

# Prospective Primary School Teachers' First Step to Teaching: Micro Teaching Practices

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## Abstract

In the study, it is aimed to reveal the effects of the practices carried out within the scope of the micro teaching course on the development of prospective primary school teachers' professional knowledge, content knowledge and general culture-ability and their cognitive perceptions towards the concept of micro teaching. The research was conducted with 26 (12 female and 14 male) prospective teachers studying at the Faculty of Education, Department of Primary School Teaching Education in the 2022-2023 academic year of a state university. In this research, explanatory sequential mixed methods research design was used among mixed methods research designs. As data collection tools, Micro Teaching Method Measurement and Evaluation Form (MTMMEF) was used to reveal the effectiveness of micro teaching method through peer evaluations, word association test was used to reveal the cognitive perception of the concept of micro teaching (MTWAT), and a semi-structured interview form was employed to reveal the views on the concept of micro teaching. This research used parametric analysis methods to analyze the quantitative data obtained from the research and inductive content analysis was used to analyze the qualitative data. Based on the findings obtained from the study, it was determined that micro teaching method had positive effects on the development of prospective teachers' teaching content knowledge, professional knowledge, and general culture-skills and that they had various opinions about the advantages and disadvantages of micro teaching method. In addition, it was revealed that they had cognitive perceptions about the enhancing teaching professional knowledge, content knowledge and general culture- abilities, the nature of micro-teaching method, evaluation processes and peer teaching.

**Keywords:** Micro teaching, prospective primary school teachers, peer assessment, word association test, interview.

## Sınıf Öğretmeni Adaylarının Öğretmenliğe İlk Adımı: Mikro Öğretim Uygulamaları

### Öz

Araştırmada mikro öğretim dersi kapsamında gerçekleştirilen uygulamaların sınıf öğretmeni adaylarının mesleki bilgi, alan bilgisi ve genel kültür-yeteneklerinin geliştirilmesine etkilerinin ve mikro öğretim kavramına yönelik bilişsel algılarının ortaya konması amaçlanmaktadır. Araştırma 2022-2023 eğitim döneminde, bir devlet üniversitesinin Eğitim Fakültesi'nin Sınıf Eğitimi ABD'nde okuyan 26 (12 kadın ve 14 erkek) öğretmen adayı ile gerçekleştirilmiştir. Bu araştırmada karma yöntemler araştırması desenlerinden açıklayıcı sıralı karma yöntemler araştırması deseni kullanılmıştır. Veri toplama aracı olarak; mikro öğretim yönteminin etkililiğinin akran değerlendirmeleri aracılığıyla ortaya konması amacıyla Mikro Öğretim Yöntemi Ölçme ve Değerlendirme Formu (MÖYÖDF), mikro öğretim kavramına yönelik bilişsel algının ortaya konması amacıyla kelime ilişkilendirme testi (MÖKİT) ve mikro öğretim kavramına ilişkin görüşlerin ortaya konması amacıyla bireysel görüşme formu kullanılmıştır. Araştırmadan elde edilen nicel verilerin analizinde parametrik analiz yöntemleri kullanılırken nitel verilerin analizinde tümevarım içerik analizi kullanılmıştır. Araştırmadan elde edilen bulgulara göre, öğretmen adaylarının öğretmenlik meslek bilgisi, alan bilgisi ve genel kültür yeteneklerinin geliştirilmesinde mikro öğretim yönteminin olumlu etkilerinin olduğu ve mikro öğretim yönteminin avantajlarına -dezavantajlarına ilişkin çeşitli görüşlerinin olduğu sonucuna varılmıştır. Ayrıca mikro öğretim yönteminin öğretmenlik meslek bilgisi, alan bilgisi ve genel kültür-yetenekleri geliştirmesi, mikro öğretim yönteminin doğası, değerlendirme süreçleri ve akran öğretimine yönelik bilişsel algılarının olduğu ortaya konmuştur.

**Anahtar kelimeler:** Mikro öğretim, sınıf öğretmeni adayları, akran değerlendirme, kelime ilişkilendirme testi, görüşme.

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## INTRODUCTION

The rapid changes occurring in all areas of life in the current century require highly adaptable individuals who can keep up with these changes. Individuals trying to adapt to this process need to have basic 21st century skills in order to continue their lifelong development. This is only possible through effective education. Teachers, an important element of the education system in terms of input and processes, contribute to the system in line with their qualifications and can ensure that the system achieves its goals. The qualifications of teachers are directly related to their possession of professional knowledge and skills specific to their fields. The prospective teacher education process is one of the most fundamental factors affecting teacher quality. In this process, pre-service teachers are expected to have sufficient knowledge and skills in areas such as content knowledge, professional knowledge, general culture and ability (Yeşilyurt, 2009). The general culture of a prospective teacher refers to having the competence to meet the needs of the age in which he/she lives, to interpret and understand events and to cope with the difficulties he/she encounters. While content knowledge refers to the ability to transfer knowledge, skills, attitudes and values to students in their field, professional knowledge includes the ability to perform teaching in the field in the best way (Küçükahmet, 2002). In this context, it is emphasized that different teaching methods are necessary to ensure the multifaceted development of prospective teachers. Although the search for new methods to increase the competence of prospective teachers continues, micro-teaching method stands out as one of the effective methods that can be used.

Micro teaching is one of the most widely used methods preparing prospective teachers for the profession by combining content knowledge with pedagogical knowledge (Özdemir, 2021). Micro teaching is an important method that offers the opportunity to bring theory and practice together, especially in prospective teacher education since the 1960s (Kılıç, 2010). Micro teaching was first used at Stanford University in the 1960s by Allen and colleagues as part of an experimental program to improve the quality of teacher education (Allen & Eve, 1968). In our country, it was started to be used within the scope of the II Industrial Education Project implemented between 1989-1996 (Yolcu & Turhan Türkkan, 2019). In the literature, it is possible to come across definitions made by different experts about micro teaching. However, it is generally defined as small instructional lessons that can be used in prospective, in-service and post-service training, often offering video-recorded evaluation opportunities, and aiming to provide students with critical learning skills determined before the practices (Mellon & Dence, 1971; Sönmez, 2008). Before starting micro-teaching practices, a lesson plan of at least 10-15 minutes on the subject is prepared. The lesson to be taught in the specified time in accordance with the lesson plan is recorded with a video camera. Then the recording is evaluated by the teacher and the group watching. The evaluation process is carried out in such a way that the prospective teacher makes some corrections in the lesson plan due to the suggestions, contributions and criticisms of the audience and the teacher. Then, based on the evaluations made, the lesson is completed by re-preparing the lesson and re-evaluating it with the same processes (Demirel, 2009; Görgen, 2003). Considering the practices, it is possible to say that micro-teaching practices are an appropriate method that can be used for prospective teachers to prepare for teaching and improve themselves in the prospective teacher education process.

When the literature is analyzed, it is seen that most of the studies on micro teaching methods are used to improve the in-class teaching skills of prospective teachers in different courses and fields. It was determined that micro-teaching was used in the fields of speech education (Bulut, Açıık, & Çiftçi, 2016), physical education and sports sciences (Karadağ & Akbulut, 2024), Turkish teaching (Taşkaya, 2024), violin teaching in music education (Mustul & Yağışan, 2024), social studies teaching (Ünal & Akdeniz, 2024). In addition, micro-teaching is seen as a complementary practice in which novice teachers can practice the knowledge they have acquired in the teacher education program (Fernandez & Robinson, 2006). It was determined that micro-teaching was used in fields other than prospective teachers and teaching, such as medicine (Ersoy & Yaman, 2003) and nursing education (Tayaz & Kapucu, 2024; Doğan & Aslan, 2024). When the undergraduate programs of faculties of education are examined, it is seen that in addition to pedagogical knowledge and content knowledge courses, there are various courses that combine these two fields in to develop professional knowledge, content knowledge and general culture and abilities. For this purpose, one of the elective courses in the program that prospective teachers can take is the "Micro teaching" course. When the content of the micro-teaching course is examined, it is seen that the professional competencies of teachers, preparing a lesson plan, preparing active learning activities suitable for the subject, sample lecturing practices in the classroom, recording lecture presentations on video, evaluating the lesson by using the records, and developing prepared activities and lectures (Council of Higher Education (CoHE), 2018). Recently, it is seen that micro teaching is preferred especially for practical experience and practice in teaching.

Micro teaching allows prospective teachers to plan and implement teaching methods and techniques. In general, while this method focuses on teacher behaviors, the main purpose of the method is to help prospective teachers acquire and adopt these behaviors (Özonur & Kamlı, 2019). Looking at the practices of micro teaching, it was determined that there were mostly studies within the scope of teaching practice, material development or special teaching methods courses (Author, 2021; Atav, Kunduz, & Seçken, 2014; Çakır, 2010; Güler, 2020; Karataş, Cengiz, & Uludüz, 2020). When the studies were examined, it was determined that the contributions of the practices within the scope of these courses in preparing for the teaching profession and developing teaching skills were investigated. In the literature, there were no studies in which micro teaching practices were carried out within the scope of the elective micro teaching course. From this point of view, it is believed that the activities conducted within the micro-teaching course will significantly contribute to the preparation for the teaching practice courses in the last year at the undergraduate level. Thus, prospective teachers will have more experience before taking the teaching practice course and will have the opportunity to improve themselves more. In this context, conducting research within the framework of a micro-teaching-based course is believed to make a valuable contribution to the literature. It can contribute to the teacher education literature by revealing the effects of microteaching practices on prospective teachers' pedagogical skills, classroom management, and lecture techniques. It can also help to develop effective prospective teachers' teaching strategies by evaluating the impact of feedback processes. This study aims to examine the effects of microteaching practices on the professional development of prospective teachers and to reveal their experiences and opinions. Evaluating prospective teachers' perceptions, satisfaction levels, and criticisms of microteaching can provide a comparative analysis with previous national and international research and contribute to the body of knowledge in the field.

Along with the acquisition of teaching behaviors in micro teaching, the qualified evaluation of this process also plays a crucial role in the enhancing of these behaviors. Qualified evaluations primarily guide prospective teachers to realize their deficiencies and improve themselves by correcting their mistakes. In micro-teaching method, prospective teachers receive feedback from four different sources. These sources are the course instructor, those who assume the role of students, listeners, and video recordings. Prospective teachers re-perform their practices by considering the feedback received (Çakır, 2000). In this context, micro teaching can be considered as a method that can be used in peer assessment. In traditional methods, evaluation is generally handled outside the teaching process and in a way that emphasizes the product. On the other hand, constructivist measurement and evaluation techniques include the student's performance, interest and attitude in the evaluation process and ensure the student's participation in the evaluation process (Gelbal & Kelecioğlu, 2007). Especially in education, it is important that prospective teachers actively participate in the evaluation process and develop their self-evaluation skills. In this context, one of the alternative assessment and evaluation methods that can be used in micro-teaching courses is peer assessment. Peer assessment makes the learning process more effective by improving prospective teachers' ability to give and receive feedback. Thus, it provides prospective teachers with the opportunity to learn absolute knowledge and develop their evaluation skills. This contributes to students' continuous self-improvement. Peer assessment method contributes to the development of skills such as objective thinking, critical thinking and sense of responsibility while providing students with the experience of evaluation. This method encourages student collaboration and strengthens the learning environment (Gömlüksiz & Koç, 2011). Peer assessment in micro teaching practices strengthens cooperation and communication among prospective teachers. While prospective teachers evaluate each other's performance, they also support each other with mutual feedback. In addition, with peer assessment, a student tries to understand the subject more deeply while evaluating another student's performance or course presentation. In this way, they enrich their own learning process by addressing the learning process more deeply. In different studies conducted in the literature, results are showing that peer assessment has positive effects (Duman, 2022; Shaw, 2022; Yalman, 2016). Considering the importance of peer assessment, it is thought that this research will make significant contributions to the literature regarding the examination of peer assessment effects on the development of prospective teachers' professional knowledge, content knowledge and general culture skills during micro-teaching practices and the results it will reveal. It can be said that the research is important not only with the quantitative determination of this effect but also with the elaboration of prospective teachers' views on the micro-teaching process and peer evaluations.

It is accepted that micro teaching plays an important role in developing prospective teachers' teaching skills. Kuzu (1996) stated that prospective teachers are expected to demonstrate various teaching skills, such as introducing the lesson, introducing new concepts, asking questions, giving hints, managing discussions, problem-solving, classroom management, ensuring student participation, motivating and reinforcing, and using audiovisual aids. Küçüköğlü et al. (2012) revealed in their study that the microteaching method positively improved prospective teachers' instructional skills, such as presenting the subject and finishing the lesson, and slightly

improved their instructional skills, such as preparing for the lesson and introducing the lesson. However, other studies in the literature show that the microteaching method has positive contributions to instructional skills (Amobi, 2005; Taşkaya, 2014). Therefore, it is important for prospective teachers to understand the concept of micro teaching correctly and to develop their practices accordingly in terms of their future teaching profession. Prospective teachers' cognitive perceptions of the micro teaching method are of great importance for the evaluation and development of education programs because these perceptions reflect the effect of the method on the candidates and the level of achievement of the objectives of the program (Bulut, Açıık, & Çiftçi, 2016; Ünal & Akdeniz, 2024; Yeşilyurt, 2010). The experiences and thoughts of prospective teachers allow for an understanding of the strengths and limitations of microteaching (Yeşilyurt, 2010). This, in turn, helps to make necessary arrangements to make education programs more effective. Prospective teachers' experiences provide valuable information to curriculum developers on how to make microteaching more efficient (Çoban, 2014; Küçükoğlu, 2012; Taşkaya, 2024). Accurate cognitive perception of the concept of micro teaching will help prospective teachers to plan lessons following with student needs, manage the learning process better and encourage students to learn effectively. This will enable prospective teachers to be more successful in their in-service practices related to the teaching profession. It is thought that identifying the cognitive perceptions of prospective primary school teachers regarding the micro teaching method will improve the quality of the teaching process and contribute to their professional development and a more effective teaching experience. In addition, it is thought that determining prospective primary school teachers' cognitive comprehension of micro teaching will enrich the literature in terms of evaluating and developing teacher training programs. Educational institutions can revise their curricula by evaluating prospective teachers' perceptions on this subject and make improvements when necessary. When the literature is examined, there are few studies in which the cognitive perceptions towards the concept of micro teaching are revealed (Demirci & Akgün, 2023). In this context, it can be said that the results to be obtained from the research will make important contributions to the literature.

Based on the information provided, the research aimed to investigate the impact of micro-teaching on the enhancement of prospective primary school teachers' professional knowledge, content knowledge, general cultural abilities, and their cognitive perceptions regarding the concept of micro-teaching through the activities conducted in the micro-teaching course. In these aspects, It is believed that the research findings and the recommendations based on these results will provide valuable insights into future studies focusing on the implementation and evaluation of teaching practices.

### **Research Questions**

The research aims to identify the impacts of the practices carried out within the scope of micro-teaching course on the development of prospective primary school teachers' professional knowledge, content knowledge and general culture-abilities and their cognitive perceptions towards the concept of micro-teaching. In line with this purpose, answers to the following research questions were sought. Prospective primary school teachers,

1. Is there a significant difference between MTMMEF peer assessment pre-test and post-test scores?
2. How are their cognitive perceptions towards micro-teaching method?
3. What are their views on the benefits of the practices made in the micro-teaching course?
4. What are their views on the negative aspects of the practices in the micro-teaching course?
5. What are their views on the peer evaluations made during the micro-teaching practices?

## **METHOD**

### **Research Methodology**

This research used an explanatory sequential mixed methods research design, one of the mixed methods research designs. The purpose of the exploratory sequential design is to establish a basis for data collection and analysis by starting the research with a quantitative study. Then, a qualitative study is conducted to explain the findings obtained from the quantitative phase. In this way, the research aims to obtain a more comprehensive understanding by using both quantitative and qualitative data (Creswell, 2017). A one-group pre-test and post-test quasi-experimental design was used in the quantitative part of the study. In this model, the impact of the experimental procedure is evaluated through a study carried out on a singular group. The group's dependent variable measurements are acquired before and after the interventions, serving as pre-test and post-test data, using consistent measurement tools. The design involves assessing the significance of the difference between the pre-test and post-test values within the same group (Büyüköztürk, Kılıç-Çakmak, Akgün, Karadeniz, & Demirel,

2008). The one-group pretest-posttest quasi-experimental design is a useful method to examine changes before and after the intervention. However, the absence of a control group in this design has some limitations related to internal validity (Robson, 2017). Being aware of these limitations, qualitative data were collected in order to minimize these effects in the study, and the quantitative findings were tried to be supported by qualitative findings. The main reason for using a one-group pretest-posttest quasi-experimental design in the study was that it was not practically possible to create a control group in the research context. Since all participants were involved in the same teaching process, it was not appropriate to form a control group. In the qualitative part of the study, phenomenology was used. Phenomenology emphasizes the concepts, situations, perceptions or experiences that we are aware of but do not have a fully in-depth understanding of. It is a research design used to understand better and express such phenomena that we may encounter in different ways in our daily lives (Yıldırım & Şimşek, 2021). The phenomenon of this research is the concept and practices of "micro teaching".

### **Research Group**

The research group consist of 26 prospective primary school teachers (14 male and 12 female) enrolled in the 3rd grade at a state university's Department of Primary School Teaching Education of the Faculty of Education during the 2022-2023 academic year. The convenience sampling method was used to determine the study group. This method was determined by considering the conditions such as time, space, and budget in terms of access to the study group. (Yıldırım & Şimşek, 2016). In the study, since the researcher was teaching micro-teaching course in the classroom teaching programme, the convenience sampling method was chosen for convenience in terms of time and place.

### **Data Collection Tools**

In the study, in order to reveal the effectiveness of micro teaching practices, the "Micro Teaching Method Measurement and Evaluation Form" consisting of 50 items and 3 sub-dimensions developed by Yeşilyurt (2021) for the evaluation of micro teaching practices was used as a quantitative data collection tool. The form includes a total of 50 competencies (standards/behaviors/skills), 6 of which are in the content knowledge and education dimension, 40 in the professional knowledge and education dimension, and 4 in the general culture and ability dimension. A 4-point Likert-type rating was used in the form. Concerning validity in the form developed by Yeşilyurt (2021), attention was paid to the overlap of the aims of teaching practice and microteaching method to reflect teaching professional knowledge and skills accurately. Literature sources such as Yeşilyurt (2010) and Kuzu (1996) were also used. Regarding reliability, the form was presented to two grammar and two field experts for feedback, and according to this feedback, 50 of the 55 items were presented in their final form. In addition, a four-point Likert-type scale was used in the form to assess the skills of the prospective teachers more reliably. Within the scope of the research, MTMMEF was used as pre-test and post-test.

In the qualitative part of the study, the word association test was used to reveal the cognitive perception of the concept of micro teaching. The alternative measurement and evaluation approach emphasizes the importance of evaluating the product and the process (Özdemir, 2010). Various techniques serve this purpose; these include methods such as Concept Maps, Mind Maps, Structured Grid, and Diagnostic Branched Trees. One of these techniques is the Word Association Test (WAT). WAT is an alternative assessment and evaluation tool that helps reveal the student's cognitive structure and the connections between the concepts in this structure, the knowledge network. It is also a technique that allows us to determine the adequacy or significance of the relationships between concepts in long-term memory (Bahar, Alex, Johnstone & Sutcliffe, 1999). For this reason, word association test was used in the study in order to reveal the cognitive perceptions of prospective teachers toward the concept of microteaching. Before applying the Micro Teaching Word Association Test (MTWAT), the prospective teachers were informed about how the word association test would be conducted. Then, the concept of "micro teaching" was written ten times on a single page and prepared in a way to repeat each other. The prospective teachers were asked to write the first words that came to their minds about the concept of micro-teaching in the spaces opposite them within 60 seconds. A sample word association page is given in Figure 1.

Micro teaching .....

Micro teaching .....

Micro teaching .....

Micro teaching .....

Micro teaching .....

Micro teaching .....

Micro teaching .....

Micro teaching .....

Micro teaching .....

Micro teaching .....

Figure 1. *Example of a micro-teaching WAT page*

Finally, an interview form was used to obtain students' detailed opinions on micro teaching practices. The interview form included three open-ended questions about micro teaching practices. The questions were designed to reveal prospective teachers' opinions about the benefits of microteaching practices, the negative aspects of microteaching practices, and the benefits of peer evaluations in microteaching practices. The interview form was first submitted to the opinion of an expert lecturer in the field of classroom education, and then the form was finalized in line with the feedback received that the questions were appropriate, clear, and understandable.

### **Implementation Process**

Within the scope of the Primary School Teaching Teaching Undergraduate Programme determined by CoHE, the micro-teaching course is structured to develop effective teaching skills of prospective teachers. Microteaching course aims to enable prospective teachers to gain effective teaching skills, learn lesson plan preparation and implementation processes, develop competencies and attitudes towards the teaching profession, design active learning activities appropriate to the subject, gain experience in classroom lecturing, and gain the ability to evaluate their teaching processes (Council of Higher Education [CoHE], 2018). The implementations continued for two lesson hours per week for one semester (14 weeks and two class hours per week).

Before research practices, ethics committee permissions were obtained from the Mus Alparslan University where the practices would be carried out, and the prospective teachers gave verbal consent to participate voluntarily in the practices. The prospective teachers who chose the micro-teaching course before starting the practices in the research were given detailed information about the scope of the micro-teaching course, micro-teaching method and the implementation process. Then the process was carried out as given below.

- First prospective teachers were asked to prepare a lesson plan by choosing one of the subjects in the primary school curriculum.
- In line with the plans they prepared, the prospective teachers went to the schools where they would practice reflect on the real teaching experience and recorded their first lessons for 15-20 minutes in the real classroom environment with a video camera.
- The recordings obtained were evaluated by watching the prospective teacher, the instructor and other prospective teachers during the micro-teaching course hours in the classrooms of the Faculty of Education.
- The evaluations were communicated to the prospective teachers verbally and in written form through the form of the MTMMEF (peer assessment pre-test application). Care was taken to ensure that the evaluations were in the form of recommendations that would include the prospective teachers' missing, faulty and good aspects. Due to the high number of prospective teachers and the limited micro-teaching course time at the faculty, additional courses were organized when necessary (4 lesson hours).
- After the evaluations, the prospective teachers prepared lesson plans for their second presentations in line with the recommendations. Then, similar processes were carried out for the first lesson presentation. In this process, MTMMEF form was implemented as a peer assessment post-test. The pre- service teachers continued their practices for one semester
- After the presentations, individual interviews were conducted with the prospective teachers regarding the practices.

• Finally, a word association test was applied to reveal the cognitive perceptions of prospective teachers towards the concept of micro teaching.

### Data Analysis

In the analysis of the quantitative data within the scope of the research, it was first checked whether the data were normally distributed. As a result of the normality test, it was determined that the data obtained showed normal distribution (Table 1). According to this result, dependent groups t-test, one of the parametric tests, was used in the analysis of the data obtained from the peer evaluations of the MTMMEF.

Inductive content analysis was used in the analysis of the MTWAT and the micro-teaching interview form. In inductive content analysis, researchers reduce and group data to answer research questions through categories or themes. Once the form of analysis is determined, the researcher processes the data to identify open codes. These open codes are then combined with other codes with similar content to form sub-concepts, categories, and themes (Kyngäs, 2019). While conducting inductive content analysis, Creswell's (2020) data analysis spiral stages were used. In this context, the data were first collected and then the data were organized by the researcher and an expert. While organizing the data, the researcher and the expert read the data independently of each other and took reminder notes. Then, the data were coded separately by the researcher and an expert and placed under appropriate themes. The codes and themes created by the researcher and the expert were compared and interpreted by making appropriate classifications until a consensus was reached. Finally, the codes and themes obtained were visualized using tables. Explanations about the generated themes and codes are given under the tables. Miles, Huberman, and Saldaña (2023) and Bazeley (2013) emphasize that coder reliability calculations are not always necessary in inductive content analysis. According to Miles, Huberman, and Saldaña (2023), since the coding process in qualitative data analysis is shaped based on the interpretive understanding of the researcher, the need for inter-coder reliability calculation is reduced in the analyses performed by the researcher. Instead, the transparent and systematic conduct of the analysis process plays a more important role in ensuring reliability. Similarly, Bazeley (2013) states that mechanical reliability calculations in inductive content analysis may disrupt the integrity of the meaning of the data. In addition, a word cloud was created for the most repetitive words obtained from the analysis of MTWAT. The word cloud was created to visualise the key concepts that emerged from content analysis of the qualitative data obtained in the research. The free version of WordArt software was used in this process.

In the qualitative part of the study, Guba and Lincoln's (1982) reliability strategies were utilized to increase reliability. In addition to detailing what was done in the data analysis process to ensure validity and reliability, the stages of the research process were explained in detail in the relevant sections. In the findings section, direct quotations from prospective teachers' opinions and written evaluations are given. While giving quotations, pseudonyms were used instead of the real names of the prospective primary school teachers.

## FINDINGS

As part of the study, peer evaluations were conducted to assess the effectiveness of the micro-teaching method. Initially, an examination was carried out to determine whether the data obtained from the micro-teaching method evaluation form exhibited a normal distribution. Following the analysis results, the appropriate statistical method to be used was decided upon. The results of the normality test analysis are presented in Table 1.

Table 1. Results of the Normality Test of the MTMMEF

| Average Score | N  | Shapiro- Wilks | X      | df | SD   | Skewness | Kurtosis |
|---------------|----|----------------|--------|----|------|----------|----------|
| Pre-test      | 26 | .103           | 82.82  | 26 | 2.66 | -.744    | .362     |
| Post-test     | 26 | .462           | 112.82 | 26 | 2.82 | -.575    | -.187    |

When the results of the Shapiro-Wilks normality test analysis in Table 1 were analyzed, it was determined that the pre-test and post-test scores of the prospective teachers' MTMMEF showed a normal distribution ( $S-W_{\text{on-test}} = .103$ ;  $SD_{\text{on-test}} = 2.66$ ;  $p > 0.05$  and  $S-W_{\text{on-test}} = .462$ ;  $SD_{\text{on-test}} = 2.82$ ;  $p > 0.05$ ). Based on this finding, the dependent groups t-test was used to analyze whether there was a significant difference between the mean scores of prospective teachers' MTMMEF and post-test.

The results of the dependent groups t-test conducted to determine whether there was a significant difference between the pre-test and post-test mean scores of MTMMEF are presented in Table 2.

Table 2. Dependent Groups T-Test Results of MTMMEF

| Peer Review | N  | X      | SD   | t       | df | p    |
|-------------|----|--------|------|---------|----|------|
| Pre-test    | 26 | 82.82  | 2.66 | -11.047 | 25 | .000 |
| Post-test   | 26 | 112.82 | 2.82 |         |    |      |

Upon examining Table 2, it was found that there existed a statistically significant difference between the pre-test and post-test scores of the group subjected to the micro-teaching method ( $t = -11.047$ ,  $p < .05$ ). According to this finding, it can be said that the practices carried out within the scope of the micro-teaching course have positive contributions to the development of prospective primary school teachers' content knowledge, professional knowledge and general culture-general ability. Written opinions of some students about peer evaluations are given below (names used are pseudonyms).

Hale student's positive and negative evaluations of Feride student's pre-test and post-test micro teaching practices.

*Pre-Test Positive Evaluations*

*Hale: It was more active for the students to reinforce the subject through the activity. It gave students roles and tasks and made them think more easily. It was good to give homework for evaluation.*

*Pre-Test Negative Evaluations*

*Hale: Classroom management and tone of voice were not very good. The presentation may not be very good according to the class level.*

*Post-Test Positive Evaluations*

*Hale: It makes a lot of sense for students to understand the subject by doing the experiment. I think it was very effective for each group of students to create reports and read the reports. The tone of voice and classroom management were very good."*

*Post-Test Negative Evaluations*

*Hale: The deepening phase could have been done better.*

In the study, MTWAT was applied in order to reveal the cognitive perceptions of prospective teachers towards the concept of micro teaching as a result of the practices they realized within the scope of micro teaching course. The findings obtained in line with the answers given to MTWAT were presented by using tables and figures. In this context, the words given in response to the concept of "micro teaching", the most repeated words and their frequencies are given in Table 3.

Table 3. Micro Teaching Concept Response Word Counts

| The 20 Most Repeated Words      | Frequency | The 20 Most Repeated Words | Frequency  |
|---------------------------------|-----------|----------------------------|------------|
| Criticism                       | 14        | Forms                      | 6          |
| Lesson plan                     | 13        | Student                    | 5          |
| Evaluation                      | 11        | Teaching                   | 5          |
| Video                           | 9         | Self-assessment            | 4          |
| Experience                      | 9         | Lesson                     | 4          |
| Peer assessment                 | 8         | Lecture                    | 4          |
| Feedback                        | 7         | Learning                   | 4          |
| Teaching methods and techniques | 7         | Prospective teachers       | 4          |
| Practice                        | 7         | School                     | 4          |
| Video recording                 | 6         | 20 minutes                 | 4          |
| <b>Total</b>                    |           | <b>20</b>                  | <b>993</b> |

*Note:* Key concept: Micro teaching; total number of answer words: 260; total answer word type: 100

According to Table 3, it was found that the prospective primary school teachers produced a total of 260 words related to the concept of micro teaching (all the blanks in the form were filled) and 100 of them were different words. The most repeated word among the response words was "Criticism" ( $f=14$ ), followed by "Lesson plan" ( $f=13$ ), "Evaluation" ( $f=11$ ), "Video" ( $f=9$ ) and "Experience" ( $f=9$ ). When we look at the other words produced with these, it is possible to say that they are the basic concepts of micro teaching. From this point of view, it can be said that the practices carried out within the scope of the micro teaching course contributed to the prospective teachers' knowledge of the concept of micro teaching.

Figure 2 shows the word cloud created to visualize the perception in the minds of prospective teachers after the practices carried out within the scope of the micro teaching course. The words in the word cloud are ordered from the highest frequency to the lowest frequency. Words with a frequency of 1 were not included in the word cloud in order not to cause complexity.



Figure 2. Micro teaching word cloud

The codes and themes generated from prospective primary school teachers' responses to MTWAT are given in Table 4.

Table 4. Cognitive Perception of Micro Teaching

| Theme: Evaluation         |    | Theme: Professional knowledge   |    | Theme: The nature of micro teaching         |   |
|---------------------------|----|---------------------------------|----|---------------------------------------------|---|
| Code                      | f  | Code                            | f  | Code                                        | f |
| Criticism                 | 14 | Lesson plan                     | 13 | Video                                       | 9 |
| Evaluation                | 11 | Teaching methods and techniques | 7  | Practice                                    | 7 |
| Peer assessment           | 8  | Student                         | 5  | Video recording                             | 6 |
| Feedback                  | 7  | Teaching                        | 5  | 20 minutes                                  | 4 |
| Forms                     | 6  | Lesson                          | 4  | Process                                     | 3 |
| Self-assessment           | 4  | Lecture                         | 4  | Replanning                                  | 3 |
| Equal opportunity         | 3  | Learning                        | 4  | Difference between first and last narrative | 2 |
| Observation               | 3  | Prospective teachers            | 4  | Small pieces                                | 2 |
| Inquiry                   | 3  | School                          | 4  | Micro-lesson                                | 2 |
| Self-criticism            | 3  | Classroom management            | 3  | Integration with technology                 | 2 |
| Positive-negative opinion | 3  | Lesson processing               | 2  | Retelling                                   | 2 |
| Skill                     | 2  | Science                         | 2  | Minimal                                     | 1 |
| Teacher evaluation        | 2  | Teacher                         | 2  | Presentation                                | 1 |
| Excitement                | 2  | Classroom                       | 2  | Projection on the blackboard                | 1 |
| Peer                      | 1  | Education                       | 2  | Technology                                  | 1 |
| Peer teaching             | 1  | Material                        | 2  | Giving feedback again                       | 1 |
| Success                   | 1  | Smart board                     | 1  | Building block                              | 1 |
| Individual assessment     | 1  | Course review                   | 1  |                                             |   |
| Discipline                | 1  | Lesson environment              | 1  |                                             |   |
| Critical thinking         | 1  | Introduction to the course      | 1  |                                             |   |
| Empathy                   | 1  | Attracting attention in class   | 1  |                                             |   |
| Different views           | 1  | Level-appropriate activity      | 1  |                                             |   |
| Individual's performance  | 1  | Activity                        | 1  |                                             |   |
| Metacognitive thinking    | 1  | Professional knowledge          | 1  |                                             |   |
| Recommendation            | 1  | Giving homework                 | 1  |                                             |   |
| New perspective           | 1  | Internship                      | 1  |                                             |   |
| Difficult                 | 1  |                                 |    |                                             |   |

| Theme: Advantages        |   | Theme: Content knowledge |   | Theme: General culture and ability |   |
|--------------------------|---|--------------------------|---|------------------------------------|---|
| Code                     | f | Code                     | f | Code                               | f |
| Experience               | 9 | Content knowledge        | 4 | Slices of life                     | 3 |
| Development              | 3 | Gain                     | 2 | Farsightedness                     | 1 |
| Seeing mistakes          | 3 | Research                 | 1 | Attribution                        | 1 |
| Professional development | 3 | Study                    | 1 | Capability                         | 1 |
| Individual development   | 2 | Content analysis         | 1 | Proximity                          | 1 |
| Development              | 2 | Gain knowledge           | 1 | Patience                           | 1 |
| Teaching                 | 2 | Subject                  | 1 | Respect                            | 1 |
| Self-confidence          | 2 | Preliminary study        | 1 |                                    |   |
| Areas for improvement    | 1 |                          |   |                                    |   |
| Fast feedback            | 1 |                          |   |                                    |   |
| Improvement              | 1 |                          |   |                                    |   |
| Self-correction          | 1 |                          |   |                                    |   |
| Teaching practice        | 1 |                          |   |                                    |   |
| Self-regulation          | 1 |                          |   |                                    |   |

Upon examining Table 4, it was found that the cognitive perceptions of prospective primary school teachers were concentrated under 6 themes: *"Evaluation"* (f=84), *"Professional knowledge"* (f=75), *"Nature of micro teaching"* (f=48), *"Advantages"* (f=32), *"Content knowledge"* (f=12) and *"General culture and ability"* (f=9). The most frequently expressed code under the evaluation theme was *"Criticism"*, followed by *"Evaluation"*, *"Peer evaluation"* and *"Feedback"*. When the remaining words are analyzed, we can say that the most common concepts in the minds of prospective teachers due to the practices carried out within the scope of micro-teaching course are related to the evaluation stage of micro-teaching.

The most recurring code under the professional knowledge theme was *"Lesson plan"*. This was followed by *"Teaching methods and techniques"*, *"Student"* and *"Teaching"* codes, respectively. We can say that the other codes under this theme are mostly related to the learning and teaching process of micro teaching practices.

When the nature of micro teaching theme was analyzed, it was determined that the most frequently recurring code was *"Video"*. This code was followed by *"Practice"*, *"Video recording"* and *"20 minutes"* codes, respectively. It is possible to say that the codes under this theme are the basic activities carried out at different stages of micro teaching practices.

When the theme of advantages is analyzed, we can say that the codes under this theme are the main advantages provided by the practices carried out within the scope of the micro-teaching course. The most recurring code under this theme was *"Experience"*, while *"Development"*, *"Seeing mistakes"*, *"Professional development"* and *"Individual development"* were the other most recurring codes.

Under the content knowledge theme, the *"Content knowledge"* code was repeated the most, followed by the *"Gain"* code. It is possible to say that the other codes formed under this theme are related to the subject of content knowledge aimed to be developed with the micro-teaching method.

The code with the highest frequency under the general culture and abilities theme was *"Slices of life"*. In addition, *"Farsightedness"*, *"Patience"* and *"Respect"* were the other codes that emerged. We can say that the codes under this theme are among the items necessary for personal development.

The opinions of prospective teachers on the benefits provided by the practices carried out within the scope of the micro-teaching course are given in Table 5.

Table 5. Benefits of Micro teaching Method

| Theme                    | Code                                                               | Frequency |
|--------------------------|--------------------------------------------------------------------|-----------|
| Professional Development | Providing better lesson plan preparation                           | 5         |
|                          | Providing the opportunity to teach in a real classroom environment | 4         |
|                          | Enhancing school experience                                        | 4         |
|                          | Finding the opportunity to teach like a teacher                    | 3         |
|                          | Providing teaching experience                                      | 3         |
|                          | Overcoming the excitement of lecturing                             | 2         |
|                          | Enabling better teaching                                           | 1         |
|                          | Learning to evaluate                                               | 1         |
|                          | Expressing oneself comfortably in the classroom environment        | 1         |
|                          | Overcoming shyness in lecturing                                    | 1         |
|                          |                                                                    |           |

|                             |                                                                    |   |
|-----------------------------|--------------------------------------------------------------------|---|
|                             | Enabling to design different activities                            | 1 |
|                             | Finding the opportunity to make lessons according to student level | 1 |
|                             | Providing opportunities to communicate with students               | 1 |
|                             | Learning to manage the teaching process                            | 1 |
|                             | Finding the opportunity to prepare lesson plans like a teacher     | 1 |
|                             | Reducing the difficulty of the teaching profession                 | 1 |
|                             | Looking at teaching practice from a different perspective          | 1 |
|                             | Preparing a lesson plan suitable for class level                   | 1 |
|                             | Preparing materials suitable for class levels                      | 1 |
|                             | Ensuring the use of technological materials                        | 1 |
|                             | Finding the opportunity to transform theory into practice          | 1 |
|                             | Recognize students at different teaching levels in videos          | 1 |
|                             | Learning time management                                           | 1 |
| Self-Assessment             | Finding the opportunity to see their deficiencies                  | 7 |
|                             | Finding the opportunity to see their mistakes                      | 7 |
|                             | Opportunity for self-correction                                    | 5 |
|                             | Identify the good points                                           | 3 |
|                             | Identify aspects that need to be improved                          | 2 |
|                             | Finding the opportunity for self-evaluation                        | 2 |
|                             | To be able to make individual evaluation                           | 1 |
|                             | Recognizing what is overlooked in lecturing                        | 1 |
|                             | Enabling to see their own lecture                                  | 1 |
|                             | Finding the opportunity for self-improvement                       | 1 |
|                             | Seeing the positive aspects of criticism                           | 3 |
|                             | Self-improvement based on criticism                                | 3 |
|                             | Enabling peers to see their mistakes                               | 2 |
|                             | Seeing the positive side of being criticized                       | 2 |
|                             | Self-development based on peers' mistakes                          | 1 |
|                             | Enabling to see the shortcomings of peers                          | 1 |
|                             | Seeing themselves through someone else's eyes                      | 1 |
| Peer Teaching               | Learning different teaching styles from peers                      | 3 |
|                             | Learning different methods and techniques from peers               | 3 |
|                             | Enabling peers to develop themselves                               | 1 |
|                             | Boosting self-confidence                                           | 3 |
| General Culture and Ability | Developing the researcher aspect                                   | 1 |
|                             | Providing critical thinking                                        | 1 |
|                             | Improving communication skills                                     | 1 |
|                             | Enabling inquisitive thinking                                      | 1 |
|                             | Learning to manage the teaching process                            | 1 |

When Table 5 is examined, it is seen that there are 5 themes related to the benefits of micro teaching method: "Professional Development" (f=38), "Self Evaluation" (f=30), "Peer Evaluation" (f=13), "Peer Teaching" (f=7), and "General Culture and Ability" (f=7). Accordingly, it was determined that the codes with the highest frequency were "Finding the opportunity to see their deficiencies" (f=7) and "Finding the opportunity to see their mistakes" (f=7) under the theme of self-evaluation. In addition, under the theme of professional development, the codes "Providing better lesson plan preparation" (f=5), "Providing the opportunity to teach in a real classroom environment", (f=4) and "Increasing school experience" (f=4) are the most striking codes. The opinions of some of the prospective teachers regarding the benefits provided by micro-teaching practices are as follows (The names used are pseudonyms):

*Filiz: I learned how to prepare a lesson plan and teach a lesson like a real teacher. Before taking this course, I did not know how to prepare a lesson plan properly. Apart from that, when we made a video of us teaching a lesson and then our peers (fellow student teachers) and my teacher commented on our lesson, I saw what I did right and wrong. I was very inexperienced in my first video. After my video was commented on, I realized the things I needed to correct and I received feedback that I was much better in my second video. Even watching the videos of my fellow student teachers added a lot to me. That is to say, while watching them, I saw and learned the things I should and not do without experiencing them. The activities they prepared took a place in a corner of my memory. I learned a lot from them.*

*Yeşim: First of all, I learned to make criticism. Although I am a person who is closed to criticism, it helped me overcome this situation. I was able to comprehend more easily the practical use of the methods and techniques that were explained at the theoretical level at the university. It helped me to see different primary school student profiles in the videos that each prospective teacher applied and I realized that not every student is the same. It helped me how to control the time for the lessons and how many class hours to allocate to which subject.*

The views of prospective primary school teachers regarding the negative aspects of the activities conducted within the micro-teaching course are presented in Table 6.

Table 6. Negative Aspects of Micro Teaching Method

| Theme                           | Code                                                               | Frequency |
|---------------------------------|--------------------------------------------------------------------|-----------|
| Technology Originated           | Low sound quality of the videos watched                            | 3         |
|                                 | Technical problems during video shooting                           | 3         |
|                                 | Lack of technological tools necessary for video recording          | 2         |
|                                 | Low image quality of the videos watched                            | 2         |
|                                 | Unavailability of evaluation due to technical problems             | 2         |
|                                 | Technical glitches while watching a video                          | 2         |
| Due to the Nature of the Method | Video shooting affects the students in the practice class          | 2         |
|                                 | Short video shooting time                                          | 2         |
|                                 | Low number of practices                                            | 2         |
|                                 | It takes time to watch each prospective teacher                    | 2         |
|                                 | Inability to fully analyze videos due to duration                  | 1         |
|                                 | Evaluation on a video                                              | 1         |
| Prospective Teacher Originated  | Some prospective teachers are closed to criticism                  | 3         |
|                                 | Failure to fill in forms objectively                               | 2         |
|                                 | Some prospective teachers' criticisms are unqualified              | 1         |
|                                 | Lack of experience                                                 | 1         |
|                                 | Inability to manage students in practices                          | 1         |
|                                 | Lack of focus on watching video                                    | 1         |
| Practice School Originated      | Official procedures for implementation pose a challenge            | 2         |
|                                 | Difficulty of implementation in crowded classes                    | 1         |
| Faculty Originated              | Assessments take place in the classroom environment at the faculty | 1         |
|                                 | Unsuitability of the environment for watching the video            | 1         |
| No Negative Opinion             | No downside                                                        | 6         |

Upon examining Table 6, it was found that the opinions on the negative aspects of micro teaching method were formed under 6 themes as *"Technology Originated"* (f=14), *"Due to the Nature of the Method"* (f=10), *"Prospective Teacher Originated"* (f=9), *"No Negative Opinion"* (f=6), *"Practice School Originated"* (f=3) and *"Faculty Originated"* (f=2). It is determined that the prospective primary school teachers emphasized the codes of *"Low sound quality of the videos watched"* and *"Technical problems during video shooting"* the most regarding the negative aspects of technology. In addition, under the theme due to the nature of the method, the codes *"Video shooting affects the students in the practice class"*, *"Short video shooting time"*, *"Low number of practices"* and *"It takes time to watch each prospective teacher"* were emphasized." were the codes that attracted attention. Some of the prospective teachers stated that the method had no negative aspects under the theme of no negative opinion. The opinions of some of the prospective primary school teachers regarding the negativities of the micro- teaching method are as follows (The names used are pseudonyms):

*Ender: I don't think there is anything negative about it. Only the fact that the videos are sometimes troublesome due to technical problems and crowded classrooms can be considered as a negative.*

*Hande: When some of our friends speak only to criticize, and some friends are closed to criticism, a discussion environment occurs in the classroom. Even the fact that our friends came and looked at the forms we filled out for our friends caused us to fill out the forms hesitantly. In addition, I realized that the fact that we fit the subject we explained in micro-teaching into 20 minutes caused both the students not to understand the subject and we, the prospective teachers, did not give the necessary importance to that subject in order to raise the subject.*

The views of prospective primary school teachers regarding the peer assessments carried out within the micro-teaching course are detailed in Table 7.

Table 7. Opinions on Peer Reviews

| Theme    | Code                                                       | Frequency |
|----------|------------------------------------------------------------|-----------|
| Positive | Improving oneself through peer assessment                  | 7         |
|          | Recognizing themselves shortcomings                        | 7         |
|          | Seeing the shortcomings of friends and not doing them      | 5         |
|          | Recognizing and addressing their shortcomings              | 4         |
|          | Enabling to see oneself from different perspectives        | 4         |
|          | Recognizing the good points                                | 4         |
|          | Seeing the mistakes of peers and not repeating them        | 2         |
|          | Emulating the good qualities of friends                    | 2         |
|          | Friend recommendation is more instructive                  | 1         |
|          | Friend recommendation is more fixable                      | 1         |
|          | Correcting similar misconceptions                          | 1         |
|          | More careful lesson planning                               | 1         |
|          | Self-correction in line with criticism                     | 1         |
|          | Ensuring openness to criticism                             | 1         |
|          | Gaining the ability to make an effective evaluation        | 1         |
|          | Learning from their own mistakes                           | 1         |
|          | Enabling to see their own mistakes                         | 1         |
|          | Increasing communication skills                            | 1         |
|          | Seeing themselves through someone else's eyes              | 1         |
|          | Expressing themselves more easily                          | 1         |
|          | Increasing self-esteem                                     | 1         |
|          | Receiving support from peers in the implementation process | 1         |
| Negative | Not being open to criticism                                | 4         |
|          | Hesitating to criticize friends                            | 1         |
|          | Some friends' criticism is not qualified                   | 1         |
|          | Some feedback is not clear                                 | 1         |
|          | Finding excuses for criticism                              | 1         |
|          | Criticism can damage relationships between friends         | 1         |

Upon examining Table 7, it was found that the opinions on peer assessment were grouped under 2 themes: "Positive" (f=49) and "Negative" (f=9). Under the positive theme, "Improving oneself through peer assessment" and "Recognizing themselves shortcomings" were the most recurrent codes. Following these codes, "Seeing the shortcomings of friends and not doing them" was the most frequently expressed code. Under the negative theme, the most emphasized code was "Not being open to criticism". The opinions of some of the pre- service teachers are as follows (The names used are pseudonyms):

*Özgür: We did peer review, but to do this, we all need to be open to criticism, and we were a bit lacking in this regard. Some of our friends did not accept criticism, some of us made excuses. Some of us even said that their knowledge of the field was low. These should not have happened. Because we need to go there in a qualified way, we need to accept criticism. We need to correct ourselves accordingly. On the positive side, the advice of a friend is not the same as the advice of a teacher, so they give it to a friend. A friend's advice can be more attractive and editable.*

*Serhan: For example, if I didn't do the activities and activities that my friends did, I thought about it and if it was an activity or activity suitable for the lesson I was teaching or the lesson I was going to teach, I adapted it to mine. We saw that we taught the lesson better and its permanence increased. Negatively, the criticism was that the friends who were criticized did not like it, which was a negative situation, it was like this for me at first, but later it gets better when you get used to it.*

## DISCUSSION & CONCLUSION

In the research, it was aimed to reveal the effects of the practices carried out within the scope of micro-teaching course on the development of prospective primary school teachers' professional knowledge, content knowledge and general culture-abilities and their cognitive perceptions towards the concept of micro-teaching. It was determined that there was a significant difference between the pre-test and post-test mean scores of the MTMMEF peer evaluation conducted in line with the purpose of the study in favor of the post-test. The findings indicated that the micro-teaching method positively impacted enhancing professional knowledge, content knowledge and general culture skills of prospective primary school teachers. It is possible to say that the feedbacks

(positive and negative) given to both their own and their peers' first practices were effective in forming this result. In other words, prospective teachers realized their deficiencies and mistakes as a result of the criticisms and improved themselves in a way that they would not make these mistakes in the next implementation. On the other hand, after watching the first implementations of their friends, they carried out their second implementations by taking their positive behaviors in classroom management, lesson process, methods and techniques, etc. as examples or by learning from their mistakes. The qualitative findings of the study also support these results. The findings obtained from the opinions of the prospective teachers about the peer evaluations made during the micro-teaching process revealed many positive and negative opinions. Among the positive aspects of peer evaluation, they stated that they realized their good and deficient aspects by watching themselves and seeing themselves through the eyes of others, that they improved themselves with the evaluation of their friends, and that the advice of their peers was even more instructive than the advice of their teachers. In addition, prospective teachers, who did not like being criticized before, stated that they became open to criticism due to the feedback, that they corrected themselves with the support of their peers and that their self-esteem increased. They also stated that they gained the ability to make effective evaluations with peer evaluations, expressed themselves more easily and increased their communication skills. Upon examining the literature, studies parallel to the research results were found. According to Koç (2011), peer assessment processes enable every aspect of the teaching process to be questioned and critically examined. Therefore, they play an important role in teacher education and professional development. In the literature, it has been revealed that peer evaluations in micro teaching practices have positive aspects such as enabling peer learning, identifying errors and deficiencies, seeing weaknesses and strengths, learning the evaluation process, and developing skills such as communication, discussion, and explanation (Boud & Falchikov, 1989; Özpınar, 2021; Shahzadi & Hussain, 2019). In the study conducted by Author (2021), it was emphasized that prospective teachers noticed the shortcomings or mistakes made while watching their peers and tried to avoid these mistakes, thus social learning took place. Moreover, it was stated that while they provided feedback for their professional development while watching their peers. Similarly, Yiğitoğlu-Aptoula (2021) stated that prospective teachers see their own strengths and weaknesses and look for ways to improve them by seeing what they overlooked in the feedback they received from different peers and by commenting on their negative aspects. In addition, a study revealed that students learn less when they receive feedback from only one teacher or one peer than when they receive feedback from more than one peer (Cho & MacArthur, 2010). In the study, as negative aspects of peer assessment, the fact that some prospective teachers were not open to criticism was emphasized by the prospective teachers. In addition, they stated that peer relationships may be damaged due to criticism and that they hesitate to criticize due to friendship relationships. In addition, the fact that some peers do not make qualified criticism with the thought of only making criticism was stated as another negative opinion. As a matter of fact, Özpınar (2021) stated that the disadvantages of peer evaluations include not being fair in criticizing, not wanting to hurt peers, having difficulty in accepting criticism, not taking evaluations seriously, and stating deficiencies without suggesting solutions. In their study, Erdemir and Yeşilçınar (2021) stated that the students' opinions on peer evaluations were subjective, ideas were not clearly expressed, and feedback was not sufficient and detailed. These results are in line with the results of the study.

Prospective teachers were asked about their opinions on the benefits of micro-teaching method and it was concluded from the answers obtained that it had positive contributions to professional development, self-evaluation, peer teaching and general culture and abilities. The prospective primary school teachers expressed that they were able to prepare better lesson plans, design different activities, and prepare lesson plans and materials suitable for the class level based on the deficiencies and mistakes they identified in micro teaching practices. They also stated that they had the opportunity to teach like a teacher in a real classroom environment, could manage the teaching process and time better, and learned to control their excitement while teaching. Some prospective classroom teachers mentioned that micro teaching method enhanced teaching and school experience. It can be said that this result is since micro teaching method provides the opportunity to practice with real students in a real classroom environment. In addition, prospective teachers stated that their communication skills, self-confidence increased and their critical and inquiry thinking skills improved with micro teaching practices. They also stated that they learned about managing the teaching process, methods and techniques that can be used in the process, and lesson presentation styles. It is possible to say that this result is especially due to monitoring the practices of peers and taking their good aspects as an example. When the literature was examined, studies supporting the research results were found (Sokal, Smith, & Mowat, 2003; Ralph, 2014; Ramasubramaniam & Renganathan, 2014; Sevim, 2013). Hamidi and Kinay (2021) stated that The prospective teachers enhanced their presentation skills, developed their professional skills, gained proficiency in classroom management, practiced in real

classroom settings, and learned to utilize teaching materials effectively. Furthermore, they observed personal growth, boosted their self-confidence, and honed their communication skills through these experiences. The results of many studies on micro teaching support the research results (McCullagh & Murphy, 2015; Mergler & Tangen, 2010; Otsupius, 2014). Similarly, Özönur and Kamışlı (2019) concluded that micro teaching practices contributed positively to prospective teachers' experience of lesson preparation and planning, development of presentation skills, classroom management skills, stress and anxiety control.

The opinions of prospective teachers about the negative aspects of micro teaching method were taken. While some prospective teachers did not express negative opinions, it was concluded that some problems arise from the nature of the method, the technologies used, the prospective teachers themselves, and the schools and faculties where the practices are carried out. The prospective teachers mainly mentioned technical problems such as low sound and image quality encountered during the shooting and presentation of the first and last videos. Some pre-service teachers stated that they had difficulty managing time due to the short duration of the video shootings and that the number of micro teaching practices for professional or personal development was low. Some prospective teachers stated that the evaluating prospective teachers did not fill out the forms objectively, that the evaluated prospective teachers were closed to criticism and that the criticisms made were unqualified (non-improving). In addition, they stated that they could not fully focus while watching videos, had difficulties managing students in the practicum schools, and lacked experience. Additionally, some prospective primary school teachers expressed that they had difficulties obtaining the necessary permissions for practicums at the practicum schools, unable to find suitable classrooms or overcrowded classrooms. In addition, they stated that they did not focus on the presentations and had difficulty in understanding them because the classrooms were not suitable for watching videos and did not have sufficient technological equipment for the evaluations carried out at the faculty. Studies supporting the results of the research were found in the literature. Similar to the results of the research, it was stated that micro teaching practices have disadvantages such as requiring a large number of special classrooms, management issues arising due to the lack of sufficient micro teaching laboratories or classroom in faculties of education, and it is not possible to observe all individuals in detail and give feedback (El-Koumy, 2022). Taşkaya (2014) revealed in her study that some prospective teachers were worried during the video shooting and some of them did not like it. In addition, prospective teachers stated that the duration of the practices was short and that they could never watch themselves completely in the lesson and could only do this at home. Sevim (2013) revealed in his study that video recording during micro teaching caused students to exhibit irregular behaviors in practice schools and increased the excitement of prospective teachers. The literature stated that some problems arising from the classroom environment were encountered in micro-teaching practices and that the course presentations should be re-evaluated due to noise problems arising from crowded classrooms. In addition, it was stated that problems such as lack of knowledge about micro teaching technique and inadequacy in using some technological tools were caused by prospective teachers (Hamidi & Kinay, 2021).

When the cognitive perceptions of prospective teachers towards the concept of micro teaching were analyzed, it was concluded that they had perceptions about the basic features of micro teaching method, advantages, evaluation processes, professional knowledge, content knowledge and general culture skills. It was concluded that the concepts that took place in prospective teachers' minds the most in the micro-teaching process were related to the practices realized in the evaluation processes. In this context, the concepts of criticism, evaluation, peer evaluation, self-evaluation, teacher evaluation, feedback and forms are the most frequently expressed concepts. We can say that this result is since in micro teaching method practices, students are most affected by self-, peer and teacher evaluations that occur in the evaluation stage. In this regard, it is stated in the literature that self-, peer and teacher evaluations increase the self-efficacy beliefs of prospective teachers regarding the teaching process in micro teaching practices, contribute positively to the development of their professional competencies and are an important source of feedback in terms of professional development (Bozkurt, 2020; Özpınar, 2021; Torun, 2021). In addition, video, which is one of the technological tools mentioned, 20 minutes of shooting time, re-planning after criticism and feedback, retelling and first and last lecture elements are the most basic elements in the nature of micro teaching method. Again, regarding professional knowledge, there was a perception of lesson plans, teaching methods and techniques, classroom management, student-teacher, material and prospective teachers, which are mostly related to learning-teaching processes. In the literature, many studies are showing that micro teaching method has positive contributions to gaining professional skills and these studies support the results of the research (Aslan & Elmas, 2019; Banga, 2014; Kılıç, 2016; Msimanga, 2021; Yıldız, 2022). In terms of content knowledge, it was concluded that there was a perception of attainment, attainment knowledge and course work. In general culture and ability, the concepts of cross-sections from life, farsightedness, patience and respect, which emphasize more personal characteristics, come to the fore. Although there are studies

on micro teaching practices in the literature, it is noteworthy that there are not many studies that reveal cognitive perceptions towards the concept of micro teaching. In their study, Demirci and Akgün (2023) revealed that there were perceptions on the themes of parts of micro teaching, self-evaluation, teaching practice and tools used in micro teaching in parallel with the research results. In particular, she stated that the concepts of video recording, retelling, re-planning, student, teaching, classroom, presentation, which are inherent in micro teaching, emerged. In addition, the concepts such as feedback, evaluation, video are similar to the research result.

This research shows that micro-teaching practices improved prospective teachers' professional knowledge, content knowledge, and general culture skills. In particular, peer assessment helped the prospective teachers recognize their strengths and weaknesses and adapt to the culture of constructive criticism. In addition, the micro-teaching process helped prospective teachers improve their skills in classroom management, material preparation, and planning the teaching process. However, some limitations, such as technical problems, time management difficulties, subjectivity in the criticism process, and school infrastructure deficiencies, were also identified. Therefore, some improvements are needed to make microteaching practices more efficient.

In line with the results obtained from the research, the following suggestions are made. It is recommended that the practices carried out in the micro-teaching course should be used in the development of prospective teachers' teaching professional knowledge, content knowledge and general culture-ability and in the preparation process for the teaching practice course. Based on the negative opinions of prospective teachers and their positive effects on peer evaluations, more attention should be paid to ensure objectivity in the evaluation of micro teaching. Considering the study's sample size, it is recommended to work with smaller groups to increase the time allocated for evaluation in micro teaching practices. In addition, it is recommended to increase the filming duration to observe the prospective teacher's performance for a longer period prospective. In addition, increasing the number of practices with feedback and corrections can help prospective teachers to improve themselves more. Pre-micro teaching practices can be carried out to reduce the technical problems, excitement and pressure caused by the use of video camera. Protocols can be signed with the institution in advance in order to eliminate the problems arising from the official procedures arising from the practice schools. Thus, time can be saved. Special classrooms with sound insulation and technological equipment can be created for the stages of micro-teaching practices carried out in faculty classrooms.

### **Limitations**

This research is limited to prospective primary school teachers who chose micro-teaching course.

### **Statements of Publication Ethics**

The research was conducted in accordance with the principles of publication ethics. The ethical approval was obtained from Mus Alparslan University with the issue number of 73184.

### **Conflict of Interest**

This study has no any conflict of interest.

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