of the students under this study.

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