

DOI: <https://doi.org/10.54937/ssf.2024.23.2.87-101>

## **Miesto hravých aktivít pri prekonávaní strachu vo vyučovaní zjazdového lyžovania v názoroch učiteľov nižšieho sekundárneho vzdelávania**

### **The Place of Playful Activities in Overcoming Fear in Teaching Downhill Skiing in the Opinions of Lower Secondary Education Teachers**

Štefan Adamčák, Miroslav Nemeč,  
Rastislav Kollár, Gabriel Bujdoš

#### **Abstract**

Downhill skiing evokes many emotions. In more experienced skiers, they manifest themselves primarily in a positive form, in beginners often in a negative form, in the form of apprehension or fear, mainly due to an unfamiliar way of moving - sliding and moving on skis. In the school environment, we encounter these phenomena quite often on ski training courses. The aim of the paper was to find out through a survey among teachers of lower secondary education (n=105), the fear and apprehension of pupils during ski courses, as well as the use of playful activities during their teaching. We analysed the results from the aspect of intersex differences using the chi-square test on the significance level of  $p < 0.05$ , resp.  $p < 0.01$ . We carried out the survey itself from January to March 2023. The results of our study showed that after the completion of ski course, the fear and anxiety of primary school pupils showed a clear trend of decrease. The use of games as one of the forms of warming up, practicing and perfecting selected elements of methodological series of skiing, but also at the end of daily job, is significantly ( $p < 0.01$ ) used to a greater extent by women. During the entire duration of the course, teachers make the most use of movement games of traditional nature - chases, relays, etc. therefore, we recommend that when teaching downhill skiing, movement games with the use of non-traditional aids (skis, poles, etc.) are included to a greater extent, but also games that require the cooperation of pupils, the so-called cooperative games. The results of our study also pointed to the fact that, according to teachers, students' fear of skiing is dominantly caused by an unfamiliar way of moving, when students lose their balance, which they cannot control ( $p < 0.01$ ).

**Keywords:** Downhill skiing. Intersexual differences. Movement games. Playful activities. Pupils.

## **Introduction**

Downhill skiing is often considered a fun winter activity that can provide many wonderful and exciting experiences for participants, but it can also be a nightmare and stressful activity for some people or children. There can be several reasons, whether it is fear and concern that they will get hurt, fall, or "embarrass themselves" in front of their friends, classmates, a narrow riding space, when, especially for less skilled skiers, fear often manifests itself in poor skiing technique (Modrák -Lajčák-Povrazník, 2010) or just a change in snow conditions - powdery, frozen snow, etc. (Blahutová, 2017). This situation can seriously affect not only their first acquaintance, but also other possible exposures and skiing experiences. This state of mind is also reflected in ski training as common part of physical education in elementary schools in Slovakia. How to overcome these various negative fears and lead individuals to the motivation to learn the necessary skills and consequently to feel relaxed and calm on the slopes? The path to understanding, controlling, overcoming your fear, or removing disturbing stimuli from the environment is not an easy one. Every person encounters various stressful situations during his life, which can negatively affect his entire life.

Armstrong, Stroul & Boothroyd (2005) characterize them as circumstances that increase the likelihood that a child will experience negative behaviour or stress. Stress is a daily part of the life of an increasingly large part of the population, including pupils. It appears in all spheres of life - in the family, school, peer group, sports, etc. Fontana (1997) characterizes stress as increased psychological demand and the physical side of the individual with an emphasis on adaptation, which can be perceived as a positive phenomenon (which some individuals seek, e.g., adrenaline sports), but for other people, stress can represent a burden that is manageable for them.

According to Barnová & Gabrhelová (2017), the composition of pupils in each school is very diverse, children and youth of different abilities and possibilities meet in it, from different social environments, different religions, nationalities, races, etc. Many children are emotionally overwhelmed and confronted with experiences that they are unable to process internally. Despite such diversity, the school has the need to provide all its students with the same chance to obtain a quality education. The basic prerequisite for the success of the educational process from the point of view of students' handling of the workload is to cope with the fact that not all problems are in the students themselves, but often also on the other side, i.e., in the teacher, the curriculum, but especially in the way it is presented. From the point of view of the student's successful or unsuccessful settlement with a difficult situation, such as the fear of skiing, not only its intensity is key (although it is undoubtedly an important factor), but the whole range of circumstances, internal and external factors and their combination that can cause it is decisive. Creating an environment that supports the development of students' resilience and success places high demands on the work of teachers. As the authors Wang, Haertel & Walberg (1998) state, the

development of students' resilience in the school environment is influenced by variables such as the organization of the school and its climate, the presence of caring, enthusiastic teachers, adaptation of the curriculum content, and the teaching method to the needs of the students. A teacher who, in addition to knowing the methodology of learning (ski training), also emphasizes the elimination of fear and therefore the development of the resilience of his students, reduces the probability of their failure and provides them with a greater opportunity to achieve success (Doll, Zucker & Brehm, 2004). It is necessary for such teacher not only to try to formally teach the student, but to look for ways to adapt the environment, forms, and methods of educational work to all students and thus create the necessary inclusive environment.

According to Bubelíniová et al. (1999) playful activities in a physical education environment, especially in the form of movement games, have enormous potential capable of positively influencing children's thinking. They specifically enable the development of their knowledge and understanding and at the same time help to stimulate the child's emotional side. At the same time, we include movement games among the so-called experiential activities, as they often contain not only competition, but also adventure and movement with a certain degree of risk. The subjective feeling of risk and danger activates the individual, allows him to survive the unknown and expand his experiences so much that they become new knowledge (Andreasen, Fedorko & Gerka et al., 2018).

The importance of games in winter sports is also pointed out by Šiška-Blahutková-Krška et al. (2021), as according to them, games help children eliminate fear, worries, i.e., to build a pleasant atmosphere, a happy and safe environment, e.g., during ice skating training, they recommend teaching children how to get up from the ice in the form of games and competitions, which we can similarly apply to ski training. The main feature of winter sports in the form of downhill skiing is that we dominantly use the sliding of skis on snow. Here, for many pupils, a way of movement unknown until then arises, when they often lose their balance, which they cannot control - they slip and possibly fall. This new reality is often a very stressful situation for many beginners. That is why it is very important that we use a wide range of games when practicing and improving the motor skills necessary to master skiing, so that the students take away primarily positive experiences - finally, that the first contact with skiing, or the learning process itself, brings the student as many positive experiences as possible (Roučková, 2013). The advantages of systematically including games and competitions in ski training e.g., in the case of basic changes of direction - an arc in a two-sided return have a positive effect on the process of learning individual skiing styles. Modrák-Lajčák-Povrazník (2010) state in their publication that the games themselves will ensure students' concentration and a positive emotional balance - emotionality, activation, higher efficiency, and motivation, creating an atmosphere for the development of sociability and the removal of subjective obstacles (fear, stiffness).

According to the mentioned authors, the ratio applies: the younger the students, the more games.

Pišot-Kipp-Supej (2015) are of the opinion that if the teacher is to understand the entire skiing experience to which the child is exposed during skiing lessons, it is necessary, especially for children, from the point of view of the instructor, the teacher, not only to have information about physics, skiing methodology, but also about suitable application of games, as the motto of their publication *Skiing is a Game* is "Teaching children to ski is an activity that should be enjoyed by the student and the teacher". Winter (seasonal) physical activities such as downhill and cross-country skiing, snowboarding, skating, ice hockey, sledding, etc. are included in the content of the education of elementary school students in Slovakia as part of physical education. Pupils of both levels of education (primary and lower secondary) should acquire the necessary competencies during their course of the mentioned winter physical activities so that they can subsequently apply them naturally in their free time. Considering the above facts, we consider it important, that teachers of physical education not only have the required qualifications to lead the physical education process in schools, but constantly look for ways to teach physical education so that education is more experiential, creative and, above all, evoking positive emotions.

### **Aim**

The aim of the paper is to present the current state of implementation of ski courses for primary school pupils regarding the use of games as one of the forms of elimination and overcoming fear of learning.

### **Methods**

The survey was carried out in the form of a handout as well as an electronic survey (Google forms) of our own design from January to March 2023. The focus of the survey itself was based on the partial tasks of the project KEGA 032UMB-4/2022 - " Innovative teaching materials for physical education and sports teachers in primary schools with a focus on winter seasonal physical activities". The survey sample of teachers was represented predominantly by teachers from the Banská Bystrica, Žilina, Košice and Prešov regions of Slovakia participating in the teaching of the thematic unit winter seasonal physical activities. The research group consisted of 105 teachers - 40 men and 65 women of lower secondary level of education implementing ski courses. We quantified the results of our study using percentages and statistical analysis using the  $\chi^2$  test at the level of  $p < 0.01$  and  $p < 0.05$  from the aspect of intersex differences.

## Results

The opening question of our survey was concerned with finding out in which form skiing courses are most often implemented. Our findings show that almost 2/3 of the ski courses, according to the teachers, are implemented in form of ski courses with overnight stays. We recorded a higher percentage of answers in the form of ski courses with overnight stays in the group of women - 76.92%. When evaluating this question, from the point of view of men and women, we noted significant differences at the significance level of  $p < 0.05$ . (Fig. 1).

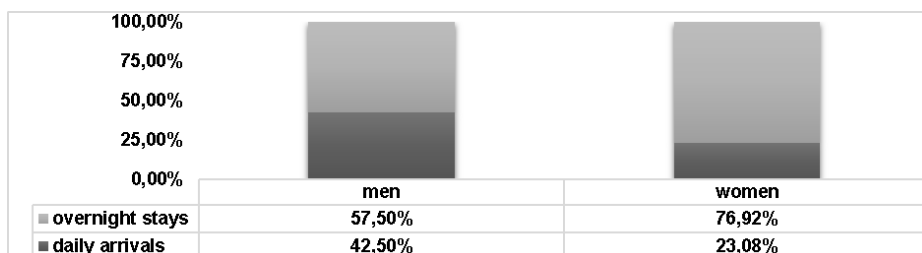


Fig. 1 Form of implementation of the ski courses ( $p=0.035$ ;  $\chi^2(1)=4.408$ )

76.92% of women and only 37.5% of men regularly use playful activities as one of the forms of warming up on the ski courses (Fig. 2). The option "sometimes" was indicated by 62.5% of men and 15.38% of women. 8% of women do not use games as a form of warming up on the ski courses. The responses from the perspective of men and women were significant at the  $p < 0.01$  level of significance (Fig. 2).

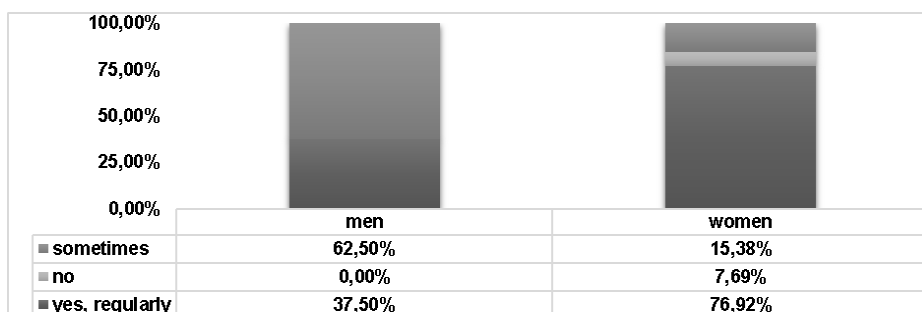


fig. 2 Using games as one of the forms of warming up on the ski course ( $p=2.518 \text{ E-}06$ ;  $\chi^2(2)=25.784$ )

We also tried to find out (Fig. 3) the extent to which teachers use games when practicing and improving selected elements of the methodological range of skiing, while we found out that women are more active in this direction, as up to 61.54% said that they use games regularly, in the group of men, the answer "sometimes" dominated, which was indicated by 75% of the men. The

responses from the perspective of men and women were significant at the  $p < 0.01$  significance level (Fig. 3).

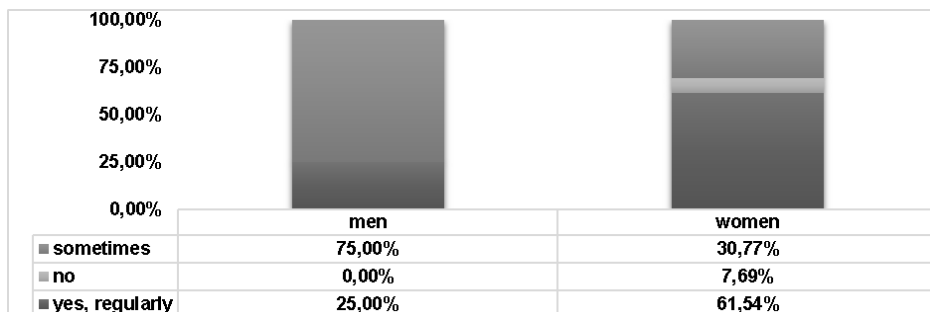


fig. 3 Use of games during teaching and improvement of selected elements of the methodological series of skiing during the ski courses ( $p = 4.123 \text{ E-}05$ ;  $\chi^2(2) = 20.192$ )

Even in the last question (Fig. 4) regarding the issue of using games in the final part of the day when teaching skiing - at the end of the daily job at the ski courses, women were more active from the point of view of using playful activities. Almost 38.46% said that they regularly use games in the final part. In the group of men, only 25% regularly use games at the end of their daily work, and up to 62.5% of men said that they do not use playful activities at all in this part of the ski course. The facts we found were statistically significant at the  $p < 0.01$  level from the point of view of men and women.

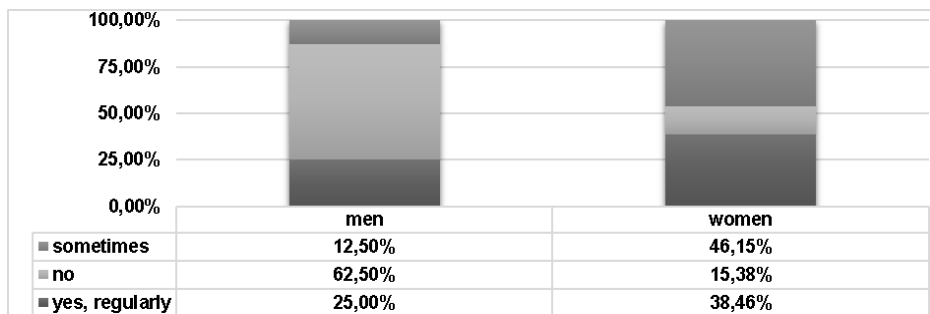


fig. 4 Use of games at the end of daily work on a ski course ( $p = 1.994 \text{ E-}06$ ;  $\chi^2(2) = 26.250$ )

The following questions were about the students' fear of skiing. From the point of view of women, up to 53.85% said that 20 percent of students are afraid of skiing before starting the course, 23% of women said that 40% and up to 60% of students are afraid of the course. In the group of men, the answers were more balanced, in terms of individual percentage items, the answers did not exceed

40%. When evaluating this question, we did not notice significant differences in the answers of men and women (Fig. 5).

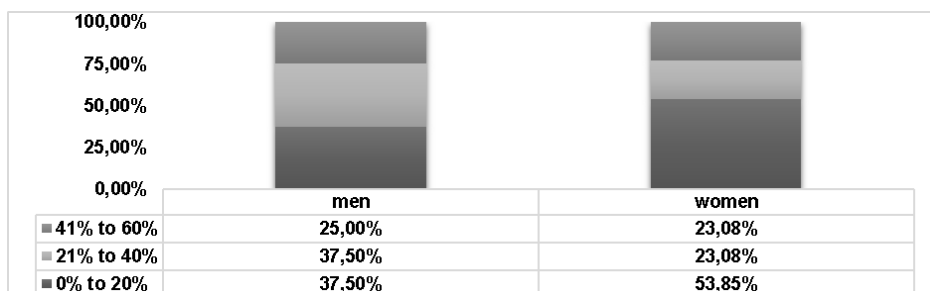


fig. 5 Pupils' fear of skiing before starting a skiing course ( $p= 0.198$ ;  $\chi^2(2) = 3.230$ )

Subsequently, we found that the main reason for fear and apprehension about skiing from the teachers' point of view is "new, unfamiliar movement" which is presented by the statements of 87.5% of men and 84.62% of women. From the men's point of view, 12.5% expressed that the fear of skiing among pupils is caused by the fact that the pupils consider their level of physical fitness to be low, and 7.69% of the female answers that the fear is caused by a low level of movement skills. Differences in responses from male and female perspectives were significant at the  $p < 0.01$  significance level (Fig. 6).

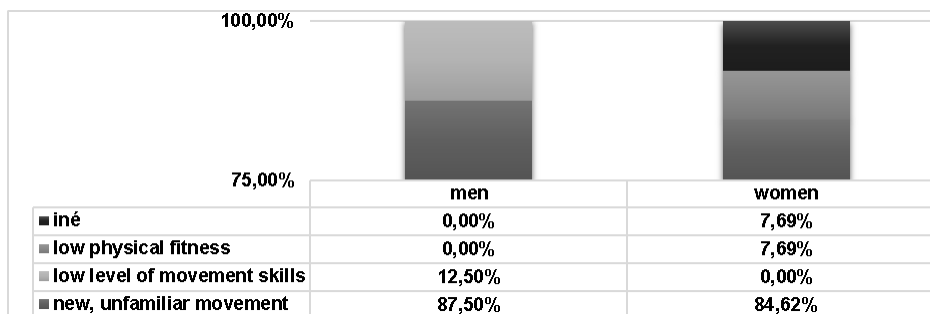


fig. 6 Supporting reasons for pupils' fear of skiing from the teachers' point of view ( $p=0.002$ ;  $\chi^2(3) =14.302$ )

In the next question, we wanted to find out from the teachers what their opinion is about the use of playful activities in the form of games to reduce or eliminate fear or anxiety about skiing. We present the results in Figure 7, which shows that almost 1/3 of men and women hold the opinion that games have a positive effect on overcoming fear and anxiety about skiing. Another almost 1/3 of women, however, hold the opinion that the use of games in pupils does not reduce the fear of skiing, a similar opinion is held by only 12.5% of men. Almost 40% of women and 50% of men could not assess the effect of games

on suppressing fear when teaching skiing. When evaluating this question, we did not notice significant differences in the answers of men and women (Fig. 7).

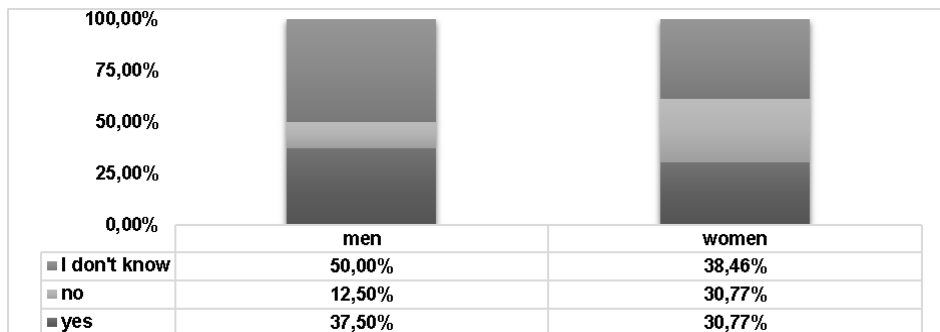


fig. 7 Influence, effect of games on reducing (suppressing) fear (concerns) about skiing ( $p=0.101$ ;  $\chi^2(2)=4.576$ )

The final question of our survey was about the preferred nature of playful activities (Fig. 8). When evaluating this question, teachers had the opportunity to mark-up up to 5 answers. The results show that teachers mostly use movement games of a traditional nature - more than 60% of the answers, followed by movement games with the use of non-traditional aids - which mostly represent ski equipment in the form of ski poles, skis, etc. When evaluating this question, we did not find significant differences from the point of view of men and women.

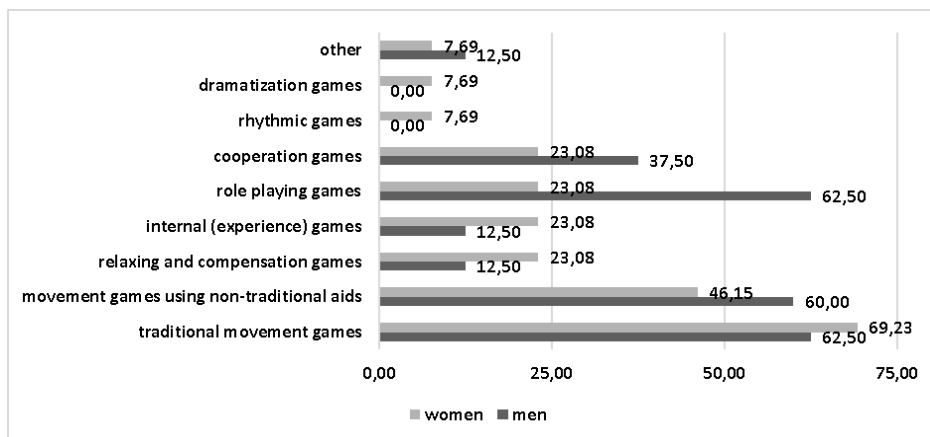


fig. 8 Preferred nature of games used during ski courses by teachers (possibility to mark up to 5 answers) ( $p=0.085$ ;  $\chi^2(8)=13.868$ )



## **Discussion**

According to the findings of several Slovak authors, the popularity of winter sports among pupils is relatively high. A survey by Nemeč, Michal & Beňák (2013) shows that downhill skiing is the favorite winter sport for elementary school students in their free time. We find similar findings in the studies of Burtscher, Federolf, Nachbauer, & Kopp, (2019) and Russell, Arthur, Goulet, et al., (2020). From the point of view of pupils' preferences for winter and summer exercise-sports activities, Beňák (2012) found that up to 66.07% of boys and 55% of girls stated that they have a more positive attitude towards winter sports than summer sports and that the most popular winter exercise-sport activity in free time is downhill skiing and snowboarding. Cipov (2012) also found a relatively high popularity of skating and sledding (58.6%) in his research. According to a survey by Straňavská & Michal (2022) carried out on a sample of 925 primary school pupils from the region of central Slovakia, almost 75% of the pupils completed ski course, while the pupils dominantly (67%) preferred downhill skiing.

The implementation of winter courses itself is different from the point of view of several authors, while the preferences from the point of view of the organizational form from the perspective of pupils or teachers are also different (Vráblová, 2013). Michal (2012), Straňavská, (2019) state in their research that, especially after 2010, ski courses are mostly implemented in a form of overnight stays. This form was suspended in 2020 due to the Covid pandemic, but this trend continues after overcoming it, according to our findings - on average, up to 67.21% of our respondents indicated this form of implementing ski courses. According to Evans (2020), the overnight stay form is preferred by schools from areas where the conditions for teaching skiing are not suitable.

The problem of using and including the teaching of games in school physical education was addressed by a number of domestic e.g. Argaj, (2004), Mazal, (2007), Adamčák & Nemeč, (2013), Beňák & Török, (2018), or foreign studies, e.g. Ferrer-Caja & Weiss, (2000), Light, Curry & Mooney, (2014), Pill, (2016), Smith, Ovens & Philpot, (2021), Dodd & Lester, (2021) and others, while none of them dominantly investigated the relationship between games and fear reduction. The results of these studies point to the fact that playful activities in the form of movement games are still very popular activities among pupils, and their use in physical education lessons is diverse, but they are mostly used in the preparatory part as one of the forms of warming up. Hubinák-Ondrejka-Potočný-Šiška (2021) draw attention to the positive impact of including movement games with an emphasis on the development of coordination skills of 2nd grade elementary school students in physical education classes and during sports training. Neuman (2001) says that many movement games in the educational process lack activity and interest - children's motivation, exploration, and a certain amount of risk. Therefore, new ideas and topics should be based on activities from nature. This means using the children's imagination and creativity and turning the exercise into a problem that they will

solve with the help of cooperation in a group or based on the courage and healthy risk-taking of an individual. Also, according to Argaj (2015), it is crucial to look for new, unfamiliar games for pupils, which positively increase pupils' interest in physical education lessons.

Nemeč & Beřák (2015) when implementing games focused on skiing and snowboarding, recommend games that strengthen the students' relationship with the physical activity they are performing. For practice and improvement, they recommend games of a non-traditional nature, and to ensure the highest possible level of development and acquisition of new movement habits and skills, they also recommend the concept of indoor (experiential) skiing, the so-called "inner skiing".

The positive inclusion of games in ski training is also pointed out by Kiss (2016), who compared the teaching of the four basic elements of skiing in two groups of skiers - 4th graders - the first group was taught using the traditional method of teaching skiing and the second group was taught with the help of movement games. He found that through games, pupils mastered the basic elements of skiing more easily and with more enthusiasm, and he believes that pleasant - playful learning represents a "viable" alternative to the traditional learning of this winter sport.

Michal & Beřák (2014) also dealt with the use of games in the teaching of downhill skiing in secondary schools from the perspective of gender differences. They found that up to 94.3% of teachers use games in teaching downhill skiing, while 46.43% of teachers prefer using games in teaching downhill skiing in the main part of the lesson and 55% of female teachers prefer using games as part of the warm-up, in the initial part of ski training. However, they did not notice significant differences from the aspect of gender.

Through our research, we have found that movement games of a familiar nature, so-called "traditional games", are used to the greatest extent on ski courses, but as stated by several literary sources - movement games enriched with various implements and tools make playing more attractive for the students themselves (Novotná, Blahutková & Ottmárová, 2007; Adamčák & Novotná, 2009; Kozanáková, 2010). Slováková & Tachezyová (2016) also describe similar findings in their survey - from the point of view of games and running movement games, triathlons, chases, and group games have the largest share.

Our findings revealed that during ski courses, teachers prefer to use the so-called traditional games and games with the use of non-traditional aids - in our case with the use of ski equipment. We believe that if teachers used other types of physical games more often, not only the fear factor, but also the overall learning process could achieve even more favorable educational results. We were surprised to find that a large part of teachers are not sure whether the reduction of the level of fear and anxiety about skiing can be positively influenced by the inclusion of movement games - this is evidenced by the high

percentage of neutral answers (44.23%) in the form of I don't know or up to 21.65% of negative answers.

Several research, e.g., Bublíniová et al., (1999), Roučková, (2013), Andreasen, Fedorko & Gerka et al., (2018), Michal, Nemeč, Adamčák & Straňavská, (2019); Smith, Ovens & Philpot, (2021), Dodd & Lester, (2021) and others present that it is games and a playful approach to teaching that clearly help to reduce the level of stress or fear in students from the physical activity.

According to our findings, cooperative games are used by almost 1/3 of teachers, while according to Onušková & Šurinová (2020), cooperative games are one of the ways to minimize students' fear or apprehension about learning more demanding physical activities (which, in our opinion, includes skiing). Their characteristic feature is that the players do not play against each other but together, i.e., so nobody loses in co-op games, there are only winners. Cooperative games are characterized by the fact that they require mutual trust and sympathy, cooperation in a group, respect for others, consideration, communication, patience, etc., which gives the participant courage to carry out this activity and benefits not only the individual but also all participants. These are important signs of inclusion, i.e., group dynamics can provide a sense of support and safety, which can help alleviate anxiety and fear. The use of cooperative games in pupils' learning is also recommended by, for example, Fernandez-Rio, Sanz, Fernandez-Cando & Santos (2017), Lyons (2022), who state that if students begin to perceive each other as allies and not as rivals, interpersonal relationships also deepen, strengthening not only the community of students (cooperative ) but the positive climate is also improving, and the pupils are significantly thriving as a result.

## **Conclusion**

The results of our study point to the fact that the organization of skiing courses is dominantly realized in the form of overnight stays and the very fear and anxiety of the students about skiing is relatively high before starting the course. Our results clearly pointed to the fact that the rate of use of games during ski courses differs significantly from the aspect of gender. Only 37.5% of men regularly use it as one of the forms of warming up and creating a pleasant "working atmosphere" ( $p < 0.01$ ). Also, the use of games during teaching and improvement of selected elements of the methodological series of skiing in the group of women is significantly different ( $p < 0.01$ ) from the group of men, where only 25% use them, while up to 61.54% of women regularly use games in this part of the course. Similar findings were also observed at the end of daily work - where up to 62.5% of men do not use games ( $p < 0.01$ ). Our findings also show that teachers (both men and women) dominantly use games in the form of movement games of a traditional nature in the form of chases, relays, etc. in ski courses. We consider it important to make greater use of games and

playful activities during the entire daily work of pupils as one of the possibilities to eliminate fear and anxiety even better.

When conducting ski courses, we also recommend using cooperative movement games to a greater extent, which in our opinion are much more special, bring the required psychological benefits to students, to reduce fear, anxiety, or concerns about skiing. We consider it important that all games and playful activities are presented to students in a comprehensible way, with the help of suitable examples, with more frequent repetition of their progress or rules, and especially with activation to find different options for completing the task. It is also important to keep in mind the fact that every student is unique and responds differently to different methods and strategies. Overcoming fear is an individual process and not all games will be equally effective for every student - games can be a useful tool to manage fear, but it is also important to keep safety in mind and respect each student's own boundaries.

We also see the benefit of our findings in the fact that we can apply the knowledge gained in the implementation of other theoretical and practical skiing educational activities, or the creation of new methodological and teaching materials for teachers and students of physical and sports education.

### **Bibliography**

- Adamčák, Š. & Novotná, N. (2009). *Hry v telocvični a základná gymnastika*. Žilina: EDIS Žilina, 2009.
- Andreasen, T., Fedorko, V. & Gerka, V. et al. (2018). *Zober ma von. Ako podporiť deti v trávení času vonku a v prírode*. Projekt „Taking learning outdoors – Supporting the skills of pre-school teachers in outdoor education and care. INAK, občianske združenie. 2018.
- Argaj, G. (2004). *Pohybové hry a rozvoj tvorivosti hráčov*. In *Športové hry*, roč. 9, 2004, s. 14.
- Argaj, G. (2015). *Kooperačné pohybové hry*. In *Telesná výchova a sport mládeže: odborný časopis pro učitele, trenéry a cvičitele*, 2015, roč. 81, č. 1, s. 27-32.
- Armstrong, M., Stroul, B. & Boothroyd, R. (2005). *Intercepts of resilience and systems of care*. In M. Ungar (Ed.), *Handbook for Working With Children and Youth*. Thousand Oaks: SAGE, 2005.  
<https://doi.org/10.4135/9781412976312>
- Barnová, S. & Gabrhelová, G. (2017). *Resilience in Schools*. Karlsruhe: Ste-Com, GmbH, 2017.
- Beťák, B. & Török, J. (2018). *Názory žiakov základných škôl v okrese Považská Bystrica na pohybové hry vo vyučovaní telesnej a športovej výchovy*. In *Telesná výchova a šport v živote človeka : konferenčný recenzovaný zborník vedeckých prác*. Zvolen : VTU vo Zvolene, 2018, s. 70-78.
- Beťák, B. (2012). *Vzťah žiakov základných škôl v okrese Martin k zimným športom a ich vykonávaniu* In *Zborník prác z fakultného kola študentskej*

- vedeckej aktivity 2012*. Banská Bystrica: Univerzita Mateja Bela, Fakulta humanitných vied, 2012, s. 28-37.
- Blahutová, A. 2017. *Technika a didaktika výučby lyžovania*. Ružomberok: VERBUM Katolícka univerzita v Ružomberku, Pedagogická fakulta, 2017, 66s.
- Bubelíniová, M. et al. (1999). *Premeny školy v prírode*. Bratislava: Iuventa, 1999.
- Burtscher, M., Federolf, P., A., Nachbauer, W. & Kopp, M. (2019). Potential Health Benefits From Downhill Skiing. In *Front Physiol.* Vol 14(9), pp. 19-24. <https://doi.org/10.3389/fphys.2018.01924>
- Cipov, B. (2012). Vzťah 11 až 15 ročných detí k telesnej výchove a športu. In *Študentská vedecká, odborná a umelecká činnosť, Fakultná konferencia*. Bratislava“ FTVŠ UK, 2012, s.30-42.
- Dodd, H., F. & Lester, K., J. (2021). Adventurous Play as a Mechanism for Reducing Risk for Childhood Anxiety: A Conceptual Model. In *Clin Child Fam Psychol Rev.* N 24(1), pp.164-181. <https://doi.org/10.1007/s10567-020-00338-w>
- Doll, B., Zucker, S. & Brehm, K. (2004). *Resilient Classrooms: Creating Healthy Environments for Learning*. New York: Guilford Publications, 2004.
- Doll, B., Zucker, S. & Brehm, K. (2004). *Resilient Classrooms: Creating Healthy Environments for Learning*. New York: Guilford Publications, 2004.
- Evans, M. (2020) More from a week in the Alps than they experience in school: Exploring ski readiness in UK secondary schools. [Student thesis: Doctoral Thesis], Coventry University, 2020.
- Fernandez-Rio, J., Sanz, N., Fernandez-Cando, J. & Santos, L. (2017). Impact of a sustained Cooperative Learning intervention on student motivation. In *Physical Education & Sport Pedagogy*, Vol 22(1) pp. 89–105. <https://doi.org/10.1080/17408989.2015.1123238>
- Ferrer-Caja, E., & Weiss, M.R. (2000). Predictors of intrinsic motivation among adolescent students in physical education. In *Research Quarterly for Exercise and Sport*, Vol 71, pp. 267-279. (doi: <https://doi.org/10.1080/02701367.2000.10608907>)
- Fontana, D. (1997). *Psychologie ve školní praxi*. Praha: Portál, 1997.
- Hubinák A.-Ondrejka, M. - Potočný, L.- Šiška, L. (2021). Netradičné pohybové, športové hry a úlohy so zameraním na rozvoj koordinačných schopností. Ružomberok: Verbum - vydavateľstvo KU, 2021, 81s.
- Kiss, Z. (2016). The game as a means of learning the alpine skiing. Citované <https://journals.indexcopernicus.com/api/file/viewByFileId/231776.pdf>
- Kozaňáková, A. (2010). The use of movement games in physical education in 2nd level primary schools. In *Acta Universitatis Matthiae Belli, Physical Education and Sport*. roč. 2, č. 1, Banská Bystrica: FHV UMB, 2010, s. 63-68.

- Light, R., Curry, Ch. & Mooney, A. (2014). Game Sense as a model for delivering quality teaching in physical education. In *Asia-Pacific Journal of Health, Sport and Physical Education*, Vol 5(1), pp. 67-81.  
<https://doi.org/10.1080/18377122.2014.868291>
- Lyons, S. (2022). *Cooperative Games in Education*. New York: Teachers College Press, 2022.
- Mazal, F. (2007). *Hry a hraní pohledem ŠVP*. Olomouc: Hanex, 2007.
- Michal, J. & Beťák, B. (2014). Využitie hier vo vyučovaní zjazdového lyžovania na stredných školách. In *Hry 2014 : "Hra od kolébky do hrobu..."*, sborník referátů z 11. mezinárodní vědecké konference Hry 2014 konané v Liblíně [CD-ROM]. Plzeň: Západočeská univerzita, 2014, s. 73-82.
- Michal, J. (2012). Vyučovanie lyžovania v intencii štátneho vzdelávacieho programu na stredných školách. In *Telesná výchova a šport - prostriedok vytvárania vzťahu mladej generácie k pohybu a športu*. Zvolen: Technická Univerzita, 2012, s. 166-177
- Michal, J., Nemeč, M., Adamčák, Š. & Straňavská, S. (2019). *Pohybové hry 2 – hry v zimnej prírode*. Žilina: IPV Inštitút priemyselnej výchovy. 2019.
- Modrák, M. -Lajčák, V. -Povrazník, K. (2010). *Metodika organizovania lyžiarskych výcvikov ( Zš ) a lyžiarskych kurzov ( Sš )*. Prešov: MPC Prešov, 2010, 95s.
- Nemeč M. & Adamčák, Š. (2013). *Physical games and education process at the 2nd stage of primary schools : (monograph)*. Krakov: Spolok Slovákov v Poľsku, 2013.
- Nemeč, M. & Beťák, B. (2015). Increasing motivation in learning to ski and snowboard by playing physical games. In *Acta Universitatis Matthiae Belii* , 2015, roč. 7, č. 1, s. 50-57.
- Nemeč, M., Michal, J. & Beťák, B. (2013). Voľnočasové aktivity žiakov a žiačok stredného školského veku so zameraním na zimné športy In *Technika a didaktika športov v prírode a turistiky*. Bratislava: FTVŠ UK, 2013, s. 35-41.
- Neuman, J. (2001). *Dobrodružné hry v tělocvične*. Praha: Portál, 2001.
- Novotná, N.- Blahutková, M. & Ottmárová, E. (2007). *Hry s netradičným náčiním*. Banská Bystrica: PF UMB, 2007.
- Onušková, M. & Šurinová, A. (2020). *Kooperatívne techniky na podporu učenia sa žiakov*. Bratislava: MPC, 2020
- Pill, S. (2016). An appreciative inquiry exploring game sense teaching in physical education. In *Sport, Education and Society*, Vol 21(2), pp. 279-297. <https://doi.org/10.1080/13573322.2014.912624>
- Pišot, R., Kipp, R., & Supej, M. (2015). *Skiing is a game: Pedagogical and biomechanical foundations of learning to ski*. Koper: University of Primorska: Science and Research Centre of Koper: University Press Annales, 2015., 143s.
- Roučková, M. (2013). *Nové trendy vo vyučovaní a riadení telesnej a športovej výchovy*. Bratislava: MPC, 2013

- Russell, K., Arthur, S., Goulet, C. et al. (2020) Understanding youths' attitudes and practices regarding listening to music, video recording and terrain park use while skiing and snowboarding. In *BMC Pediatr*, Vol 20(389). <https://doi.org/10.1186/s12887-020-02292-6>
- Slováková, M. & Tachezová, M. (2016). Využitie pohybových hier v školskej telesnej a športovej výchove na primárnom stupni základných škôl v Martine. In *Aktuálne problémy telesnej výchovy a športu*. Ružomberok: VERBUM - vydavateľstvo Katolíckej univerzity v Ružomberku, 2016, s. 88-92.
- Smith, W., Ovens, A. & Philpot, R. (2021). Games-based movement education: developing a sense of self, belonging, and community through games. In *Physical Education and Sport Pedagogy*, Vol 26/3, pp 242 - 254. <https://doi.org/10.1080/17408989.2021.1886267>
- Straňavská, S. & Michal, J. (2022). Využitie lyžovania v školskej telesnej a športovej výchove na základných školách. In *Studia Kınanthropologica*, XXIII, 2022, č. 2, s. 107–113. <https://doi.org/10.32725/sk.2022.010>
- Straňavská, S. (2019). Názory žiakov základných škôl na zimné športy. In *Telesná výchova a šport v živote človeka*. Zvolen: Technická Univerzita, 2019, s. 48-58.
- Šiška Ľ.-Blahutová, A. - Krška, P. - Oravec, P.- Židek, D. -Weiss D. 2021. Výcvikové kurzy. Ružomberok: Verbum - vydavateľstvo KU, 2021, 81s.
- Vráblová, M. (2013). Záujem žiakov o využitie snowboardingu vo vyučovaní telesnej a športovej výchovy. In *Telesná výchova a šport – prostriedok vytvárania vzťahu mladej generácie k pohybu a športu*. Zvolen: Technická Univerzita, 2013, s.89-94.
- Wang, M.C., Haertel, G.D. and Walberg, H.J. (1998) *Educational resilience*. Philadelphia, PA: Laboratory for Student Success, the Mid-Atlantic Regional Educational Laboratory at Temple University, Center for Research in Human Development and Education.

*The text of the paper was written within a project KEGA 032UMB-4/2022 - "Innovative teaching materials for physical education and sports teachers in primary schools with a focus on winter seasonal physical activities".*

**Doc. PaedDr. Štefan Adamčák, PhD.**

**Doc. PaedDr. Miroslav Nemeč, PhD.**

**PaedDr. Rastislav Kollár, PhD.**

**PaedDr. Gabriel Bujdoš**

Matej Bel University in Banská Bystrica,  
Faculty of Sports Science and Health  
Tajovského 40, 974 01 Banská Bystrica  
[gabriel.bujdos@umb.sk](mailto:gabriel.bujdos@umb.sk)