

Meta-Thematic Analysis of Studies on Micro Teaching Techniques for Prospective Teachers*

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To cite this article:

Hamidi, N. B. & Kinay, İ. (2024). Meta-Thematic analysis of studies on micro teaching techniques for prospective teachers. *Journal of Qualitative Research in Education*, 37, 139-171, DOI: 10.14689/enad.37.1856

Abstract: The aim of this research is to examine the qualitative studies, which include participants' views on the microteaching technique for prospective teachers, using the meta-thematic analysis process. In this research, in the context of studies on micro teaching technique; studies reached by using the keywords "prospective teachers and micro teaching", "prospective teachers and micro teaching technique", "prospective teachers and micro teaching method", "prospective teachers and micro teaching practices", studies written only in Turkish, master's thesis, doctoral thesis in the country and articles published in peer-reviewed academic journals, studies published between 1992-2020, studies conducted in relation to prospective teachers, studies using qualitative research methods and participant views, data were collected within the limits of the keywords and databases used during the literature review. In this study, meta-thematic analysis one of the qualitative research methods, was used. In the findings of the research, the effect of the studies on micro teaching technique on the cognitive dimension of prospective teachers, the professional development of prospective teachers, the problems faced by prospective teachers and their suggestions in the studies on micro teaching technique were examined.

Keywords: Micro teaching technique, meta-thematic analysis, prospective teachers.

About the Article

Received: 03 Sep. 2023

Revised: 13 Nov. 2023

Accepted: 26 Jan. 2024

Article Type:

Research

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* This article is derived from the doctoral thesis completed by the first author in 2023 at Dicle University Institute of Educational Sciences and supported by the Dicle University Scientific Research Projects Coordinatorship with the project numbered EBE.22.001.

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Introduction

It is expected that all the elements in the teacher training system will be evaluated continuously, and studies will be carried out to train teachers with the required qualifications today and in the future. It can be said that it is essential for teachers to have the required qualifications during the training they receive before taking up their profession and to perform their duties in the field they belong to in line with this training. The teacher training system is vital regarding the quality of teaching activities in educational environments (Ataç, 2003, p. 1). In developing countries, one of the critical questions is how to increase the quality of the teacher training system (Azar, 2011, p. 36). In this context, since the development of the education system is directly related to teacher training, pre-service teachers are provided with various technical information about teaching. It is known that teaching techniques are ways of applying the teaching methods chosen by the teacher. As long as teachers' knowledge of teaching techniques is as comprehensive as possible, they can apply them effectively. In this context, it can be said that it is vital that teachers' knowledge levels about teaching techniques are sufficient (Kanadlı, 2019, p. 258).

It can be stated that one of the most important of the mentioned techniques is the microteaching technique. Micro-teaching, which is a small lesson practice carried out during the training of teachers in order to give education faculty students experience in teaching, was created as an element of an experimental program in order to increase the quality of teacher training (Marulcu & Dedetürk, 2014, p. 353). Thanks to the micro-teaching technique, teacher candidates are offered the opportunity to gain practical teaching experience. The main goal of microteaching can be explained as providing the opportunity to practice in a way that will allow prospective teachers to realize the expected change in their behaviors and develop professionally. In the micro-teaching technique, educational activities are tried to be used in an artificial context (Ocak, 2017, p. 321). The micro-teaching technique aims to contribute to teacher training, provide prospective teachers with the desired qualifications, and develop their research skills (Oliver, 1993, pp. 77-78; Mellon, 1971, p. 1).

Micro-teaching was first applied by Dwight W. Allen and his friends at Stanford University in 1960 in the education-teaching process to acquire the professional skills necessary for teacher candidates to be effective teachers (Allen & Eve, 1968, p. 182). In addition, it was observed that the use of this technique in teacher education programs increased rapidly in Europe and many developing countries in the 1970s (Peker, 2009, p. 355). Micro-teaching was carried out in Europe for the first time in England and Germany. The first microteaching practices in these countries were done at Stirling (England) and Tübingen (Germany) universities. Zifreund pioneered European microteaching studies (Klinzing & Floden, 1991, p. 4). It is seen that microteaching has become widespread in many countries, such as the following countries outside Europe: Australia, India, Indonesia, Nigeria, Israel, and Japan (Thew, 1975, p. 18; Perlberg,

1972, p. 554). In addition, microteaching is used not only in pre-service teacher education but also in many fields, such as in-service training, counseling training, training of instructors, psychological counseling, and medicine (Yolcu & Turhan Türkkan, 2019, p. 72).

In Turkey, the micro-teaching technique has started to be implemented later than in other countries. Micro-teaching, which first came to the fore in the 1980s, could only be included in teacher education programs in the 1990s. It can be said that the spread of micro-teaching in Turkey started with the 2nd Industrial Education Project, which was put into practice in 1989 and completed in 1996 (YÖK, 1997). When the studies on this subject are examined, it is revealed that the first remarkable practices were carried out in the Faculty of Technical Education of Fırat University. In addition, it was observed that micro-teaching was expanded in the context of all education faculties within the scope of the World Bank National Education Development Project carried out by YÖK between 1994 and 1998 (YÖK, 1999, p. 161). Today, since the 2018-2019 academic year, the "Micro Teaching Course" has begun to be included in undergraduate programs (Yolcu & Turhan Türkkan, 2019, p. 72).

The main objectives of the microteaching technique are as follows: to provide pre-experience and practice opportunities to pre-service teachers, to investigate the effects of teacher education by providing them with controlled situations, and to offer experienced teachers a valuable tool in their in-service training (Marulcu & Dedetürk, 2014, p. 357). The micro-teaching technique offers pre-service teachers the opportunity to develop competencies such as planning the teaching, choosing the achievements that the student will gain after the lesson, creating an environment of interaction with the students and ensuring their participation, preparing and using materials, developing classroom management skills and evaluating teaching (Kılıç, 2010, p. 88). In addition, this technique allows pre-service teachers to identify and correct their mistakes in the teaching process; it enables them to develop their self-confidence, presentation performance, and creative, reflective, and critical thinking skills (Güney, 2008, p. 35; I'anson, 2003, p. 194; Kpanja, 2001, p. 483; Şen, 2010, p. 78). In the micro-teaching technique, the following is carried out respectively: first, the pre-service teacher prepares a 10-15 minute lesson plan on the determined topic, this lesson is recorded with a video camera while s/he is teaching, and when the lesson is over, the pre-service teacher watches the video. Then the lesson is evaluated by the teacher and the group members watching the lesson. Necessary corrections are made, taking into account the criticisms. The same steps are carried out by re-preparing the teacher candidate. The audience re-interprets the lecture. Finally, suggestions are presented to the pre-service teacher (Demirel, 2010, p. 105).

It can be said that microteaching is essential for scientific studies and contributes to teachers' professional development in the education system (Külahçı, 1994, p. 43). With its emergence, microteaching has found an essential area of use in teacher education

and has been the subject of various studies in almost every field of education. It has survived to the present day, significantly influenced by technological developments. Micro-teaching can be an essential opportunity in any field of education and can provide an opportunity for faster learning (Spelman & Brooks, 1972, p. 76). It is known that the micro-teaching technique has started to be widely used in the United States, and with its widespread use, it has also started to be applied in Europe and other countries (Klinzing & Floden, 1991, p. 5). Their effectiveness has increased with the support of today's microteaching practices with technology. In line with the greater use of technology, emphasis is placed on using and implementing micro-teaching in our country. This situation contributes to the increase in professional knowledge and experience of teacher candidates in their fields (Yolcu & Turhan Türkkkan, 2019, p. 72).

The micro-teaching technique also contributes to developing pre-service teachers' cognitive, affective, and social skills during teaching. For example, the pre-service teacher is recorded with a video camera during the lecture. Then, the other pre-service teachers and the course instructor examine the records together and try to identify the mistakes made during the practice. Thus, it is ensured that teacher candidates can detect their own mistakes. Afterward, these are discussed, and corrections are made with the instructor and other students (Madike, 1980, p. 265). Thanks to video recordings, the micro-teaching technique allows pre-service teachers to increase their skills and improve their teaching performance (Ocak, 2017, p. 323). The micro-teaching technique is one of the valuable and practical techniques widely used in teacher candidates' training today. Micro-teaching also plays a vital role in helping students gain critical thinking skills, as pre-service teachers look critically at their own and classmates' work (Bars & Kinay, 2019, p. 31).

With the widespread use of microteaching techniques in teacher training in recent years and the increase in studies on this subject, it is seen that this technique needs to be examined and evaluated from the perspective of teacher candidates. In order to carry out these examinations and evaluations, the views of pre-service teachers who apply the micro-teaching technique should be used. With the current research, it is thought that meaningful results will be reached about the practice and effectiveness of the microteaching technique, thanks to examining the studies in which the pre-service teachers are directly involved as participants.

When the studies in the literature are examined, it is seen that there is a need to re-evaluate the participants' views in scientific studies in which the micro-teaching technique is applied and to examine them using the meta-thematic analysis method. In addition, it can be said that it is necessary to re-evaluate the views of the participants in the qualitative studies on the micro-teaching technique, namely the raw data, with a more holistic approach with meta-thematic analysis.

Purpose of the Research

This research aims to examine the qualitative studies, which include the opinions of teacher candidates about the microteaching technique in teacher training, through the meta-thematic analysis process. In line with this purpose, answers were sought for the following sub-objectives:

1. According to the studies, what are the cognitive effects of microteaching technique on pre-service teachers?
2. According to the studies, what are the effects of microteaching technique on the professional development of pre-service teachers?
3. According to the studies, what are the problems faced by the pre-service teachers regarding the microteaching technique?
4. According to the studies, what are the suggestions of pre-service teachers on micro-teaching technique?

Method

Research Design

In this study, meta-thematic analysis, one of the qualitative research types, was used. Meta-thematic analysis is a research technique that combines more than one qualitative research data on any subject and obtains comprehensive and qualified findings by creating themes and codes (Batdı, 2019, p. 11). It is aimed that the themes and codes expressed in the research are processed on a common point and mentioned again in the form of themes and codes and make them meaningful (Batdı, 2017, p. 767). Within the scope of the relevant subject, different themes and codes that have been reached as a result of the analyzes in qualitative studies are re-interpreted as a result of the re-evaluation of the researcher from the participant's perspective. In the meta-thematic analysis, it is necessary to re-examine the themes and codes reached and the raw data that have not undergone any processing and make the data understandable (Batdı, 2019, p. 11).

Data Collection

The current study conducted a literature review with a document review to reach the studies carried out between 1992 and 2020 on microteaching techniques. The studies included in the research were started in 1992 because when keywords were searched in databases, the first study published in Turkey and Turkish was carried out that year. However, this research was not used in the study as it did not meet the criteria for inclusion in the meta-thematic analysis. Keywords used while collecting research data

are as follows: “pre-service teachers and micro-teaching,” “pre-service teachers and micro-teaching technique,” “pre-service teachers and micro-teaching method,” and “pre-service teachers and micro-teaching practices.” The following databases were searched to reach the studies conducted in Turkey and published in Turkish: Web of Science, Google Scholar, YÖK National Thesis Center, and TR Index databases.

In this study, 16 out of 357 studies reached from databases were excluded from the analysis because the same research was accessed from different databases. This is because these studies are downloaded several times due to being accessed from different databases. Among the remaining 341 studies, 49 were not included in the analysis because the unrelated topic titles overlapped with the keywords, and the contents did not match the research topic of the current study. Then, 180 of the remaining 292 studies were not included in the analysis as they did not match the study’s primary purpose. In addition, 59 studies were not considered sufficient in the evaluation made according to scientific quality and content, as they did not comply with the current study criteria and therefore were not included in the analysis. As a result, it was preferred that the studies used in this research were suitable for the existing criteria and sufficient due to the quality evaluation in terms of scientific and content. The number of studies used within the scope of meta-thematic analysis following the criteria sought is 53.

Data Analysis

The study’s data were analyzed using the content analysis technique in this research. Content analysis is a systematic, repeatable process to compress text parts into fewer content categories based on open coding rules (Krippendorff, 2004, p. 221). In other words, content analysis can be explained as bringing together data with standard features at the point of defined concepts and themes and interpreting them in a meaningful way (Yıldırım & Şimşek, 2016, p. 242). First, the studies included in the research were read in detail, and the findings were analyzed. Each of the studies included in the meta-thematic analysis was named with a code by the researcher.

Validity, Reliability and Ethics

It is said that it may be more logical to use the concept of persuasiveness instead of the word reliability in qualitative studies (Guba & Lincoln, 1982). Since meta-thematic analysis is also a type of qualitative research, using the concept of persuasion in the current study is more appropriate. However, credibility in qualitative research is not as objective and stable as in quantitative research (Batdı, 2019). Qualitative research is multifaceted and constantly changing. For this reason, some techniques are used to strengthen the credibility of the research. One of them is “diversification.” The concept of diversification states that research using data sources should be conducted using more than one type of source (article, thesis, report, etc.) (Batdı, 2019). The present study used the diversification technique; thus, comprehensive data were obtained. In addition, the following procedures were carried out to affect the credibility of the meta-

thematic analysis positively: repeated inquiries, re-examining databases, and checking the existence of new studies at different times. The aforementioned rechecking process helps eliminate the possibility of overlooking studies or omitting those added later in the analysis (Batdı, 2019). In addition, direct quotations were made from the data used to create themes and codes in the meta-thematic analysis. Thus, it contributed to the reliability of the research. It is known that direct quotations are a raw data source in qualitative studies (Labuschagne, 2003).

Sutton and Austin (2015) emphasized that themes and codes should be supported by taking the participants' views through direct quotations. For this reason, the codes and themes were coded together with the article and thesis numbers of the studies included in the research. Codes and themes are shown with the page number from which the code was taken. For example, "M11-p.48" indicates an excerpt from page 48 of article 11. The reliability formula suggested by Miles and Huberman (1994, p. 64) was used to calculate the reliability of the coding: $\text{Reliability} = \text{Consensus} / (\text{Agreement} + \text{Disagreement})$. In this study, intercoder reliability was calculated twice by the researcher and another researcher. In the first coding, the inter-coder reliability coefficient was calculated as .86. A week later, the inter-coder reliability was calculated again, and the inter-coder reliability coefficient was found to be .91. According to Miles and Huberman (1994, p. 64), it can be said that this research is reliable since the rate of consensus among coders is accepted as at least .80 in studies.

This study was evaluated by the Dicle University Social and Human Sciences Ethics Committee and it was found that the study in question was appropriate in terms of scientific ethics.

Limitations

The limitations determined for the studies included in this research are as follows:

1. In the context of studies on microteaching technique; Studies reached by using the keywords "pre-service teachers and micro-teaching," "pre-service teachers and micro-teaching technique," "pre-service teachers and micro-teaching method," "pre-service teachers and micro-teaching practices,"
2. Studies published only in Turkish,
3. Master's thesis, doctoral thesis, and articles published in peer-reviewed academic journals,
4. Studies published between 1992-2020,
5. Studies conducted for teacher candidates,

6. Studies in which qualitative research methods are used and participant views are included,
7. Keywords used in the literature review and
8. Databases from which studies included in the study were accessed.

Findings

The Cognitive Effects of Microteaching Technique on Teacher Candidates in Studies

The findings related to the first sub-problem of the study are presented in Table 1.

Table 1.

The Cognitive Effects of Microteaching Technique on Teacher Candidates in Studies

Theme 1: The Cognitive Effects of Microteaching Technique on Teacher Candidates in Studies	
Codes	Cited Studies
Obtaining new information	M5-p.394, M26-p.32
Problem-solving skills	M4-p.362, M11-p.48
Learning area	M5-p.62
Visualization	M5-p.62
Learning by doing	M5-p.63, M6-p.50
Giving feedback	M5-p.67, M5-p.70, M10-p.109, M10-p.112, M12-p.954, M13-p.30
The emergence of different ideas	M11-p.52, M13-p.31
Associating the course with other courses	M13-p.32
Associating the course with daily life	M13-p.32, M13-p.33
Ensuring active participation in the class	M7-p.309, M13-p.31
Encouraging creativity	M7-p.310, M12-p.953

The statements of the pre-service teachers regarding the data categorized under this theme are presented below.

Obtaining New Information

In the study coded M3-p.394, the participant stated: *"I learned a lot during microteaching. I noticed this on my second microteaching attempt. Because things were improving, I understood this from the perspectives of the lecturer and other candidate*

friends who followed me.” In the study coded M13-p.32, there is a statement: “I activated the prior knowledge and provided new learnings.”

Problem-Solving Skills

In the study coded M4-p.362, a participant made a statement supporting the theme mentioned above with the following sentences: “Although I was extremely anxious at the beginning, some problems I experienced in terms of classroom management increased my anxiety about not being able to teach. I had difficulty expressing myself. However, it was perfect for me to see my mistakes with microteaching. I was very confident in the beginning. When I saw the problem, I learned how to approach it. I must improve my classroom management skills and teach the subject effectively.”

Learning Area

In the study coded M5-p.62, one participant said, “After my second presentation, I started to think that if I started teaching, I could design effective lessons. I used to think I could design something by myself, but now I realize this: I never knew the importance of learning area, achievement, level, and application style. However, after learning these, I realized they were material design’s backbone. The biggest difference between the first and second presentations is that I understood the learning area and the level of risk. It was a positive outcome when I engaged with the students on their level, both in speaking and designing materials tailored to their proficiency”.

Visualization

In the study coded M5-p.62, one of the participants said the following: “When we associate these images with the text, we learned that if there is something different about each of them and in each paragraph, there should be some key points specific to that paragraph in the pictures specific to that paragraph.”.

Learning by Doing-Experiencing

In the study coded M5-p.63, one participant expressed his opinion: “I think the method we chose to teach this lesson is permanent, and it is very beneficial for us because it keeps us active. It is also imperative that you tell us about the features the materials should have before we start creating them and that we pay attention to those features in the process. We learn better because we can apply the information that is presented to us. We learn what we can do in different situations by applying our acquired knowledge. Learning by doing is the most permanent form, as we have learned in our lessons. Since we apply the learning method by living, the information we learn is much more permanent. It was terrific in this course that you included and made us learn by doing.”

Giving Feedback

The following statement found in the study coded M5-p.67 effectively formed this code: *"...this feedback could have worked if our friends had made really objective evaluations, but... there is the friend's closeness to a friend and the collusion issue. If I do not criticize you negatively, you do not criticize us negatively, as if an agreement were made. I do not think the feedback works because there is no real, objective feedback."* Also, in the same study, on page 70, a participant stated: *"...if you had not given us feedback after our presentations, we would not have been able to correct our mistakes. We would never have learned and misused the truth in our future teaching lives. Fortunately, with feedback, we can prevent future students from having the wrong learning experience."*

The Emergence of Different Ideas

The following statement is included in the study coded M11-p.52: *"Different ideas do not arise in the classroom; everyone already knows the subject; it cannot be thought differently. There are so many different questions from the children during the lesson in the classroom that there are times when you are stunned. Even you might be surprised by this."*

Associating the Course with Other Courses

In the study coded M13-p.32, a pre-service teacher said: *"The way I greet the class, my one-to-one care with the students, and the fact that I associate the subjects of the lesson with other lessons were found positive."* It was also stated that the same participant made the following statement: *"It was found important that I associate the subjects with other lessons."* (p.32).

Associating the Course with Daily Life

In the study coded M13-p.32, the following opinion was expressed: *"According to the feedback I received from my microteaching experience, my sincere attitude in the lesson and my associating the course with daily life were found good."* In the same study, the following statement was made: *"I thought that the subject of the course was important for preparation for life, and in this sense, I gave the students the necessary acquisitions."* On p.33, there is the following sentence: *"I will make as many associations with daily life as possible."*

Ensuring Active Participation in the Class

In the study coded M7-p.309, there is a statement as follows: *"I have never been this active in any lesson."* and M13-p.31, there is a sentence as follows: *"It was stated that my microteaching was found positive in terms of getting the ideas of the students, keeping them active in the lesson, ensuring their readiness and creating a learning*

environment in which the whole class participates with the brainstorming technique instead of making dry definitions.”.

Encouraging Creativity

The following statement in the work coded M7-p.310 is one of the expressions that led to the creation of this code: “I realized that I could be very creative and productive when I forced myself.”. In the study coded M12-p.953, one participant expressed his opinion: “I use my creativity while preparing the activity. I go beyond the teacher’s guidebook and prepare and implement activities as the teacher wants. This way, I get good feedback from my friends and teacher”.

The Effects of Microteaching Technique on The Professional Development of Teacher Candidates in Studies

The findings related to the second sub-problem of the research are presented in Table 2.

Table 2.

The Effects of Microteaching Technique on The Professional Development of Teacher Candidates in Studies

Theme 2: The Effects of Microteaching Technique on The Professional Development of Teacher Candidates in Studies

Codes	Cited Studies
Presentation skills	M4-p.363, M11-s.53
Changing the perspective on teaching	M3-p.394, M6-s.48
Providing the opportunity to practice	M4-p.365, M5-s.63, M6-s.50, M8-s.10
Preparation for the lesson	M4-p.361, M13-s.32
Planning	M4-p.361, M10-p.111
Developing classroom management skills	M4-p.362, M10-p.109, M10-p.110, M13-p.33
Gaining experience	M9-p.364, M13-p.33
Using instructional materials in class	M6-p.52, M10-p.107
Contributing to teaching professional development	M5-p.65, M7-p.308, M13-p.33
Active participation in the lesson	M5-p.67
Making an evaluation	M6-p.50
In-class activities	M13-p.31, M13-p.33
Enabling the use of reinforcers	M13-p.31, M13-p.30, M13-p.32
Concretization of course topics	M11-p.53

The statements of the pre-service teachers regarding the data categorized under this theme are explained below.

Presentation Skills

The following statements in the work coded M4-p.363 and the work coded M11-p.53 are examples of this code: *"After watching my first and second presentations and my friends' presentations, I saw what could be done better and what was missing. In my second presentation, I used different materials and caught students' attention by telling jokes when they were distracted during the lesson. I had the opportunity to control the duration of the lesson and make a summary at the end. I did not pay much attention to them in the first presentations."* *"My microteaching experience has helped me figure out how much of the "light" topic in the curriculum I will teach to sixth graders and how to present it to them."*

Changing the Perspective on Teaching

In studies coded M3-p.394 and M6-p.48, opinions were expressed with the following sentences: *"Micro-teaching allowed me to see how rich the teaching profession is."* and *"Nothing else would have been so permanent. If the course were completely teacher-centered, it would not be so permanent. We are curious; for example, we listen carefully to what our friends have done. Since we prepare our lessons, it is more permanent. So the first reading and writing lesson went well. The stages of the lesson were effective. Moreover, we became just like teachers. For example, we made presentations in other lessons, but with microteaching, I felt like a teacher for the first time."*

Providing the Opportunity to Practice

In the study coded M4-p.365, the following statement was stated: *"I had only theoretical knowledge about microteaching. This technique was good for us. I was happy that something impressive came out. I want this practice to be done before."* The study coded M5-p.63 presented the following view: *"I really liked microteaching. At the moment, they all remained in my mind as we did the lesson practically; if you had told us about these issues, we would have listened there with boredom. That is why it was so nice to handle it like this."*

Preparation for the Lesson

In the research coded M4-p.361 and coded M13-p.32, the following was stated by the pre-service teachers: *"Because I thought that I would watch myself and my friends would watch me, I gave special importance to preparing for the lesson."* and *"I learned that it is necessary to come to the lesson in a planned and prepared manner."*

Planning

The following view is presented in the study coded M4-p.361: *"I went to the school and saw the students before. I talked to the head teacher. I planned how I would act."* An opinion expressed in the research coded M10-p.111 is as follows: *"I prepared with this technique, studied the lesson, made my plans, I did not care much beforehand. Because we plan and practice every lesson. However, no one filmed us, although they did not make us watch it in front of everyone."*

Developing Classroom Management Skills

The following statements are found in the study coded M4-p.362: *"I am currently in contact with a private school. I considered whether I would have problems with students regarding classroom management in private schools. However, thanks to my microteaching experience, I feel more comfortable now. Now I believe I will not have any problems with this. I no longer hesitate to work in primary or high school in terms of classroom management."* The study coded M13-p.33 presented the following statements: *"I think I can manage the classroom."*

Gaining Experience

The following views were presented in the study coded M9-p.364: *"I gained experience. I had the opportunity to evaluate myself. I saw my shortcomings. I saw concretely what I could use and how."* In the study coded M13-p.33, the following sentence effectively formed this code: *"Microteaching gave me experience and prepared me for teaching. In this way, I think I will be a good teacher in the future."*

Using Instructional Materials in Class

In the study coded M6-p.52, the opinion of one of the participants is as follows: *"Microteaching should be applied in education faculties. This method is perfect for teaching literacy. We now know how to use materials in a lesson and how we should approach students."* In the M10-p.107 coded study, the following statements can be given as an example for this code: *"I was prepared twice as much. I planned how I would teach the lesson and prepared a cube material for an activity about numbers. Maybe if there were no video recording, I would not have prepared so much."*

Contributing to Teaching Professional Development

In the study coded M7-p.308, there is a statement: *"The micro-teaching method we applied in the School Experience course made me experience one of the rare moments that made me realize that I am a teacher."* In addition, the following sentences in the M13-p.33 study also effectively created this code: *"The concept of teaching became so clear in my mind for the first time after the application. It was so nice to feel like a teacher."*

Active Participation in the Lesson

In the study coded M5-p.67, there is a statement: *“As far as I can see, getting feedback from students enables students to participate actively in the lesson. I think this is a benefit of microteaching.”*.

Making an Evaluation

The following statements found in the study coded as M6-p.50 influenced the emergence of this code: *“I think that if there were no evaluations, those applications would not be useful. Different students applied different methods and techniques because many activities have been done in microteaching. It was imperative for us to distinguish between right and wrong.”*

In-Class Activities

In the study, coded M13-S.31, there is a statement: *“Telling the story about the subject, asking questions about the story, and helping the students to empathize were the positive details mentioned by the evaluators.”*. The following statement is also found on p.33 in the same study: *“I performed a successful classroom activity.”*.

Enabling the Use of Reinforcers

In the study coded M13-p.31, the following statement is stated: *“I was told that I was friendly, warm-blooded and that I used the reinforcers correctly.”*. In the study coded M13-p.30, the following expression was used: *“It was stated that I increased the active participation of the students in the lesson because I kept the attention of the students alive and used reinforcers.”*.

Concretization of Course Topics

In creating this code, the following statement in the study coded M11-p.53 was taken as a reference: *“I learned that the sixth, seventh, and eighth grades were insufficient in perceiving abstract information and that we could explain the same subjects by embodying them.”*.

The Problems Faced by Pre-Service Teachers on Microteaching Techniques in Studies

The findings related to the third sub-problem of the study are presented in Table 3.

Table 3.

The Problems Faced by Pre-Service Teachers on Microteaching Techniques in Studies

Theme 3: The Problems Faced by Pre-Service Teachers on Microteaching Techniques in the Studies	
Codes	Cited Studies
Insufficient practice time for the technique	M12-p.954
The negative impact of camera and video	M10-p.111, M11-p.51
Causing Fear of the teaching profession	M7-p.309, M10-p.10
Causing stress	M10-p.111
Repeating the same topics	M11-p.52
Practicing the technique with other friends in her/his class	M11-p.52, M12-p.954
Lack of pedagogical content knowledge	M12-p.953
Lack of methodological and technical knowledge	M12-p.954
Lack of material preparation	M12-p.954
Lack of qualification of the instructor	M12-p.954
Lack of qualification of the practice teacher	M12-p.954
Practicing the technique to get a passing grade	M12-p.954
Lack of empathy	M12-p.954
Lack of planning	M12-p.955
Interfering with the presentation	M12-p.955
Not using time effectively.	M13-p.31, M13-p.33
Lack of qualification of the pre-service teachers	M13-p.31

The statements of the pre-service teachers regarding the data categorized under this theme are explained below.

Insufficient Practice Time of the Technique

The statement in the study coded M12-p.954 is as follows: *“The most important problem I experienced was the time limit. Because the number of learning outcomes is high and the learning outcomes are related to each other, it causes problems in terms of time. The students must acquire all of the learning outcomes; our time is limited for this.”*. In the same study (p.954), the following statement was also stated: *“When we ask students a question to encourage exploration, problems arise in classroom practice or time because our friends do not participate in the lesson and answer the question as adults, and we adjust the plan according to the level of the student.”*

Negative Impact of Camera and Video

In the study coded M10-p.111, the following statement was stated: *“Students may be adversely affected because there is a camera in the classroom. These little ones do not understand much, but for older children, it is possible. Pre-service teachers may have anxiety caused by the camera. They may be unable to perform activities as comfortably as they want.”*

Causing Fear of the Teaching Profession

In the study coded M7-p.309, the following statement is made: *“When I watched my lecture, I realized that I could not be a teacher. The lesson went very badly.”* In the study coded M10-p.10, there is a comment: *“I prepared the event. I imagined how I would implement it. I thought of 30 children around me at once; it was fun but terrifying. I thought, what if I couldn’t explain the questions they asked in their language?”*

Causing Stress

The following statement in the study coded M10-p.111 led to the formation of this code: *“Pre-service teachers cannot display a relaxed attitude; they get nervous in front of the camera.”*

Repeating the Same Topics

The following statement found in the M11-p.52 study was taken as a reference for this code: *“Our classroom gets bored when we do too many activities. If I explain this to a normal student, a student who does not know will learn the subjects after this lesson and leave. My friends do not attend the class and get bored because I always repeat the same things.”*

Practicing the Technique with Other Friends in Her/His Class

There are the following statements in the studies coded M11-p.52 and M12-p.954: *“My friends were a little bored, so I did not know how good I was, how well I could treat them. You will do things, but you cannot do anything because he is your friend.”* and *“We do not know exactly what our instructors want. If they like the application of a technique, our friends use the same technique in a monotonous way so as not to put themselves at risk.”*

Lack of Pedagogical Content Knowledge

The following statement in the study was coded M12-p.953: *“My biggest problem stemmed from pedagogical content knowledge. Although the subject was easy, I did not know where and what to do because my pedagogical knowledge was limited. Since I did not know the subject well and could not process it in order, I stuck to the teacher’s guidebook. Our teacher warned me later, saying I gave some wrong information while teaching the lesson.”*

Lack of Methodological and Technical Knowledge

The following statement taken from the article with the code M12-p.954 is taken as a reference for this code: *“I am having trouble writing the methods and techniques I will use in the lesson. For example, I wanted to make a contrast panel in the classroom; but*

only information was given. Even planning the lesson was a problem because I did not know how to apply the technique."

Lack of Material Preparation

In the study coded M12-p.954, there is a statement: *"Material is being prepared according to the course outcomes. For example, I prepared for a very narrow course outcome in the social studies course. I could not prepare material for this output in any way. Of course, my assessment was based on that."*

Lack of Qualification of the Instructor

The study coded M12-p.954 states: *"Our teachers are insufficient in feedback. They cannot talk much about the things we do poorly or well during our lectures."*

Lack of Qualification of the Practice Teacher

In the study coded M12-p.954, a pre-service teacher stated: *"It is tough even to have group work in the school where we go to practice. Children do not know this. Big problems arise because none of the students' teachers teach constructivist courses in their classrooms. Almost none of the teachers go beyond the traditional. In other words, pre-service teachers act artificially and play games in the faculty."*

Practicing the Technique to Getting a Passing Grade

There is a statement in the study coded M12-p.954: *"Micro-teaching should be to learn in order to better the pre-service teacher's profession, but we do it for grades. For this reason, I think that neither the presentations nor the feedback reach their goals."* In the same study, on p.954, the following sentence is stated: *"We give lectures, make presentations to take notes, we do not gain professional experience."*

Lack of Empathy

The following statement in the study coded M12-p.954 was used to create this code: *"The lack of empathy of people creates problems. For example, we do not listen to a friend while he is teaching, but we do not think we will be in his position after a few days. When our friend is micro-teaching, not listening to each other and talking among themselves causes trouble for his classroom management."*

Lack of Planning

The study coded M12-p.955 states: *"We covered the lesson plan with slides; we did not practice before. No knowledge is learned without putting it into practice. It would be better if our teachers first taught us how to plan. When we went to the internship school, all the teachers said they did not make a lesson plan. Thus, we do not see any practice regarding the plan"*.

Interfering with the Presentation

In the study coded M12-p.955, the words of a pre-service teacher are as follows: *"I do not think it is right for the teachers to intervene during the presentation. They have to wait until the end of the time given to us. They are already scoring and taking notes on the papers before them. When we intervene in the process, we get demoralized. This causes performance degradation. In addition, feedback can be written because we are offended when negative feedback is given."*

Not Using Time Effectively

There is a statement in the study coded M13-p.31: *"I lowered my anxiety level by thinking about the feedback our teacher gave in my previous experiences. My teacher told me I was good at motivating students but had trouble using time efficiently."* In the same study, on p.33, the following statement is stated: *"I could not use my time efficiently."*

Lack of Qualification of the Pre-Service Teachers

The following statement found in the M13-p.33 study was taken as a reference for this code: *"I was insufficient to attribute student comments to the class."*

Suggestions of Pre-Service Teachers on Micro-Teaching Techniques in Studies

The findings related to the fourth sub-problem of the research are presented in Table 4.

Table 4.

Suggestions of Pre-Service Teachers on Micro-Teaching Techniques in Studies

Theme 4: Suggestions of Pre-Service Teachers on Micro-Teaching Techniques in the Studies	
Codes	Cited Studies
Practicing in different courses	M3-p.396, M6-p.53
Practicing in real classroom environments	M3-p.396, M7-p.309, M3-p.395
Inclusion of microteaching as a course in the curriculum	M3-p.396
Reducing class size	M4-p.367, M10-p.113
Getting expert opinions	M5-p.69, M6-p.51
Determining the practice time of the technique	M10-p.115

The statements of the pre-service teachers regarding the data categorized under this theme are explained below.

Practicing in Different Courses

In the studies coded M3-p.396 and coded M6-p.53, statements are as follows: *"Micro-teaching practice should also be done in teaching courses such as teaching Turkish, teaching Mathematics, teaching Science, and teaching Social Studies."* and *"I think that*

microteaching technique should be practiced in the classroom. Such micro-teaching practices are required in many courses. Because it becomes a practice for us. When we enter the classroom environment, we do not think about how to teach."

Practicing in Real Classroom Environments

The following statements found in M3-p.396 coded and M7-p.309 coded studies are referenced for this code: *"Micro-teaching should also be practiced in a real classroom environment."* and *"We also gave lectures in special teaching methods lessons. But that is one thing, teaching real students is another. You understand better what you do in the real environment."*. In addition, there is a statement in the M3-p.395 coded study: *"Every pre-service teacher must do micro-teaching before starting to practice in the real school environment."*

Inclusion of Microteaching as a Course in the Curriculum

In the study coded M3-p.396, the following statement is stated: *"Micro-teaching should be taught as a separate course."*

Reducing Class Size

The following statement in the study was coded M4-p.367: *"We can spend less time. If this technique is practiced with fewer teacher candidates, we will not get bored."*. In the study coded M10-p.113, a pre-service teacher said: *"It should be applied in a way that does not take much time of the teacher candidates. For this, the applications made by a small number of pre-service teachers can be followed."*

Getting Expert Opinions

In the study coded M5-p.69, a pre-service teacher said: *"If we are to compare the criticisms made by the students with the opinions of an expert, there is a great difference. Because the student is not an expert in that subject. However, it is different for the expert to criticize, explain and say it."*. In the study coded M6-p.51, the following statement is stated: *"I did not know what to do at first during the preparation phase. So I thought about how to teach letters. For example, my subject was the letter "m". I didn't know how to say it, what activity to do. I thought I couldn't do it and was afraid. After all, we were already the second group. We watched and listened to the first group. We also listened to your suggestions. After that, I was not forced."*

Determining the Practice Time of the Technique

In the study coded M10-p.115, the following statement is stated: *"In my opinion, the traditional lesson should be taught first; then extended microteaching should be practiced. A pre-service teacher should practice with extended micro-teaching in only one kindergarten for the first and second applications during a semester. All teacher*

candidates should follow the practice, and all should benefit from these practices. All pre-service teachers should hear evaluations and suggestions.”.

Results and Discussion

The following codes were observed in the findings related to “the cognitive effects of the microteaching technique on teacher candidates in studies,” which was the first theme created as a result of the meta-thematic analysis: “obtaining new information, problem-solving skills, learning area, visualization, learning by doing, giving feedback, the emergence of different ideas, associating the course with other courses, associating the course with daily life, ensuring active participation in the class, encouraging creativity.” It can be said that the micro-teaching technique contributes to pre-service teachers’ acquisition of new knowledge, improves their problem-solving skills, and makes them aware of the learning area. In addition, it has been revealed that the practice of microteaching techniques contributes to the cognitive dimension, such as enabling pre-service teachers to visualize, learn by doing, be effective in giving feedback, provide different ideas, and make connections with other courses they study thanks to this technique. On the other hand, pre-service teachers who applied the micro-teaching technique stated that they could make connections with other lessons, actively participated in the lesson and showed improvement in creativity. In the findings of Çakır’s (2010, p. 71) study, pre-service teachers stated that the experiences they gained gave them confidence, developed their creativity, supported their sense of cooperation, provided peer teaching, and made them realize the value and importance of the profession. These results are in line with the findings of the present study. In addition, in the studies of Çeliksoy (1994) and Kùlahçı (1994), the fact that the micro-teaching technique, unlike the traditional teaching method, increases the academic success of the students, supports the findings of this study. In another study by Semerci (2011, p. 23), pre-service teachers stated that microteaching contributed to increasing class participation and correcting deficiencies and mistakes, which is similar to the findings of this study.

It is seen that the following codes emerged in the findings related to the second theme created in the meta-thematic analysis, “the effects of the microteaching technique on the professional development of teacher candidates in studies”: “Presentation skills, changing the perspective on teaching, providing the opportunity to practice, preparation for the lesson, planning, developing classroom management skills, gaining experience, using instructional materials in class, contributing to teaching professional development, active participation in the lesson, making an evaluation, in-class activities, enabling the use of reinforcers, the concretization of course topics.” It has been revealed that the practice of micro-teaching techniques improves the presentation skills of pre-service

teachers, contributes to changing their perspective on teaching, enables them to practice teaching, helps them prepare for the lesson, and contributes to their planning.

In addition, it has been seen that the micro-teaching technique increases the classroom management skills of pre-service teachers, allows them to gain experience, improves their skills in using materials, contributes to their professional development in teaching, increases their participation in the course, and helps them to evaluate practices. Furthermore, it has been seen that the micro-teaching technique provides the opportunity to do in-class activities, enables the use of reinforcement, and contributes to the concretization of the lesson. Gurses et al. (2005), Fisher & Burrell (2011), Erdem et al. (2012), Sevim (2013), Gerçek & Özcan (2013), and Karadağ & Akkaya (2013) found the following findings: the Micro-teaching technique helps in making lesson plans, unit plans and daily plans and contributes to the development of pre-service teachers' teaching skills. These findings are in line with the findings of the current study. In the study of Karadağ & Akkaya (2013: 39), pre-service teachers think that microteaching practice has essential contributions to gaining self-confidence, gaining knowledge about different methods and techniques, and acquiring teaching profession knowledge and skills, which is in line with the findings of this research. In the study conducted by Atav, Kunduz & Seçken (2014, p. 1), it can be said that the fact that microteaching allows pre-service teachers to develop a positive attitude towards the profession by correcting their faults and deficiencies in terms of teaching skills supports the findings of this research. In the study of Kartal, Yamak & Kavak (2017: 882), they stated that the microteaching technique contributed positively to the professional development of pre-service teachers, which is similar to the findings of this study. In Güler's (2020: 482) research, pre-service teachers stated that they developed their teaching skills and competencies related to the teaching profession through microteaching practices. It can be said that these are similar to the present study's findings.

The following codes were created from the findings related to the third theme, "the problems faced by pre-service teachers on microteaching technique in the studies": "Insufficient practice time of the technique, the negative impact of camera and teaching video, causing fear towards the profession, causing stress, repeating the same topics, practicing of the technique with other friends in her/his class, lack of pedagogical content knowledge, lack of methodological and technical knowledge, lack of material preparation, lack of qualification of the instructor, lack of qualification of the practice teacher, practicing the technique to getting a passing grade, lack of empathy, lack of planning, interfering with the presentation, not using time effectively, lack of qualification of the pre-service teachers." It has been observed that the following problems occur while the pre-service teachers are practicing the micro-teaching technique: the problems caused by the insufficient practice time of the technique, the adverse effects of the camera and video, and the fear of the pre-service teachers towards the teaching profession. In addition, pre-service teachers stated that micro-teaching

techniques caused stress while being practiced. They stated that repeating the same topics creates problems, practicing the technique with the students in their class causes problems, and lacking content knowledge creates some problems.

As seen in the research findings, pre-service teachers stated that they lacked knowledge on how to practice teaching methods and techniques, their skills in preparing materials for the lesson were insufficient, the micro-teaching technique of the instructors was insufficient in practice, and the practice teachers were also inadequate. In addition, pre-service teachers said that microteaching techniques caused the following problems: practicing microteaching techniques only to get passing grades, a lack of empathy causing problems, a lack of planning skills, constant interference by classmates in their presentations while practicing, not using the time effectively and the personal inadequacy of the pre-service teacher. In Ekşi's (2012, p. 267) research, the following finding was reached: Interfering with the presentations of teacher candidates by being constantly criticized by others causes problems. It can be stated that the findings of this study are similar to the findings of the current study. In the study of Güven, Kahveci, Öztürk & Akın (2016, p. 19), the problems experienced in preparing a lesson plan and using time effectively while practicing the micro-teaching technique are similar to the findings of this research. It can be said that the problems arising from the unnaturalness of the classroom environment of the micro-teaching technique and the evaluation of teacher candidates by their classmates, which are among the findings of Özçelik's (2017, p. 99) study, are similar to the findings of this research. The research of Akbaba Dağ & Doğan Temur (2018, p. 130) stated that the inadequacy of time to practice the microteaching technique may cause problems. These statements are in line with the results of the current research. In addition, in the study of Kim & Tan (2011, p. 465), pre-service teachers stated that they experience problems because they practice microteaching techniques in the laboratory environment, which is different from the natural classroom environment, supporting the findings of this research. In the study conducted by Gillies & Boyle (2010, p. 933), the fact that pre-service teachers stated that they encountered problems due to the insufficient time given to them while practicing the micro-teaching technique is similar to the findings of this study. In the research of Karataş & Cengiz (2016, p. 579), it can be said that the pre-service teachers' statement that recording with a camera and video while performing micro-teaching practice causes problems is similar to the findings of this research.

The following codes were created for the fourth theme, "Suggestions of Pre-Service Teachers on Micro-Teaching Technique in the Studies," which was created as a result of the meta-thematic analysis study: "Practicing in different courses, practicing in real classroom environments, the inclusion of microteaching as a course in the curriculum, reducing class size, getting expert opinions, determining the practice time of the technique." The pre-service teachers who practiced the micro-teaching technique stated that it should be practiced in different lessons and that it would be more beneficial to apply it in an actual classroom setting. They also stated that micro-teaching should be

taught as a course, that the number of classrooms should be reduced while practicing, that expert opinion would be adequate, and that the time to practice the micro-teaching technique should be determined before the practice. In the study conducted by Peker (2009, p. 369), the pre-service teachers who practice the micro-teaching technique stated that it would be appropriate to reduce the class size, which is in line with the findings of this study. In addition, in the research conducted by Gillies & Boyle (2010, p. 933), it can be said that the pre-service teachers' stated that it would be beneficial to apply the micro-teaching technique in various courses and at what time the micro-teaching technique should be given to support the findings of this research. Pre-service teachers who participated in Coşkun's (2016, p. 810) research stated that applying the microteaching technique in natural classroom environments rather than artificial environments is more effective. These research findings support the findings of the current study. The fact that Elias stated in his study (2018, p. 205) that the micro-teaching technique should be a course supports the findings of this research.

Recommendations

In line with the results obtained in the research, the following suggestions can be made: In addition to the practice of micro-teaching techniques in institutions that train teacher candidates, each pre-service teacher should be allowed to practice in a natural classroom environment in kindergarten, primary school, secondary school, and high school by cooperating with the schools affiliated to the Ministry of Education; providing appropriately equipped classrooms for micro-teaching technique in institutions that train teacher candidates; while the micro-teaching technique is being practiced, the classes are divided into groups and the first practice is done with groups with a small class size, and the subsequent practices are done with the whole class; conducting studies on whether micro-teaching technique is an optional or compulsory course in education faculties.

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Genişletilmiş Türkçe Özet

Öğretmen yetiştirme sistemindeki bütün unsurların devamlı olarak değerlendirilmesi, günümüzde ve gelecekte istenen özelliklerde öğretmen yetiştirmek amacıyla sıklıkla çalışmalar yapılması beklenmektedir. Öğretmenlerin mesleğe başlamadan önce aldıkları eğitimler esnasında istenen niteliklere sahip olması ve almış oldukları eğitim doğrultusunda ait oldukları alanda görevlerini gerçekleştirmesinin önemli olduğu söylenebilir.

Öğretmen yetiştirme sistemi, eğitim ortamlarında gerçekleştirilen öğretim faaliyetlerinin niteliği açısından önemlidir (Ataç, 2003: 1). Gelişmeye devam eden ülkelerde öğretmen yetiştirme sisteminin kalitesinin nasıl artırılacağı önemli sorunlardan biri olarak görülmektedir (Azar, 2011: 36). Bu bağlamda eğitim sisteminin gelişmesinin öğretmen yetiştirmeyle doğrudan ilgisi olduğu için öğretmen adaylarına farklı teknik bilgileri kazandırılmaktadır. Bu tekniklerden en önemli olanlarından bir tanesinin de mikro öğretim tekniği olduğu ifade edilebilir.

Öğretimde deneyim kazandırmak ve öğretmen yetiştirme ile öğretmen eğitimi amacıyla yapılan küçük bir ders uygulaması olan mikro öğretim, öğretmen yetiştirmenin kalitesini artırabilmek amacıyla deneysel bir programın ögesi şeklinde oluşturulmuştur (Marulcu ve Dedetürk, 2014: 353). Mikro öğretim tekniği uygulanırken öğretmen adaylarına etkili bir tecrübe kazanma olanağı sunulmaktadır. Öğretmen adaylarının davranışlarında beklenen değişimi ve mesleki gelişimi gerçekleştirmesine imkân oluşturacak bir şekilde uygulama yapma fırsatı sağlanması esas hedef olarak açıklanabilir. Öğretim tekniklerinin öğretmenin seçmiş olduğu yöntemleri uygulama biçimi olduğu bilinmektedir.

Bu araştırmada nitel araştırma analiz türlerinden meta-tematik analiz kullanılmıştır. Araştırmaya dâhil edilen çalışmalarda öğretmen adaylarına yönelik yapılmış mikro öğretim tekniğine ilişkin çalışmalar meta-tematik analiz kapsamında incelenmektedir. Meta-tematik analiz ile mikro öğretim tekniğiyle ilgili yapılmış araştırmalar hakkında genel sonuçlara ulaşmak hedeflenmektedir. Meta-tematik analizde doküman analizi ile ulaşılan verilerden yeni tema ve kodlar oluşturulmaktadır. Ulaşılan tema ve kodlar sonucunda yapılan bu araştırmada öğretmen adaylarına yönelik yapılmış mikro öğretim tekniğine ilişkin çalışmalar hakkında daha genel ve kapsamlı sonuçlar elde edilmeye çalışılmıştır. Ayrıca meta-tematik analizde araştırma yapılan konu hakkında daha önce yapılmış katılımcı görüşlerini içeren nitel kapsamlı çalışmaların araştırmayı yapan bireyin yorumlamasıyla birlikte yeni kod ve temalara ulaşılması beklenmektedir (Batdı, 2019: 17).

Bu araştırmada nitel araştırma türlerinden meta-tematik analiz kullanılmıştır. Meta-tematik analiz herhangi bir konuyla ilgili birden fazla nitel boyutlu araştırma verilerinin bir araya getirilmesini sağlayan, tema ve kodlar oluşturarak kapsamlı ve nitelikli

bulguların elde edilmesi sürecini içermektedir (Batdı, 2019: 11). Araştırmalarda ifade edilen tema ve kodların ortak bir noktada işlenerek tekrardan tema ve kodlar biçiminde söz edilmesi ve anlamlı kılınması amaçlanmaktadır (Batdı, 2017: 767). İlgili konu kapsamında nitel çalışmalarda analizler sonucunda ulaşılmış farklı tema ve kodların araştırmacının katılımcı bakış açısıyla yeniden değerlendirilmesi sonucunda yeniden yorumlanması söz konusudur. Meta-tematik analizde katılımcı görüşlerini bulunduran hiçbir işleme uğramamış olan ham verilerin yanı sıra ulaşılan tema ve kodların yeniden incelenmesi ve anlaşılabilir kılınması gerekmektedir (Batdı, 2019: 11).

Meta-tematik analiz çalışması sonucu oluşturulan ilk tema olan “Mikro Öğretim Tekniğine İlişkin Yapılan Çalışmaların Öğretmen Adaylarının Bilişsel Boyutuna Etkisi” teması ile ilgili bulgularda “yeni bilgiler edinme, problem çözme becerisi, öğrenme alanı, görselleştirme, yaparak-yaşayarak öğrenme, geri bildirim verme, farklı fikirlerin ortaya çıkması, diğer derslerle ilişkilendirme, günlük yaşamla ilişkilendirme, derse aktif katılım sağlama, yaratıcılık” şeklinde kodların olduğu görülmüştür. Mikro öğretim tekniğinin uygulanmasının öğretmen adaylarının yeni bilgiler edinmesine katkı sağladığı, problem çözme becerilerini geliştirdiği, öğrenme alanının farkına varmalarını sağladığı söylenebilir.

Meta-tematik analiz çalışması sonucu oluşturulan ikinci tema olan “Mikro Öğretim Tekniğine İlişkin Yapılan Çalışmaların Öğretmen Adaylarının Mesleki Gelişimine Etkisi” teması ile ilgili bulgularda: “sunum yapma becerisi, öğretmenliğe bakış açısını değiştirme, uygulama yapma imkânı sağlama, derse hazırlık yapılması, planlama, sınıf yönetimi becerisini arttırması, deneyim kazanma, materyal kullanma, öğretmenlik mesleki gelişimine katkı sunması, derse katılım sağlama, değerlendirme yapılması, ders içi etkinlikler, pekiştirme kullanmayı sağlama ve dersin somutlaştırılması” şeklinde kodların olduğu görülmüştür. Mikro öğretim tekniğinin uygulanmasının öğretmen adaylarının sunum yapma becerisini geliştirdiği, öğretmenliğe bakış açısını değiştirmeye katkısı olduğu, öğretmenlik uygulaması yapmaya imkân sağladığı, derse hazırlık yapılmasının nasıl olacağına yardımcı olması ve planlama yapabilmesine katkı sağladığı görülmüştür.

Meta-tematik analiz çalışması sonucu oluşturulan üçüncü tema olan “Mikro Öğretim Tekniğine İlişkin Yapılan Çalışmalarda Öğretmen Adaylarının Karşılaştığı Sorunlar” teması ile ilgili bulgularda “teknik uygulanma süresinin yetersizliği, kamera ve videonun olumsuz etkisi, mesleğe yönelik korku oluşturmaları, strese neden olması, sürekli aynı konuların tekrar edilmesi, kendi sınıfındaki öğrencilere uygulanması, alan bilgisi eksikliği, yöntem-teknik bilgisi eksikliği, materyal hazırlama eksikliği, öğretim elemanının yetersizliği, uygulama öğretmenin yetersizliği, ders geçme notu almak için yapılması, empati eksikliği, plan yapma eksikliği, sunuma müdahale edilmesi, süreyi etkili kullanamama ve öğretmen adayının yetersizliği” şeklinde kodların olduğu görülmüştür. Öğretmen adayları tarafından mikro öğretim tekniği uygulanırken teknik uygulanma süresinin yetersizliğinden kaynaklanan sorunlar, kamera ve videonun

olumsuz etkisinin olması, bazı öğretmen adaylarının görüşlerinde mikro öğretim tekniğinin mesleğe yönelik korku oluşturması gibi sorunlarla karşılaştığı görülmüştür.

Meta-tematik analiz çalışması sonucu oluşturulan dördüncü tema olan “Mikro Öğretim Tekniğine İlişkin Yapılan Çalışmalarda Öğretmen Adaylarının Önerileri” teması ile ilgili bulgularda “farklı derslerde uygulanması, gerçek sınıf ortamında uygulanması, mikro öğretimin ders olması, sınıf mevcudunun azaltılması, uzman görüşünün alınması ve tekniğin uygulanma zamanının belirlenmesi” şeklinde kodların olduğu görülmüştür.

Ethical Permission: This study was evaluated by Dicle University Social and Human Sciences Ethics Committee and it was found that the study in question was appropriate in terms of scientific ethics. (Date: 07.10.2021, No: 158).

Peer-review: This study was peer-reviewed.

Contribution of Authors: The authors contributed to this article at different rates. The contribution rate of the first author is 80%, and the contribution rate of the second author is 20%.

Conflict of Interest: There is no conflict of interest between the authors.

Financial Disclosure: This article is derived from the doctoral thesis completed by the first author in 2023 at Dicle University Institute of Educational Sciences and financial supported by the Dicle University Scientific Research Projects Coordinatorship with the project numbered EBE.22.001.

Acknowledgement: We would like to thank Dicle University Scientific Research Projects Coordinatorship for their financial and moral contributions to the realization of this study.

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Appendix 1. Referances Included in Meta-Thematic Analysis

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