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OPINIONS OF PRIMARY SCHOOL TEACHERS ON ALPINE SKIING: POPULARITY, FREQUENCY AND SKILL LEVEL

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Opinie nauczycieli szkół podstawowych na temat narciarstwa alpejskiego: popularność, częstotliwość i poziom umiejętności

Streszczenie

Zimowe sezonowe aktywności fizyczne stanowią integralną część wychowania fizycznego i sportowego, w ramach którego w szkołach podstawowych powszechnie organizowane są kursy narciarskie. Podobnie jak we wszystkich szkolnych aktywnościach fizycznych, rola nauczyciela jest tutaj kluczowa. Celem niniejszego badania była identyfikacja i analiza opinii nauczycieli wychowania fizycznego i sportowego w szkołach podstawowych na temat popularności, częstotliwości oraz poziomu umiejętności w narciarstwie alpejskim. Badanie przeprowadzono za pomocą internetowego kwestionariusza, a dane zbierano od marca 2023 do marca 2024 roku. W badaniu wzięło udział łącznie 653 nauczycieli wychowania fizycznego uczących na drugim etapie edukacyjnym szkół podstawowych na terenie całej Słowacji. Do analizy zastosowano statystykę opisową oraz testowanie hipotez przy użyciu programu IBM® SPSS® Statistics w wersji 29. Wyniki pokazują, że narciarstwo alpejskie jest najpopularniejszym sportem zimowym wśród nauczycieli. Niemal 49% respondentów zadeklarowało, że uprawia rekreacyjne narciarstwo alpejskie 1–2 razy w miesiącu, podczas gdy jedynie 12,86% robi to w każdy weekend. Nie stwierdzono statystycznie istotnych różnic między płcią a częstotliwością uprawiania narciarstwa. Wyniki te potwierdzają, że narciarstwo alpejskie pozostaje powszechnie preferowaną aktywnością zimową, oferującą liczne korzyści fizyczne i istotnie wspierającą cele wychowania fizycznego w szkołach.

Słowa kluczowe: kursy narciarskie, opinie nauczycieli, sporty zimowe, narciarstwo alpejskie.

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Abstract

Winter seasonal physical activities are an integral part of physical and sports education, within which ski training courses are commonly organized at primary schools. As with all school-based physical activities, the teacher's role is crucial. This study aims to identify and analyze the opinions of physical and sports education primary school teachers regarding the popularity, frequency and skill levels in alpine skiing. The research was conducted using an online questionnaire with data collected from March 2023 to March 2024. A total of 653 physical and sports education teachers teaching at the lower secondary level of primary schools across Slovakia participated in the study. Descriptive statistics and hypothesis testing were conducted using IBM® SPSS® Statistics v29. The results show that alpine skiing is the most popular winter sport among teachers. Nearly 49% of the respondents reported participating in recreational skiing 1–2 times per month, while only 12.86% engage in it every weekend. No statistically significant differences were found between gender and the frequency of recreational alpine skiing. These findings confirm that alpine skiing remains a widely favored winter activity, offering numerous physical benefits and contributing meaningfully to the physical education objectives within schools.

Keywords: ski training, teachers opinions, winter sports, alpine skiing.

Introduction

The personality traits of a teacher have been the subject of various studies. According to Magno & Sembrano (2007), multiple external and internal factors influence a teacher's performance. According to Mesiarik's (2013) report, physical education and sports teachers play a key role in the educational process of physical education, where they should not only demonstrate expertise and a professional approach, but also promote a positive attitude among students towards physical activity and sports. Peráčková et al. (2013) state that individuals who regularly engage in physical activities tend to perform better in various life situations and possess more energy. We align with the views of several experts Birešová (2015), Dvořáková (2012), Michal (2013) and Strýčková (2011) who claim that a physical and sports education teacher should primarily be a good motivator. In contrast, the authors Adamčák et al. (2016) argue that physical and sports education teachers have the least influence on children's participation in physical activities. In recent years, there has been a growing interest in an active use of leisure time. In addition to summer sports, winter sports such as alpine skiing, snowboarding, and cross-country skiing have also become popular. Winter sports offer numerous benefits for young people—not only physical but also mental health benefits. According to Kampmillerová (2015), winter sports also positively influence the development of a relationship with mountains and winter nature. Michal et al. (2019) note that winter sports differ from others primarily because of the unique environment which they take place in. This environment can be intimidating for some teachers; therefore, it is important that the future physical education teachers are sufficiently pre-

pared during their studies to ensure the organization of alpine skiing activities, which are an essential part of ski training courses. From a recreational point of view, skiing is one of the most popular winter sports among millions of people worldwide (Thiel et al., 2009). We agree with Michal's (2013) assertion that alpine skiing is currently a very popular sport and the most sought-after among recreational athletes during the winter season. One of the reasons for its popularity is the good availability of ski equipment and the large number of accessible ski resorts, both at home and abroad. Hébert-Losier & Holmberg (2013) state that skiing is a physically demanding sport and although it takes place in a beautiful winter environment, being in mountainous environments may deter some people from choosing it as their preferred recreational sport. We also agree with Pighetti et al. (2022) that education in winter sports is a crucial tool for maintaining this sector as it not only brings health benefits, but also positively influences interpersonal relationships. This study aims to provide an overview of how lower secondary school physical and sports education teachers perceive the popularity of seasonal winter physical activities — specifically, their attitudes towards alpine skiing. It also examines how frequently these teachers engage in alpine skiing during their leisure time and how they assess their practical skills in this sport. The results may serve as a foundation for planning and implementing seasonal winter physical activities with the focus on alpine skiing. The study's main limitation is that since the research was conducted only among lower secondary school physical education teachers, the findings cannot be generalized to other educational levels. The aim of the study is to determine and analyze the opinions of physical and sports education teachers on the popularity, frequency and skill level related to alpine skiing. The intent is to understand and present the role of seasonal winter physical activities—focused on alpine skiing—in the lives of physical education teachers at the lower secondary level.

We formulated two hypotheses that were tested using statistical methods:

- Hypothesis 1: There are statistically significant gender differences in the frequency of recreational alpine skiing.
- Hypothesis 2: The length of teaching experience influences practical skills and the performance level in alpine skiing.

Winter seasonal physical activities focused on alpine skiing are a part of the physical and sports education curriculum and significantly contribute to the development of students' motor skills. Teachers play a vital role, which is why we aimed to explore their perspectives on the popularity, frequency and skill level associated with alpine skiing.

Materials and Methods

Participants

In line with the research objective, physical and sports education teachers at lower secondary schools across Slovakia were contacted via email. A total of 653 teachers participated in the study. All of them were responsible for teaching seasonal winter physical activities with a focus on alpine skiing. Of the 653 participants, 327 were women (50.08%) and 326 were men (49.92%). The majority, i.e. 69.22% (n=452) worked in urban schools, while 30.78% (n=201) were employed at rural schools. Most participants were between the ages of 31 and 40 (33.08%, n=216), followed by those aged 41–50 (30.32%, n=198), under 30 (18.53%, n=121), aged 51–60 (15.77%, n=103), and over 60 (2.30%, n=15). Regarding teaching experience, most teachers had up to 5 years of practice (22.97%, n=150), followed by 6–10 years (21.44%, n=140), and 11–15 years (18.38%, n=120). The smallest group consisted of those with more than 36 years of experience (2.76%, n=18).

Research Design

The study was conducted from March 2023 to March 2024 with the aim of determining and analyzing the opinions of primary school physical education teachers regarding the popularity, frequency, and skill level of alpine skiing. A purposive sampling approach was used, targeting only teachers of physical education at the lower secondary level. Data collection was carried out using a self-constructed online questionnaire. The questionnaire consisted mainly of closed and semi-closed questions and focused on the popularity of winter sports, practical skill levels in alpine skiing, and the frequency with which the teachers practiced alpine skiing in their free time. Two hypotheses were tested using statistical methods:

- Hypothesis 1: There are statistically significant gender differences in the frequency of recreational alpine skiing.
- Hypothesis 2: Teaching experience influences practical skills and performance level in alpine skiing.

Statistical Analysis

Data collected from the online questionnaire were tabulated and processed using descriptive statistics. To verify the hypotheses, inferential statistical methods were applied. Specifically, the asymptotic version of the chi-square test of independence (for $r \times s$ contingency tables) was used. In cases where the conditions for the asymptotic version were not met, the Fisher–Freeman–Halton exact test, calculated using the Monte Carlo method, was applied.

The effect size was measured using Cramér's V coefficient, interpreted according to the following thresholds:

- $V = 0.10$ – small effect,
- $V = 0.30$ – medium effect,
- $V = 0.50$ – large effect.

Statistical analysis procedures were carried out using IBM® SPSS® Statistics v29, in accordance with the guidelines presented in Pivovarníček (2021).

Results

In our research, we examined which winter sports teachers most frequently engage in during their free time. The respondents were allowed to select multiple answers to this question. As illustrated in Figure 1, 566 teachers identified alpine skiing as their most preferred winter sport during their leisure time. The second most popular activity was ice skating, practiced by 289 teachers, followed by cross-country skiing, chosen by 240 teachers. Less popular winter sports included snowboarding, ski mountaineering and ice hockey.

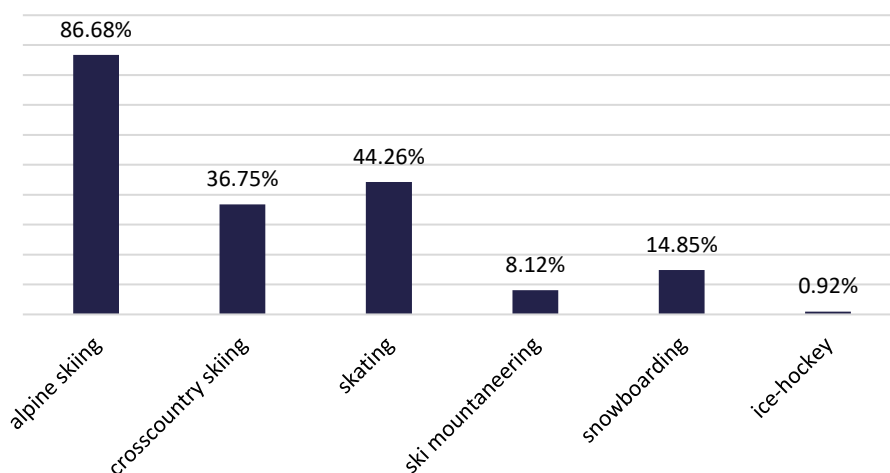


Figure 1
The respondents' favorite winter sports

In the next part of the questionnaire, we were interested in how teachers assess their practical skills and proficiency level in alpine skiing. The majority of respondents rated their practical skills as advanced ($n = 393$), while 226 teachers assessed themselves as intermediate. A concerning finding is that 8 respondents stated they cannot ski, and 26 respondents identified themselves as beginners (Figure 2).

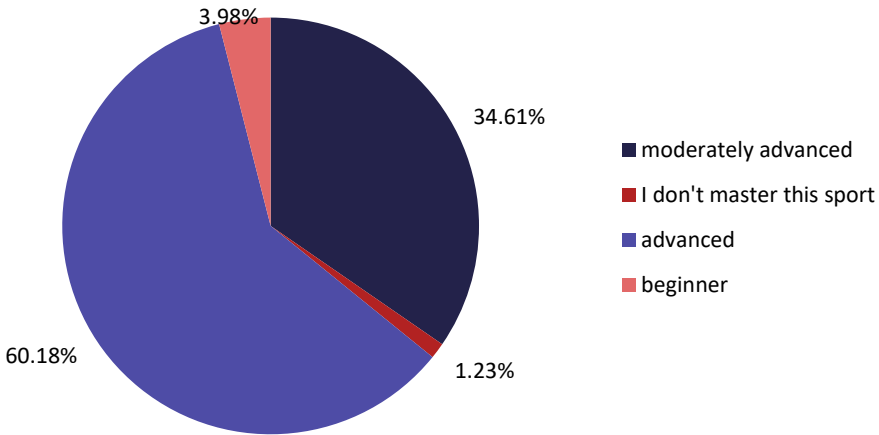


Figure 2
The respondents' practical skills and proficiency level in alpine skiing

When examining the practical skills and proficiency levels in alpine skiing, it is essential to understand how frequently teachers engage in skiing during their leisure time to improve their abilities. This led to the next question, where we asked the teachers how often they go skiing in their free time. Based on the results, only 84 teachers reported skiing every weekend, which suggests that only a small proportion actively work on improving their skills (*Figure 3*). The majority of the respondents indicated that they go alpine skiing only once or twice a month or once or twice per winter season.

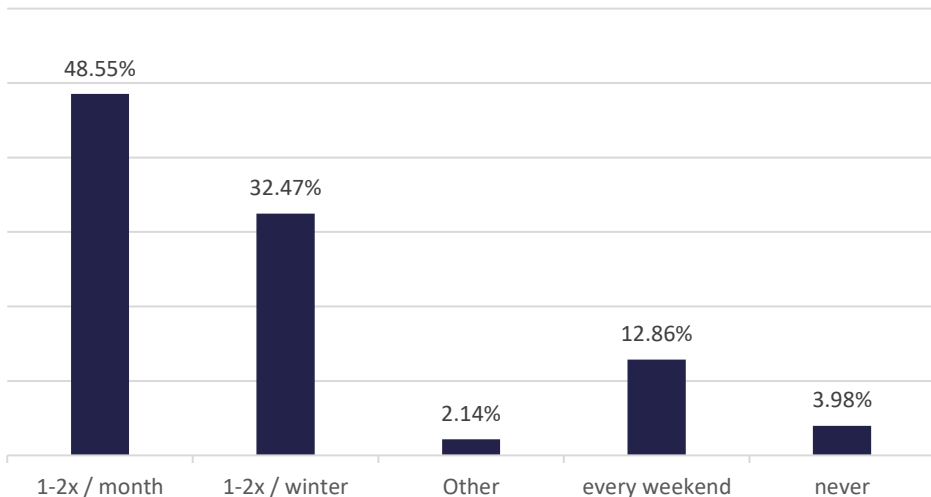


Figure 3
Frequency of alpine skiing participation in free time

The largest proportion of the respondents engage in skiing 1-2 times per month (48.55%), while the second most common response was skiing only 1-2 times per winter season (32.47%). This frequency is insufficient for significantly improving practical skills and proficiency in alpine skiing. No statistically significant differences were found between the genders ($\chi^2(4) = 5.146, p > 0.05, V = 0.089, p > 0.05$ (Table 1).

Table 1

Frequency of alpine skiing participation in free time by teachers' gender

		Gender * How often do you do downhill skiing in your free time in the winter?					Total
		How often do you practise alpine skiing in your free time in the winter?					
		1-2x / month	1-2x / winter	other	every week-end	never	
Gen- der	mal- e	160	112	4	36	14	326
	fe- mal- e	157	100	10	48	12	327
Total		317	212	14	84	26	653

In our research, we hypothesized that the length of teaching experience influences the practical skills and proficiency level in alpine skiing. The length of teaching experience was divided into eight groups. The largest group of the teachers in our study consisted of those with up to 5 years of experience (22.97%). The second largest group included the teachers with 6 to 10 years of experience, accounting for 21.44%. The third largest group were the teachers with 11 to 15 years of experience, representing 18.38%. The least represented group consisted of the teachers with more than 36 years of experience, making up only 2.76%. The teachers with 16 to 20 years of experience accounted for 10.87%, those with 21 to 25 years of experience were 9.80%, and those with 26 to 30 years of experience made up 7.96%. The second smallest group, in terms of the teaching experience, was the group with 31 to 35 years, comprising 5.82%. Regarding practical skills and proficiency in alpine skiing, the majority of the respondents rated their skills as advanced of a total 60.18%. The further 34.61% teachers rated themselves as intermediate, 3.98% considered themselves beginners, and 1.23% reported not being able to ski at all. Among those who identified as beginners or non-skiers, the largest proportion were teachers with the shortest teaching experience, i.e. those with up to 5 years of experience. Chart 2 presents the comparison of the respondents' proficiency levels in alpine skiing according to their length of teaching experience. Based on the calculated values ($F = 23.290, p > 0.05, V = 0.117, p > 0.05$), no difference was found

in the reported level of skiing skills among the teachers depending on the length of their teaching experience.

Table 2

Proficiency level in alpine skiing according to the teachers' length of experience

The length of your teaching practice * What are your practical skills and level of downhill skiing?						
		What are your practical skills and level of downhill skiing?				
		moderately advanced	I don't master this sport	advanced	beginner	Total
The length of your teaching practice	up to 5 years	51	5	86	8	150
	from 6 to 10 years	49	0	85	6	140
	from 11 to 15 years	46	2	67	5	120
	from 16 to 20 years	19	1	49	2	71
	from 21 to 25 years	32	0	31	1	64
	from 25 to 30 years	15	0	34	3	52
	from 31 to 35 years	11	0	27	0	38
	more than 36 years	3	0	14	1	18
Total		226	8	393	26	653

Discussion

In our research, we concluded that most physical education teachers at the upper level of elementary schools show the greatest interest in alpine skiing compared to other winter activities. We can assert that alpine skiing is an attractive sport for teachers, which they also enjoy doing in their free time. Similarly, Reichert & Musil (2008) and Michal (2013) found in their studies that despite the growing interest in snowboarding, alpine skiing remains the most popular winter physical activity. Cigrovski et al. (2014) confirmed that the program their subjects completed positively influenced their attitude toward alpine skiing. In another study, Cigrovski et al. (2018) investigated the impact of the psychological traits on individuals' motor skills. They examined whether courage or fear affect skiers with different skill levels. It was shown that psychological factors and gender should be taken into account when learning to ski. Kuna et al. (2018) emphasize that a teacher should be able to properly apply and adapt appropriate teaching tools based on students' skills to make the teaching process as effective as possible. Our hypothesis related to the frequency of alpine skiing in free time suggested that statistically significant differences exist between genders in this frequency. This hypothesis was not confirmed. Similarly, Budak's

(2023) study concluded that gender does not influence active leisure time, but the individuals who engage in alpine skiing during their free time tend to spend their leisure time more actively compared to those who do not ski. We also hypothesized that the length of teaching experience influences practical skills and proficiency in alpine skiing. We examined the differences in skiing skills and levels based on the length of teachers' experience and whether these differences were statistically significant.

Conclusions

The results of our research indicate that the teachers prefer alpine skiing in their free time the most. Based on this finding, we believe that this is one of the reasons why alpine skiing is the most commonly offered and taught seasonal physical activity to students at elementary schools. At the same time, our findings indicate that teachers allocate limited time to developing their alpine skiing skills, typically skiing only once or twice per month, or in some cases, merely once or twice during the entire winter season. These findings are concerning. However, one of the reasons why teachers do not engage more frequently in skiing or skill improvement is the inaccessibility of ski resorts due to their distance or financial constraints, as well as often poor or unsuitable snow conditions at ski resorts. This situation was further exacerbated by the Covid-19 pandemic, during which ski resorts remained closed for an entire season, thereby limiting teachers' opportunities to practice and enhance their alpine skiing skills. Despite the low frequency of skiing, a large group of the respondents rate their skiing skills at an advanced or intermediate level, with only a few respondents unable to ski, which we consider a positive outcome. Teachers should be offered retraining and improvement courses where they could enhance their skiing skills. Most respondents in our study have a teaching experience of up to 5 years. The majority of the participants expressed a preference for residential ski courses—that is, trips that include accommodation—over daily commuting to ski resorts. However, some respondents are open to a combined form of ski trainings. Since there are few studies focusing on the winter seasonal physical activities with an emphasis on ski trainings from the perspective of teachers, we recommend continuing such research. Based on the findings, general recommendations can be developed for organizing winter seasonal physical activities in elementary schools. Furthermore, given the importance of continuing winter sports education in schools, it is essential to support the training of specialists in these sports and to invest in their professional development to ensure they acquire necessary expertise.

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STATEMENT OF ETHICS

This study was conducted in accordance with the World Medical Association Declaration of Helsinki. The study protocol was reviewed and approved by the Ethics Committee of the University of Matej Bel (Ref. No.: 710/2025, Banská Bystrica, Slovakia). All participants provided written informed consent to participate in this study.

DECLARATION OF CONFLICTING INTERESTS

The authors declared no potential conflicts of interests with respect to the research, authorship, and/or publication of the article *Opinions of Primary School Teachers on Alpine Skiing: Popularity, Frequency and Skill Level*.

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AUTHORS' CONTRIBUTIONS

Jiří Michal: Conceptualization, Methodology, Validation, Formal analysis, Investigation, Resources, Data Curation, Writing – Original Draft, Writing – Review and Editing, Supervision

Stanislava Straňavská: Conceptualization, Methodology, Validation, Formal analysis, Investigation, Resources, Writing – Original Draft, Writing – Review and Editing, Visualization

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