

Examination of Pre-Service Teachers' Experiences on Student-Centered Instruction

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Abstract: The teaching approach, in which the student is at the center of learning, is becoming more and more common. The teacher is an important factor in the implementation of this approach. Pre-service education plays an important role in the qualified training of teachers. If teacher candidates learn student-centered teaching through experience at the university, they are expected to apply it more easily when they start working. In this direction, it was aimed to examine the student-centered teaching experiences of pre-service teachers. It is supposed that pre-service teachers' views on this process will contribute to the development of pre-service teacher education. The research was carried out with the phenomenology design, and 67 pre-service teachers were included in the research with the criterion sampling method. The research data collected with an open-ended questionnaire form were analyzed by content analysis. According to the results of the research, pre-service teachers think that student-centered teaching encourages them, makes them effective, and provides them with skills. Because of these features, they consider the approach as an effective learning approach and think that the experiences give them emotional awareness and improve their professional competencies. However, pre-service teachers experience educational problems such as indecision, anxiety, lack of self-confidence and knowledge, and inexperience while performing student-centered teaching.

Keywords: Pre-Service Teacher, Student-Centered Instruction, Undergraduate Education

1. Introduction

Student-centered teaching is a teaching-learning approach that has been researched, applied, and tried to be disseminated in developed countries for the last fifty years (Özer, 2008). In Türkiye, a constructivist approach has been adopted in education since 2004 (Ünsal, Ağçam & Korkmaz, 2019). In this direction, student-centered teaching has begun to show its effect in all processes, from curriculum to textbooks, from teacher training to designing the teaching process (Özpolat, 2013). Constructivist learning theory focuses on the use of student-centered methods and techniques that will enable the active involvement of students in the teaching-learning process (Karasu Avcı & Ketenoğlu Kayabaşı, 2018; Ünsal, Ağçam & Korkmaz, 2019). This approach, in which students are active and interacting, is based on the constructivist ideas of John Dewey and Lev Vygotsky (Bada & Olusegun, 2015).

In student-centered teaching, students learn by doing and experiencing rather than watching (Brown, 2008). In the learning-teaching process, students are expected to make efforts to obtain information from different sources, to show continuous improvement, and to be at the center of learning-teaching activities rather than transferring the information in the textbooks (Temizkan, 2010). Thus, it is aimed for student to create new knowledge based on active and applied experiences in the learning process (Scheurs & Dumbraveanu, 2014). In this sense, important responsibilities fall on the teacher in guiding teaching in student-centered teaching, arranging the learning environment, and increasing the effect of learning materials (Koç, 2014; Maden, Durukan & Akbaş, 2011; Overby, 2011). Adopting well-prepared, student-centered teaching materials positively affects both teaching practices and teachers (Czajka &

McConnell, 2019). Therefore, in student-centered teaching, it is important to design the learning-teaching process in which the student will be active (Yıldırım, 2021).

Although student-centered teaching is considered important at all teaching levels, teachers lack a comprehensive framework to design, develop, and implement it (Lee & Hannafin, 2016). Even though they adopt the approach as an idea, for some reasons they do not apply it to the learning-teaching process (Akpınar & Gezer, 2010; Erdem, Karademir & Tezel, 2022). Research also emphasizes that teachers should be informed about student-centered teaching in the pre-service and in-service periods (Dönmez, 2008; Güven & Sözer, 2007; Kızılca, 2007). On the other hand, teacher productivity increases with experience. The gains obtained through experience turn into practice when starting the profession (Harris & Sass, 2011). In this sense, teachers need to receive qualified pre-service training for student-centered teaching (Yalçın İncik & Tanrıseven, 2012). In undergraduate education, it is necessary to implement and expand the student-centered education approach (Scheurs & Dumbraveanu, 2014). Changes in teachers' field knowledge and teacher practices affect student success (Bada & Olusegun, 2015; Polly, McGee, Wang, Martin, Lambert & Pugalee, 2015). However, since the classrooms in undergraduate education are generally teacher-centered, this prevents pre-service teachers from being successful.

Many educators are trying to make changes in their undergraduate education toward student-centeredness. Despite this, it cannot be said that the education process is generally student-centered (Wright, 2011). Studies show that the courses taken by pre-service teachers are not student-centered, and they are not sufficient in preparing student-centered activities. Although experienced educators claim that they value student-centered learning, they act teacher-centered in practice (Estes, 2004). On the other hand, although the instructors consider themselves competent in applying student-centered instruction, students state that student-centered instruction is not implemented and the instructors are inadequate (Ünver, 2010). Yalçın İncik and Tanrıseven (2012) also determined that the instructors used student-centered teaching in the lessons, but the students emphasized that this teaching was not applied. Therefore, the current situation shows that traditional methods and techniques still dominate the teaching-learning process (Aliusta, Özer, & Kan, 2015). Okumuş (2021) examined the student-centered activity development skills of pre-service science teachers. In the study, teacher candidates were at a low level in terms of both their activity development and the suitability of the activities they developed for the approach. Şahin (2023), in his research with classroom and preschool teacher candidates, found that instructors rarely use student-centered teaching. Therefore, in the last 20 years, it seems that the reflection of student-centered education on the learning-teaching process has not been sufficient.

Pre-service teachers' perspectives on learning are strongly influenced by the way a particular subject is taught to them at school (Clark, 1994). While doing the teaching profession, they generally apply the knowledge they have learned about student-centered teaching in pre-service education and develop course materials suitable for this approach (Zulkardi 2002). In this context, teacher educators must train prospective teachers to use the student-centered approach (Thanh, Dekker & Goedhart, 2007). Also, it is to gain the knowledge, skills, and attitudes necessary for their profession (Görgen, Çokçalışkan & Korkut, 2012). In this process, pre-service teachers' experiences based on methods and techniques in which they will be active prepare them for the profession in a more qualified way (Yalçın İncik & Tanrıseven, 2012). Therefore, higher education should include student-centered practices and serve to raise the human type required by age (Karakaş Özür, 2019).

In Türkiye, with the implementation of the new primary education program, there has been a transformation in the role of teachers in the classroom environment. Because of this role, the responsibility of teachers who take the role of guide in the classroom has increased even more in performing the teaching profession. Curriculums have also made it compulsory for the majority of

classroom activities to be processed with student-centered activities (İzci, Duran & Taşar, 2010). The 2018 life studies curriculum focuses on developing student-centered activities while expressing the issues that the teacher will pay attention to during the implementation process of the curriculum. It is stated that the activities should be prepared and planned in line with the interests, wishes, and needs of the students. In addition, the activities should be carried out in line with the achievements, and activities are requested to establish a connection between school and life (Ministry of National Education (MoNE), 2018). Therefore, pre-service teachers need to gain the ability to prepare student-centered activities before starting the profession. Education faculties have important responsibilities in helping them gain this skill. Learning this teaching practically in pre-service education and seeing many examples of activities will prepare them for the profession better. In this context, third-year pre-service teachers studying in the classroom teaching undergraduate program were provided to prepare student-centered teaching activities within the scope of life studies teaching and apply these activities in the classroom. After this experience, it was found worth examining how the pre-service teachers evaluated the approach, how they were affected by the implementation process, and what kind of problems they encountered in this process.

In the literature, many studies have been conducted on student-centered teaching, especially after the program change in 2005. In the research, opinions of pre-service teachers, teachers and lecturers regarding student-centered teaching (Açıkgöz, 2008; Bulut, 2008; Akpınar & Gezer, 2010; İncik & Tanrıseven, 2012; Zeki & Sonyel, 2014; Okumuş, 2021; Şahin, 2023), the effectiveness of student-centered teaching practices (Yaşar, Çengelci Köse, Göz & Gürdoğan Bayır, 2015), the effect of the approach on student attitudes (Temizkan, 2010; Özbayraktar, 2016) and the effects of student-centered environments and course designs on success (Deniz, 2005; Dönmez, 2008; Daşdemir & Doymuş, 2012; Topan, 2013; Teker, 2014; Kansızoğlu & Sulak, 2019; Yeşilpınar Uyar & Doğanay, 2018; Borazan, 2019; Asmaz, 2019) are examined. Okumuş (2021) also investigated the skills of science teacher candidates in designing student-centered activities. In this study, the experiences of primary school pre-service teachers in preparing and implementing activities with a student-centered approach are discussed. The results of the research are expected to contribute to pre-service teacher education. In addition, it is expected to guide the instructors in student-centered training to be organized for teacher candidates in pre-service education. In this direction, it is aimed to examine the student-centered teaching experiences of teacher candidates in the research. Within the scope of the research, answers were sought to the following three questions:

- How do pre-service teachers evaluate student-centered teaching?
- How are pre-service teachers affected by student-centered teaching?
- What problems do pre-service teachers face in student-centered teaching?

2. Method

Phenomenology design was used in the study. The phenomenology design focuses on phenomena that we are aware of but do not have a detailed understanding of (Yıldırım & Şimşek, 2013). It is expected that student-centered teaching activities will have an impact on teacher candidates. To determine how and in what way this effect occurs, the phenomenological design was chosen. The aim of the phenomenology design is to uncover the meanings of experiences related to a phenomenon and to define the underlying meanings of the phenomenon (Kocabıyık, 2015). The phenomenology design was preferred to determine the student-centered teaching experiences of pre-service teachers and to reveal their perceptions of student-centered teaching.

2.1. Data collection tool

An open-ended questionnaire form was used as a data collection tool. The form was developed by the researcher. For the questions, firstly the literature mentioned in the introduction was examined. Then, research questions were developed according to the relevant literature. Since the research examined teacher candidates' experiences regarding student-centered education, the data collection tool focused on how the candidates evaluated the approach, what problems they encountered and how they were affected. On the other hand, in qualitative research, it is essential not to ask too many questions to participants (Weiss, 1994). In this respect, six questions were included in the form. Three field experts were consulted regarding the research questions. One of the experts is an associate professor in educational sciences, one in the field of social studies, and one is a doctor lecturer in the field of classroom teaching. In line with expert opinions, two questions were removed from the form and two questions that were similar in meaning were combined. In its final version, the form included the following three questions:

1. How do you evaluate student-centered teaching?
2. How were you influenced by student-centered teaching?
3. What problems does the student face in centered teaching?

2.2. Working group

The study group consists of 67 third-grade pre-service teachers in the classroom teaching department. In the phenomenology design, it is generally studied with a limited sample. However, since more limited data could be collected with the open-ended form, the study group was kept large. Thus, it was ensured that the study included possible diversity, richness, difference and contradiction. The pre-service teachers in the study group were determined according to the criterion sampling method. The criteria for participating in the sampling were determined as having prepared a student-centered activity in the life sciences teaching course in the fall semester of 2022 and having attended the course at a rate of 70 percent. The reason why the life sciences teaching course was chosen is that the activities were designed according to the achievements, skills and values of this course and the prepared activities were applied in this course. The purpose of the study was explained to 87 pre-service teachers who met the criteria in the last week of the application and they were offered to participate in the study. In addition, it was stated to the candidates that participation in the study was voluntary. Then, the data collection tool was distributed to the teacher candidates. They were given two days to answer the form. At the end of the period, the completed forms were delivered to the researcher. As a result, a total of 67 teacher candidates, 30 males, and 37 females, participated in the study.

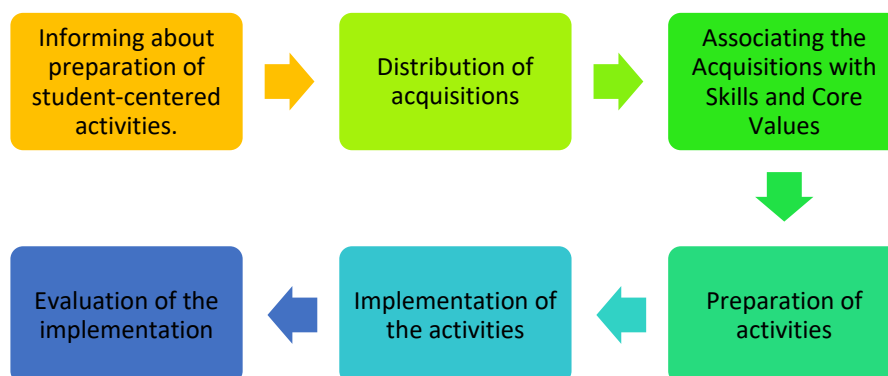
2.3. Implementation process

A semester in higher education lasts 14 weeks. During the semester, pre-service teachers taught student-centered lessons by preparing activities for at least one week and participating in the activities prepared for 13 weeks. The activities were applied in the life studies teaching course, which lasted three hours a week. In the first week, student-centered teaching approach was introduced to pre-service teachers with examples of activities. Then, life studies lesson acquisitions were randomly distributed to prospective teachers. They were asked to associate the acquisitions with at least one of the core values and basic life skills in the curriculum of the course. Afterward, they were asked to prepare activities in which all students in the class would be active in accordance with this association and to apply these activities in the classroom. In association, specific skills and values are not associated with certain achievements. Pre-service teachers were left free to associate achievements, skills and values. Therefore, sometimes different teacher candidates were able to associate the same outcome with

different skills and values. Each week, two pre-service teachers taught the activities they prepared in the classroom. The implementation process was carried out as indicated in Figure 1.

Figure 1

Student-Centered Activity Preparation-Implementation Process



2.4. Data analysis

Research data were analyzed by content analysis. The main purpose of content analysis is to reach concepts and relationships that can explain the collected data (Yıldırım & Şimşek, 2013). In this context, first of all, the collected data were coded according to the concepts extracted from the data. Some of the data was also coded by another field expert. The generated codes were brought together and examined. According to the resulting codes, the data is divided into meaningful parts that are related to each other. These sections were conceptualized, and themes were obtained. Then, the data were defined and organized according to codes and themes. The identified codes and themes were examined by another field expert. Finally, the findings were defined and interpreted by tabulating. While presenting the findings, the information about the pre-service teachers was coded and shortened. For example, the second pre-service teacher was coded as "PT2". These abbreviations are used in the presentation of the findings and direct quotations.

2.5. Validity and reliability of the research

Guba and Lincoln (1982) focus on the concepts of credibility, transferability, consistency, and confirmability, rather than validity and reliability in qualitative research. Guba and Lincoln's method was followed in the study to ensure its validity and reliability. To ensure credibility, the research was reviewed by an expert whose area of study is curriculum and instruction. After the research report was completed, the results were shared with the participants individually at the confirmation meeting held in the researcher's office, and the participants' evaluations were taken. Within the scope of transferability, the purposive sampling method was chosen, and the data were presented by describing them in detail and supporting them with direct quotations. For consistency, the data obtained and the results reached were reviewed by another expert with peer confirmation. In addition, the stages of developing the data collection tool, collecting the data, and analyzing the data are presented in detail. For confirmability, the data collection tool of the research, the raw data, and the coding in the analysis phase were kept.

2.6. Ethical Principles

Ethics committee permission was received from Siirt University Ethics Committee with the decision dated 05.04.2022 and numbered 361.

3. Findings

According to the sub-objectives of the research, the findings that were reached and supported by sample opinions are presented below.

3.1. How do pre-service teachers evaluate student-centered instruction?

The findings regarding how pre-service teachers evaluate student-centered teaching are presented in Table 1.

Table 1

Opinions of Pre-service Teachers on Student-Centered Instruction

Theme	Sub-Theme	Codes
Effective Learning Approach	Encouraging (f=38)	More entertaining lessons (4, 9, 12, 15, 19, 20, 24, 26, 30, 34, 36, 37, 40, 45, 50, 52, 53, 57)
		Increasing interest in the lesson (4, 9, 23, 26, 40, 59) Attracting better attention to the lesson (50, 60, 65) Keeping morale-motivation at a high level (29, 31, 59) Lessons are not boring (5, 11, 47) Keeping the student in the lesson (11, 12) Encouraging research and discovery (30) Providing a suitable environment for learning (2) Providing the opportunities to associate what has been learned with daily life (46)
	Active participation (f=35)	Ensuring active participation of students in the lesson. (2, 3, 5, 8, 9, 11, 12, 15, 20, 23, 25, 27, 28, 31, 32, 36, 37, 47, 49, 50, 52, 55, 56, 58, 64, 65) Ensuring learning by doing and experiencing (15, 24, 25, 27, 32, 41, 48, 50, 55)
		Skill building (f=32)
	Increasing academic success (f=31)	Permanent learning takes place (9, 11, 23, 24, 28, 34, 36, 41, 50, 51, 52, 53, 55, 57, 58, 65) Providing better learning (1, 12, 29, 32, 43, 44, 47, 52) More efficient lesson (2, 5, 12, 25, 58) Addressing more sense organ (23) Easier understanding of the subject (8)
Inclusive (f=11)		Being appropriate for the age and imagination of the students (17, 43, 51, 60) Considering the interests and needs of all students (3, 4, 66) Addressing every student (18, 29) Involving even inactive students (47, 64)

As seen in Table 1, pre-service teachers evaluated student-centered teaching as an effective learning approach. Under this theme, five sub-themes emerged. The sub-themes were determined as encouraging, skill-building, inclusive, increasing academic success, and active participation. In the

encouraging sub-theme, pre-service teachers stated that a suitable learning environment was created in the classroom and that student-centered teaching prompted students to explore, kept their morale and motivation at a high level, increased students' interest in the lesson, and offered the opportunity to associate the information they learned with their daily lives. In addition, they emphasized that student-centered lessons are not boring; on the contrary, it is more fun, increase interest, and attract students' attention more. Some of the sample opinions are presented below:

"...The teaching process is more fun, and this process attracts the attention of the students. Thus, an environment where more permanent learning takes place is created..." (PT9). "Student-centered activities increase the student's interest in the lesson, develop self-confidence, enable them to be collaborative, and make them aware of their responsibilities. The student enjoys the lesson because the interest and curiosity of the student are activated." (PT40).

In the sub-theme of skill-building, pre-service teachers stated that student-centered activities allow students to discover their talents and express themselves, strengthen their social ties, and provide a discussion environment and culture to the classroom. They also stated that activities enable students to take responsibility, develop cooperation among them, strengthen their communication, and increase their self-confidence. In addition, they emphasized that with student-centered teaching, students learned to control themselves and developed empathic behavior. Some of the sample opinions of the pre-service teachers are presented below:

"As the student is at the center, it makes the lesson more fun and productive... Student-centered activities enable the development of skills such as cooperation, communication, and self-control among students." (PT12). "I think that student-centered activities will increase students' self-confidence and enable students to get together and become friends more easily." (PT62).

In the third sub-theme, pre-service teachers evaluated student-centered teaching as inclusive. In this context, they stated that student-centered education appeals to all students and meets their interests and needs. It was also emphasized that student-centered activities were suitable for the development and perception level of the students. Some of the sample opinions of the pre-service teachers are presented below:

"In student-centered activities, the student is active and discovers their talents. It is very convenient as the needs and wishes of all students are taken into account." (PT3). "Student-centered activities are important in terms of being suitable for all student types..." (PT18).

In the fourth sub-theme, pre-service teachers stated that student-centered teaching increased the academic success of the student. They expressed that student-centered activities appeal to more sense organs, and this situation enables students to learn the lesson better. In addition, they emphasized that permanent learning took place thanks to student-centered activities, students did not forget the information they learned, and the lessons were more productive. Some of the sample comments are presented below:

"As someone who has experienced teacher-centered teaching, I find student-centered teaching extremely useful and necessary. In student-centered lessons, teachers and students enjoy, and I think that permanent learning takes place in the student..." (PT34). "With student-centered activities, the student is both having fun and learning because he is active. This makes the lesson more fun. Since the student is in the center, the lessons are more instructive and permanent." (PT52)

In the last sub-theme, pre-service teachers stated that student-centered teaching makes students active in the lesson, increases their participation in the lesson, and provides them with the opportunity to learn by doing and experiencing. Two of the sample opinions are presented below:

"I find it very necessary to do student-centered activities for students to enjoy my lesson, to be active in the teaching-learning process, and to express themselves adequately...." (PT20). "Traditional teaching leads the student to memorization. However, student-centered activities enable the student to participate actively in the lesson by enabling the student to learn by living and doing." (PT32)

3.2. How does student-centered instruction affect pre-service teachers?

Findings on how student-centered teaching affects pre-service teachers are presented in Table 2.

Table 2

The Effects of Student-Centered Instruction on Pre-service Teachers

Theme	Sub-Theme	Codes	
Raising emotional awareness	Encouraging so(f=43)	Influencing motivation positively (2, 3, 6, 7, 8, 9, 10, 11, 13, 16, 20, 21, 24, 26, 27, 28, 30, 31, 32, 34, 37, 41, 43, 45, 46, 47, 48, 50, 51, 52, 53, 57, 61, 63, 64, 65)	
		Increase excitement (25, 36, 54, 61, 66) Inspiring the activities (47,51) Encouraging them to complete their deficiencies (45) Increasing willingness to take care of the student (60)	
	Raising awareness (f=25)	Changing the perspective on teaching (2, 17, 29, 42, 55) Understanding that teaching is not difficult (7, 12, 18, 24, 27) Understanding that teaching is a fun profession (4, 12, 32, 42) Realizing the responsibilities of the teacher (21, 26, 39) Understanding that he/she can teach (4, 19, 35) Understanding how important activities are (2) Understanding that he/she is responsible for all students' learning (49) Understanding that it is a fun and effective method (11) Understanding that the student should be in the center of teaching (17)	
		Worrying (f=3)	Being a tiring process that requires preparation (33) Understand that teaching is more difficult than you think (66) Worrying about being able to do creative activities (58)
			Gaining a sense of achievement (f=28)
Developing professional competence	Seeing many examples of activities (2, 13, 39, 47, 55, 58) Developing horizon (1, 24, 55, 64, 65) Gaining teaching experience (15, 22, 61, 62, 66) Learning how to follow a path in teaching (15, 58) Learning to prepare better activities (12, 65) Understanding how to manage the classroom (59, 67) Increasing creativity (36) Learning how to gain an acquisition (51)		

As seen in Table 2, pre-service teachers evaluated the effect of student-centered teaching on themselves in two themes. The first theme was named raising emotional awareness. In this theme, they emphasized the sub-themes of worrying, raising awareness, and encouraging. In the sub-theme of worrying, pre-service teachers stated that although they are positively affected by student-centered teaching, the teaching profession is not easy, it is difficult to find creative activities, and the student-centered approach is a tiring process that requires preparation. Two of the sample opinions are presented below:

"...I would also like to point out that it is a tiring process that requires preparation." (PT33). "...I was negatively affected because I was worried if I would be able to prepare creative activities suitable for the developmental levels of the students." (PT58).

In the raising awareness sub-theme, pre-service teachers emphasized that they understood the importance of the student-centered approach and stated that they realized that the activities were very useful. Thanks to the activities, they understood that teaching is not difficult; on the contrary, it is a fun and doable profession. They also realized being a teacher and emphasized that their perspective on teaching had changed and that they understood that they were responsible for student learning. In addition, they understood that the student-centered approach is fun and effective and that the learning process should be organized according to the student. Two of the sample opinions are presented below:

"...For the first time, I felt myself as a teacher candidate. I realized the responsibilities of the teacher." (PT26). "Student-centered activities opened my horizons and showed that I could be more beneficial to the student. My perspective on teaching has been positively affected." (PT29).

In the encouraging sub-theme, pre-service teachers stated that student-centered activities affect them positively, increasing their motivation and willingness to engage with students more. In addition, they stated that student-centered activities excite them, inspire them for their professional life, and encourage them to develop more. Two of the sample opinions are presented below:

"It helped me gain self-confidence by showing that the teaching profession is not difficult. It contributed to the relations and motivation of the students. I can say that it motivated me professionally." (TA7). "It made me discover how much I was lacking. I thought to myself that I must make up for my deficiency. My efforts to become more competent also increased my motivation." (PT45)

Developing professional competence was the second theme that emerged regarding the effects of student-centered teaching on teacher candidates. In this theme, pre-service teachers emphasized the sub-themes of *gaining a sense of achievement and experience*. In gaining a sense of achievement, they stated that student-centered teaching makes students active in the lesson, makes them feel successful, and enables them to enjoy the lessons. Thanks to the activities, they overcame their fear of studying and became more confident in themselves. They also stated that student-centered teaching made them feel like teachers. Two of the sample opinions are presented below:

"I had fears about teaching. But now I am confident in myself. The activities helped increase my self-confidence. Instead of the fear of how I would do when I became a teacher, I gained the courage to become a teacher as soon as possible (PT27). "It affected me positively. I learned various activity examples according to my achievements, and I had a lot of fun in these activities..." (PT47).

In the sub-theme of gaining experience, pre-service teachers emphasized that they learned how to follow a course and prepare more effective activities in the classroom with student-centered teaching. They also saw many examples of activities throughout the term; these activities improved them and increased their creativity in preparing better activities. In addition, they understood how to manage the classroom effectively, thanks to the activities. Additionally, they learned how to gain acquisitions to students through student-centered activities, and they gained professional experience. Two of the sample opinions are presented below:

"It was my first experience... It made me very happy. It made me feel like I was a teacher and I was observing my students." (PT22). "Preparing and presenting a student-centered activity impressed me well. Although the activity was short-lived, it showed that I have a serious responsibility in the future

and that teaching is important. Organizing activities made it easier for me to get ideas for doing many activities in the future and to understand my work.” (PT39).

3.3. What are the problems pre-service teachers face in student-centered instruction?

The findings regarding the problems faced by pre-service teachers in student-centered teaching are presented in Table 3.

Table 3

The Problems Pre-service Teachers Encounter in Student-Centered Instruction

Theme	Sub-Theme	Codes
Problems related to self-efficacy	Anxiety (f=16)	Excitement and fear of making mistakes (31, 37, 38, 40, 51, 61) Worrying that the activity will not appeal to all students (3, 9, 18, 32) Fear of whether the activity will be useful (16, 36, 48) Anxiety about not completing successfully. (27, 39) Worry about students wanting to participate in the activity (23)
	Indecision (f=13)	Not sure that the activity is appropriate for the learning acquisition and grade level (24, 35, 46, 47) It takes time to decide on the activity (2, 22, 62) Not sure that the activity is suitable for all students (7, 30, 47) Inability to decide on the right activity (10, 18) Not being able to decide how to do it (27)
Problems related to education	Inexperience (f=29)	Difficulty in finding and preparing materials (6, 7, 13, 15, 29, 33, 46, 53, 64) Difficult and challenging preparing an activity (24, 34, 57, 60, 65) It takes time to prepare an original activity (1, 14, 53, 58) Not preparing an activity before (4, 5, 8, 61) Teaching a lesson for the first time (28, 40, 51) Not being educated with a student-centered approach. (17, 24) Planning takes a lot of time. (46, 57)
	Lack of knowledge (f=28)	Difficulty in finding ideas (13, 16, 19, 27, 28, 33, 43, 54, 59, 61, 64, 65) Difficulty in estimating the student's level (39, 43, 54, 60, 63) Not knowing how to prepare the activity (12, 31, 45) The course acquisition is not suitable for doing activities (9, 33, 51) Inability to associate the acquisitions with daily life (19, 42) Insufficient prior knowledge (21) Lack of sample activities on the Internet (13) Not knowing what to do with first-grade and illiterate students (25)
	Lack of planning (f=21)	Inability to manage time (9, 11, 15, 18, 20, 29, 34, 50, 53, 66) Difficulty in managing the classroom (18, 49, 50, 53) Inability to make all students active (10, 52, 56, 64) Difficulty in organizing the activity (5, 8, 15)

As seen in Table 3, the problems faced by pre-service teachers in student-centered teaching are grouped under two themes. The first theme was identified as problems related to self-efficacy. In this theme, indecision and anxiety sub-themes were emphasized. In the sub-theme of indecision, pre-service teachers stated that it is difficult to decide on student-centered activities and stated that it takes a lot of time to prepare the activity, and they are not sure about the suitability of the activities for the student. They also emphasized that they were hesitant to identify the activities in which the students were in the center and that they doubted whether the activities they found were student-centered. Some of the sample opinions are presented below:

"I can say that it is very thought-provoking to try to give the best to the student in the most efficient way in line with the acquisition while preparing a student-centered activity." (TA2). "Preparing a student-centered activity is difficult, challenging.... In the first weeks, while developing ideas about the activity, I had difficulty matching these ideas to the learning acquisition and grade level. As the weeks progressed, I saw that I had more ideas and developed. (PT24)

In the anxiety sub-theme, pre-service teachers stated that they were worried about preparing an effective student-centered activity, and they experienced both excitement and fear of making mistakes in this process. Also, they were afraid that the activities they prepared were not suitable for all students. In addition, they were afraid of students not participating in the activities they prepared. Two of the exemplary opinions regarding this issue are presented below:

"I was a little worried about whether my activity would appeal to the whole class. I couldn't get the attention of the whole class until the end of the event." (PT32). "To be honest, I was very excited. I also had a little fear of making mistakes. But in the end, I finished the activity well." (PT37)

The second theme that emerged regarding the problems that pre-service teachers faced in student-centered teaching was determined as *problems related to education*. In this theme, lack of knowledge, *inexperience*, and *lack of planning* sub-themes emerged. In the lack of knowledge sub-theme, they stated that their previous knowledge was not sufficient, they did not know how to prepare student-centered activities, and they had difficulty finding ideas. They also stated that they could not find exemplary student-centered activities in their internet searches to get an idea. In addition, they emphasized that they did not know how to prepare the activities if the students were first graders or illiterate. They also expressed that they faced similar problems when they did not know the learning level of the students. However, they stated that some of the lesson acquisitions were not suitable to be processed with a student-centered approach, and they had difficulty in associating the lesson acquisition with the student's life. Some of the sample opinions of the pre-service teachers regarding this issue are presented below:

"I didn't have a specific idea about the topic I would be doing the event. I couldn't find any specific data on the internet for the activity I was going to do. I had difficulties in creating the activity." (PT13). "It is very difficult to produce. It's really hard to get down to the students' level. I think it's a problem that will be settled with time and experience." (PT43).

In the sub-theme of inexperience, pre-service teachers stated that they taught student-centered lessons for the first time, and they had not prepared student-centered activities before. They found it challenging to prepare student-centered activities since they did not receive training on the approach. According to them, preparing an original activity, finding or preparing materials, and planning the lesson takes a lot of time. Some of the exemplary opinions regarding this are presented below:

"As much as I enjoyed doing these activities, I also had difficulties. It takes a lot of effort to design materials, find ideas, and then present them in the classroom. Along with these, time management can sometimes be too much of a problem." (PT15). "I realized that it is not that easy to consider every detail... The planning process took time while preparing the activity for the acquisition." (PT57).

In the lack of planning for the sub-theme, pre-service teachers stated that they did not use time effectively in the classroom and that they had difficulty managing the classroom. They also had problems organizing the activity and activating all students in the lesson. Two of the exemplary opinions regarding this issue are presented below:

"I just had trouble with the duration. Since we are doing an activity in the classroom and there are no strict rules in the lesson, the direction and time of the activity cannot be predicted precisely."

(PT11). *“When you do student-centered activities, there is confusion in the classroom. When we do not manage it well, the activity is prolonged. This causes a waste of time.”* (PT50).

4. Results and Discussion

This research was carried out to examine the experiences of pre-service teachers regarding student-centered teaching. According to the results of the research, pre-service teachers consider student-centered teaching as an effective learning approach. The approach provides a suitable learning environment and positively affects student motivation. The teaching activities are also fun and remarkable, and the teaching process offers the students the opportunity to associate what they have learned with their daily life. Similarly, research reveals student success and motivation of student-centered approaches, methods, techniques and materials (Uzun, 2020; Yaşar, Çengelci Köse, Göz, & Gürdoğan Bayır, 2015; Yeşilpınar Uyar & Doğanay, 2018). Topan (2013) also determined that student-centered methods are more effective on academic success than the traditional method. Two of the main reasons for the adoption of student-centered teaching are that it provides enjoyable learning and enables students to learn better (Froyd & Simpson, 2008). Enabling students to learn while having fun makes learning and teaching more comfortable. This also builds trust (Moye, 2010). Students value and appreciate the subject taught with student-centered learning (Brown, 2008). In student-centered learning, students do not always depend on teachers and do not expect teachers' instruction, approval, correction, advice, and praise. In this aspect, teaching is more participatory, effective, motivating, and entertaining (Demirkan & Saraçoğlu, 2016; Jones, 2007; Ünsal, 2017). The role of constructivist teachers is to organize constructivist learning activities by providing content and resources, thereby creating a context in which the student is motivated to learn (Schreurs & Dumbraveanu, 2014). Student-centered learning provides students with higher critical thinking, problem-solving, developing attitudes toward learning, and an increase in general participation (Overby, 2011).

According to another result of the research, student-centered teaching enables students to take responsibility, cooperate, and communicate with their friends and teachers. Thus, students' social bonds are strengthened, their self-confidence increases, and they become more sensitive to their environment. On the other hand, student-centered education is inclusive because it is suitable for the development and perception level of all students and appeals to them. Since more sense organs are active in the activities of the approach, students learn better, and learning is more permanent. Therefore, student interest and participation in the lesson increases in student-centered teaching. Uzun (2020) and Topan (2013) also determined in their research that student-centered teaching has a positive effect on attitudes towards lessons compared to traditional teaching. Talbert, Hofkens, and Wang (2019) state that there is a positive relationship between student-centered teaching and student participation in the course. Student-centered strategies, methods, and techniques have a wider impact on increasing academic achievement than teacher-centered approaches (Semerci & Batdi, 2015; Ural & Bümen, 2016; Yeşilpınar Uyar & Doğanay, 2018). Student-centered methods and techniques better meet the needs of students and enable them to grow up as citizens with global consciousness (İlter, 2014). Activities organized in accordance with this approach provide higher student success (Granger, Bevis, Saka, Southerland, Sampson & Late, 2012). These results show that pre-service teachers recognize student-centered teaching as versatile and evaluate it as an effective learning approach. Therefore, when appropriate activities are carried out in pre-service education, pre-service teachers both recognize the student-centered teaching approach and learn how to apply the approach. In this respect, the preparation and implementation of student-centered teaching activities by pre-service teachers in undergraduate education serve to raise them more qualified.

In the second sub-objective of the study, it was questioned how pre-service teachers were affected by student-centered teaching. According to the findings, student-centered teaching raises awareness of teacher candidates. Their perspectives on teaching were affected positively, and they understood that

teaching is not a difficult profession; on the contrary, it is a fun and doable profession. The approach has been encouraging by positively affecting their motivation and willingness to deal with the student. According to the results of a research, teachers who consider themselves competent develop teaching methods and measurement and evaluation tools suitable for new approaches (Akpınar & Gezer, 2010). It is stated in the literature that practice-oriented courses have a positive impact on the development of teacher candidates' teaching skills (Kılıç & Acat, 2007; Güney & Semerci, 2009; Kablan, 2012). When the teacher believes that a student-centered classroom provides a more effective learning environment, they strive for this purpose (Wright, 2011). Teachers' focus on student-centered teaching affects student success (Papanastasiou, 2008). Students' performance improves more when the classroom is well organized, and students actively participate in learning through student-centered activities (House, 2008). In such classrooms, students become expert learners by questioning themselves and their strategies (Bada & Olusegun, 2015). Thus, students and teachers have the chance to discover and succeed, and the school becomes interesting and safe for them (Overby, 2011). In this respect, for pre-service teachers to use the student-centered approach in their professional lives, they should be supported in their undergraduate education with alternative educational experiences that are encouraging, entertaining, and will increase their participation. On the other hand, student-centered teaching gives pre-service teachers a sense of achievement. The activities enable them to adopt the role of teaching, have fun in the lessons, overcome their fear of teaching, and be self-confident. Student-centered teaching also gives them experience. Candidates both experience how student-centered teaching is implemented and learn to activate students by participating in many activities. According to Ünsal (2017), active learning enables students to break their prejudices towards the lesson, gain valence awareness, and increase their self-confidence. However, student-centered teaching has worried some teacher candidates. Although these pre-service teachers approach student-centered teaching positively, they consider this teaching as a tiring and preparatory process. According to them, it is difficult to find creative activity, and teaching is a troublesome profession. When the results related to the second sub-goal are evaluated, it can be said that student-centered teaching gives pre-service teachers emotional awareness and develops them professionally. This process not only introduced them to student-centered teaching but also convinced them of the benefits of the approach. In addition to realizing that student-centered teaching provides a better learning environment, they also understand the role of the teacher in this teaching. In this respect, it is seen that teacher candidates' experience of student-centered teaching in undergraduate education contributes positively to their professional development.

In the study's third sub-objective, the problems pre-service teachers faced in student-centered teaching were examined. According to the findings, pre-service teachers are worried that students do not attend the lesson. They are unsure of the suitability of the activities they have prepared for the student and experience indecision. Since they have not received training on the student-centered approach before and their current knowledge is insufficient, they have difficulty in student-centered teaching, and they see their experience as insufficient. Because they do not plan the activities in detail, they do not use time effectively during the lesson and have problems managing the class. Akpınar and Gezer (2010) found that although teachers adopted a learner-centered approach, they did not reflect this on the learning-teaching process and mainly taught with the traditional narrative method. Okumuş (2021) also stated that pre-service teachers are at an intermediate level in terms of designing student-centered activities and emphasized that teacher candidates' lesson plan and activity design skills should be improved. In another study, crowded classes, insufficient time, and pre-service and in-service training were problems for student-centered education (Erdem, Karademir & Tezel, 2022). On the other hand, Taşkıran (2015) determined that there were no problems that prevented the activities that the teacher should do in the lesson. The learning opportunities provided to teachers in professional development programs are an important factor leading to quality education and high self-efficacy (Son, Han, Kang, & Kwon, 2016). When students are asked to behave differently in the classroom, they can create some resistance (Froyd

& Simpson, 2008). In addition, physical impossibilities and crowded classrooms can also create problems in the implementation of student-centered teaching (Özdaş, 2018; Yalçın İncik & Tanrıseven, 2012). However, if the classroom environment is well-planned, students learn how to learn (Bada & Olusegun, 2015). Therefore, the teacher's field education and pedagogical knowledge of the field, beliefs, and interpretation of the curriculum affect and determine how student-centered activities will be implemented (Remillard, 2005). Therefore, when the results are evaluated, it is seen that pre-service teachers have problems related to self-efficacy and education. However, considering the results related to the other sub-objectives of the research, it is thought that providing a more student-centered teaching experience to teacher candidates in undergraduate education can solve the problems. In addition, instructional planning needs to be made an integral part of this education.

When the results of the research are considered as a whole, teacher candidates see student-centered teaching as a learning approach that provides effective learning. According to the pre-service teachers, the approach is inclusive, increases student participation, and brings academic success to the student. From this point of view, it can be said that student-centered activities provide pre-service teachers with a sense of achievement, experience, and professional competence. This encourages them, creates awareness in them, and gives them self-confidence. On the other hand, the practice causes pre-service teachers to experience problems related to self-confidence (such as indecision and anxiety) and education (such as lack of knowledge, inexperience, and planlessness).

4.1. Suggestion

In the research, it has been revealed that student-centered teaching motivates pre-service teachers and gives them professional competence. In this direction, all courses in undergraduate education, especially field courses, can be organized in a student-centered manner so that pre-service teachers can gain their teaching skills. In undergraduate education, effective participation of pre-service teachers in the teaching-learning process can be ensured, and teacher candidates can be provided to prepare and present student-centered activities. For the problems faced by pre-service teachers regarding lack of self-confidence, examples should be shown by the instructors, their concerns should be relieved, and they should be motivated. For problems related to lack of education, teacher candidates should be informed about the approach, they should be made to practice, and planning should be made a part of the practice.

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