

Recreation Department Students Views on Psychosocial Experiences of Orienteering Sport: A Phenomenological Research

Raşit KARACA^{1*}, Seyit KARABURÇAK², Ece Ünal DENİZ¹,
Nazlı AKDEMİR¹, Salih Emre BAHÇEPINAR¹

¹Kırıkkale University, Faculty of Sports Sciences, Department of Recreation, Kırıkkale, Turkey

²Directorate of National Education, Kırşehir, Turkey

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Abstract

Since orienteering is a nature sport based on orientation and target seeking, and because it involves risk and adventure, individuals who do this sport experience different emotional experiences. The aim of this study is to examine the views of recreation department students on the psychosocial experiences they have gained in orienteering course. In this context, phenomenological design, one of the qualitative research methods, was used in the research. Maximum variation sampling method was used as the sampling method. As the data collection tool, semi-structured interview questions were directed to the participants. After the interviews were completed, the researchers first decided together which coding method they would use. Then, a codebook was prepared through thematic analysis. The findings obtained from qualitative data were divided into three categories: mental experiences, psychological experiences and social experiences. Psychological experiences were also divided into two categories and codes were created under all these themes and categories. As a result, it can be stated that recreation department students who experienced orienteering sport for 12 weeks had a positive effect on psychological and social well-being and contributed to their mental skills. In future studies, the experiences of younger and expert orienteering groups can be investigated.

Keywords: Orienteering, Psychosocial experience, Mental skills, Social skills, Qualitative research

Rekreasyon Bölümü Öğrencilerinin Oryantiring Sporunun Psikososyal Deneyimlerine İlişkin Görüşleri: Fenomenolojik Bir Araştırma

Öz

Oryantiring, yön bulma ve hedef aramaya dayalı bir doğa sporu olması, risk ve macera içermesi nedeniyle bu sporu yapan bireyler farklı duygusal deneyimler yaşamaktadırlar. Bu çalışmanın amacı, rekreasyon bölümü öğrencilerinin oryantiring dersinde edindikleri psikososyal deneyimlere ilişkin görüşlerini incelemektir. Bu bağlamda araştırmada nitel araştırma yöntemlerinden biri olan fenomenolojik desen kullanılmıştır. Örneklem yöntemi olarak maksimum çeşitlilik örneklem yöntemi kullanılmıştır. Veri toplama aracı olarak katılımcılara yarı yapılandırılmış görüşme soruları yöneltilmiştir. Görüşme sonrasında katılımcılardan elde edilen veriler kodlanmadan önce araştırmacılar arasında kodlama yöntemi üzerinde uzlaşılmış ve tematik analiz yapılarak bir kod kitabı oluşturulmuştur. Nitel verilerden elde edilen bulgular zihinsel deneyimler, psikolojik deneyimler ve sosyal deneyimler olmak üzere üç kategoriye ayrılmıştır. Psikolojik deneyimler de iki kategoriye ayrılmış ve tüm bu tema ve kategorilerin altında kodlar oluşturulmuştur. Sonuç olarak, 12 hafta boyunca oryantiring sporunu deneyimleyen rekreasyon bölümü öğrencilerinin psikolojik ve sosyal iyi oluş üzerinde olumlu etki bıraktığı ayrıca zihinsel becerilere de katkı sağladığı ifade edilebilir. Gelecek çalışmalarda oryantiring yapan küçük yaş ve uzman grupların deneyimleri araştırılabilir.

Anahtar kelimeler: Oryantiring, Psikososyal deneyim, Zihinsel beceriler, Sosyal beceriler, Nitel araştırma

* Corresponding Author: Dr. Raşit KARACA, E-mail: rasitkaracamlzgrt@gmail.com

INTRODUCTION

Wayfinding is a complex skill (Wolbers & Hegarty, 2010) and includes a locomotion component (involving body movements coordinated with the local and immediate environment), and a navigation component (requiring goal-directed, planned movement through the environment) (Feraco et al., 2021). Wayfinding is the movement towards a target in an unknown area, in a location that is approximately known, without any prior knowledge of that area (Wiener et al., 2009). It is a more complex skill that involves reaching targets by the shortest route and using energy optimally.

Orienteering is a sport characterized by high physical effort, and intense mental demands that increase susceptibility to errors (Gorgulu et al., 2024). Moreover, orienteering is a sport that combines running, and wayfinding, in which goal-seeking plays a fundamental role (Feraco et al., 2021). Orienteering requires psychological skills such as stress control, focus, effective use of memory, and making sudden and correct decisions, as well as the ability to find directions, draw accurate routes, and search for targets. In this context, the fact that orienteering involves risk and adventure in nature encourages individuals to engage in it for recreational purposes. Additionally, orienteering is a nature sport that can be performed both as a competitive activity and a recreational one, as it allows participation from all age groups, ranging from 10 to 55 years old.

The benefits of outdoor sports, outdoor activities, and physical activity for human health are well recognized (Kurtze et al., 2009; Laukkanen, 2010; Mygind et al., 2018; Yıldız et al., 2017). Moreover, parks, outdoor recreation, and green space activities are believed to promote resilience by supporting physical health and recovery (Bell & Simpson, 2009; Cervinka et al., 2014; Pröbstl et al., 2010), facilitating social interaction (Kuo et al., 1998; Mann & Leahy, 2010), supporting mental health (Azara et al., 2018; Buchecker & Degenhardt, 2015; Lackey et al., 2021) and enabling collaborative learning and the development of socio-ecological knowledge (Krasny & Tidball, 2009; Smith et al., 2016).

When the literature is reviewed, the effects of orienteering on individuals—ranging from psychophysiological impacts (Eccles et al., 2002, 2006; Galan et al., 2022), to cognitive skills (Liu et al., 2024; Waddington et al., 2024; Waddington & Heisz, 2023), and social benefits (Leeder & Beaumont, 2023) are widely discussed. It is also important for recreation students to experience orienteering, which has become a rising trend in recent years, and to incorporate it into their professional practice as a recreational activity (Özkavak et al., 2024). Another crucial aspect is the opportunity to experience the mental, cognitive, psychological, and social effects of orienteering, observe potential positive outcomes, and reflect these experiences in their future professional lives. Moreover, the lack of qualitative studies on the emotions individual's experiences during orienteering, as well as the positive social relationships and mental skills they develop, highlights the significance of this research. Although the physical, cognitive and psychological effects of orienteering on individuals have been the subject of research at different levels, the number of qualitative studies examining the effects that emerge because of university students experiencing this sport, especially in the Turkish context, is quite limited. Moreover, examining the potential effects of orienteering on the psychosocial well-

being of individuals is important for a deeper understanding of the multidimensional benefits of this sport.

The purpose of this study is to examine the experiences of recreation students who participated in orienteering activities during the 12-week fall semester in a psychosocial context. In this direction, questions about the psychosocial situations that students encounter while orienteering and the effects of these situations on their individual experiences were sought.

METHOD

Research Model

In order to reveal the perceptions and meanings of recreation department students about their experiences in the orienteering course duration, phenomenological design, one of the qualitative research approaches, was preferred in this study. Phenomenological design is a research approach rooted in philosophy and psychology. Phenomenology is a design that uncovers the common meaning of the lived experiences of several individuals regarding a phenomenon or a specific concept. In this design, the goal is to deeply understand the essence of the experiences of people who have encountered a particular phenomenon (Creswell, 2018).

Research Group

The research group consists of 10 volunteer students studying at the Department of Recreation, Faculty of Sport Science, Kırıkkale University. The maximum diversity sampling method, which is one of the purposeful sampling types, was used to select the students. The data obtained from the students were collected during the 2024-2025 academic year. Four of the students are female, six are male, and three are 4th-grade students, while six are 2nd-grade students. The students' ages range from 19 to 25, and the interview duration varied between 21 and 35 minutes. The students who participated in the research are labeled as "P1, P2, ...". The demographic characteristics, along with the qualitative interview duration of the students participating in the study, are shown in Table 1.

Table 1. Demographic characteristics of the students participating in the study and qualitative interview duration

Participants	Age	Gender	Class	Interview duration
P1	20	Man	2	35 mn.
P2	19	Woman	2	23 mn.
P3	23	Woman	4	21 mn.
P4	24	Man	4	24 mn.
P5	22	Woman	4	29 mn.
P6	23	Man	2	23 mn.
P7	25	Man	2	21 mn.
P8	19	Man	2	32 mn.
P9	19	Man	2	25 mn.
P10	19	Woman	2	22 mn.

When Table 1 is analysed, the age range of the students participating in the study is between 19 and 25 years, 6 of them are male, 4 of them are female and they are studying in the 2nd and 4th grades, and the duration of the qualitative interview varies between 21 minutes-35 minutes.

Data Collection Tools

In the study, the data were collected using semi-structured interview questions developed by the researchers as the data collection tool. The research questions are stated below.

Research questions

1. What are the most significant changes you have noticed about yourself after participating in orienteering?
2. What do you think about the effects of this sport on your social relationships (friendship, teamwork, communication, etc.)?
3. Can you describe the emotions you experienced during or after orienteering?
4. What are the psychological or social reasons that attract you to this sport or keep you going?
5. Which areas of orienteering have been the most mentally challenging for you or the areas where you think you have improved the most?
6. How would you rate the impact of tasks such as map reading and orienteering on your thinking or decision-making processes?
7. Do you think orienteering affects your attention, focus or planning skills? How?
8. What motivated or challenged you the most mentally? Can you tell us about it?

Ethical Approval

Ethics Approval The ethical process of the research was completed with the Decision No. 02 taken at the meeting of the Kırıkkale University Social And Human Sciences Research Ethics Committee held on 11.02.2025 voluntary consent was obtained from all participants.

Role of the Researcher

Reflexivity

In this study, although I am a senior orienteering coach, as well as an academician who teaches orienteering at a state university Faculty of Sports Sciences, we handled the entire process objectively together with my colleagues who conducted the research. In qualitative research, the researcher's values, beliefs, ideology, and perspective on events affect the study. In addition, the researcher should consider his/her position in three dimensions: subject, participants, and context. Within the scope of these three dimensions, the researcher should consider the possible effects on the selection of the research area and research design, the data collection, analysis, and interpretation stages, and state them in the report to be written at the end of the research (Koca, 2017).

The process of ensuring that the researcher's position does not have a harmful effect on the research is called self-reflexivity (Savin-Baden & Major, 2023). In this context, we aimed to ensure the criteria of credibility, reliability, confirmability, and transferability (Guba & Lincoln, 1982) of the qualitative method in an objective manner, without using personal initiative or manipulating the data, in collaboration with the researchers we worked with in the study.

Philosophical Approach of the Researchers

In this qualitative study, as researchers, the problem situation was addressed using an ontological philosophical approach, and the process was carried out from the perspective of the event. Ontology is concerned with the nature and characteristics of reality (Creswell, 2013).

Researchers adopt multiple understandings of reality when conducting qualitative research. If the research is conducted on individuals, qualitative researchers report these differing realities in their studies (Creswell, 2013).

In this context, social constructivism was used as an interpretative framework. In social constructivism, individuals attempt to understand the world they live in. They develop subjective meanings toward certain objects, or objects derived from their experiences. These meanings do not restrict the researcher to only a few categories, or ideas, but rather offer a complex perspective (Creswell, 2013). Therefore, the purpose of the research varies according to how participants interpret events. For this reason, the research problem was approached by adopting an ontological philosophical perspective, and using social constructivism as an interpretive framework.

Analysis of Data

While the codebook was being created by the researchers, a consensus was reached on which coding method to use before beginning the coding process. Prior to coding, the expressions of the participants transferred to the Word document were treated as sentences, and the meaning extracted from each sentence was written in the codebook, thus creating the initial codebook. The codebooks were then examined by the researchers, the same codings were discussed, and the codebook was finalized after a consensus was reached.

FINDINGS

In this study, the aim was to comprehensively reveal the psychosocial experiences of recreation department students while orienteering. For this purpose, the experiences of recreation department students were collected using semi-structured interview questions. While creating the interview questions, the literature was reviewed, and sample questions were prepared in collaboration with the research team. The scope and content of the prepared questions were examined by an expert psychological counselor, one of the authors of the study, who had completed their doctoral education. In addition, the fluency and comprehensibility of the form were reviewed by the entire research team, and the final version was then presented to the participants.

The qualitative questionnaire included 8 questions about the orienteering experiences of the students. During the data analysis process, the procedures of thematic analysis were followed, and three main themes were revealed in accordance with the structure of phenomenological research. These themes were: “Mental Experiences,” “Psychological Experiences,” and “Social Experiences.” Regarding the categories and codes, tables were shared with frequency values, and direct quotations from student experiences and expressions with the highest representation power were provided under Table 2.

Table 2. shows the codebook created from the themes, categories and codes related to student experiences

Themes	Categories	Code
Mental Experiences	Mental Experiences	Attention
		Focus
		Improving Memory
		Visualization
		Navigation Skill
		Mathematical Skills
		Fast Decision Making
		Creative Problem-Solving
Psychological Experiences	Positive Psychological Experiences	Selective Perception
		Self-Confidence
		Motivation
		Facing Fears
		Adrenaline
		Happiness
		Love
		Feeling Valued
		Self-Talk
		Ego
		Achievement
		Curiosity
		Ambition
		Passion
		Excitement
		Coping With Stress
	Negative Psychological Experiences	Fear
		Anxiety
		Helplessness
		Stres
		Frustration
		Anger
		Panic
Social Experiences	Social Experiences	Collaborate
		Communication
		Brainstorming
		Competition
		Peer Education

When Table 2 is examined, it is seen that there are 3 themes, 4 categories and codes belonging to the categories regarding students' experiences.

Mental Experiences

Table 3. Recreation department students views on their mental experiences regarding orienteering

Category	Codes	Students										f
		P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	
Mental Experiences	Attention		X				X					2
	Focus	X	X	X		X		X			X	6
	Improving Memory		X	X				X	X		X	5
	Visualization		X			X	X					3
	Navigation Skill	X		X					X		X	4
	Calculation Skill	X						X				2
	Effective and Fast Decision Making	X					X		X			3
	Problem Solving Skill	X		X		X			X		X	5
	Selective Perception						X					1

The mental experiences of recreation department students while orienteering were expressed through concepts such as attention, focusing, memory improvement, mental imagery, orienteering skill, calculation skill, effective and fast decision-making, problem-solving skill, and selectivity in perception. Particularly in the orienteering course, it was observed that students placed more emphasis on concepts such as focusing (f:6), memory improvement (f:5), orienteering skill (f:4), attention (f:3), and problem-solving (f:5) when describing their mental experiences (Table 3). Specifically, they stated that they focused on the map while reading it, determining the locations of the target points, and heading toward the target; they engaged their memory intensively; and they developed various strategies while choosing the route. The opinions of the students participating in the study regarding their mental experiences in the orienteering lesson are presented below as direct quotations:

P5, ‘... In this mental process, while travelling from one target to another target, I was calculating how I should go and mentally preparing myself for it’.

P7, ‘... Now, when you see the colour of the maps there, you mentally think about what kind of place it is, for example, directly’.

P2, ‘... You know, since there are names of things in certain regions on the map, after a certain time, the brain starts to adapt this visually’.

P6, ‘... Because when the adrenaline is high, for example, knowing which way they can go shorter, thinking about it ...’.

P7, ‘... For example, after I experienced orienteering sport, I started to remember such things. I am more careful, I act more carefully’.

P2, ‘... After doing this sport, I became closer to focusing myself on being more careful and adapting myself to the target’.

P5, ‘... I knew where it was and I could even visualise which tree it was at that moment and immediately go directly there’.

P6, ‘... In orienteering, sometimes you pass by the target maybe 3-4 times but you may not see it. But when you make it continuous, for example, we call it a lantern. For example, you can see the flashlight faster’.

P7, ‘... Afterwards, as our focus increased and I started to learn the symbols, I started to reach the target more easily’.

P10 ‘... or there is a straight road between the two, I think that I can travel a better way in a shorter time by making a strategy to see which one I can go faster.’ by expressing the concepts such as memory, attention and strategy development while orienteering.

Psychological Experiences

Positive Psychological Experiences

Table 4. Recreation department students' opinions on positive psychological experiences of orienteering

Category	Codes	Students										f
		P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	
Positive Psychological Experiences	Self-confidence		X	X			X			X		4
	Motivation		X						X			2
	Facing Fears			X								1
	Adrenaline			X		X	X					3
	Happiness		X	X	X	X	X	X		X	X	8
	Love			X								1
	Feeling Valued		X									1
	Self-Talk								X	X		2
	Ego		X									1
	Achievement		X			X	X	X		X	X	6
	Curiosity								X			1
	Ambition								X			1
	Passion		X									1
	Excitement		X		X	X	X		X	X		6
	Coping with Stress								X		X	2

The psychological experiences of recreation department students while orienteering are presented in two categories: positive and negative. When Table 4 is examined, the codes and frequency values containing the opinions of the recreation department students about their positive psychological experiences in the orienteering course are shown. The positive psychological experiences of the students were expressed through concepts such as self-confidence, motivation, facing fears, adrenaline, happiness, love, feeling valuable, inner positive speech, ego, sense of success, curiosity, ambition, passion, excitement, and coping with stress. Specifically, happiness (f:8), sense of success (f:6), excitement (f:6), and self-confidence (f:4) were expressed more frequently. In addition, codes such as adrenaline, struggle, ego, ambition, and coping with stress are noteworthy.

Considering that orienteering is conducted in an unknown terrain and involves potential unpredictable risks, students expressed a wide range of emotions. The underlying reason for expressing emotions such as happiness, excitement, motivation, sense of success, and feeling valuable, particularly from positive emotions, was identified by the students as being an outdoor sport with adventure and risk factors. Additionally, the fact that students felt intense adrenaline and ambition while orienteering, and expressed that their egos were satisfied, was reflected in their tone of voice during the interview. Another noteworthy code is coping with stress. In the spirit of orienteering, it was stated that the ability to compete with time, make the right decisions, and manage the stress caused by these factors improved their ability to cope with stress.

The opinions of the students participating in the research regarding their positive psychological experiences in the orienteering course are presented below as direct quotations:

P10 ‘... coping with stress was the most important thing for me because I am a very stressful person, especially when I am alone and coping with this stress was a very big thing for me’.

P10 ‘... I learnt not to give up, in other words, I learnt that I can achieve something if I try for something’.

P5 ‘... it was in a place I never expected, but when I found it, I felt a sense of relief that it would not take more than my time, that I could finish it first’.

P4 ‘... an enjoyable sport, as I said, it is a happy and enjoyable sport’.

P3 ‘... brought me more self-confidence, I have a lot of trouble in finding directions, but in this lesson I became more confident in things like finding directions, so I am no longer afraid when doing things’.

P9 ‘... I had a lack of distraction, we were concentrating on a target, and then after finding the target, it creates a happiness in people, of course, it gave a sense of success’.

P2 ‘... since I am a person who does indoor sports a little more, it satisfies my ego a little more when it is looked at from the outside. Because it is a sport that is in front of people's eyes. Therefore, I feel more egoistic, more elevated’.

P6 ‘... I mean, for me, the ambition to win, you look at the map like this, on the one hand the adrenaline is high, you are running, there is a certain target, you are trying to find the target. You think about your other competitors, how many seconds it took them to do it, did they find the target before me, it makes you feel good’.

P8 ‘... First of all, there is an excitement because it is a competition, but you don't feel this excitement after you start, you know, when you run, when you look at the map, I think it improves both visual intelligence because, for example, I have been here for 2 years at the university, but I probably haven't visited all parts of the university, thanks to the map made by our teacher, I also went to the veterinary hospital, I didn't go there much, I had the chance to visit those parts, I went on roads I didn't know, I think it improves visual intelligence by looking at the map, and I think it improves my practical intelligence because I think it is useful for me in that respect, because how can I go shorter and so on. ‘ with these sentences, the students explained their positive psychological experiences while orienteering.

Negative Psychological Experiences

Table 5. Recreation department students' opinions on negative psychological experiences of orienteering

Category	Codes	Students										f
		P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	
Negative Psychological Experiences	Fear		X	X				X			X	4
	Anxiety		X	X	X	X						4
	Helplessness		X				X					2
	Stres		X		X	X	X	X	X		X	7
	Frustration						X		X			2
	Anger					X			X			2
	Panic								X			1

When Table 5 is examined, the codes and frequency values containing the opinions of recreation department students about their negative psychological experiences related to orienteering are shown. The negative psychological experiences of recreation department students while orienteering were expressed through concepts such as fear, anxiety, helplessness, stress, frustration, anger, and panic. It is evident that students expressed concepts such as stress (f:8), fear (f:4), and anxiety (f:4) more frequently. In addition, codes such as disappointment, anger, panic, helplessness, and distraction are particularly noteworthy.

It is possible that the students, experiencing orienteering for the first time, encountered both positive and negative emotions. The stress and anxiety experienced by the students while searching for the target, as well as the anxiety they felt during this process, were reflected in their expressions. The students' fear of getting lost is another category that stands out. Many people experience the fear of getting lost while orienteering; however, the fact that forest areas are often associated with fear-related images in their mental images may be one of the reasons for students' fear.

Additionally, it is clear from the students' expressions that failing to find the target by drawing the wrong route, or locating the wrong target, caused disappointment. Moreover, they expressed anger and panic when they were unable to find a target. The related opinions of the students participating in the research regarding their negative psychological experiences in the orienteering lesson are provided below as direct quotations: P6 “...I mean, when you can't reach the target, you are a little out of breath because your adrenaline is high. When you cannot find a target, you feel that you have passed the time. You think that others can do it faster than you and this is a negative thing for me.”

P6 “... I mean, how can I open it, now, as I said, time passes, on the one hand, you have not found the target, on the other hand, you think that others have found it, you think that you have lost it, and the next time, when you cannot find it, you lose your enthusiasm.”

P2 “... I close myself to the outside because there are 5-6 more targets I need to find and I need to focus on the targets I have found because time is passing and we are racing against time because it is not a job we do in a laylay lom...”

P4 “... What will happen if you can't find it, how can I do it, how can I find it? They were worried, but as I said when they find it, it is enjoyable. I mean, achieving something difficult.”

P5 “... there was also something like not being able to reach the target, such as anxiety. At first, one of these targets, for example, the distance from the first target to the second target is too far, should I go there at first, I think strategically at that moment.”

P7 “... at first there was fear that I would not be able to find the target, I would not be able to catch up.”

P8 “... when I can't find the target or when I have difficulty in going, when I get tired, there is a slight panic, anger, why didn't you go from here, regret, why didn't you go from here, it would be easier if you went from here, it would be easier to go from here, self-commentary, these kinds of things usually happen.”

P6 "... expressed the negative psychological experiences they had while orienteering with sentences such as "... you go to the wrong target, you question yourself: why did I come here? where did I go wrong?".

Social Experiences

Table 6. Recreation department students' views on social experiences regarding orienteering

Category	Codes	Students										f
		P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	
Social Experience	Collaborate		X		X				X	X	X	5
	Communication		X	X	X	X	X	X	X	X		9
	Brainstorming			X			X					2
	Competition								X			1
	Peer Education		X		X							2

Table 6 shows the codes and frequency values of the recreation department students' opinions about their social experiences in the orienteering course. The social experiences of recreation department students in the orienteering course were expressed through concepts such as cooperation, communication, brainstorming, competition, and peer education. It is evident that they expressed the concepts of communication (f:9) and cooperation (f:5) more frequently. In addition, codes such as brainstorming, competition, and peer education are particularly noteworthy.

Orienteering is a sport that offers many opportunities for peer education, cooperation, and socialization after the competition, in addition to being a sport that requires solo struggle in nature. We also observe this in the statements coded from the experiences of students who have taken orienteering lessons. During the interview, we observed that orienteering enhances communication, especially emphasizing the importance of communication. Moreover, the students excitedly expressed that it also allows for peer education and brainstorming.

The opinions of the students participating in the research regarding their social experiences in the orienteering course are provided below as direct quotations: P10 "... we did it, for example, my friend went somewhere else and I went somewhere else, so this road could have been shorter or you could have gone this way or that way."

P4 "... Of course, we shared things with each other. I mean, we discussed how we found the targets difficult, the targets easy, how we found the targets or how we looked at them on the map, we talked about them, we had communication about the targets."

P8 "... in my social relationships, you know, sometimes we can help each other more because we are not doing this professionally, we can even help someone we don't know, we can even help someone we don't know, if they are very tired, if they are exhausted, you can see them in two seconds, they are already red, sweaty and out of breath, you can help them, it is nice."

P9 "... orienteering in social relations, of course, before doing orienteering, there is a chat environment there, there is also cooperation, such as where we are, I didn't understand this, I didn't understand that, what was this object, both in terms of refreshing information and socialisation, of course, people with low self-confidence sometimes had to ask for help."

P9'... *There was also one in our class, he said that he had social anxiety, but sometimes he was already coming because we had to help him, but he was asking for help, where am I, I don't understand where I am, where is my goal, he was actually a little bit more out of himself there, he did not miss asking questions.*''

P7'... *I mean, since I did it with people I didn't know, I started to mingle with them afterwards, like how did you find it, how did you interpret it, etc. I mean, I kind of socialised with them, which is a nice feeling, and I made new friends.*'' with sentences such as these, the students expressed the social experiences they had while orienteering.

DISCUSSION

This study examined the views of recreation department students on their psychosocial experiences while orienteering. When the findings obtained from the students were analyzed, three themes emerged: mental, psychological, and social experiences (Table 2), with psychological experiences divided into two subcategories: positive and negative psychological experiences. Upon analyzing the codes related to mental experiences (Table 3) from student experiences, it was determined that there were frequently repeated codes such as focusing (f:6), improving memory (f:5), finding directions (f:4), visualizing in the mind (f:3), and problem solving (f:5).

When analyzing the codes of positive psychological experiences (Table 4) from student experiences, it was found that happiness (f:8), sense of success (f:6), excitement (f:6), and self-confidence (f:4) were among the most prominent. Among the negative psychological experiences (Table 5), stress (f:7), anxiety (f:4), and fear (f:4) codes stood out. The fact that students experienced a range of opposite emotions while engaging in orienteering may be related to the outdoor, risky, and adventurous nature of the sport. It was reflected in the students' expressions that they experienced stress while attempting to reach the targets via correct routes, competing against time on the track and with their competitors, and that they felt happiness when they found a difficult target or completed the competition with the desired performance. Additionally, it was found that communication (f:9) and cooperation (f:5) codes were notably repeated in the social experiences (Table 6). The students' statements reflected that discussing difficult targets after orienteering activities and sharing strategies for target finding contributed socially and mentally. It is essential for recreation department students to be equipped with a diverse range of experiences, especially in outdoor sports like orienteering, which has gained significant popularity in recent years (Özkavak et al., 2024). Moreover, the emotions students experience while engaging in orienteering, the positive social relationships they form, and their development in mental skills are crucial factors. The findings of our current study and the findings of the literature are discussed under three headings: mental experiences, psychological experiences and social experiences.

Mental Experiences

The mental experiences of the recreation department students during orienteering were expressed with concepts such as attention, focus, memory development, mental imagery, orienteering skills, calculation skills, effective and fast decision making, problem solving skills,

and selective perception. The students stated that they focused on the map, used their memories intensively, and developed various strategies when choosing a route, especially when reading the map, determining the locations of the target points, and going towards the target. When the literature is examined, there are studies that address the relationship between orienteering and psychophysiological, mental, cognitive and social aspects (Eccles et al., 2002; 2006; Feraco et al., 2021; Karaca, 2024; 2025; Karaca & Gündüz, 2021). Research on the relationship between orienteering and mental skills has focused on how orienteers position themselves in the environment (Mottet & Saury, 2013) or how and where they focus their attention to overcome information processing limitations during races (Eccles et al., 2002; Martin Mottet et al., 2016). Furthermore, Cornoldi et al. (2003) reported that orienteering experts had a stronger sense of direction (compared to non-practitioners or beginners) and demonstrated higher survey (map-based) representations of the environment, although they did not differ in landmark and route representations. In addition, Kaya et al. (2024) stated that orienteering can provide positive mental effects on young people who are engaged in orienteering, (Arıkan & Aladağ, 2019) stated that orienteering course is effective in improving students' map literacy skills. Tuna and Balcı (2013) found that orienteering increased their perception of map use self-efficacy. Similarly, Ayulde and Akbaş (2023) stated that orienteering has an effect on academic achievement and map literacy levels. Henriksen (2019) concluded that orienteering practices are effective in improving students' spatial thinking skills. Cataldi et al. (2021) investigated the relationship between orienteering training and short-term visuospatial memory and found that orienteering training improved recall and visuospatial memory. Feraco et al. (2021) examined whether orienteering is related to people's visuospatial skills and orienteering attitudes and reported that athletes with different orienteering specializations (n=51) scored higher than controls on visuospatial tasks and had more positive orienteering attitudes. The findings showed that orienteering improves individual visuospatial abilities, attitudes, spatial habits and spatial learning. Similarly, Sirakov and Belomazheva-Dimitrova (2021) examined the effect of a training program on mental attributes in elite orienteers (n=30) and concluded that orienteering tools improved concentration, attention stability and attention span. Waddington et al. (2024) argued that the cognitive benefits of exercise increase when combined with cognitive training and that orienteering provides more cognitive benefits than physical exercise alone, especially when performed at high intensities, as it combines exercise with spatial orientation. Feraco et al. (2021) investigated the relationship between orienteering training and short-term visuospatial memory and found that orienteering training improved recall and visuospatial memory. Together with these findings, our study results are consistent with psychological and cognitive-based themes such as memory improvement, attention, focus, orientation and cognitive development. Therefore, we can state that the findings of our study contribute to mental development in the context of mental experiences and are similar to many studies in the literature.

Psychological Experiences

When the positive psychological experience codes from the student experiences (Table 4) were examined, it was seen that happiness (f:8), sense of success (f:6), excitement (f:6) and self-confidence (f:4) were prominent. Among the negative psychological experiences (Table 5), stress (f:7), anxiety (f:4) and fear (f:4) codes were prominent. The fact that students experienced a series of opposite emotions while doing orienteering may be related to the open-air, risky and adventurous nature of the sport. It was reflected in the statements that students experienced

stress while trying to reach their goals on the right routes, competing against time and with their opponents on the track, and were happy when they found a difficult goal or completed the competition with the desired performance. When the literature was examined in the context of psychological experiences of orienteering, various studies examined different aspects of orienteering. Gorgulu et al. (2024) stated that mistakes made during orienteering affected psychophysiological reactions, especially heart rate. Waddington and Heisz (2023) tested orienteers with varying levels of experience (n=158) and found that expert orienteers had better allocentric and egocentric spatial processing and superior spatial memory. These effects persisted even after controlling for age, gender, and physical activity, suggesting that orienteering may be an effective intervention to prevent age-related cognitive decline in spatial navigation and memory. Additionally, Kaya et al. (2024) suggested that orienteering may have positive effects on the emotional development of young individuals, while Sumbül et al. (2019) highlighted the social, physical, and psychological benefits of nature-based sports such as orienteering. Leeder and Beaumont (2023) conducted a qualitative study with 84 British orienteering coaches and highlighted the values and beliefs of coaching philosophies that promote inclusiveness, fun, holistic development, and transferable skills. They emphasized the social aspects of orienteering, stating that coaches should foster inclusive, socially supportive environments that promote psychological and holistic development. Blagii et al. (2018) validated and tested orienteering teaching methods in physical education for high school students and found improvements in cognitive functions and positive psychological outcomes such as well-being, activity and mood. We can say that orienteering sports, due to its nature, requires making instantaneous correct decisions, and that this situation, which includes psychological difficulties as well as physiological difficulties, is reflected in the student experiences in the current study. Therefore, the findings of our current study seem to describe the positive and negative reflections of psychological experiences, while the literature focuses on the positive psychological gains of individuals who do orienteering.

Social Experiences

It was determined that the codes of communication (f:9) and cooperation (f:5) were significantly repeated in social experiences from student experiences (Table 6). Although orienteering is a sport practiced individually, it is a sport in which information sharing and joint analyzes are made between orienteers after the event and especially route selection is discussed. Therefore, orienteers communicate a lot after the event. In this context, Kalkan and Güzel (2018) found that orienteering, which is considered as a leisure time activity, has significant effects on individuals in both socialization and determination levels. According to Kaya et al. (2024) and Yildiz (2022) stated that orienteering can provide positive effects on the social development of young people.

Together with these findings, our study results are aligned with psychological and mental-based themes, such as memory improvement, attention, focusing, orientation, and cognitive development. According to Leeder and Beaumont (2023) conducted a qualitative study with 84 British orienteering coaches, emphasizing the values and beliefs of coaching philosophies that promote inclusiveness, fun, holistic development, and transferable skills. They highlighted the social aspects of orienteering, stating that coaches should foster inclusive, socially supportive environments that promote psychological and holistic development. According to Blagii et al. (2018) validated and tested orienteering teaching methods in physical education

for high school students, finding improvements in cognitive functions and positive psychological outcomes, such as well-being, activity, and mood. Another study in the literature suggested that a six-week orienteering program may serve as an effective educational tool to enhance the diversity of instructional methods employed by teachers (Asma & Yıldız, 2023). Mottet et al. (2016) used an enactive and phenomenological approach to explore novices' experiences in orienteering, concluding that participants constantly made judgments about the reliability of their navigation estimates. They argued that navigation in orienteering goes beyond a logical, computational process, incorporating embodied, social, cultural, and situated dimensions.

In line with these studies, orienteering has been shown to have positive effects on physical, mental, psychological, cognitive, and social aspects. In our study, we found that students' psychological experiences of orienteering were consistent with the results of several quantitative studies mentioned in the literature. Specifically, students expressed feelings of motivation, fun, happiness, self-confidence, adrenaline, a sense of success, cooperation, socialization, and positive communication.

However, the current study has limitations. As a qualitative study conducted with a volunteer sample, it has inherent challenges, such as difficulties in establishing a common mindset and methodology within the researcher group. Additionally, the students' experiences were confined to the orienteering course, and a volunteer sample group was used, so the psychosocial reflections may differ for students participating in orienteering on different tracks. Moreover, although the objectivity of the research was tried to be maintained by controlling the values, principles, beliefs, experiences and approaches of the researchers towards the problem situation, this can be considered as another limitation of the research since it is not possible to completely neutralize these factors.

CONCLUSIONS

As a result, the findings obtained from interviews with recreation department students who had engaged in orienteering for an extended period (12 weeks) were categorized into three themes: mental, psychological, and social experiences. Psychological experiences were further divided into two subcategories, and codes were formed under each of these themes and categories. Mental experiences were expressed with codes such as attention, focusing, memory improvement, mental imagery, orientation skills, effective and fast decision-making, and problem-solving skills. Positive psychological experiences were described with concepts such as self-confidence, motivation, facing fears, adrenaline, happiness, love, feeling valuable, a sense of success, and excitement. Negative psychological experiences were articulated through concepts such as fear, anxiety, helplessness, stress, frustration, anger, and panic. Social experiences primarily featured codes related to cooperation and communication, which were particularly prominent. Future research could explore orienteering experiences in different environments or contexts, and the experiences of various sample groups could also be examined to gain a broader understanding.

Conflicts of Interest

The authors declare that they have no conflict of interest in relation to this article.

Authorship Contribution Statement: Study Design- RA, The Data Collection- RA; SEB; EDÜ; NA, Statistical Analysis and Manuscript Preparation- RA; SK, All authors read and approved of the final manuscript Information on.

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