Published in the Slovak Republic
European Journal of Physical Education and Sport
Has been issued since 2013.
E-ISSN: 2409-1952
2018, 6(2): 40-49

DOI: 10.13187/ejpe.2018.2.40
www.ejournal7.com

Articles and Statements

Opinions of Teachers on Teaching Non-Traditional Sports in Primary Schools

Štefan Adamčák [a], Pavol Bartík [a, *], Anna Kozaňáková [b], Renáta Tomková [c]

[a] Matej Bel University, Slovakia
[b] Academy of the Police Force in Bratislava, Slovakia
[c] Elementary school with a nursery school in Pavlovce nad Uhom, Slovakia

Abstract

The study aims to analyse the opinions of primary school teachers (n=324) on teaching non-traditional sports in terms of the school's location (urban/rural), as well as in terms of intersexual differences. The research was carried out in the school year 2015/16 and the opinions were collected in a survey and evaluated using the TAP 3 program of Gamo, Banská Bystrica. The majority of teachers (87.96 %) hold the view that interest in Physical Education and Sport will increase through the teaching of non-traditional sports. According to the teachers, when it comes to non-traditional sports, both in urban and rural schools, the students are most interested in floorball (boys) and badminton (girls). The most motivating factor for pupils when implementing non-traditional sports is, according to the teachers, the stimulation of skills and abilities through the sports. This answer significantly dominates among all teachers in the urban schools – with a response frequency higher than 60 %.

Keywords: sports, non-traditional sports, school Physical Education, teacher of Physical Education and Sport.

1. Introduction

Building on the constantly changing interest of pupils in Physical Education and Sport, the interest in new activities which are mostly used for leisure purposes is increasing. Implementing non-traditional physical or sport activities brings new motivations for pupils and teachers to make teaching more attractive and the content of Physical Education and Sport more varied. This fact is related to their high emotionality and diversity in terms of performing movements, as well as to the high diversity of equipment (Bláha, 2005). According to Pohájacká (2011), sports represent the most natural activity in children's lives, through which they absorb a great number of impulses, knowledge, and experiences into their own consciousness.

Satisfied pupils should be the ambition of all teachers. The pupil must actively take part in the educational process to be successful in it. Considering the low, or even absent, inner motivation of pupils, outside motivation from the teacher, whose role is to actively engage them in individual activities, is very important, especially in terms of prevention of undesirable social phenomena

* Corresponding author
E-mail addresses: pavol.bartik@umb.sk (P. Bartík), stefan.adamcak@umb.sk (Š. Adamčák)

(Verešová, 2004). According to Roučková, Argajová (2013), it is the emotional side of the physical education process and the elimination of stereotypes in the teachers' activities which have a positive response among pupils.

The most important factor, when implementing and realising non-traditional sports, is the teacher's personality, their willingness and sensitive approach in the selection of exercises and sports, through which they will achieve a gradual development of the pupils' competences in accordance with the chosen physical activity (Adamčák, 2013). An active, creative, and flexible teacher, who knows their subject and pupils, can make teaching more attractive and build on the pupils' knowledge, on what they find interesting, and what is natural and attractive to them. We identify with the opinion of Chromík et al. (1993), that teachers are the most important factor of the educational process, because they provide the pupils with information and, at the same time, influence the development of their personality.

The research aims to ascertain the current state of non-traditional sports in primary schools in the urban and rural schools in the Košice region.

2. Materials and methods

The survey sample consisted of 324 teachers, who teach Physical Education and Sport in the second level of primary schools in the Košice region. Out of the total, 176 (104 males and 72 females) were teachers in urban schools and 148 (85 males and 63 females) were teachers in rural schools. Their detailed characteristics are stated in Table 1. We used the interrogative method – survey – as a central method in our research.

Table 1. The characteristics of the survey sample of teachers in terms of locality

District	Urban			Rural			Average values urban – rural
Gender	Male	Female	Average values urban M-F	Male	Female	Average values rural M-F	
Gelnica	4.80 %	5.55 %	5.11 %	4.70 %	4.76 %	4.72 %	4.93 %
Košice I.	20.19 %	15.27 %	18.18 %	0.0 %	0.0 %	0.0 %	9.87 %
Košice II.	24.03 %	20.83 %	22.72 %	0.0 %	0.0 %	0.0 %	12.34 %
Košice III.	7.69 %	9.72 %	8.52 %	0.0 %	0.0 %	0.0 %	4.62 %
Košice IV.	18.26 %	11.11 %	15.34 %	0.0 %	0.0 %	0.0 %	8.33 %
Košice-okolie	0.0 %	6.94 %	2.84 %	30.58 %	34.92 %	32.43 %	16.35 %
Michalovce	4.80 %	12.5 %	7.95 %	20.0 %	34.92 %	26.35 %	16.35 %
Rožňava	4.80 %	2.77 %	3.97 %	10.58 %	9.52 %	10.13 %	6.79 %
Sobrance	2.88 %	1.38 %	2.27 %	9.41 %	34.76 %	7.43 %	4.62 %
Spišská Nová Ves	6.73 %	6.94 %	6.81 %	18.82 %	7.93 %	14.18 %	10.18 %
Trebišov	5.76 %	6.94 %	6.25 %	5.88 %	3.17 %	4.72 %	5.55 %

Results were processed by a percentage frequency analysis and, at the same time, evaluated by the Chi-squared test levels $p < 0.01$ and $p < 0.05$ from the aspect of locality (urban-rural), as well as gender differences.

3. Results

In the first survey question, we asked which sport activities pupils prefer during Physical Education and Sport. The findings presented in (T2) point to the fact that pupils of urban and rural schools unequivocally prefer traditional sport activities during PE classes. The foregoing correlates with the research done by Slezák and Melicher (2008), who found that boys mainly prefer football in primary schools and basketball in higher grades. Girls are mostly interested in volleyball. Considering the responses, we predicted that non-traditional sports would gain a higher percentage, which was not confirmed. One of the reasons, based on our experience, could be, that,

if we offer a new non-traditional activity to pupils, the younger pupils will show curiosity and high initial interest. If they do not identify with the activity yet (they have not become accustomed to it) the initial euphoria quickly fades away and they go back to the "good-old" traditional sports.

Table 2. Pupils' interest in non-traditional sports in PE classes

Locality	**Urban**			**Rural**			**Average values urban – rural**
Gender	Male	Female	**Average values urban M-F**	Male	Female	**Average values rural M-F**	
Traditional sport activities	83.65 %	72.22 %	**78.97 %**	89.41 %	77.77 %	**84.45 %**	**81.48 %**
Non-traditional sport activities	10.57 %	22.22 %	**15.34 %**	8.23 %	20.63 %	**13.51 %**	**14.50 %**
Not interested in sport activities	5.76 %	5.55 %	**5.68 %**	2.35 %	1.58 %	**2.02 %**	**4.01 %**

We find it appropriate to regularly return to traditional sports while gradually introducing and offering something new to pupils. In our opinion, we should offer pupils as much information and experience as possible, so they can choose activities they will follow throughout their lives, and help them create a lifelong relationship with physical activities, which are (often unintentionally) then passed on to the next generation, and by that fulfil the fundamental aim of PE. The fact that 4.01% of pupils do not show interest in any sports is worrying. Pupils in rural areas show more interest in sport activities than those in urban areas. The following findings are from research by Betka (2012) on the popularity of sports for leisure purposes: volleyball has become the favourite sport, selected by 25 % of pupils, the second favourite was football, also selected by 25 %, and floorball was in third place with 14 %. Floorball is now commonly played in PE classes, constantly gaining greater popularity, and therefore we no longer include it among non-traditional sports. This has also been confirmed by Antala et al. (2012) and Adamčák – Nemec (2014).

Statistically significant differences at level $p < 0.05$ were only recorded in terms of gender differences. Women, without distinction to locality, lean more towards non-traditional sports.

Table 3. Statistical evaluation of pupils' interest in non-traditional sports in PE classes

Item	**Male** Urban – Rural	**Female** Urban – Rural	**Urban** Male – Female	**Rural** Male – Female	**Average value** Urban – Rural
Statistical significance Chi-squared	**N (0.419)**	**N (0.448)**	**X (0.10)**	**X (0.09)**	**N (0.206)**

Legend: **xx** = statistical significance – level $p < 0.01$, **x** = statistical significance – level $p < 0.05$, **N** = statistically insignificant

Research done by Biddle, Soos, Hamar, et al. (2009), Nemec-Nemcová, (2012), Beták, (2014), and others, point to the need for increasing the physical activity of children, as well as the fact that motivating pupils towards regular physical activity and Physical Education itself is more and more difficult (Kazimírová, 2008). That is why, when we were putting the survey together, we were mostly interested in whether the implementation of non-traditional sports really contributes to the increase of interest in Physical Education and Sport. The answers which we collected in the second survey question (T4) confirmed our predictions that 87.96 % of teachers think that interest in Physical Education and Sport will increase through non-traditional sports. On the other hand, about 2.16 % held a negative opinion and up to 5.55 % thought that the interest in Physical Education and Sport will not increase through non-traditional sports. About 6.48 % of teachers

were indifferent to the question "whether the implementation of non-traditional sports contributes to the increase of interest in Physical Education and Sport." We consider our results to be positive and motivational, because we lean towards the opinion of Lafka (2010), that non-traditional sports have an undeniably positive influence on Physical Education and Sport, and due to their implementation, the pupils showed higher interest in physical activities during Physical Education and Sport.

Table 4. The rate of interest increase in Physical Education and Sport through non-traditional sports

Locality	**Urban**			**Rural**			**Average values Urban – Rural**
Gender	Male	Female	**Average values Urban M-F**	Male	Female	**Average values Rural M-F**	
Yes	88.46 %	90.27 %	**89.20 %**	87.05 %	85.71 %	**86.48 %**	**87.96 %**
No	4.80 %	5.55 %	**5.11 %**	5.88 %	6.34 %	**6.08 %**	**5.55 %**
Cannot asses	6.73 %	4.16 %	**5.68 %**	7.05 %	7.93 %	**7.43 %**	**6.48 %**

The teachers' answers in terms of gender differences (T5) and locality were very balanced and therefore we did not record any statistically significant differences in the answers.

Table 5. Statistical evaluation of the rate of interest increase in Physical Education and Sport through non-traditional sports

Item	**Male** Urban – Rural	**Female** Urban – Rural	**Urban** Male – Female	**Rural** Male – Female	**Average value** Urban – Rural
Statistical significance Chi-squared	**N (0.939)**	**N (0.63)**	**N (0.757)**	**N (0.971)**	**N (0.744)**

Legend: **xx** = statistical significance – level $p < 0.01$, **x** = statistical significance – level $p < 0.05$, **N** = statistically insignificant

In the next question (T6) we asked which non-traditional sports are more attractive for boys from the teachers' point of view in terms of intersexual differences. Considering the higher number of possible answers, the teachers could choose from a wider range of answers and they were required to state three most suitable non-traditional sports for boys. We noticed significant differences in the opinions of male and female teachers. While about 35 % of males selected mostly floorball and then badminton, about the same % of females selected mostly badminton and then floorball. The reason could be the teachers' individual relationship towards the physical activities. Our discoveries follow the works of Bláha, (1998), Krška, (2007), and Nemec, (2008), who point to the fact that sports as floorball, ringo, badminton, speedminton, and many others, are becoming common in school Physical Education. The third place belongs to streetball – the frequency of answers in urban schools was slightly lower. Foot volleyball came in the fourth place (average value – 7.81 %). This is where the opinions of teachers differ in terms of their gender.

Table 6. Attractiveness of non-traditional sports for boys from teachers' point of view

Locality	**Urban**			**Rural**			**Average values**
Gender	Male	Female	**Average values urban M-F**	Male	Female	**Average values rural M-F**	
Floorball	34.93 %	28.24 %	**32.19 %**	36.07 %	20.63 %	**29.50 %**	**30.96 %**
Badminton	21.47 %	33.33 %	**26.32 %**	22.74 %	36.50 %	**28.60 %**	**27.36 %**
Streetball	13.78 %	11.57 %	**12.87 %**	16.07 %	14.81 %	**15.54 %**	**14.09 %**
Foot volleyball	9.29 %	8.79 %	**9.90 %**	6.27 %	6.34 %	**6.30 %**	**7.81 %**
Ultimate frisbee	7.37 %	3.70 %	**5.87 %**	3.92 %	5.82 %	**4.73 %**	**5.34 %**
Softball	4.80 %	1.85 %	**3.59 %**	4.31 %	6.87 %	**5.40 %**	**4.42 %**
Ringo	3.20 %	9.25 %	**5.68 %**	6.27 %	4.23 %	**5.40 %**	**5.55 %**
Speedminton	2.88 %	1.85 %	**2.46 %**	2.74 %	2.11 %	**2.47 %**	**2.46 %**
Lacrosse	1.60 %	0.92 %	**1.32 %**	0.39 %	0.25 %	**0.45 %**	**0.92 %**
Indiaca – peteca	0.64 %	0.46 %	**0.56 %**	1.17 %	2.11 %	**1.57 %**	1.02 %

While male teachers in urban schools were mostly interested in foot volleyball, and those in rural schools in foot volleyball and ringo, female teachers gave preference to ringo and softball. Based on the average values, these are the sports that follow: ringo, ultimate frisbee, softball. According to the teachers, the least appropriate non-traditional sports for boys are: lacrosse, indiaca – peteca, and speedminton. We recorded 0% for the answer "non-traditional sports are not suitable for Physical Education and Sport". Teachers did not select the option "other".

Table 7. Statistical evaluation of attractivity of non-traditional sports for boys from teachers' point of view

Item	**Male** Urban – Rural	Female Urban – Rural	**Urban** Male – Female	**Rural** Male – Female	**Average value** Urban – Rural
Statistical significance Chi-squared	**XX (0.000001)**	**XX (0.0000026)**	**XX (0.0000020)**	**XX (0.0000014)**	**XX (0.0000000000177)**

Legend: **xx** = statistical significance – level $p < 0.01$, **x** = statistical significance – level $p < 0.05$, **N** = statistically insignificant

Some inconsistency in answers in terms of gender differences and locality (T7) manifested itself at a statistical significance level $p < 0.01$.

In the next question (T8) we asked which non-traditional sports are more attractive for girls from the teachers' point of view in terms of gender differences. In this question, the teachers could also choose from a wider range of answers and were required to state three non-traditional sports most suitable for girls.

Table 8. Attractivity of non-traditional sports for girls from the teachers' point of view

Locality	**Urban**			**Rural**			**Average values**
Gender	Male	Female	**Average values Urban M-F**	Male	Female	**Average values rural M-F**	
Badminton	34.93 %	42.59 %	**38.06 %**	44.31 %	27.51 %	**37.16 %**	**37.65 %**
Floorball	23.71 %	19.44 %	**21.97 %**	21.17 %	18.51 %	**20.04 %**	**21.09 %**
Streetball	11.53 %	6.48 %	**9.470 %**	6.27 %	11.64 %	**8.55 %**	**9.05 %**
Ringo	5.76 %	10.18 %	**7.57 %**	10.58 %	8.46 %	**9.68 %**	**8.53 %**
Ultimate frisbee	14.42 %	8.33 %	**11.93 %**	9.80 %	14.81 %	**11.93 %**	**11.93 %**
Speedminton	5.12 %	5.09 %	**5.11 %**	1.17 %	5.82 %	**3.15 %**	**4.21 %**
Softball	2.24 %	2.77 %	**2.46 %**	0.39 %	7.40 %	**3.37 %**	**2.88 %**
Lacrosse	1.28 %	2.31 %	**1.70 %**	3.13 %	2.64 %	**2.92 %**	**2.26 %**
Foot volleyball	0.64 %	1.85 %	**1.13 %**	51.96 %	2.11 %	**2.02 %**	**1.54 %**
Indiaca – peteca	0.32 %	0.92 %	**0.56 %**	1.17 %	1.05 %	**1.12 %**	**0.82 %**

Legend: n = total number, % = percentage

The teachers of urban (38.06%), as well as rural (37.16%) schools, without any gender differences, agreed that the most appropriate non-traditional sport for girls is badminton. Antala et al. (2012) also discovered a high popularity rate of badminton among individual sport activities of girls. The second most favourite sport is floorball, with 21.09 %, which, according to Skružný et al. (2015), is because it is a very dynamic sport with lots of twists and turns. The third place belongs to ultimate frisbee (11.93 %) which is undemanding for space and allows lots of modifications (accuracy, couples, distance, etc.) (Argaj, 2004). Female teachers in urban schools and male teachers in rural schools are an exception and lean more towards streetball and ringo. From the teachers' perspective, the least appropriate sport for girls is indiaca-peteca, except for male teachers in rural schools, who consider softball to be the least appropriate for girls, followed by foot volleyball. Just as with boys, we recorded 0% for the answer "non-traditional sports are not suitable for Physical Education and Sport". Teachers have not marked the option "other".

Table 9. Statistical evaluation of attractivity of non-traditional sports for girls from the teachers' point of view

Item	**Male** Urban – Rural	**Female** Urban – Rural	**Urban** Male – Female	**Rural** Male – Female	**Average value** Urban – Rural
Statistical significance Chi-squared	**XX (0.000000087)**	**XX (0.000036)**	**XX (0.00001)**	**XX (0.0000000037)**	**XX (0.00000000155)**

Legend: **xx** = statistical significance – level $p < 0.01$, **x** = statistical significance – level $p < 0.05$, **N** = statistically insignificant

In this case, as well as with boys, the mentioned inconsistency of answers in terms of gender differences and locality (T9) has manifested itself on a statistical significance level $p < 0.01$.

The most motivating factor in implementing non-traditional sports was based on the main steps of teachers' activities when implementing the sports, according to Argaj (2014), which are the

name, aim, theme, rules, division, decision-making, and assessment of the sport. By averaging the results, we found that the theme (stimulation of skills and abilities through the game) was the most frequent answer, significantly dominating in urban schools among both the male (62.50 %) and the female teachers (63.88 %), and in urban schools with an average value of 52.02 %.

Table 10. Motivational factor in teaching non-traditional sports from the pupils' point of view

Locality	**Urban**			**Rural**			**Average values**
Gender	Male	Female	**Average values Urban M-F**	Male	Female	**Average values rural M-F**	
Theme	62.50 %	63.88 %	**63.06 %**	49.41 %	55.55 %	**52.02 %**	**58.02 %**
Equipment	21.15 %	18.05 %	**19.88 %**	31.76 %	17.46 %		**22.53 %**
Rules	5.76 %	12.50 %	**8.52 %**	16.47 %	25.39 %		**25.67 %**
Name	10.57 %	5.55 %	**8.52 %**	2.35 %	1.58 %	**2.02 %**	**20.27 %**

The second most frequent answer was equipment (agreed on by almost all respondents), which, according to Chovanová (2005), is one of the factors that can positively influence the Physical Education process – increase the attractivity, effectivity, and aesthetics of exercises or sports.

A group of female teachers in rural schools were an exception when they suggested that the sport's rules are the most motivating factor for pupils. We discovered from the answers (T10) that the least important, interesting, or attractive factor for pupils is the name of the sport. Male teachers in urban schools were an exception - according to them the least attractive and motivating are the sport's rules.

Table 11. Statistical evaluation of the motivational factor in teaching non-traditional sports from the pupils' point of view

Item	**Male** Urban – Rural	**Female** Urban – Rural	**Urban** Male – Female	**Rural** Male – Female	**Average value** Urban – Rural
Statistical significance Chi-squared	**XX (0.004)**	**N (0.083)**	**N (0.291)**	**N (0.197)**	**XX (0.0007)**

Legend: **xx** = statistical significance – level $p < 0.01$, **x** = statistical significance – level $p < 0.05$, **N** = statistically insignificant

The differences in motivational factors have manifested at statistical significance (T11) level $p < 0.01$ among the male teachers of urban and rural schools, as well as in the average values of urban and rural schools. In the remaining evaluations, we recorded statistically insignificant values.

In the last question of our survey we asked how the teachers perceive the implementation of non-traditional sports under the compulsory elective thematic unit of Physical Education and Sport classes.

Table 12. The interest of teachers in including non-traditional sports in the compulsory elective thematic unit

Locality	**Urban**			**Rural**			**Average values**
Gender	Male	Female	**Average values urban M-F**	Male	Female	**Average values rural M-F**	
Positive	91.34 %	94.44 %	**92.61 %**	92.94 %	95.23 %	**93.91 %**	**93.20 %**
Negative	2.88 %	1.38 %	**2.27 %**	2.35 %	1.58 %	**2.02 %**	**2.16 %**
Could not assess	5.76 %	4.16 %	**5.11 %**	4.70 %	3.17 %	**4.05 %**	**4.62 %**

By averaging the stated values (T12) we can see, that on average 93.20 % of urban (92.10 %) and rural (93.31 %) school teachers have a positive attitude towards the implementation of non-traditional sports in Physical Education and Sport. Considering the combined figures, we can unequivocally state that the implementation of non-traditional sport in Physical Education and Sport undoubtedly has a positive influence. It is worth mentioning here, that those teachers who do not have sufficient knowledge of non-traditional sports should update their knowledge in order to be able to implement not only the sports into their educational process, but also the preparatory exercises, game exercises, and preparatory games, and be able to fulfil the aims of Physical Education and Sport better, as stated by, e.g. Baránek (2014). We also agree with Hájková (2007), who states that the first and foremost objective of performing physical and sport activities is the children's safety, which is why practice, perfection, and implementation itself should be adjusted according to age specifics and the space obligations of the sport. On average, 2.16 % of teachers disagreed with this question and 4.62 % were not able to state their opinion.

Table 13. Statistical evaluation of the interest of teachers in including non-traditional sports in the compulsory elective thematic unit

Item	**Male** Urban – Rural	**Female** Urban – Rural	**Urban** Male – Female	**Rural** Male – Female	**Average value** Urban – Rural
Statistical significance Chi-squared	**N (0.921)**	**N (0.950)**	**N (0.710)**	**N (0.845)**	**N (0.89)**

Legend: **xx** = statistical significance – level $p < 0.01$, **x** = statistical significance – level $p < 0.05$, **N** = statistically insignificant

The respondents' answers, in terms of gender differences, as well as locality, were highly identical and statistically significant differences were not recorded (T13). We know from practice, that sport belongs to the most favourite and widespread physical activities. Hajduková – Uchál' (2009) stress the meaning of sports, and state that we can exercise various abilities through sports, from concentration and delicate movements, through memory and creativity, to social abilities. We can call this a pedagogical contribution. The authors also add that sport can help us to unwind and relax which is the manifestation of a psychological experience.

4. Conclusion

Based on the results of our research, which was only focused at a partial part of the teaching of non-traditional sports in primary schools from the perspective of teachers of Physical Education and Sport, we suggest including non-traditional sports in lessons, even if, according to 78.97 % of

teachers, the pupils prefer traditional sport activities. Up to 87.96 % of the teachers agree that interest of pupils in Physical Education and Sport may increase through non-traditional sports, while the most motivating factors are new skills and abilities gained through the sports, as well as the "new" – non-traditional equipment used in these activities. According to the teachers of urban and rural schools, when it comes to non-traditional sports, the students are most interested in floorball and badminton (both genders), even though the evaluation of these answers showed the biggest statistically significant differences among male and female teachers.

References

Adamčák, 2013 – *Adamčák, Š.* (2013). Názory žiačok 5.-9. ročníka základnej školy na netradičné športové hry. In Exercitatio corpolis - motus – salus 1. *Slovenský časopis o vedách a športe*, vol. 5, no. 1, pp. 66-76.

Adamčák, Nemec, 2014 – *Adamčák, Š., Nemec, M.* (2014). Obľúbenosť športových hier realizovaných na hodinách telesnej a športovej výchovy z pohľadu žiakov mestských a vidieckych základných škôl. *Studia Kinanthropologica,* vol. 15, no. 3, pp. 123-130.

Antala et al., 2012 – *Antala B. et al.* (2012). Telesná a športová výchova v názoroch žiakov základných a stredných škôl. NŠC, FTVŠ UK Bratislava: END, spol. s r.o. Topoľčianky, 168 p.

Argaj, 2004 – *Argaj, G.* (2004). Pohybové hry s lietajúcim diskom. Zborník Národného inštitútu športu rok 2003, Bratislava, pp. 88-98.

Argaj et al., 2014 – *Argaj, G. et al.* (2014). Základy didaktiky pohybových hier. Telesná a športová výchova – kolektívne športové činnosti, gymnastike a tanečné pohybové činnosti. Bratislava: Národné športové centrum v spolupráci s Fakultou telesnej výchovy a športu Univerzity Komenského v Bratislave, 264 p.

Baránek, 2014 – *Baránek, D.* (2014). Florbal pre žiakov 5. Ročníka základnej školy. *Tel. Vých.* In Exercitatio corpolis - motus – salus 1, Slovenský časopis o vedách a športe., vol. 5, no. 1, pp. 66-76.

Beťák, 2014 – *Beťák, B.* (2014). Pohybové a športové aktivity vo voľnom čase žiakov stredných škôl v Poprade. In Telesná výchova a šport v živote človeka : recenzovaný zborník vedeckých prác. Zvolen: Technická univerzita, pp. 76-85.

Biddle et al., 2009 – *Biddle, S. J. H., Soos, I., Hamar, P. et al.* (2009). Physical activity and sedentary behaviours in youth: Data from three central-eastern European countries. *European Journal of Sport Science*, 9, pp. 295–301.

Bláha, 1998 – *Bláha, L.* (1998). Tchoukball – jedna z cest proti agresivitě ve sportovních hrách. In: Těl. Vých. Sport Mlád., no. 6, pp. 32-36.

Hajdúková, Ucháľ, 2009 – *Hajdúková, R., Ucháľ, J.* (2009). Vplyv netradičných športov na rozvoj koordinačných schopnosti. Prešov: MPC Prešov, 96 p.

Hájková, 2007 – *Hájková, M.* (2007). Osobitosti pohybovej aktivity detí, mládeže, žien, seniorov a hendikepovaných športovcov. pp. 100–109. In Telovýchovné lekárstvo, Bratislava: Lekárska Fakulta Univerzity Komenského, 265 p.

Chovanová, 2008 – *Chovanová, E.* (2008). Intersexuálne rozdiely v somatickom vývine a rozvoji koordinačných schopností 6 – 7 ročných detí vplyvom netradičných cvičení a hier. In: Zborník prác z Medzinárodnej vedeckej konferencie „Šport a kvalita života 2008",Brno, pp. 2–8.

Chromík et al., 1993 – *Chromík, M. et al.* (1993). Didaktika telesnej výchovy. Bratislava: Univerzita Komenského Bratislava.

Kazimírová, 2008 – *Kazimírová, G.* (2008). Návrh modelu vyučovania florbalu a bedmintonu v predmete telesná výchova na základnej škole. In Telesná výchova a šport, zdravie a pohyb. Prešov: MPC Bratislava, alokované pracovisko Prešov, pp. 161-163.

Krška, 2007 – *Krška, P.* (2007). Úroveň vybraných florbalových zručností detí mladšieho školského veku. In Zborník „ Telovýchovný proces na školách". B. Bystrica: PF UMB a KTV UMB, 105 p.

Lafko, 2010 – *Lafko, V.* (2010). Realizácia menej známych a netradičných športových hier na 2. stupni základných škôl. In Zborník recenzovaných vedeckých príspevkov. Pohybová aktivita v živote človeka pohyb detí. Prešov : Fakulta športu Prešovskej univerzity, 248 p.

Nemec, 2008 – *Nemec, M.* (2008). Príklady pohybových hier pre detské kategórie vo futbale(1. až 4 časť). URL: http://www.trenink.com/index.php? option=com_content&task= view&id =1310&Itemid=136

Nemec, Nemcová, 2012 – *Nemec, M., Nemcová, L.* (2012). Športové hry a voľný čas detí staršieho školského veku. *Exercitatio corporis – motus – salus*, vol. 4, r. 2, pp. 139-146.

Roučková, Argajová, 2013 – Roučková, M., Argajová, J. (2013). Netradičné pohybové hry. Bratislava: Metodické centrum Bratislava, 58 p.

Skružný et al., 2015 – *Skružný, Z. et al.* (2015). Florbal. První vydání. Praha: Grada, 120 p.

Slezák, Melicher, 2008 – Slezák, J., Melicher, A. (2008). Analýza záujmovej telesnej výchovy v súčasných podmienkach In *Telesná výchova a šport*, zdravie a pohyb. Prešov: MPC Bratislava, alokované pracovisko Prešov, pp. 46-56.

Verešová, 2004 – *Verešová, M.* (2004). Mediátory užívania drog. Cesta k efektívnej prevencia drogových závislostí. Nitra: Fakulta sociálnych vied a zdravotníctva UKF, 388 p.