ORIGINAL ARTICLE

Movement games from the point of view of primary education teachers in Slovakia

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ABSTRACT

The main goal of the survey carried out by us is to find out the current opinions of teachers at the primary level of education in Slovakia for teaching the thematic unit activities in nature and seasonal movement activities with a focus on the place of movement games in their teaching. Using a survey, they obtained data from 1,363 teachers of primary education who teach physical and sports education in 75 elementary schools from 8 regions of Slovakia. As many as 15% of all respondents answered that they do not teach the thematic unit outdoor activities and seasonal physical activities at all. Overall, the most commonly taught activity in nature is hiking and spending time in nature. The least respondents like teaching cross-country skiing. Despite the broad and demanding focus of teachers in the primary level of education, we consider it necessary that the teaching of the thematic unit outdoor activities and seasonal physical activities (due to their importance from the point of view of health and the creation of a future lifestyle) is implemented either in winter or summer with 100% occupancy. The obtained results are applicable for compensation of identified deficiencies and subsequent optimization of the educational process in this important period of children's development. Since the results of our study are from the whole of Slovakia, they have a nationwide social impact and significance.

Keywords: Physical education, Outdoor activities, Seasonal physical activities, Summer, Winter, Primary level of education.

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INTRODUCTION

Since the beginning of the 90s, we can observe the gradual promotion of the educational field, which is generally defined by the term outdoor, or outdoor activities. In the educational field in Slovakia, we collectively refer to them as seasonal physical activities. These are mostly short-term and longer-term (multiple day) exercise activities that take place outside closed spaces, experiential activities in nature or way of spending free time outside the home or school. According to study Jensen and Guthrie (2006) these are primarily activities performed for the purpose of increasing physical activity, general well-being, recreation, but also mental health. This field of education is very widespread in the countries of the European Union, the USA, Canada, Australia, and New Zealand, mainly because of its high efficiency, achieved with the help of experiential learning models, the use of a wide range of activities, new work methods, but also thanks to the tools and programs used for educational opportunities (Volkova, 2015). Seasonal exercise activities, carried out outside closed spaces, in summer or winter, have a huge potential to significantly influence the lives of children and adults. They can have a positive impact on negative civilizational influences, stimulate health, contribute to the development of physical fitness, and can also have a positive effect on the child's psyche (Gray et al., 2015). With their content, they contribute to the development of one's abilities, skills, knowledge, and insights, and at the same time support the emotional side of the child (Bubeliniova, 1999).

According to study Adamcak and Nemec (2010) an essential component of a person's healthy lifestyle is physical activity, which he uses to ensure his optimal psychological and physical development. Opportunities to establish contact with nature, to recognize and cope with its pitfalls, but especially staying with peers and adults in this responsive environment can contribute to better educational experiences and positively influence children's motivation and enthusiasm for learning and school. Parents, educators and creators of social strategies and policies should offer children projects that will provide this age group with a varied palette of the best possible experiences (Bento and Dias, 2017). Seasonal exercise activities can also be included among the so-called experiential activities, as they are based on the element of adventure and assume movement with a certain degree of risk. Subjective sense 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 et al., 2018).

According to Boaventura et al. (2013), outdoor activities implemented at school are important not only for supporting meaningful theoretical education, but also for the development of children's practical skills and abilities. Yildirim and Akamca (2017) also see the importance and method of implementing outdoor activities in the fact that such activities help students to change theory into practical knowledge and skills, but especially to record them in long-term memory. They consider important not only the strength of the stimulus and the means used, but also the environment in which the activity takes place. In this context, the findings of study Jakovleva and Rudzinska (2017), which state that up to 40% of leisure-time physical activities are carried out outside in nature and only 36% in the home environment, should be viewed positively in this context.

The connection of the natural environment with a suitable stimulus, which can be cooperation, competition, a strong experience, etc., has a significantly more intensive effect on the child in shaping his attitudes and interests. Baskova (2009) consider different forms of games (especially cooperative, creative games) from this point of view, because feelings of belonging, or the common commitment towards others, but also towards the group, which the participants experience during the game are important for the mutual reciprocity of opinions. The same opinion is presented by Parker et al. (2022) who claim that learning through play proves to be an important strategy supporting the involvement of pupils in the development of their skills and abilities and developing inclusion in the group. Within the state educational program ISCED 1 (primary

education), the educational field Health and movement is divided into three parts, where five thematic units are allocated within the part called Sports activities of the movement regime. One of them is the thematic group Activities in nature and seasonal physical activities, where the following types of sports and recreational activities are included in the content of the education of younger school-age pupils - skating (in-line and on ice), skiing (downhill and cross-country), swimming, hiking, and staying in nature, scootering, and cycling. The state educational program leaves individual schools with the option of choosing which sports and recreational activity is more suitable for them, due to the diverse conditions of individual regions and, of course, the possibilities of the schools themselves. In the same way, this choice is certainly influenced by the willingness, interest, qualifications, abilities, and skills of the implementer of school education, i.e., the teacher. Novotna and Rozim (2014) shows that the implementation of seasonal exercise activities in Slovak elementary schools at the primary level of education also depends on the spatial of the school and its surrounding nature.

The main goal of the survey carried out by us is to find out the current opinions of teachers at the primary level of education in Slovakia for teaching the thematic unit activities in nature and seasonal movement activities with a focus on the place of movement games in their teaching.

MATERIALS AND METHODS

Participants

The survey sample consisted of teachers teaching physical and sports education at the primary level of education from 75 elementary schools from eight regions of Slovakia: Bratislava, Trnava, Nitra, Trencin, Zilina, Banska Bystrica, Presov and Kosice. In total, more than 1,500 respondents were contacted. Out of the mentioned number, 1363 correctly and completely filled out the survey forms and were included in the evaluation. Sufficient sample sizes were ensured by adhering to the following conventional criteria: the known size of the total population of primary education teachers in the territory of the Slovakia in the 2020/2021 academic year (14,090), the estimation error (±5%), the variance of 50%, and the reliability of the estimate of 99% (1 – α). We analysed the teachers' answers from two aspects (Table 1):

1. From the aspect of the length of their teaching experience (experience of 0-10 years and experience longer than 11 years),
2. From the aspect of the residential environment of the school (the so-called type of school), i.e., urban schools (in a settlement with more than 5,000 inhabitants) and rural schools (in a settlement with less than 5,000 inhabitants).

The reason for choosing the mentioned two aspects was our assumption that when teaching such a specific TU as Activities in nature and seasonal movement activities, the length of pedagogical practice, or residential environment of the school significantly influences their teaching. A similar opinion is held by Saracaloglu et al. (2012) and Volterrani (2023). The addressed respondents willingly agreed to fill out the questionnaire without the expectation of any reward or financial gain. Concurrently, they consented to the inclusion of their completed data in the research study and its subsequent publication in relevant analyses and publications.

Table 1. Characteristics of the survey group (n = 1363).

Type of school/pedagogical experience in years	0-10 years	11 and more	Total
Urban school	309 (41.37%)	438 (58.63%)	747 (100%)
Rural school	258 (41.88%)	358 (58.12%)	616 (100%)
Total	567	796	1363

Survey timeline and data collection methods used

The survey was conducted in the form of an electronic online survey via Google Forms software (Google LLC, CA, USA) in 2020 and 2021. The online version of the survey was chosen due to the epidemic situation of COVID-19 when it was not possible to carry out the face-to-face form of the survey. The non-standard survey was of its own design (due to the specificity of the survey itself) and consisted of two areas:

a) From demographic items (age, gender, length of teaching experience, regional seat of the school and residential environment of the school, i.e., urban, or rural school),
b) From items directly related to the aim of the survey.

Data analysis

The data evaluation was processed according to the methods Hadley and Grolemund (2017) so that the collected data were summarized in an internal database, where they were checked (cleaning of erroneous, extreme, or missing records) and subsequently subjected to further statistical processing. We quantified the results of our study using the arithmetic mean, percentage frequency analysis, and the method of inductive statistics - chi-square test (χ^2). The probability of type I error (alpha – α) was set at 0.05 and 0.01. The probability of type II error (beta – β) was eliminated by the high number of chosen samples. The statistical processing itself was carried out using the software IBM® SPSS® Statistics V28, the image attachment was prepared in the Microsoft® Office Excel 11.

RESULTS

According to survey responses, we can state that during teaching of thematic unit of outdoor activity and seasonal physical activity, <50 % of survey group taught all types of seasonal sports. We recorded the highest frequency of survey responses among the survey group with the pedagogical practice in interval of >10 years (55.38%). Almost 15 % of survey group did not teach the thematic unit of outdoor activity and seasonal physical activity. In addition, we recorded the highest frequency of such negative survey responses among the survey group of village schools (16.23%), as well the survey group with the pedagogical practice in interval of <10 years (15.70%). When dividing the content of thematic unit of outdoor activity and seasonal physical activity, we found that the survey group who taught that thematic unit (whether in terms of length of pedagogical practice and school location) more inclined towards the outdoor activity, rather than indoor activity. Within the statistical evaluation of survey question, we found that both in terms of length of pedagogical practice and school location, there was significant difference in the survey responses of survey group at the level of $p < .01$ (Table 11).

Table 2. Teaching of thematic unit outdoor activities and seasonal physical activities.

	0-10 years	11 and more years	Urban schools	Rural schools
I only teach indoor activities from TU of outdoor activity and seasonal physical activity	14.99	17.09	18.74	13.15
I teach only outdoor activities from TU of outdoor activity and seasonal physical activity	16.75	19.72	15.26	22.40
I teach sports activities according ISCED 1	55.38	47.49	52.88	48.21
I don't teach the TU of outdoor activity and seasonal physical activity	12.87	15.70	13.12	16.23

In the following questions, we were interested in the popularity of teaching individual seasonal physical activities among teachers. We focused on three winter and three summer outdoor activities. Despite the

currently considerably high popularity of downhill skiing in Slovakia due to the popularity of Petra Vlhova, we found (Table 3) that on average up to 48.75% of teachers do not teach it at all. The highest percentage (63.19%) was reported by teachers from the group with more than 11 years of teaching experience. It was mentioned by 19.40% of teachers from the group with up to 10 years of experience as the most popular activity within the investigated TC. From the aspect of the type of school, we noticed a significant difference in the answers only in the item "*most favourite activity*", where the frequency of responses of urban schoolteachers was 18.34% and rural 10.88%. During the statistical evaluation, we found that there are significant differences in the answers of teachers at the level of $p < .01$, both from the point of view of the length of teaching practice and from the point of view of the type of school (Table 11).

Table 3. Popularity of teaching downhill skiing within thematic unit outdoor activities and seasonal physical activities.

	0-10 years	11 and more years	Urban schools	Rural schools
Least favorite activity in thematic unit	11.46	3.77	7.23	6.66
Most popular activity in thematic unit	19.40	11.81	18.34	10.88
As popular sports activity as the others, within the thematic unit	37.74	21.23	26.77	29.71
I do not teach it	31.39	63.19	47.66	52.76

Cross-country skiing is generally considered one of the healthiest winter sports. Through our survey, we found that more than 65% of all teachers do not teach it at all (Table 4). The least proactive are teachers with more than 11 years of teaching experience (76.88%). We consider it surprising that cross-country skiing is not taught to a higher extent in rural schools (68.02%) compared to urban schools (65.73%). The popularity of teaching cross-country skiing as the most popular activity within TC did not exceed the value of 10% in any monitored group. In the statistical evaluation, we found that significant differences in the respondents' answers (at the $p < .01$ level) are only from the aspect of the length of their teaching experience (Table 11).

Table 4. Popularity of cross-country skiing lessons within the thematic unit outdoor activities and seasonal physical activities.

	0-10 years	11 and more years	Urban schools	Rural schools
Least favorite activity in thematic unit	8.99	3.14	5.89	5.19
Most popular activity in thematic unit	9.88	5.90	7.23	7.95
As popular sports activity as the others, within the thematic unit	28.57	14.07	21.15	18.83
I do not teach it	52.56	76.88	65.73	68.02

Ice skating (Table 5) is not taught at all by more than 42% of all interviewed teachers. From the point of view of the type of school, it is up to 50% of teachers from the countryside. From the point of view of the length of teaching experience, it is not taught by 45.35% of teachers with more than 11 years of teaching experience. More than 38% of all teachers said that ice skating belongs to the equally popular activities from TC. The frequency of responses "*most popular activity*" reached the value of 10.59%. During the statistical evaluation, we found that there are significant differences in the answers of teachers at the level of $p < .01$, both from the point of view of the length of teaching practice and from the point of view of the type of school (Table 11).

Table 5. Popularity of ice-skating lessons within the thematic unit outdoor activities and seasonal physical activities.

	0-10 years	11 and more years	Urban schools	Rural schools
Least favorite activity in thematic unit	9.17	8.04	8.97	7.95
Most popular activity in thematic unit	10.93	10.43	12.05	8.93
As popular sports activity as the others, within the thematic unit	40.92	36.18	42.30	33.12
I do not teach it	38.98	45.35	36.68	50.00

In relation to the focus of our research, in the next question, we found out how in winter exercise activities in nature (downhill and cross-country skiing and ice skating) the addressed teachers use movement games (Table 6). Movement games are most often used in the preparatory part of the lesson (43.83%). We recorded the fewest answers when it was possible to evenly divide each part of the lesson (7.26%). Pedagogical practice has shown that teachers with longer experience like to use them in the main part of the lesson in addition to the preparatory part (36.68%). From the point of view of the type of school, all answers were relatively balanced, slightly in favour of urban schools. In the statistical evaluation, we found that significant differences in the respondents' answers (at the $p < .01$ level) are only from the aspect of the length of their teaching experience (Table 11).

Table 6. The place where movement games are most often implemented as part of teaching winter movement activities in nature.

	0-10 years	11 and more years	Urban schools	Rural schools
Equally in every part of the lesson	9.17	5.65	7.23	6.98
In the final part of the lesson	21.34	14.32	17.94	16.40
In the main part of the lesson	24.87	36.68	29.18	34.90
In the preparatory part of the lesson (warm-up)	44.62	43.34	45.65	41.72

Only 26.71% of the teachers of all monitored groups do not teach tourism and staying in nature (Table 7). Teachers with more than 11 years of experience (19.85%) and teachers working in rural schools (20.62%) consider tourism and staying in nature to be the most popular activity within TU. Teachers with up to 10 years of experience (8.47%) identified tourism and being in nature as the least popular activity. During the statistical evaluation, we found that there are significant differences in the answers of teachers at the level of $p < .01$, both from the point of view of the length of teaching practice and also from the point of view of the type of school (Table 11).

Table 7. Popularity of teaching tourism and staying in nature within the thematic unit activities in nature and seasonal physical activities.

	0-10 years	11 and more years	Urban schools	Rural schools
Least favorite activity in thematic unit	8.47	5.15	5.09	8.28
Most popular activity in thematic unit	14.99	19.85	15.53	20.62
As popular sports activity as the others, within the thematic unit	49.91	48.24	52.74	44.32
I do not teach it	26.63	26.76	26.64	26.79

In-line skating (Table 8) belongs to the least taught activities (59.81%). Teachers with more than 11 years of experience (66.96%) are the least active in this regard. This activity is most popular among teachers with up to 10 years of experience (7.41%). Teachers from rural schools more often included this activity in the area "*I do not teach*" (62.50%). In the statistical evaluation, we found that significant differences in the respondents' answers (at the $p < .01$ level) are only from the aspect of the length of their teaching experience (Table 11).

Table 8. Popularity of teaching in-line skating within the thematic unit activities in nature and seasonal physical activities.

	0-10 years	11 and more years	Urban schools	Rural schools
Least favorite activity in thematic unit	11.82	7.41	9.50	8.93
Most popular activity in thematic unit	7.41	4.65	5.22	6.49
As popular sports activity as the others, within the thematic unit	29.63	20.98	26.64	22.08
I do not teach it	51.15	66.96	58.63	62.50

Opinions on the popularity of two activities combined within TU into one whole - riding a scooter or bicycle (Table 9) are as follows - more than 57% of teachers do not teach these activities at all. The least active are teachers with more than 11 years of experience (60.43%). The greatest popularity of these two activities (scootering or cycling) was recorded among rural schoolteachers (7.14%), while among this group we also recorded the highest frequency of responses in the item "*as popular sports activity as the other, within the thematic unit*" (32.63%). In the statistical evaluation, we found that the teachers' answers from the aspect of length of teaching experience were significant at the $p < .01$ level. From the point of view of the type of school, the significance of the differences in answers was at the $p < .05$ level (Table 11).

Table 9. Popularity of learning to ride a scooter or bicycle within the thematic unit activities in nature and seasonal physical activities.

	0-10 years	11 and more years	Urban schools	Rural schools
Least favorite activity in thematic unit	9.88	4.15	7.10	5.84
Most popular activity in thematic unit	6.17	5.15	4.28	7.14
As popular sports activity as the others, within the thematic unit	30.51	30.28	28.51	32.63
I do not teach it	53.44	60.43	60.11	54.38

In the last question, we found out how in summer movement activities in nature (hiking and staying in nature, in-line skating and scootering and cycling) the addressed teachers use movement games (Table 10). They use them most often in the main part of the lesson (47.92%). We recorded the most answers (54.67%) from teachers with a shorter length of teaching experience (up to 10 years). We recorded the fewest answers for the option in the final part of the lesson (6.04%). Teachers with longer teaching experience (more than 11 years) like to use them equally in all parts of the lesson (24.87%). Teachers from urban schools least like to use movement games in the final part of the lesson (3.75%). During the statistical evaluation, we found that there are significant differences in the answers of teachers at the level of $p < .01$, both from the point of view of the length of teaching practice and also from the point of view of the type of school (Table 11).

Table 10. The place where movement games are most often implemented as part of teaching summer movement activities in nature.

	0-10 years	11 and more years	Urban schools	Rural schools
Equally in every part of the lesson	13.05	24.87	18.61	21.59
In the final part of the lesson	5.64	6.16	3.75	8.60
In the main part of the lesson	54.67	42.34	48.73	45.94
In the preparatory part of the lesson (warm-up)	26.63	26.63	28.92	23.86

Table 11. Statistical evaluation of the differences in teachers' answers from the aspect of the length of their teaching experience and from the aspect of the type of school.

	Length of teaching practice		Type of school	
	$\chi^2_{(3)}$ value	*p*-value	$\chi^2_{(3)}$ value	*p*-value
Table 2	8.360*	.039	19.525**	.0002
Table 3	140.017**	3.74 E-30	15.517**	.001
Table 4	91.253**	1.178 E-19	1.697	.637
Table 5	5.676	.128	24.990**	1.550 E-05
Table 6	29.894**	1.452 E-06	5.158	.160
Table 7	10.146*	.017	15.071**	.001
Table 8	35.091**	1.16 E-07	4.758	.190
Table 9	20.092**	.00016	9.564*	.022
Table 10	33.958**	2.021 E-07	18.686**	.0003

*Note. ** = Statistical significance at the level p < .01; * = Statistical significance at the level p < .05.*

DISCUSSION

As important, we need to emphasize that the issue of teaching thematic units in the subject of physical and sports education at the primary level of education has been addressed by a minimum of authors in recent decades, and therefore the comparison of our findings is quite problematic. Several foreign studies, e.g. Alderman et al. (2012), Long et al. (2013) indicate that the level and nature of daily and weekly physical activity among children and youth is significantly influenced by school physical and sports education. The basics of movement skills, related to the activities that make up the content of this TU and which should prospectively occupy an important place in a person's life, should be at the forefront of the teacher's interest in this period of education. Activities such as ice baths, staying and moving in nature or on roads, combined with safety rules, create important prerequisites for the gradual development of knowledge in the field of health and injury prevention or life protection. It is about the development and acquisition of such movement abilities, skills and activities that should constitute the largest representation of all-day activities in childhood (Sujova and Vladovicova, 2016). In particular, the period of the global pandemic COVID-19 pointed out that exercise activities carried out outdoors on the playground, in the yard or in nature certainly have higher benefits compared to activities carried out in closed spaces. Our findings regarding the division of TU content into outdoor and indoor activities pointed to the fact that teachers who teach this TU (either from the point of view of the length of teaching experience or the location of the school) are more inclined to outdoor activities. When evaluating the popularity of teaching individual seasonal sports and recreational activities, we found that the most popular activities are hiking and spending time in nature and swimming. This finding correlates with the claim of Adamcak and Nemec (2010), that tourism and sports in nature belong to the optimal psychological and physical development of a person. The least popular seasonal activities among our

teachers are inline skating and ice skating. There can be several reasons, organizational problems with the selection of suitable premises, material security, but also a high risk of injury and considerable demands for individualized learning of these activities. Of course, it is also necessary to accept the fact that this TU is broadly conceived and, as one of the few, must significantly respect the real conditions of individual schools (Novotna and Rozim, 2014).

The use of movement games in the teaching of seasonal movement activities from the point of view of their place in the lesson brought an interesting finding that within the framework of winter movement activities, teachers most often implement them in the preparatory part of the lesson and in the summer most often in the main part of the lesson. Parker et al. (2022) state that if a teacher wants to implement playful teaching, he must understand what playing and learning is and what benefits it brings to the quality of learning. At the same time, they claim that the game is an important and legitimate means of learning. The inclusion of games in the main part of the lesson, which is the longest in its scope, is recommended by e.g. Dilkes et al. (2014) who state that just such an approach can help avoid fatigue, especially when learning new things. Dean and Kuhn (2007) claim that learning in more playful conditions brings more lasting results and faster learning progress. It means that the use of games in the main teaching time (the main part of the lesson) can be considered more effective. If we look at the results through the selected contextual variables, teachers with more than 11 years of teaching experience significantly often presented the opinion that they do not teach individual seasonal movement activities at all compared to their younger colleagues. The finding that this thematic unit is not primarily taught by teachers with more than 11 years of teaching experience (15.70%) did not surprise us greatly. Teaching seasonal movement activities is demanding in terms of time, preparation, and implementation, but it is also characterized by high risk. These are attributes that an experienced teacher is already fully aware of and can undoubtedly have a significant negative impact on their willingness to accept such threats. From the point of view of the type of school, we noted a less significant difference in answers among teachers of the primary level of education, which also confirms their statistical expression, when we found no significant difference in this parameter three times, at the $p < .05$ level only once and only three times at the $p < .01$ level. In the parameter length of teaching experience, we found significant difference twice at the $p < .05$ level and up to six times at the $p < .01$ level.

In 2015, the National Project "*Increasing the qualifications of physical and sports education teachers*" was implemented in Slovakia (National project, 2023), the aim of which was to make the process of teaching physical and sports education more attractive and to improve the quality, so that the teaching is more experiential and motivating for the current generation of children and youth. The main tools were movement games, cooperative activities and experiential learning. In addition to the main goal, this project was supposed to ensure adaptation of the process of informal as well as formal education to the current needs of society. Also, in our investigation, we found that teachers like to use this motivating tool, but they don't always do so completely adequately in terms of time. We believe that if physical activities for children at school are supported by a suitable element of play, it can instil in them the desire to engage in these activities more often during their free time, leading to various positive benefits, especially from a health perspective.

Based on our findings, we recommend the implementation of the thematic unit activities in nature and seasonal movement at the primary level of education in every elementary school, despite its complexity. To enhance the quality of teaching in this thematic unit, we suggest that primary-level teachers incorporate playful activities, such as movement games, into the main part of the instruction for individual seasonal movement activities.

We believe that this is the most suitable way for teachers to provide students with their first, and often positive, experience with these sports and recreational activities, which they may not have encountered within their family or leisure spaces.

A limiting factor in our study may be the self-reporting of results, lack of motivation, and the potential lack of complete trustworthiness in respondents filling out the survey. Participation in the survey was voluntary, without financial reward, and it was conducted only in electronic form due to the COVID-19 pandemic.

Additional limitations include the absence of evaluation of the obtained results based on the participants' education in the field of preschool and elementary pedagogy, related teaching fields, or other educational domains, as well as the participants' achieved career levels. However, these limitations also present opportunities for further exploration and deeper investigation of the issue.

CONCLUSION

In our survey, we concentrated on a specific educational domain within primary education called 'Health and Movement.' This area is expected to serve not only as an essential source of information and development but also has a direct impact on influencing children's health. We focused on the thematic unit 'Activities in Nature and Seasonal Physical Activities,' which is intended to occupy 15% of the total time allocated for teaching the subject of Physical and Sports Education. During our investigation, we gathered opinions from primary-level teachers on the teaching of seasonal (summer and winter) physical activities in nature, as well as the incorporation of movement games in their instructional practices. When summarizing the achieved results, it is essential to highlight the least favourable finding: up to 15% of all teachers, particularly those in rural schools (16.23%), reported not teaching this thematic unit at all. Furthermore, in terms of teaching experience, we observed that teachers with more than 11 years of experience are less likely to teach this thematic unit. In winter, the most commonly taught activities include ice skating, downhill skiing, and cross-country skiing. During the summer, teachers focus on hiking, spending time in nature, riding scooters or bicycles, and inline skating. Overall, cross-country skiing is the least popular among the studied group. When investigating the role of movement games in the teaching of seasonal activities, we found that teachers primarily use games in the preparatory part of the lesson during winter and most often incorporate them in the main part of the lesson during summer. These findings can be utilized to address the identified shortcomings and optimize the educational process during this crucial period of children's development.

AUTHOR CONTRIBUTIONS

MN: Study Design, Data Collection, Manuscript Preparation. SA: Study Design, Data Collection, Statistical Analysis, Manuscript Preparation. PP: Statistical Analysis, Manuscript Preparation. All authors have read and agreed to the final version of the manuscript.

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