

Outdoor Social Studies Experiences of Teacher Candidates

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Abstract: This basic qualitative research aims to reveal the meaning of outdoor learning activities experienced by social studies teacher candidates. The study focused on the experiences of teacher candidates using a social constructivist perspective. The study group of this basic qualitative research consists of 16 social studies teacher candidates who took the Special Teaching Methods II course in a state university in the 2018-2019 academic year. The research data were obtained from the semi-structured interview and the observation notes of the researcher. The data were analyzed using the content analysis method. The findings of this study revealed that even just going out of the classroom has educational potential, that outdoor learning facilitates both experiential and participatory learning and creates a more inclusive environment. In addition, in this study, it was found that outdoor learning may develop skills such as problem-solving, critical thinking, perception of space, change and continuity, observation, communication and cooperation which are vital in teaching social studies. Teachers cannot include it in the program without having personal experience in outdoor learning. The prerequisite of all teacher education programs should be learning environments that model the pedagogical expectations of teacher candidates. For this reason, outdoor learning should be accepted and supported as an integral part of the entire school curriculum.

Keywords: Outdoor Learning, Social Studies Education, Social Studies Teacher Candidates

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Introduction

The concept of outdoor learning is a broad and complex one that refers to various educational activities in different settings. Relevant examples are adventure education, fieldwork, nature education, outdoor games, environmental education, experiential and adventure education. Lonergan and Andresen (1988) define “the outdoor” as any place “*where supervised learning can take place via the first-hand experience, outside the constraints of the four-walled classroom environment.*” Outdoor education can begin as soon as students and teachers step beyond the classroom door. It can take place on the school step, the schoolyard, the playground, a nearby park, or other community areas. The outdoor activity may be short-term, as short as five minutes, half an hour, or an hour, or it can include one night in the camp or a week-long experience (Rillo, 1985).

As soon as students and teachers leave the classroom, observation, research, and reflection methods begin to be used in outdoor learning education. Direct observation arouses interest, curiosity, and the desire to explore. Research involves using resources to learn more about outdoor events. On the other hand, reflection provides time for assimilation of what is learned in the sense of understanding and appreciation (Rillo, 1985). In addition, observation in all content areas provides the development of process skills such as classification, inference, understanding, explanation, evaluation, comparison, and data analysis (McEwen, 1996). Outdoor learning activities can provide both space and content to practice these skills. For example, the school garden can provide a space to read a story or provide content to find examples of geometric shapes in nature. Sometimes taking students out of the classroom (space) to do an activity that can be done indoors can increase students' motivation. Taking students outside (content) to sample the number of dandelions in the schoolyard for a goal about probability and sampling can be just as effective as doing it in the classroom. In these examples, both uses of outdoor learning are valid and complement the curriculum (Broda, 2011 p.12). For learning to be meaningful and permanent, students must see the activity as enjoyable. Furthermore, outdoor learning provides the opportunity to test ideas and concepts in the literature in the “real world” of the field and to work effectively in groups (McGuinness & Simm, 2005).

Many teachers may feel that they are not adequately prepared to engage in activities outside of the classroom. Rillo (1985) stated that exploratory learning is the most appropriate method in outdoor teaching. All students should be given a chance to reach the answers on their own. Most of the data needed to answer the questions can be obtained by direct observation using all the senses. Sometimes the question arises whether the time spent outside the classroom is worth it. A growing number of research studies are clarifying that a combination of indoor and outdoor instruction improves achievement. Both teachers and students find an increased motivation due to movement and displacement (Broda, 2011 p.11).

Outdoor learning is ubiquitous in the Nordic countries, Australia, New Zealand, North America, and the United Kingdom. There is growing research interest in the benefits of children spending time in nature in preschool, elementary, and secondary school on learning outcomes (Rickinson, Dillon, Teamey, Morris, Choi, Sanders, & Benefield, 2004; Waite, 2007; Faegerstam & Blom, 2013), physical activity (Mygind, 2007), and social relationships (Mygind, 2009; Scrutton, 2015; Hartmeyer & Mygind, 2016). For example, a recent longitudinal and large-scale study of children attending preschool centers in Norway showed that time spent outdoors during preschool could support the development of children's attention skills and protect them against symptoms of inattention and hyperactivity (Ulset, Vitaro, Brendgen, Bekkhus, & Borge, 2017). In a similar study, it was found that natural environments have positive effects on attention and could be used as a preventive tool against attention deficit hyperactivity disorder (Bourrier, Berman, & Enns, 2018). In addition, it was found that regular access to green spaces in adults was associated with increased physical and psychological relaxation, while access in childhood was associated with better psychological outcomes in adulthood (Ruimtelijk, 2004).

There is substantial evidence in the literature that properly planned and effectively conducted outdoor learning improves students' knowledge and skills in a way that adds value to their daily experiences in the classroom (Rickinson et al., 2004; Higgins & Nicol, 2013; Mannion, Mattu, & Wilson, 2015; Barrable & Lakin, 2020). Outdoor learning encourages children and young people to participate in aesthetic, physical, affective, and cognitive experiences as part of their learning. It also helps students connect with the natural world outside the classroom and develop meaningful knowledge, skills, and understanding. Children and teenagers realize that everything on the outside does not fit the models or textbooks. That does not mean what they have found is wrong; instead, it may develop awareness and critical thinking skills about the complexities of the real world. Thus, children and teenagers can grasp the relevance of a subject taught in school to daily life. In addition, learning in a less structured environment can provide a more relaxing learning experience for many students. For example, in the study by Murray and O'Brien (2005), in which the longitudinal evaluation of the Three Forest Schools program was made, it was found that outdoor learning improves children's self-confidence and their ability to work in collaboration with others. Besides, it has been observed that children used verbal and written language more sophisticatedly, their physical endurance increased, and their gross and fine motor skills developed. Also, it was found that children's respect and interest in the natural environment increased; children took their experiences home and asked their parents to take them outdoors on weekends or school holidays.

Outdoor learning also plays an essential role in helping children understand our planet and the complex life systems; it supports observing and interpreting natural events and changes throughout the year (Änggård, 2011). In the literature, it has been found that outdoor learning helps children to understand our planet and its complex life systems through observing and interpreting natural events and changes throughout the year (Pruneau, Freiman, Barbier, & Langis, 2009). Being outside the classroom

also provides opportunities for different learning styles. It offers opportunities for all types of learners with visual, auditory, or kinaesthetic learning preferences. Teens who fail in more formal situations such as classrooms can often benefit from the flexibility of learning methods outside of the classroom. Outdoor learning promotes motivation, confidence, and more positive attitudes to learning, which are fundamental to sustainable development and education. In addition, outdoor learning may affect positively long-term memory due to the unique nature of the space, reinforce between the emotional and cognitive domain, and provide a bridge to higher-level learning.

There is strong evidence in the literature about the positive benefits of short and long-term outdoor learning in terms of attitudes, self-perception, self-esteem, interpersonal and social skills (Rickinson et al., 2004; Scrutton, 2015). Case studies in Denmark and Norway have shown that the average level of physical activity during teaching increases significantly on days spent in the forest compared to regular school days (Mygind, 2007). Outdoor learning provides pleasure and autonomy of choice, contributing to learning and its implementation. For example, Erk, Kiefer, Grothe, Wunderlich, and Walter (2003) found that words recorded in a positive emotional context were better remembered than those recorded in neutral or negative contexts. Similarly, Immordino-Yang and Damasio (2007) argue that emotional content strengthens memory. Outdoor learning is found more enjoyable by students as it changes children's learning experiences and the familiar context of the classroom (Rea, 2008).

In the study conducted by Änggård (2011), it was found that the games children play outside contain less stereotyped gender roles than the games they play indoors. The materials children use for playing in the forest are not gender related. This means that the children are not "forced" into gender stereotypical play actions. In other words, play in nature could avoid being shaped by gender discourses that are often embedded in manufactured toys. In this respect, the nature environment also offers good opportunities to promote gender equality. Many current themes in education can be worked out with little thought and creativity. Educational or civic activities can be effective and meaningful when carried out outside. For example, access to Scotland's natural, built, and cultural heritage has brought a unique dimension to help young people learn and understand their contribution to society. The themes of international education and global citizenship taken outside the classroom have made children and young people appreciate Scotland's relevance to the broader world (Education Scotland, 2009, p. 14).

Types of Activity in Outdoor Learning

In practice, Kent, Gilbertson, and Hunt (1997) speak of a continuum of activity outside the classroom characterized by different forms and levels of student and teacher involvement. From the student's perspective, all outdoor activities can be placed somewhere on the two continuities: The first is between observation and participation, and the second is between dependency and autonomy (Figure 1). Most outdoor

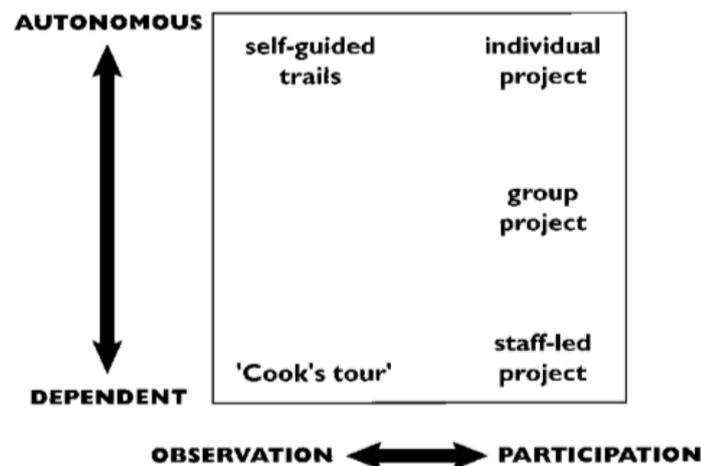
learning involves different activities: (1) Observational outdoor learning, (2) Participatory outdoor learning.

Observational outdoor learning is easy to organize and often conveys the teacher's experience and ideas. The main problem with observational outdoor learning may be the distraction of students, especially if the experience takes a long time. The simplest and most traditional form of observational outdoor learning is the "Cook Tour" or "look-see" outdoor visits. Students describe this type of activity as boring because they are not deeply involved in the study process. The literature states that students often miss the basic features during observational outdoor learning and give the teacher's point of view uncritically when asked.

Participatory outdoor learning is essential to attract students' attention and deepen the learning experience. There is a continuum between teacher leadership and autonomous work. The literature states that students who do project work individually are generally more committed to the project than those who participate in teacher-directed projects. The limitations of participatory outdoor learning require extensive preparation to achieve a satisfactory result. This project work takes more time than the "Cook Tour" format, and it is difficult to have an adequate level of supervision.

Figure 1.

The Continua of Autonomy and Participation in Outdoor Learning (Taken from Kent, Gilbertson, & Hunt, 1997)



In outdoor learning, the work should be done in small groups. Thus, everyone may use all five senses. Regardless of the method used, the primary purpose of outdoor learning is a direct experience of the physical world that helps students gain a deeper understanding of the life around them (Rillo, 1985). Kent, Gilbertson, and Hunt (1997) argue that outdoor learning can make teaching more student-centered, and the teacher can assume the role of facilitator.

Outdoor Learning in Social Studies Education

Foran (2008) argues that social studies have not reached its academic potential in forty years. According to the findings of Kincheloe (2001, p. 15), the following limitations are observed in social studies teaching: limited practices aimed at students' use of democratic values; students' and teachers' over-reliance on textbooks; conservative teaching practices that limit genuine innovative practices; teacher alienation in the field of education; confusion about the intended goals of the subject; lack of public awareness of the importance of social studies as a subject and academic educational activities that do not strain students' cognitive skills. In addition, Kincheloe stated that even social studies educators do not have a common point of view about the course's purpose, method, and conceptual potential. He emphasized that social studies education needs a more vital curriculum understanding that connects students to real experiences and knowledge. This current confusion in social studies education has caused children to be alienated from social experiences and has produced learning in a context separate and isolated from the dynamic flow of daily social life. In many schools, social studies education has become an experience strictly in the classroom and is disconnected from society. Whereas, in the curriculum, social studies course is expected to prepare students to participate actively in all areas of life in society (Foran, 2008).

Similarly, Lindsay and Ewert (1999) stated that social studies lessons in schools focus more on the facts in the textbooks and not on more critical or creative skills such as drawing conclusions, applying knowledge, or creative writing. Lindsay and Ewert (1999) have often emphasized that the curriculum content of a public-school education consists of the experiences and thoughts of others. Similarly, Kincheloe (2001) states that social studies teachers refuse to expand resources and classroom learning activities because they think classroom management will be complex. Kincheloe states that such a social studies lesson will not help students to understand and participate in the current and future social world. As Ross (2019) stated, social studies education should create a personal understanding of what the world is like and how one can act to transform it, instead of assimilating passively someone else's understanding of the world. In other words, social studies classes should become a stage where students can develop personal meanings about the world and realize that they are actors who will change the world through their actions. Social studies should not be about showing students life; it should make them come to life. The aim is to get students not to listen to entertaining lectures but to speak for themselves, to understand that people are making their history (even if they are doing it in already existing conditions).

Foran (2008) states that if the purpose of the curriculum is to enrich students' school experiences, this can be achieved when teachers and students engage in the real world. It states that teachers need to move students out of the school setting and away from the traditional teaching style to transform the curriculum. In addition, Foran (2008) states that social studies as a study are far from being experimental, focused on the cognitive field, technologically limited to computers and classrooms as a place, and

contributes to a more limited learning experience for students. Outdoor learning in social studies teaching can provide many stimulating learning situations where students can explore human effects on the local landscape, learn about local history, and understand the importance of conserving natural resources. Students can directly observe environmental problems and participate in activities to solve these problems (Rillo, 1985). Outdoor learning experiences can help students learn from their own experiences and grow as responsible citizens who appreciate and value their natural heritage and culture.

In general, college-level outdoor learning focuses on field trips, camping trips, or trips to outdoor and environmental education centers. Regular faculty-based outdoor teaching activities are generally scarce (Rickinson et al., 2004; Thorburn & Allison, 2010; Fägerstam, 2014; Avci, 2015). In addition, when the domestic literature is examined, it has been revealed that social studies teachers and teacher candidates believe in the contribution of outdoor learning but feel inadequate in this regard and encounter some limitations in practice (Eguez ve Kesten, 2012; Keskin ve Engin, 2012; Avci, 2015; Topcu, 2017; Metin ve Somen, 2018; Seyhan, 2020). For this purpose, the study's primary goal is to provide experience about outdoor learning to the social studies teacher candidates. The second goal is to reveal teacher candidates' perceptions of outdoor learning experiences that place the student at the center of the educational process. The rich natural, historical, archaeological, and cultural resources in Denizli and its surroundings were used as educational tools. It is believed that such a study will contribute to the literature on the academic potential of outdoor learning at the university level. With such studies, it is predicted that students' perspectives on social studies lessons, their ability to use scientific methods, communication, and living together skills through collaborative practices will improve positively. Also, it is predicted that students will be able to comprehend the subjects included in the applications at a high level. For these purposes, answers to the following questions were sought in the study:

- What are the teacher candidates' views about the meaning of the outdoor learning experience?
- What is the effect of outdoor learning on the teaching-learning process?
- What are the limitations of outdoor learning for students?

Method

Research Design

The basic qualitative research design, which is the most common form of qualitative research, was adopted in this study. Merriam (2009) defines basic qualitative research work as philosophically derived from constructivism, phenomenology, and symbolic interaction, used by researchers interested in (1) how people interpret their experiences, (2) how they construct their own experiences, and (3) what meaning they attach to their

experiences. The overall goal in basic qualitative research is to understand how people make sense of their lives and experiences (p. 23). This study, it is aimed to gain an in-depth understanding of how social studies teachers construct their outdoor learning experiences the framework of specific themes, how they interpret them, and what this experience means for them.

The Study Group

The research study group consists of 16 (eight female, eight male) fourth-grade social studies teacher candidates who took the Special Teaching Methods II course in a state university in the 2018-2019 academic year. Nine of the teacher candidates participating in the study were from Denizli, and the others came from different cities. The teacher candidates stated that they had never participated in any outdoor learning activities at the university. In this study, the researcher has a dual role as both a trainer and a researcher.

Data Collection Techniques

After forming the theoretical framework within the scope of the research, a semi-structured interview form was prepared to determine the opinions of the social studies teacher candidates about the outdoor learning they experienced. Two educators were consulted regarding the questions in the interview form, and corrections were made in line with their feedback. Afterwards, a pilot interview was held with two social studies teacher candidates and the questions that were not understood were corrected, and the interview form was given its final form. The interview questions directed to teacher candidates are as follows:

1. How would you define outdoor learning?
2. What does outdoor learning mean to you?
3. What are your experiences with outdoor learning?
4. What do you think was the most fun, functional, and challenging part of outdoor learning?
5. Did these experiences affect your attitude towards the lesson? If yes, how did it affect you?
6. How will these experiences integrate with your lesson plans when you start working as a teacher?
7. Do you have any suggestions for future outdoor learning activities?
8. What would you say if you could describe the most valuable aspect of outdoor learning in one sentence?

After completing all outdoor learning activities, the interviews were conducted with the teacher candidates at the end of the semester. Each interview lasted 30-40 minutes, and the interviews were recorded with a voice recorder. Teacher candidates were informed that the interview would be recorded with a voice recorder. The recorded interview was transferred to Word.

Analysis

Content analysis was used to analyze the research data. The purpose of content analysis is to present the findings to the reader in an organized and interpreted form. For this purpose, firstly, the data obtained are described systematically and explicitly. Afterwards, these descriptions are explained and interpreted, cause-effect relationships are examined, and some conclusions are reached. Associating the emerging themes, making sense of them, and making future predictions can also be among the dimensions of the comments made by the researcher (Yildirim & Simsek, 2013: p. 256). As a result of the analysis, meaningful themes were created, and sample participant views were presented in the relevant tables to reflect the participant's views on the themes. The names of the participants were not included in the quotations, considering that it would not be ethically correct, instead, the most preferred names in Turkey in 2020 were used from the website of the Ministry of Interior.

Validity and Reliability

Another expert also carried out the coding of the interview data. The researcher and the expert examined the codes and themes, and the necessary arrangements were made by discussing the "consensus" and "disagreement" issues. The reliability calculation of the research was made using the formula of $\text{Consensus} / \text{Agreement} + \text{Disagreement} \times 100$ suggested by Miles and Huberman (1994). Accordingly, the reliability of the study was calculated as .89.

Process

The research was carried out by the researcher within the scope of the Special Teaching Methods II Course. Within the scope of this course, groups that consist of two or three teacher candidates were formed. A participatory outdoor learning activity was organized by a different group each week. The tasked groups prepared the worksheets by scanning the relevant literature. Afterwards, the worksheets were finalized in line with the feedback received from the researcher. After that, the worksheets before the activity were reproduced as much as the number of teacher candidates. The teacher candidates who carried out the activity were responsible for planning, executing, and evaluating the outdoor learning activity. The role of the researcher in the studies is limited to guiding the organization and implementation of the activities.

The first study was carried out in The Denizli Forum Shopping Center to raise awareness about popular culture and time consumption. The group in charge divided their peers into small groups at The Denizli Forum Shopping Center and gave them worksheets with different tasks. For example, two students stood at the entrance door and recorded how many people entered in 30 minutes and their classification according to gender and age groups. The other duo tried to determine how often they came here, for what purpose, and how much time they spent there by interviewing those who came to the shopping mall. The other two tried to determine how many

domestic and foreign companies there were and how the stores were organized in the shopping mall. Another duo counted 100 vehicles in the parking lot and classified them (as a luxury, middle and lower groups). In addition, by looking at the license plate numbers, they tried to reveal the percentage of people coming from the surrounding cities.

On the other hand, the other group interviewed the local shops' owner, and the people living in the surrounding area asked their thoughts about living beside the Forum. At the end of the given time, all groups gathered in the common area and shared the data they obtained. The group in charge summarized the information they obtained from the literature by relating them to the findings of their peers. At the end of the study, a general evaluation was made, and the activity was completed.

Pamukkale National Park was chosen as the second activity because of its historical and geographical importance. This activity was prepared separately by three groups. The groups prepared outdoor learning activities about the Pamukkale travertines, the ancient city of Pamukkale Hierapolis and the archeological museum of Hierapolis. The groups first gave information about these places and then distributed the worksheets they prepared to their friends and asked them to answer. Drama activities prepared by the group in charge of the Hierapolis Archeology Museum (with the support they received from the drama instructor of the faculty) were implemented. At the end of the study, the activity was completed by making a general evaluation.

The third event was held at Buharkent Zorlu Geothermal Power Plant. The group in charge organized the necessary permissions from the company authorities. The engineer at the company gave information about geothermal energy and production. Afterwards, the problems and expectations of the local people due to the geothermal power plant were analyzed by interviewing. The responsible group shared the information they obtained from the literature with their peers. Later, it was discussed with the whole group how sustainable the sustainable energy sources are. At the end of the activity, the worksheets were filled, and a general evaluation was made.

As the fourth activity, The Denizli Glass Industry was chosen to observe the adventure of glass. Information about The Denizli Glass Industry was obtained from the authorized person at the company. The glass making was observed, information was obtained about the art of glassblowing and the moulds used. Finally, the worksheet was answered, and the general evaluation of the activities was made.

As the last activity, Sirince Village was chosen for local and oral history studies. However, it was impossible to go to Sirince Village due to weather conditions, and the activity was held virtually in a classroom environment.

Different methods and techniques were used (such as interview, observation, drama) in each outdoor learning activity. At the end of each outdoor learning activity, a general evaluation was made as a whole group. In the general evaluation, these questions are discussed; What was the educational value of this outdoor learning activity? Did the teacher candidates meet their goals and expectations? What could

have been done differently to make this study a better experience? What problems should be addressed and highlighted next time?

Results

The Teacher Candidates' Opinions About the Meaning of The Outdoor Learning Experience

As a result of the analysis of the views of the teacher candidates who participated in the study on the meaning of the outdoor learning experience, three themes emerged as "changing learning space," "exploration," and "enrichment of experiences" (Table 1).

Table 1.

Opinions of Teacher Candidates About the Meaning of Outdoor Learning Experience

Themes	Student Expressions
Changing learning space	"Outdoor Learning; It tells the student and the teacher that the school is not just a building with a roof over it and surrounded by walls, but a place where teaching and learning take place." Göktuğ
	"The correct information that the student can reach in education is not only on the desk, table or the blackboard he is looking at. Millions of information to be discovered in the world are waiting for students outside." Eylül
	"We have not limited our learning space to the classroom, and there is still much to explore." Zeynep
Exploration	"Outdoor learning is a way of taking the students out of a closed box and enabling them to look around from a wider angle." Yusuf
	"Learning outside the classroom is important in terms of coming out of one's shell and perceiving change." Alparslan
	"Seeing and exploring different places has broadened our horizons (In particular Buharkent-Glass Industry - Pamukkale)." Elif
Enrichment of experiences	"I learn by seeing, touching, smelling, tasting, and hearing." Ömer Asaf
	"It is the method of learning and teaching that best expresses the process of learning by doing." Elif
	"I travel, I see, I hear, I have fun, and I learn." Eymen
	"The information that will be forgotten in the student's memory in a week with plain expression in the classroom remains in the student's memory until the end of his life with outdoor learning. As Confucius said, "I hear, and I forget. I see, and I remember. I do, and I understand." Göktuğ

When Table 1 is examined, the expression of learning environments has changed from "classes" to "learning spaces". Changing language can also be regarded as a sign of transformation. In addition, it is seen that teacher candidates define learning as a

“discovery” and “enrichment of experiences”. The teacher candidates have stated that enriching the experiences increases the permanence of learning, participation, and motivation.

Opinions of Teacher Candidates About the Contribution of Outdoor Learning to the Teaching-Learning Process

Eight themes emerged because of the analysis of the teacher candidates' opinions on the effect of outdoor learning on the teaching-learning process. These themes are increasing motivation, active participation, skill development, peer teaching, deepening content knowledge, social interaction, method knowledge, effective and permanent learning. (Table 2).

Table 2.

Opinions of Teacher Candidates About the Contribution of Outdoor Learning to the Teaching-Learning Process

Themes	Student Expressions
Increasing motivation	I enjoy outdoor learning the most because I want to discover new things about our subject every week and come to class with great enthusiasm. Interacting with my classmates thanks to the activities we do and discovering new places have been the most enjoyable aspects of this activity. Kerem
	It made my learning easier, it made me focus on the lesson, and I learned everything described in the activities memorably...Frankly, I was not very interested in the course, but outdoor activities changed my thoughts. I came to the lesson with much more curiosity and willingness. Zeynep
Active participation	The most important point of outdoor learning is that learning takes place by seeing, hearing, touching, and having fun. Thus, the information becomes more reliable and more permanent. Eymen
	It allowed me to participate more in the lesson. If we had done this in a classroom, I would not have listened to the lesson as effectively, and I would not have participated as effectively, either. Nevertheless, since we went one-on-one, we have been curious about everything; there were factual data in front of us, which inevitably aroused a sense of curiosity. These activities encouraged us to ask questions, and we learned detailed information. Göktuğ
Skill development	I think we have gained skills in areas such as observation, perception of space, social participation, perception of change and continuity. Yusuf
	I think it is very effective in gaining the skills of problem-solving, empathy, observation, cooperation, using evidence, and social participation. Eymen
	Extra-classroom activities have proven to improve our responsibility-taking, entrepreneurship, leadership, and time-management skills. It has also had a positive impact on our higher-order thinking skills, motivation to learn, and academic performance. Demir
	One of the things I learned in this course was how to make a good observation. Outdoor learning encourages permanent learning. Defne

Peer learning	<p>...When we study as a group, we can benefit from the experiences and thoughts of our friends. Our friends notice things that we cannot see, or our friends may not notice what we notice." Elif</p> <p>We gained values such as friendship and self-sacrifice; also, we had the opportunity to learn a lot from not only our teacher but also from our friends and officials. Yusuf</p>
Deepening content knowledge	<p>With the outdoor learning application, we first added our experiences gained by living and seeing on our theoretical knowledge. In this way, we gained insight on many issues related to our subject. Yusuf</p> <p>Perhaps we learned much information from experts in the field than we could not learn from our teacher Ömer Asaf</p> <p>As a group, we prepared the activities, thought, and created creative ideas together. We tried to prepare our event in cooperation by researching the necessary resources, articles and communicating with our teacher to prepare these events. Tülin</p> <p>The type of citizen desired to be raised with the Social Studies Course cannot be expected to be raised only through activities carried out within the boundaries of the classroom. The laboratory of the Social Studies course is 'society.' In my opinion, students should benefit from it by seeing and witnessing. Azra</p>
Social interaction	<p>I was able to break some of my prejudices by communicating and interacting with classmates with whom I had never communicated or talked to very often. Moreover, it was quite nice to see that the interaction and communication in the classroom increased. Elif</p> <p>Even our friends, who are mostly quiet in the classroom, were trying to get into something in these lessons. We just got to know our friend after four years. Göktuğ</p>
Method knowledge	<p>I gained experience with things like how to organize a trip, what to do when going on a trip, and what outdoor learning adds to students. Elif</p> <p>First of all, as a teacher candidate, I started to design outdoor activities that can be done with students in my head. I learned how to organize it, where to start. I also received information on how to dominate the class in group activities in terms of professional development and prevent or solve problems. I think these will be useful to me when I become a teacher in the future. Eylül</p> <p>I have seen that in the outdoor learning process, the lessons progress without any problems as long as they are properly planned, leaving the traditional understanding that lessons can be like this. Tülin</p>
Effective and permanent learning	<p>Putting a topic into an outdoor activity is like turning it from a dream into a reality. For example, learning the geothermal energy in an area where it is produced instead of reading from the textbook is more permanent in learning. Ömer Asaf</p> <p>Learning outside the classroom is more remarkable than in the classroom. We may daydream after the first 20 minutes of the lesson in the classroom. However, we are always in the content outside the classroom. It makes learning permanent, concrete, and very interesting. Demir</p> <p>As it is learning through experience, the information was more permanent for us, and it helped us to get out of the same monotony and make the lesson enjoyable. Yusuf</p>

When Table 2 is examined, it is seen that teacher candidates generally define outdoor learning as fun, memorable, and compelling learning experiences. In addition, in this study, it was found that because of the unique nature of the outdoor setting, it has a

positive effect on long-term memory and increases individual growth and improvements in social skills. This study also revealed that outdoor learning develops problem-solving, critical thinking, perception of space, change and continuity, observation, communication, and cooperation skills, which are vital in teaching social studies. Experiences that lead students to take responsibility and make choices encourage active negotiation, reasoning, and decision making. In addition, outdoor learning creates a more inclusive and participatory learning environment. This environment allows for the development of a collaborative relationship.

All the teacher candidates participating in the study enthusiastically expressed their desire to employ these skills when they started their profession. In addition, teacher candidates said that outdoor learning activities left emotional traces that they would never forget. For example, a teacher candidate stated the following.

You can also feel it in the outdoor learning. For example, we have been to the glass industry of Denizli, we have heard the noise there, we have felt the heat there, we have seen how they produce, how they shape the glass by blowing bubbles, but if this were only explained in the classroom, we would not be affected by the noise or the temperature, nor could we really understand the working conditions of the workers there. Demir

The Sirince activity, which could not be realized due to snowfall, was held in a virtual tour in the classroom environment. However, most of the teacher candidates did not remember much about the virtual trip during the interviews. Only the teacher candidates who organized the activity remembered the details better about Sirince. This finding can be interpreted as the narrative method alone cannot replace what individuals learn from their physical actions and cognitive efforts. Moreover, this finding also proves that outdoor learning encourages effective and permanent learning, and we learn best when we teach it to someone else. For example, a teacher candidate stated the following about this issue.

I only have a superficial knowledge of Sirince, and I do not remember 90% of the things about it right now. There is a wine factory or something. Nevertheless, since I have not seen it personally, I do not have much information about Sirince. Defne

As a result, even just the change of place in outdoor learning alone increases the motivation of the teacher candidates, increases the enthusiasm and interest towards the lessons, and creates professional, social, and personal development.

Opinions of Teacher Candidates About the Limitations of Outdoor Learning

Four themes emerged due to the analysis of teacher candidates' opinions on the limitations of outdoor learning. These themes are weather conditions, transportation, cost, and obtaining permission from official institutions (Table 3).

Tablo 3.*Opinions of Teacher Candidates About the Limitations of Outdoor Learning*

Themes	Student Expressions
Weather conditions	The hard part of learning outside of the classroom was that the season and weather conditions were not favourable Alparslan
Transportation	It is sometimes difficult to reach the venue we have determined for the event Ömer Asaf
Cost	The hard part may be the financial aspect of the trips, and if a certain resource can be created, it will be better for us. Göktuğ
Obtaining permission	Especially the failure to get the necessary permits for the glass factory on time caused the event to be cancelled and later postponed, but it was ultimately successful and realized. Elif

Discussion and Conclusion

This study revealed that outdoor learning increases motivation, active participation, skill development, peer teaching, social interaction, method knowledge, effective and permanent learning, and content knowledge. As the findings of this study, there are studies in the literature showing that outdoor learning has a positive effect on student engagement and social behaviour, which has great educational potential (Barrable & Lakin, 2020; Fägerstam, 2014). It was emphasized by Barrable and However (2020) that outdoor learning enabled more students' active participation and extended collaboration with more peers. Similarly in the literature, the study's findings conducted by Rickinson et al. (2004, p. 5) revealed that out-of-class learning, which is designed and followed effectively, improves students' knowledge and skills in a way that adds value to their daily experiences in the classroom. The same study also highlighted that outdoor learning has a positive effect on long-term memory because it is memorable, provides more self-confidence, stronger motivation, a greater sense of belonging and responsibility, and allows students to develop more positive relationships with each other and their teachers.

Another finding of this study is that outdoor learning develops skills such as problem-solving, critical thinking, perception of space, perception of change and continuity, observation, communication, and cooperation, which are vital in teaching social studies. Similarly, the study conducted by Zink and Boyes (2006) showed that outdoor learning in primary and secondary education is linked to personal and social development, which includes cooperation, and communication skills considered the most critical learning outcomes by teachers. Another case study analyzed a three-year period in which 20% of all subjects in a primary level were taught in a natural setting. The study's findings revealed that learning in an open environment positively affects social behaviour, attitudes towards teaching and learning, and physical activity level compared to classroom learning (Mygind, 2009). Parallel to the findings of this study,

the study conducted by Keskin and Kaplan (2012) found that outdoor learning enhances students' critical thinking skills, such as drawing comparisons, conclusions, and arguments, as well as historical empathy, perception of change, continuity, creative thinking, entrepreneurship, historical analysis, interpretation, and historical understanding.

Similarly, Seyhan (2020) emphasized that with outdoor learning in social studies teaching, students can gain skills such as observation, research, environmental literacy, innovative thinking, perception of change and continuity, cooperation, and perception of space and time and chronology. In addition, Fägerstam and Blom (2013), who applied a quasi-experimental design, revealed that the five-month outdoor education, attended by students aged 13-15, positively affected students' knowledge and attitudes towards learning biology and mathematics. The study also emphasized the students' appreciation for the enjoyment they experience outside the classroom and for focusing on teamwork. Like the findings of this study, it has been found in the literature that outdoor learning improves social relations (Hartmeyer & Mygind, 2016; Fägerstam & Blom, 2013) and increases motivation and communication and participation among students (Fägerstam, 2014). It has been observed that the use of natural outdoor environments as learning environments in early childhood education improves environmental awareness among young children and encourages children's physical, cognitive, and social development (Ernst, 2014).

Another finding of this study is that outdoor learning creates a more inclusive environment. The teacher candidates who participated in the study stated that they communicated with their friends for the first time after four years and had just started to get to know each other during this study. Similarly, in the study conducted by Quay, Dickinson, and Nettleton (2002), it was found that in the context of outdoor learning, students were more helpful towards each other than at school. These actions mainly occurred among students who were not close friends and did not actively care about each other in other lessons at school. In the study, it was found that the level of appreciation of close friends remained almost the same in other lessons in school and in the outdoor learning process, while the level of appreciation of non-close friends increased even more in the learning process outside the classroom.

Likewise, the findings of Mygind's (2009) study indicated that the day in the forest every week contributed significantly to the establishment of new play friendships. These findings revealed that outdoor adventure education programs positively affect social skills, group cohesion, communication skills, and teamwork (Rickinson et al., 2004; Hartmeyer & Mygind, 2016; Metin-Goksu & Somen, 2018). In this regard, Davis, Rea, and Waite (2006) suggested that outdoor learning can emphasize learning to live together in children.

Parallel to the findings of this study, in the literature, the most critical limitations in outdoor learning are stated as transportation, lack of time, winter weather conditions, safety concerns, and lack of extra supervision (Ernst, 2014), as well as lack of parental support (Ernst & Tornabene, 2012). Rickinson et al. (2004) stated that the most

significant barriers to learning outside the classroom are concerns about the health and safety of young people, the teacher's self-confidence and expertise in outdoor learning, the school curriculum requirements, and the lack of time, resources, and support. In this study, the teacher candidates also stated limitations since the university did not provide economic support; they could not organize activities at longer distances. In other studies, social studies teachers' obstacles to outdoor learning were explained like time, student behaviours, economic problems, and bureaucratic obstacles (Eguz & Kesten, 2012; Cengelci, 2013; Malkoc & Kaya, 2015). It has also been found in the literature that most of the teachers and teacher candidates do not feel adequate about learning outside the classroom and they think that special training should be given for these studies (Avci, 2015; Malkoç & Kaya, 2015; Topçu, 2017; Metin-Goksu & Somen, 2018). Although barriers to outdoor learning are often thought of as transportation and cost, evidence from the literature suggests that teachers may not have confidence in their ability to plan and deliver such experiences (Nundy, Dillon, & Dowd, 2009). Increasing in-service training opportunities for teachers will help equip them with the knowledge, skills, and understanding necessary to plan and safely undertake positive outdoor learning experiences. In this context, teacher education programs have been identified in the literature as a critical way to build such skills and confidence in teacher candidates and other opportunities such as continuing professional development (Barrable & However, 2020).

The findings of the study by Barrable and However (2020) showed that even short-term (3 hours) outdoor learning experiences can positively affect teacher candidates' perceived competence in getting their students out of the classroom. The study also revealed that teacher candidates' willingness to practice outdoor learning increased significantly after participating in the outdoor experience. The literature suggests that a teacher's decisions are determined by personal practical knowledge rather than development and learning theory knowledge (Ernst, 2014). For this reason, opportunities for outdoor learning experiences should be given to teacher candidates through direct experience methods in teacher education programs. For students to know the environment, identify problems related to the use of natural resources, seek alternative solutions to environmental problems, and be determined to take action to alleviate these problems, they must first have an empirical basis on which to rely. This experience can be built through outdoor learning. If education can be defined as the search for meaning, as Rillo (1985) stated, outdoor learning is the starting space.

As a result, the findings of this study revealed that even just going out of the classroom (space) has educational potential, that outdoor learning facilitates both experiential and participatory learning and creates a more inclusive environment. In addition, it was observed that teacher candidates enthusiastically expressed their desire to implement outdoor learning in their professional lives. It is not easy to incorporate this into the curriculum without teachers having personal experience with outdoor learning. Outdoor learning should be part of teacher education programs. Trainees and teachers should have in-service and post-service training opportunities that include outdoor learning experiences. Outdoor learning practices should not be left to the

teacher's initiative. It should be made compulsory to support a certain percentage of the lessons in the program with extra-class activities. In addition to the program, a guide should be presented to help the teacher with different methods and techniques. The National Education and universities should provide resource and organizational support. Studies show that teachers in schools take the way they are taught as an example. For this reason, outdoor learning should be accepted and supported as an integral part of teacher education.

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