

Examining winter sports awareness level of University students receiving sport education

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Abstract

The aim of this study was to determine winter sports awareness levels of students educated in the field of sports sciences according to the following independent variables: gender, university, class level, experience in winter sports, family members' interest in winter sports and monthly family income. Through awareness, we increase our consciousness level for ourselves, our environment and the universe, and our consciousness zone extends accordingly. This study used the survey method, and the participants were a total of 562 students attending the School of Physical Education and Sports or the Faculty of Sports Sciences at Kafkas University, Karabuk University, Kastamonu University and Samsun 19th May University in 2018–2019 academic year. 'Winter Sports Awareness Scale' was administered to collect the data for this study. This five-point Likert type scale consists of 35 items. SPSS 20 program was used for the analysis of the data. Skewness–Kurtosis values were calculated, accordingly, parametric tests were used. Independent sample t-test was used for pair-wise comparisons, and one-way analysis of variance and Tukey HSD were used for multiple comparisons. The results of the analysis revealed medium level awareness for winter sports for all the groups. The comparisons of the mean scores for 'gender' and 'family income' variables revealed no significant differences, whereas significant differences were found for 'university', 'experience in winter sports' and 'family members' interest in winter sports' variables.

Keywords: Awareness, winter sports, University students.

1. Introduction

Although a child's education first starts in the family environment, sports education systematically and institutionally starts in a school environment. Physical education and sports courses given in schools contribute to physical, emotional, social and mental development of students and influence their lifestyle (Bailey, 2006). An efficient collaboration between family, child and teacher is essential to achieve learning outcomes in schools in an effective way. Since families and children are relatively less experienced and less knowledgeable in terms of educational practices and principles, the role of teachers in this process is quite significant, which clearly proves the importance of training quality teachers for a better future.

Educational objectives should be both clear and well-established, which requires a step-wise classification of goals. Educational objectives have been classified in various ways by educators. The most commonly agreed classification was proposed by Bloom et al. (Bilen, 1996), which groups educational objectives into three categories: cognitive, affective and psychomotor (Tamer & Pulur, 2001; Tavacioglu, 1999). Physical education and sports, which is known to have an important effect on learning in parallel with the goals and outcomes of general education, is one of the fields that should be evaluated in terms of cognitive, affective and psychomotor development issues. Cognitive behaviours to be developed through education are related to acquired knowledge and mental abilities of an individual, whereas affective ones are about an individual's emotions and values. Finally, psychomotor behaviours are related to the skills based on muscle and mind coordination and their basic elements (Turgut, 1993).

Determining clear educational objectives and a quality content for physical education and sports field is essential so that it is possible to train individuals to achieve a well-developed and healthy society. A successful planning of these objectives should focus on training self-disciplined individuals who are able to make their own decisions, assume responsibilities and make correct choices. The studies show that financial status and cultural background of the society and social environments such as family, school and friends in addition to natural and physical environments considerably affect physical activities in physical education and sports in both positive and negative ways (Eski, 2010).

Quality teachers are trained through well-established teacher training programs. Therefore, it is essential to prepare a commonly agreed content and curriculum for teacher training programs to educate quality teachers of the future (Kucukahmet, 2006). Regardless of educational level, a teacher should acquire a comprehensible theoretical background about the field. However, it is necessary to develop an awareness, which might provide a basis for his interests, attitudes and behaviours before this acquisition.

Awareness is a cognitive and affective activity. When awareness is achieved, we form new mental schemes, i.e., we extend our consciousness zone. Through awareness, we increase our consciousness level for ourselves, our environment and the universe, and our consciousness zone extends accordingly. Noticing a stimulant requires that this particular stimulant should be strong enough to exceed a certain threshold and reach our sense organs. However, we may not be aware of every stimulant reaching our sense organs. It is necessary to associate a new stimulant with existing schemes, define it and feel excitement about (experiencing emotional reaction) and a need to interact with it so that we can notice this new stimulant. Awareness occurs when all these three conditions are met (Dokmen, 2002).

Awareness is about an individual's knowing who he is and the realities about himself. Awareness is such an important experience that we notice how we do the things we do. Awareness is the key factor for the realisation of experience cycle or individual–environment interaction. Our awareness capacity provides us with the necessary feedback to regulate ourselves and our environment. An effective individual–environment interaction depends on the feedback about two basic issues: the experience we have and the effects of our reactions on our environment. Without such feedback, it is not possible to establish an effective individual–environment interaction. On the other hand, the presence of

feedback will help individuals to overcome the problems encountered more effectively. This skill plays an important role in enhancing self-development of individuals as well (Akkoyun, 2005).

According to Yontef (1979), 'Awareness is a kind of experience, and it refers to establishing a sort of contact with the most important event at the individual and environmental level through energy and cognitive, affective and kinetic support' (cited by Clarkson, 2004).

Maharaj (2005) defined awareness as follows: 'Awareness is the essence and what exists at the beginning. It is an unchangeable state, which has no beginning and an end. It is the matrix of all actions. It is a direct insight, which profoundly penetrates into the conscious and mind. Awareness means being aware of mind as a whole and define and comprehend it. Mind is interested in events, whereas awareness deals with the mind itself.'

Some people can express themselves easily; however, this is very difficult to do for others, which clearly shows that self-knowledge and self-expression are two different processes. Therefore, the Johri Window Model (Self-knowledge window) was proposed to clarify such differences among people (Dogan, 2005).

An important dimension of learning and thinking processes is cognitive awareness. It refers to being aware of mental procedures and strategies during problem-solving, evaluating our intellectual products and thinking over them (Costa, 1984).

According to Flavell (1999), cognitive awareness is cognitive knowledge, which regulates elements of cognitive attempts. In this regard, an individual's own cognitive process, his knowledge about the product or anything related to it as well as effective monitoring of these processes is important. Cognitive awareness is necessary to understand and control cognition (Schraw and Graham, 1997). Costa (1984) defines cognitive awareness as the ability to know what we know or what we do not know, being aware of mental procedures and strategies during problem-solving, evaluating our intellectual products and thinking over them. Very basic level of cognitive awareness means individual's awareness about his own thinking (Doganay and Kara, 1995). Cognitive awareness is individuals' knowledge about their thinking process as well as how to monitor and control their thoughts (Hacker & Dunlosky, 2003). Similarly, Marzano defines cognitive awareness as being aware of thoughts and using this awareness under the control of the task in hand (cited by Doganay & Sari, 2007).

Emotional awareness is defined as 'the ability to recognise one's own feelings and others' feelings'. Emotional knowledge gradually differentiates and coalesces, which leads to emotional awareness. Unlike emotional experiences and reflections of these experiences, this type of awareness involves having knowledge about that momentary feeling. Although reflection of feelings involves external indicators such as facial expression or verbal expression, it does not involve awareness of feelings (Lane and Schwartz, 1987). However, awareness of feelings involves experience as well as thinking about emotional experiences in addition to experiencing them (Croyle and Waltz, 2002).

Awareness in the field of physical education and sports is about an individual's awareness about his own cognitive competences, affective characteristics and psychomotor skills and self-knowledge. By interacting with himself and his nearby environment through all his sense organs, he can notice what he knows, what he thinks about and what he feels, and he later uses this information in his life according to his demands and needs. Therefore, awareness in physical education and sports involves cognitive, affective and psychomotor fields; however, it is a process involving past experiences and through which an individual expresses his momentary selectiveness. *Cognitive awareness*, one of the dimensions involved in this process, can be defined as the ways to acquire concepts, principles, rules and tactical and strategical knowledge in the field of physical education and sports and the awareness of the mental processes such as working on the things mentioned above and making generalisations. *Emotional awareness* is about individual's awareness about his thoughts and emotions that emerge in mind due to the effects of past experiences such as interest, willingness, attitude, anxiety, reaction and fear. Finally, *psychomotor awareness* is cognitive and emotional awareness, which encourages

individuals to participate in physical activities and act through concrete behaviours due to the effect of natural and social environments.

The literature review revealed two studies focusing on awareness about winter sports: the study conducted by Unal (2017), which examines awareness levels of secondary school seventh- and eighth-year students about winter sports and the study conducted by Eski (2010) examines with secondary school students on the same topic.

Ozbal and Eski (2019) investigated opinions of teachers and students related to application of peer teaching in winter sports and stated that different methods and models contributed to the career development of students as well as social and communication skills.

Kilic, Yilmaz and Sahin (2009) examined 'Physical Education and Sports Teachers' Awareness about Olympic Games' in a study carried out with 240 physical education and sports teachers working in several schools located in Umraniye, Kadikoy and Uskudar districts of Istanbul. Similarly, Coknaz, Atalay Noordegraaf, Guler and Yoruc Cotuk (2010) conducted a study focusing on physical education and sports students' awareness about Olympic Games and their opinions about Olympic concepts. The study was carried out with 726 students attending 11 schools of physical education and sports located in six different regions of Turkey. In his study with university students, Yasar & Sunay (2019) examined the career awareness of sport science students. Finally, Sebin, Tozoglu, Bostanci and Karahuseyinoglu (2009) examined social-cultural and economic expectations of Erzurum's inhabitants about winter sport tourism.

Physical education and sports, which is known to have considerable effects on learning in parallel with the objectives and outcomes of general education, is a field of education involving cognitive, affective and psychomotor dimensions. Therefore, physical education and sports teachers are important in putting theoretical information into practical applications so that it is possible to achieve these objectives and outcomes effectively and efficiently.

Determining to what extent university students attending sports-related departments are aware of their future goals and the factors affecting this awareness based on scientific data provides valuable insights about educating next generations as effectively as possible. Due to the lack of studies conducted with university students focusing on winter sports, this study is significant in that it is believed to inspire similar future studies and provide valuable data for them. The aim of this study is to determine winter sports awareness levels of university students attending sports-related departments according to the following variables: gender, university, class level, experience in winter sports, family members' interest in winter sports and monthly family income.

2. Methodology

2.1. Research model

This study uses 'survey model', which aims to describe an existing situation as it is. In other words, it tries to describe the event, individual or object in focus in its current conditions without an intervention (Karasar, 2015).

2.2. Sample

Purposive sampling method was used in this study. In such methods, researcher purposively chooses the sampling and includes those who are the most appropriate for this study (Balci, 2004). Therefore, students were chosen from Kafkas University, Karabuk University, Kastamonu University and Samsun 19 May University, which has classes related to winters sports in their curriculum. 562 students (2010 females, 325 males) were included in this study and the questionnaire was applied and used for data analysis.

Table 1 displays the distribution of frequency, percentage, mean and standard deviation scores for the following variables: gender, university, class level, experience in winter sports, family members' interest in winter sports and monthly family income.

Table 1. The data regarding independent variables

Variables	Sub-categories	Frequency (N)	Percentage (%)	\bar{X}	Sd
Gender	Female	210	37.4	3.11	0.55732
	Male	352	62.6	3.09	0.55040
University	Kafkas University	152	27	3.36	0.66968
	Karabuk University	88	15.7	3.03	0.44711
	Kastamonu University	185	32.9	3.01	0.47308
	Samsun Ondokuz Mayıs University	137	24.4	2.98	0.47927
	1st year	156	27.8	3.01	0.57905
Class Level	2nd year	172	30.6	3.08	0.49910
	3rd year	138	24.6	3.16	0.56638
	4th year	96	17.1	3.20	0.56274
Experiences in Winter Sports	Yes	224	39.9	3.27	0.61245
	No	338	60.1	2.99	0.47813
Family Members' Experiences in Winter Sports	Yes	52	9.3	3.40	0.62265
	No	51	90.7	3.07	0.53646
Monthly Income	1,000 TL and less	72	12.8	3.07	0.67227
	1,001 TL–1,500 TL	94	16.7	3.09	0.48444
	1,501 TL–2,000 TL	83	14.8	3.15	0.58376
	2,001 TL–2,500 TL	81	14.4	3.05	0.58747
	2,501 TL–3,000 TL	87	15.5	3.10	0.52921
	3,001 TL and above	145	25.8	3.12	0.50827
Total	Overall Awareness	562	100	3.10	0.55258

2.3. Data collection tool

The questionnaire comprises two parts. In the first part, there are questions related to demographic information of the students and in the second part 'Winter Sports Awareness Scale' was used.

Demographic Information Form: Developed by the researchers, demographic information form included questions related to the participants' gender, university, class level, experience in winter sports, family members' experience in winter sports and monthly income.

Winter Sport Awareness Scale: The data for this study were collected by administering Winter Sports Awareness Scale developed by Eski (2010). This five-point Likert type scale consists of 35 items and three dimensions. Of these 35 items, 13 statements measure cognitive awareness, whereas 13 statements measure emotional awareness and 9 statements psychomotor awareness. The score to be obtained from each positive statement ranges between 1.00 and 5.00 according to the following five-point Likert type format: 1 = I do not agree at all, 2 = I agree to some extent, 3 = I agree to a certain extent, 4 = I agree to a great extent, 5 = I totally agree. As for the negative statements, the score ranges between 5.00 and 1.00, in reverse order. Based on the assumption that the intervals between the items are equal ($N - 1/N = 4/5 = 0.80$), the limits for the options were determined. The scale was applied to 562 students and the reliability coefficient was found as 0.888.

2.4. Data collection and analysis

The permission was obtained from the administration of the faculties for the application of the scales. The academicians in those universities provided help to apply the scales. After acknowledging the academicians, scales were applied to 615 voluntary students.

The data were collected and analysed by using the SPSS 20 software. First of all, normality tests were done and Skewness–Kurtosis values were calculated. The normality tests revealed values between -1 and $+1$, which indicate a normal distribution (Can, 2016). Therefore, independent sample t-tests were applied for pair-wise comparisons and one-way analysis of variance (ANOVA) and Tukey HSD tests for multiple comparisons.

3. Findings

In this section, the data obtained according to the aim of this study were tabulated and interpreted accordingly. The mean score for university students' winter sports awareness level was calculated as $\bar{X} = 3.10$, which indicates 'medium level awareness'.

As for the overall awareness levels according to 'gender', independent sample t-test was applied to determine whether there is a significant difference between female and male students. The results are presented in Table 2.

Table 2. The distribution of overall awareness levels according to gender variable and independent sample t-test results

Gender	N	\bar{X}	Std. Deviation	df	t	Sig. (2-tailed)
Female	210	3.11	0.55	560	0.410	0.682
Male	352	3.09	0.55			
Total	562					

According to Table 2, overall awareness mean scores of female and male students were found very closely ($\bar{X} = 3.11$ and $\bar{X} = 3.09$ respectively). No significant difference was found between overall awareness levels of female and male students.

The statistical data regarding overall awareness levels according to 'university' variable are displayed in Table 3.

Table 3. The results of one-way ANOVA for overall awareness levels according to university variable

Source of variance	Sum of squares	df	Means squares	F	Sig.	Pair-wise comparison
Between groups	13.771	3	4.590	16.260	0.000*	1 – 2, 3, 4
Within groups	157.530	558	0.282			
Total	171.300	561				

* $p < 0.05$

Table 3 shows that overall awareness level significantly differs according to 'university' variable [$F_{(3-558)}=16.260$; $p < 0.001$]. When participants' overall awareness levels according to 'university' they attend were examined, it was found that the mean score of Kafkas University students ($\bar{X} = 3.36$) was higher than those of other study-specific universities: Karabuk University ($\bar{X} = 3.03$), Kastamonu University ($\bar{X} = 3.01$) and Samsun Ondokuz Mayıs University ($\bar{X} = 2.28$). The pair-wise comparisons show a significant difference between Kafkas University students and those of all other universities in this study.

The statistical data for overall awareness according to 'class level' variable are displayed in Table 4.

Table 4. The results of one-way ANOVA for overall awareness levels according to class level variable

Source of variance	Sum of squares	df	Mean squares	F	Sig.	Pair-wise comparison
Between groups	2.702	3	0.901	2.981	0.031*	1 – 4
Within groups	168.599	558	0.302			
Total	171.300	561				

* $p < 0.05$

Table 4 shows that overall awareness is significantly different according to ‘class level’ variable [$F_{(3-558)} = 2.981$; $p < 0.05$]. According to the data, the mean scores for all class levels are as follows: 1st year students ($\bar{X} = 3.01$), 2nd year students ($\bar{X} = 3.08$), 3rd year students ($\bar{X} = 3.16$) and 4th year students ($\bar{X} = 3.20$). It is clear that participants’ awareness level increased as the class level increased. According to pair-wise comparisons, there was a significant difference between 1st year and 4th year students, in favour of the latter.

Table 5 displays data about ‘experiences in winter sports’ variable, which examined whether the participants have done any winter sports so far or not.

Table 5. The distribution of overall awareness levels according to experiences in winter sports variable and independent sample t-test results

Experiences in winter sports	N	\bar{X}	Std. Deviation	Df	t	Sig. (2-tailed)
Yes	224	3.27	0.61			
No	338	2.99	0.47	560	6.082	0.000*
Total	562					

*($t_{(562)} = 6.082$; $p < 0.05$)

According to Table 5, the mean score for general awareness level of students who have had experiences in winter sports ($\bar{X} = 3.27$) was higher than those who have never done winter sports ($\bar{X} = 2.99$). There was a significant difference between the participants with winter sports experiences and those who haven’t done any winter sports according to overall awareness levels, in favour of the former [$t_{(562)} = 6.082$; $p < 0.01$].

The data regarding to what extent overall awareness level changes according to ‘family members’ experiences in winter sports’ are displayed in Table 6.

Table 6. The distribution of overall awareness levels according to family members’ experiences in winter sports variable and independent sample t-test results

Family Members’ experiences in winter sports	N	\bar{X}	Std. Deviation	df	t	Sig. (2-tailed)
Yes	52	3.4	0.62			
No	510	3.07	0.53	560	4.121	0.000*
Total	562					

*($t_{(562)} = 4.121$; $p < 0.05$)

According to Table 6, the mean score of the participants whose families were experienced in winter sports ($\bar{X} = 3.4$) was higher than the mean score of those who do not have any family members experienced in winter sports ($\bar{X} = 3.07$). A significant difference was found between the participants whose families are experienced in winter sports and those who do not have any family members experienced in winter sports in terms of overall awareness level, in favour of the former.

Table 7 shows the data regarding overall awareness levels of the participants according to ‘family income level’ variable.

Table 7. The results of one-way ANOVA for overall awareness levels according to family income level variable

Source of variance	Sum of squares	df	Mean squares	F	Sig.
Between groups	0.547	5	0.109	0.356	0.878
Within groups	170.753	556	0.307		
Total	171.300	561			

According to Table 7, overall awareness level did not show a significant difference according to ‘monthly family income’ variable [$F_{(5-556)} = 2.981$; $p > 0.05$]. When overall awareness of the participants according to ‘monthly family income’ variable were examined, the following mean scores were obtained for each income level: 1,000 TL and below ($\bar{X} = 3.07$); 1,001 TL–1,500 TL ($\bar{X} = 3.09$); 1,501 TL–2,000 TL ($\bar{X} = 3.15$), 2,001 TL–2,500 TL ($\bar{X} = 3.05$), 2,501 TL–3,000 TL ($\bar{X} = 3.10$) and 3,001 TL and above ($\bar{X} = 3.12$). No significant difference was found among group scores according to ‘monthly family income’.

4. Discussion

According to the data obtained from *Winter Sports Awareness Scale*, there was a medium level awareness for both genders, and the mean score of female students (3.11 ± 0.55) was higher than that of male students (3.09 ± 0.55). The current study did not reveal a significant difference in mean scores according to ‘gender’ variable. The study by Ergul, Tinaz and Ertac (2016) examined secondary school students’ awareness about tennis. Similarly, Unal (2017) examined secondary school students’ awareness about winter sports and found medium level awareness. In addition, another study conducted by Eski (2010) with secondary school students revealed low level awareness about winter sports. Although the mean scores of awareness obtained from the studies on winter sports revealed higher scores for male students, one study focusing on tennis awareness revealed a higher mean score for female students. The research did not reveal a significant difference for mean scores of awareness in terms of ‘gender’ variable, which is consistent with the findings of our study conducted with university students.

The examination of the awareness levels of the participants according to ‘university’ variable showed medium level awareness. The mean score of Kafkas University students (3.36 ± 0.66) was higher than those of Kastamonu University and Samsun Ondokuz Mayıs University. Thus, there was a significant difference between Kafkas University and all other universities. One of the most serious problems of today’s education systems is exam-oriented approaches. Therefore, students at all levels of education suffer from test anxiety and cannot spend enough time on out-of-school activities. Due to the priority given to success in these exams, social activities and sports are often ignored, which might explain low level of awareness for winter sports. It is known that interest in skiing highly depends on the availability of facilities and financial status of individuals. Kafkas University School of Physical Education and Sports is located near Sarikamis Ski Center, and students pay a reasonable amount of money to use the facility and skiing equipment, which might account for higher mean score of awareness for the students of this university.

When the participant students are examined according to ‘class level’ variable, it is seen that they had medium level of awareness. As for the mean score, it was found that as class level increased (1st year students 3.01 ± 0.57), mean scores increased (4th year students 3.20 ± 0.56). Although mean scores of high school students for awareness of different sports branches increase as class level increases (Eski, 2010; Ergul et al., 2016), this awareness displays a decrease for secondary school students. An increase in awareness as class level increases is an expected result, which is in parallel with the findings of our study. Puberty period covers ages between 13 and 17, which is characterised with psycho-sociological maturation. In this period, individuals try to define their own identities and start to become a part of the society (Atak, 2011; Ozdemir, Ozdemir, Kadak & Nasiroglu, 2012). They complete their transition to adulthood by realising who they are and making decision about what to

do and how to continue their lives. Accordingly, affective and social processes such as willingness, interests, attitudes, social status and physical appearance positively affect individuals' approach to sports. This fact might be the reason why awareness increases as class level increases, which is one of the findings of this study.

This study also examined university students' awareness levels according to 'previous winter sports experience' and found that the mean scores of those who have done winters sports (3.27 ± 0.61) and those who have not done (2.99 ± 0.47) are at medium level. The first group had a higher mean score, and there was a significant difference between these two groups. Individual–environment interaction can be considered a basic factor to develop awareness (Akkoyun, 2005). The environment will facilitate this process by providing individuals with life experiences. Our past experiences affect our decisions regarding our future. As a result, individuals will gain experience and their awareness will increase in parallel with these experiences. This situation might be an explanation for the significant difference between the awareness level of students with winter sports experiences and those without such an experience.

As for the awareness levels of the participants according to 'family members' interest in winter sports' variable, it was found that the mean scores of those whose family members are interested in winter sports (3.40 ± 0.62) and those who do not have any family members interested in winter sports (3.07 ± 0.53) were at medium level, and there was a highly significant difference between these two groups. Since family is the most important factor in individuals' education and development, this finding is quite reasonable.

Awareness levels of the participants according to 'monthly family income' were found medium level for all income levels. The lowest mean score was for 2,001 TL–2,500 TL range (3.05 ± 0.58) and the highest for 3,001 TL and above (3.12 ± 0.50). Winters sports are relatively expensive due to high costs of equipment, transportation and accommodation. However, the lack of significant difference might be explained by the fact that university students do not have problems with accommodation and they pay almost nothing for equipment and transportation because they often get winter sports education at their universities.

5. Conclusions and recommendations

In conclusion, this study revealed a medium level of awareness for winter sports for students attending schools of physical education and sports for all groups. The analysis did not show a significant difference between male and female students according to gender variable. Similarly, there was a not a significant difference among the groups according to monthly family income. However, significant differences were found among the groups for the following variables: university, class level, winter sport experience and family members' interest in winter sports.

Accordingly, it is necessary to increase the number of educational activities and practices for winter sports. For instance, theoretical and practical winter sports education might be offered as selective courses in the curricula. In order to increase awareness, other winter sports (snowboarding, sledging, ice-skating, curling and ski jumping) should be included in the curricula as well. Moreover, these attempts should start at primary and secondary education institutions so that sports might be promoted in the society at early ages and be a part of our culture in the long term. Sports-related institutions can organise interesting activities and events to increase social awareness about sports as well.

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