



## A Study on the Situations Determining the Classroom Decisions of Preservice Teachers and the Criteria for Evaluating Their Decision

Emel Bayrak Özmutlu<sup>1</sup> 

<sup>1</sup>Ordu University, Education Faculty, Department of Primary Education, Ordu, Turkey,  
[emelbayrakozmutlu@gmail.com](mailto:emelbayrakozmutlu@gmail.com)

### Article Info

### ABSTRACT

#### Article History

Received: 11/01/2023

Accepted: 29/04/2023

Published: 30/06/2023

#### Keywords:

Decision-making,  
Preservice teacher,  
Teacher education  
curricula,  
Teaching practice.

This study aims to investigate the situations that determine the classroom decisions of preservice teachers and the criteria they use to evaluate their decisions during the teaching practice process. The study utilized a basic qualitative research model and employed the typical case sampling method to select the study group, consisting of ten pre-service teachers in their final year of primary education program. Data collection involved the use of reflective evaluation forms and unstructured interview forms. The pre-service teachers completed reflective evaluation forms after each implementation process for a ten-week period, and unstructured interviews based on the reflective evaluation forms were conducted with the participants in pairs every week. The analysis revealed that the situations of the candidates' classroom decisions can be analyzed under five themes: self-efficacy, students, environment, classroom management, and teaching. Furthermore, the criteria used by the candidates to evaluate their decisions can be analyzed under five themes: content knowledge, classroom management skills, student recognition, teaching-learning process, and monitoring and evaluation of learning. The findings suggest that teacher education programs should provide support to candidates to make effective decisions under the situations that are decisive on classroom decisions. Additionally, it is important to emphasize that candidates evaluate the decisions they make in the classroom on the basis of criteria that cover all components of the teaching-learning process.

**Citation:** Bayrak-Ozmutlu E. (2023). A Study on the situations determining the classroom decisions of preservice teachers and the criteria for evaluating their decision. *Journal of Teacher Education and Lifelong Learning*, 5(1), 130-151.



"This article is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/) (CC BY-NC 4.0)"

## INTRODUCTION

The professional requirements of the teaching profession are considerably complex in nature. The principal reason for this is that the environment in which the teaching-learning process takes place is unstructured and dynamic (Leinhardt & Greeno, 1986). In the unpredictable situations that occur in this dynamic environment, teachers make hundreds of nontrivial decisions every day (Helleve et. al., 2021). Trevisan et. al. (2021) defined teaching as a complex endeavour that sometimes required making countless instantaneous decisions. It is important to state that the teacher's decision-making process takes place in the context of social environments grounded in continuous and complex human interactions (Blackley et. al., 2021). Decision making is a central aspect of teacher cognition (Borko & Shavelson, 1990). In this respect, understanding the nature of teachers' decision-making processes is a means of understanding their practices (Watson, 2019). Furthermore, decision making is a basic teaching skill since it is an integral part of a teacher's professional life (Shavelson, 1973). For this reason, decision making indicates one of the main goals of teacher education.

The classroom constantly thrusts the teacher into new decision-making situations. The decision-making situations that await the teacher in the classroom are related to the multifaceted issues required for effective teaching. Clough et. al. (2009) argued that teacher decisions had the greatest impact in the classroom as they were the ways in which students were cognitively and emotionally engaged in a lesson. The power that teachers' decisions have on the teaching-learning process has led many researchers to make studies on what supports teachers' effective decision-making (Lloyd, 2019; Loughran, 2019). One of the recent studies on this topic conducted by Blackley et. al. (2021) has provided evidence to support that teachers can change their decision-making habits through a reflective framework based on their classroom observations. The study has demonstrated that improving teachers' decision-making habits can be accomplished by increasing teachers' awareness by presenting them with the decisions they make and the circumstances that cause them to make those decisions.

On the one hand, research has revealed that it is critical for teachers to have a high awareness of what decisions the classroom expects them to make (Blackley et. al., 2021). On the other hand, Fullan (1996) made a thought-provoking explanation about teachers' awareness of decision-making, stating that teachers, unlike other professions, cannot simply articulate what they do professionally. This situation, which sounds quite trivial, actually raises a serious question mark about the adequacy of teacher education in developing awareness of the cognitive processes required for teaching. Besides, it is another important requirement for teachers to have self-awareness about the decisions they make. However, researchers state that teachers make decisions to a large extent unintentionally for various reasons, especially because of the complexity of the teaching process. In this regard, Olson et al. (2004) stated that teachers often tended to ignore and underestimate the behaviors that were the result of their decisions and the extent to which they affected their educational experience, although that was an important indicator of the quality of their professional life.

The influences determining teachers' decision-making of a preferred nature is another area of research within this scope. Research examining the decision-making processes of novice and expert teachers helps us to see the influences that determine teachers' decision-making. For instance, Calderhead (1983) argued that knowledge-rich schemas that allowed experienced teachers to represent the complexities of the classroom in meaningful ways were a decisive element for informed decisions made by experienced teachers. In a similar vein, Peterson and Comeaux (1987) reported that expert and novice teachers' schemas for classroom situations differed in terms of cognitive complexity. Borko and Livingston (1989) examined the planning and teaching processes of pre-service teachers and their mentor teachers. Based on their analysis, it was revealed that novice teachers had less detailed, less interconnected, and less accessible cognitive schemas. Another influence that determines teachers' decisions is claimed to be the emotions. There are studies showing the effects of positive and negative events and their related emotions on teachers' decisions about their daily activities and roles (Young,

2020). Previous studies indicate that teachers conceptualize the classroom as an emotional space and make decisions based on students' actual or predicted emotional reactions (Sheppard & Levy, 2019). The fact that teachers are informed decision-makers will make it possible for them to maximize the learning opportunities in the classroom. In this respect, finding consensual ways for teachers to become professional decision-makers should be one of the pivots of teacher education research.

From the perspective of cognitive psychology, it can be seen that a number of classifications have been made regarding decision-making processes. Decision-making is characterised as unconscious and intuitive processes (Type 1) or rational, conscious, deliberative processes (Type 2) (Evans & Stanovich, 2013). Recent studies on decision-making processes go beyond the Type 1 and Type 2 dichotomy and propose an algorithmic system for decision-making (Stanovich et. al., 2011). The algorithmic process is affected by social and cultural knowledge as well as learning and practical knowledge. Watson et al. (2018) stated that most of the decisions made in the classroom were based on the algorithmic processes. This finding clearly shows that teachers' personal experiences alone will not be sufficient for them to be aware of the complex situations that await them in the classroom or to be able to experience appropriate decision-making processes. In teacher education, theoretical knowledge plays a role in enabling preservice teachers to achieve such a competence. Theoretical content is expected to guide the teacher in analysing and solving the problems that he/she encounters in his/her professional life. However, there is a problematic relationship between theory and practice in performing this function (Korthagen, 2011). In this context, studies analyzing the causes of this problematic situation and discussing ways to overcome it are worth examining (Bayrak-Ozmutlu, 2022; Grossman et. al., 2009; Korthagen, 2011). The question of how theoretical content should be structured has a central place in a teacher education programme that will enable preservice teachers to become professional decision-makers.

#### **Related Research Based on Decision Making in Teacher Education**

The studies concentrate on various facets of teachers' decision-making processes. Some of these studies provide cognitive psychological frameworks for analyzing teachers' decision-making processes (Borko & Shavelson, 1990; Clough et. al., 2009). Some others, on the other hand, compare the decision-making processes of expert and novice teachers. In his study comparing expert and novice teachers, Westerman (1991) stated that expert teachers were able to approach learning from students' perspective, perform cognitive analysis of each learning task during planning, and adapt their knowledge to the needs of students during instruction. In stark contrast to this, it is argued that novice teachers are unable to accommodate themselves according to the needs of students during instruction. In addition to this, Peterson and Comeaux (1987) examined the differences between novice and experienced high school teachers in recalling and analyzing problematic events during interactive instruction. They stated that contrary to novice teachers, experienced teachers both recalled classroom events more and relied more on procedural knowledge and principles when analyzing classroom events. The researchers attributed the observed differences to the fact that experienced teachers had more developed schemas about classroom teaching than novice teachers. Borko and Livingston (1989) stated that the cognitive schemas of novice teachers were less detailed, less interconnected, and less accessible than those of the experts. He also claimed that novice teachers had less developed pedagogical reasoning skills. Calderhead (1983) discovered that teachers had qualitatively different types of knowledge about students. He found that inexperienced teachers had very little of such knowledge types and that the type of knowledge they acquired most quickly was general knowledge about specific children. Fogarty et. al. (1983) compared the differences between experienced and novice teachers on the basis of the criteria they used in classroom decisions-making. They found that experienced teachers exhibited more complex relationships based on their observations of students in the classroom. It was also found that experienced teachers practiced twice as many action types based on student observations and had a greater variety of targets compared to novices.

In the relevant literature, there are also studies focusing on the interactions between curricula (Siuty et. al., 2018), content categories (Klimczak et. al., 1995), and teachers' decision-making processes. Researchers found that the curriculum they developed within the scope of the research facilitated teachers' decision-making about individualizing teaching and increased their self-efficacy. Klimczak et. al. (1995) examined how content structure affected novice and experienced teachers' instructional strategy decisions. The results showed that both novice and experienced teachers modified their teaching strategies according to the content structure. It is also possible to include research that examines the personal reasons, beliefs, and dilemmas underlying teachers' decisions. Aikenhead (1984) examined the decisions-making process of science teachers while planning teaching. They stated that these decisions represented the final outcome of a conflict between a teacher's intention and their ideas about students. Similarly, research examining the thinking processes employed by teachers in making instructional decisions can be listed here. To exemplify, Perfecto (2012) scrutinized the thinking process of two teachers in making instructional decisions. The study highlighted the influences that constrained teachers' decisions and how they coped with these constraints. The findings revealed that teachers' decision-making process was iterative and cognitively demanding, as teachers needed to reconcile the stated requirements of the curriculum with the realities of the classroom. The study argued that teachers needed to accept the tentativeness of their plans in order to decide on alternative activities required by immediate situations in the classroom.

Rich and Hannafin (2008), on the other hand, explored the different decision-making and reasoning patterns of preservice teachers in depth. The study highlighted that when the preservice teachers focused on management or participation, their reasoning became more and more teacher-centered, whereas when they focused on instructional strategies, their reasoning became more and more student-centered. Moreover, the preservice teachers' pedagogical reasoning revealed their implicit beliefs and justifications for using certain teaching strategies. Recent research has examined teachers' decision-making processes in technology-rich contexts and on the basis of a wide network of factors. Trevisan et. al. (2021) have introduced two systematic approaches to the study of teachers' decision-making processes. The first is quantitative ethnography which recognizes specific disciplinary knowledge as the basis for teachers' frames of action. The second is epistemic network analysis, which is a method for analyzing epistemic frames by creating a network mode that measures how codes are connected in discourse (Oshima & Shaffer, 2021). Although qualitative research method is predominantly applied in decision-making processes, there are also studies in which quantitative research is adopted. For example, Griffith and Groulx (2014) aimed to understand teachers' beliefs and practices related to instructional decision-making with the Teacher Decision Making Profile Questionnaire. The results showed that most teachers, regardless of grade level or content area being taught, embraced student-centered beliefs.

### **Research Context**

The aim of teacher education is to equip teachers with the necessary skills to fulfill the requirements of professional life. Considering the conditions of professional teaching life, it is possible to say that being equipped for professional life is synonymous with being a professional decision-maker. The two most basic conditions enabling a teacher to become a professional decision-maker are the ability to know the requirements of the teaching process in the classroom and to execute the knowledge and skills required for this in the classroom environment. In order to foster these two basic skills, teacher education should give preservice teachers the opportunity to analyse real classroom environments and work on fulfilling the requirements that point to them. What has been expressed in the literature makes us think about the content of teacher education programmes and how teaching methods should be taught (Korthagen, 2011; Zeichner, 2010). Relevant research clearly points out that in this field state that the academic studies that make up the content of university-based teacher education programmes are insufficient in terms of preparing prospective teachers for complex situations

in the classroom. It is emphasised that academic studies should be synthesised as a meaningful whole in order for theoretical knowledge to play a functional role in preservice teachers' professional lives. In the light of what has been stated so far, it would not be wrong to suggest that focusing on candidates' decision-making processes rather than on isolated knowledge can be considered as a reasonable method in teacher education.

Theoretical knowledge does not always inform the teacher about what to do in every situation. It is the teacher who will make the most appropriate decisions by interpreting the conditions of the classroom. This reveals that teacher education should aim to improve the decision-making processes of the preservice teachers. Indeed, studies comparing novice teachers with experienced teachers in terms of decision-making processes show that novice teachers are unaware of many elements and tend to have less complex thinking (Westerman, 1991). These elements are thinking from the student's perspective, performing cognitive analysis of learning tasks, and adapting what they know to the student's needs. The extent to which scientific findings, which are regarded as separate constructs in current teacher education, guide the teacher candidate in fulfilling the complex requirements of the classroom is questionable. In fact, Westerman (1991) stated that what explains expertise in teaching was the interaction of knowledge rather than knowledge itself. In order for preservice teachers to establish interactions between knowledge, it is necessary to allow them to work in realistic contexts. This can be accomplished in a real classroom setting or through case-based activities. In every case, preservice teachers should be given the opportunity to analyse the decision-making situations that await them in the classroom and to utilise scientific knowledge in their decisions. At this point, decision-based teacher education emerges as an effective means to integrate theory and practice. Despite its importance, there is a limited number of specialised studies on preservice teachers' decision-making processes in teacher education.

This research can be regarded as a study that approaches teacher education on the basis of decision-making. The present study presents an examination of the situations that drive preservice teachers to make new decisions during the teaching practice and the criteria they use in evaluating the decisions they make. Undoubtedly, there is a long way to go in terms of integrating teacher education into a decision-based model. However, this study provides comprehensive information required for decision-based practices in teacher education programmes. The responses to the research questions of the present study provide guidance on decision-based practices in teacher education programs. It would be useful to examine this guidance information on the basis of the research questions. The first question of the present research aimed to reveal the influences that determined the decisions of preservice teachers during teaching practice. Such an approach clearly describes how the teaching process appears from the perspective of the preservice teacher. This description also reveals how complex is the decision-making process required for teaching. Furthermore, this view gives the opportunity to make significant inferences about how a teacher education programme should be planned that can fulfil the requirements of the classroom. Situations that drive preservice teachers to make decisions indicate challenging situations for candidates. These indicated points are open workspaces for teacher education. From this point on, the next step may be to develop prospective teachers' ability to make decisions based on realistic contexts and to justify their decisions on scientific grounds. The other research question was related to preservice teachers' criteria for evaluating their decisions. Prospective teachers' criteria for evaluating their decisions shed light on the complex thinking processes they acquired in relation to the teaching and learning process. The examination highlighted not only the areas that teacher candidates considered as evaluation criteria, but also those that they did not consider as evaluation criteria. The research findings also made it possible to examine whether preservice teachers' criteria for evaluating their decisions were focused on teaching or learning. Considering that teachers' transition from a teaching-oriented approach to a learning-oriented approach was regarded as an indicator of their development, the research findings revealed the current status of preservice teachers in this context. Specifically, answers to the following questions were sought in the study:

- What are the situations that determine the preservice teachers' decisions during teaching practice?
- What criteria do preservice teachers use in evaluating the decisions they make?

## **METHOD**

This section depicts the research design, participants, research instruments and processes, ethical issues, data collection process, data analysis, and validity and reliability of the present study.

### **Research Design**

The study was carried out with a basic qualitative research design in the qualitative research paradigm. The purpose of this design is to examine how people make sense of and interpret their lives and experiences (Merriam, 2009). In a basic qualitative research design, participants' experiences and the meanings they attribute to these experiences are the main focus (Worthington, 2013). In this study, the professional experiences of preservice teachers who had teaching experience in a real classroom context for the first time during the final year of their undergraduate education constituted the main data source. The study focused on how preservice teachers made sense of and interpreted their classroom experiences based on their decision-making processes. In this respect, it was decided that the research design was compatible with the research objectives.

### **Participants**

The participants of the study were determined by the typical case sampling method. Typical cases are situations that contain information at a level that can explain the event or phenomenon that is generally examined among a large number of similar ones in the universe (Patton, 2014). This study aimed to examine the influences that determined the preservice teachers' decisions during the teaching practice and the criteria for evaluating their decisions. For research purposes, it was assumed that the experiences of the preservice teachers who were entitled to take the teaching practice course by fulfilling similar requirements in the same undergraduate program of a university could provide a typical view of the situations that determined the decisions of pre-service teachers. Participants also carried out their practicum in schools with similar characteristics in the same provincial center. Within this respect, it was decided that the data that the research aimed to reach could be obtained from the preservice teachers studying in the 4th grade of the elementary education program of the department of elementary education and actively attending the teaching practice course. Moreover, the typical case is used to express situations that have the ability to represent the universe and do not differ from the universe in terms of their basic characteristics (Marshall & Rossman, 2014). It was believed that the participants were suitable for typical case sampling in terms of having fulfilled the same program obligations and fulfilling their practicum in schools with similar characteristics in a program with similar expectations. In this respect, 10 preservice teachers (3 male and 7 female) who possessed these characteristics and expressed their willingness to participate in the research voluntarily were included in the study. The participants of the study were also groupmates doing practicum in five different classes in groups of two.

### **Research Instruments**

A reflective evaluation form and an unstructured interview form were used in the data collection process. The data collection tools used in the study have been provided in the attachment. The data collection tool developed within the scope of the research was developed by the researcher herself. While the researcher was developing the data collection tool, a general evaluation was made in line with the purpose of the research and the possible results it aimed to achieve. Following this, other studies conducted in this context were examined in detail and the measurement tools used in similar studies were reviewed (Borko & Livingston, 1989; Borko & Shavelson, 1990; Calderhead, 1983; Clough et. al., 2009; Westerman, 1991). After the review, a pool of questions was created. Each question was

evaluated on the basis of its capacity to obtain the information needed for the research questions. After these reviews and critical evaluations, the data collection tool was finalized in its initial form. Then, a pilot application of the draft data collection tool was conducted with a preservice teacher. After the pilot study, two academicians were consulted on the compatibility of the answers given to the data collection tool with the research question, the duration of the interview, and the comprehensibility of the questions. One of the experts is from the field of curriculum development in education and the other is from the field of primary education. After the revisions made in accordance with the feedback from the experts, the data collection tool was finalized. The data collection tool utilized in the study is shown in the appendix.

### **Data Collection Process**

Within the scope of the study, the participants filled out a reflective evaluation form after the teaching practice every week for three months. Preservice teachers sent the completed forms to the researcher as a mail every week. 100 reflective evaluation forms were submitted to the researcher by ten participants for 10 weeks. During the research, weekly evaluation interviews were conducted with 5 groups, each consisting of 2 preservice teachers practicing in the same classroom. During the unstructured interviews with the participants, the reflective assessments submitted by the participants were discussed. In the interviews, it was aimed to reach more detailed explanations and sample situations regarding what was expressed in the form rather than obtaining new information. Ethical committee approval was granted by Ordu University Social Sciences and Humanities Research Ethics Committee for this study.

### **Data Analysis**

The analysis of the research data was carried out on the basis of two main aspects. On the first aspect, an analysis was conducted on the influences that determined the decisions taken by the participants. On the second aspect, an analysis was made on the criteria used by the participants to evaluate the decisions they made.

In the analysis of the influences determining the preservice teachers' decisions, open coding was performed in the first step. In this process, the situations that were decisive on the participants' decisions were coded with *in vivo* code. The influences that had a decisive influence on preservice teachers' decisions were: (i) situations that leave them undecided, (ii) situations that make them question their decisions, and (iii) situations that push them to make new decisions. In this process, 144 *in vivo* coding was performed. After the open coding process was completed, the codes were classified under themes on the basis of the related topics. In this classification process, the didactic triangle was used, which provides a model of the units surrounding the teacher's professional life (Kansanen & Meri, 1999). This enabled us to make more meaningful interpretations and inferences about the situations that pushed the preservice teachers to make new decisions. Following this classification, the *in vivo* codes were categorized into five themes i.e., self-efficacy, student, classroom management, environment, and teaching which represented the common topics they were related to. Subsequent to this procedure, the constant comparison analysis method was employed for each theme separately on the *in vivo* codes. This allowed us to uncover different perspectives on common issues and to classify *in vivo* codes on this basis. Based on this analysis, subcategories related to the influences that were decisive on the pre-service teachers' decisions emerged.

In the analysis of the criteria used by the preservice teachers to evaluate their decisions, in order to determine the criteria used by the preservice teachers in evaluating their decisions, they were asked to explain the situations in which they judged themselves as powerful and helpless after the decision they made. It was assumed that the criteria used by the participants in evaluating these two contrasting situations would be similar so that a kind of verification of the criteria could be made in the two contrasting situations. In the first stage analysis, the situations in which the participants felt powerful

were coded with in vivo code. After this coding process, 117 in vivo codes were generated. Then, the same process was used to code the situations in which the participants felt helpless after the decision they made. After this coding process, 85 in vivo codes were obtained. After the second stage analysis, each code was asked the question “Which criterion did the participants use to evaluate their decisions?” This analysis was carried out separately on the basis of the situations in which the participants felt themselves to be powerful and helpless. The analysis was carried out separately for both themes. Based on this analysis, the criteria used by the participants in evaluating the situation in which they felt powerful were classified under 14 categories, and the criteria used in evaluating the situation in which they felt helpless were classified under 12 categories. The categories obtained after the analysis were classified under five themes based on the related topics: content knowledge, classroom management skills, student recognition, teaching-learning process, and monitoring and evaluation of learning.

**Validity and Reliability**

In conducting this study, a number of validity and reliability requirements recommended for qualitative research studies were fulfilled. In qualitative research, the use of comprehensive data and the use of tables for recording data are expressed within the scope of reliability requirements (Thakur & Chetty, 2020). Within this framework, every document submitted by the preservice teachers in the study was recorded with a code name given to each participant. Besides, the important points in each interview process were recorded by the researcher. In addition, the analysis of the research data was performed using the MAXQDA program. In order to ensure the credibility of the research, the number and characteristics of the participants, how they were selected, the data collection tools and analysis techniques used in the research are expected to be explained in detail (Creswell & Miller, 2000). In the methodology section, all the requirements described above are explained. In order to reduce bias in research, it is recommended to interact with other researchers (Patton, 2014). In this study, the opinions of two field experts were sought. One of the experts is from the field of curriculum development in education and the other is from the field of primary education. In qualitative research studies, objectivity is defined as the requirement that the researcher takes his/her own role into account in the research. Therefore, it is stated that qualitative researchers should make a conscious effort to capture the thought processes and reflections associated with all aspects of the study in the study report (Coleman, 2022). This requirement was taken into account in all parts of the study. After the research analysis was completed, the entire data set and analysis findings were shared with a researcher, who was asked to evaluate the data analysis. After this examination, the consistency between the evaluator and the analysis findings was found to be .94 based on the Miles and Huberman formula (Miles & Huberman, 1994). A consensus study was then carried out on the findings.

**FINDINGS**

In the first research question, the influences determining the preservice teachers’ decisions during the teaching practice were examined. The findings of the examinations are shown in the Table. 1

**Table 1.** *Situations that are decisive on preservice teachers’ decisions during the teaching practice*

<b>Theme</b>	<b>Category/Sub-category</b>
Self-Efficacy	Situations when I felt inspected by the mentor teacher. Situations in which I experienced emotional triggering in the face of expectations that exceeded my competence in the classroom.
Student	Situations where they ignored me. Situations where I observed that they were indifferent. Situations where I observed that they were bored Situations where they did not want to do an activity. Situations where they were incompatible in group work. Situations where I observed mood swings. Situations in which they were overactive.
Environment	Crowded classrooms.



	Narrow class sizes. Unsuitable weather conditions.
Classroom management	Situations when I did not know how to control the class. Situations where I could not distinguish what was acceptable in the classroom. Situations where I did not know how to make them see me as an authority. Situations where I did not know how effective classroom management required me to behave.
Teaching	Situations created by certain requirements demanded by the teaching process. Time management (It exceeded the deadline, should I continue? / There will be no time left for evaluation, what should I do? / Will I be able to deliver what I planned on time? I forgot to deliver the activity at the planned time, what should I do?).  Giving the Floor (How do I give the floor to everyone? / How should I go about giving the floor?).  Inclusion (I forgot to include the Iraqi student in the activity, what will I do? / How will I deal with inclusive students?).  Reinforcement (Which reinforcer should I use? / All students want the reward I use for reinforcement. What should I do?).  Attention (They are distracted, should I continue? / There are so many distractions! How do I deal with them?).  Interest (How will I keep them interested? / Will they be interested in the activity?).  Level (Is the problem I prepared below the level? / They had difficulty with the questions, should I make it easier? / What do the students know about this subject? / I cannot estimate their level).  Method (Should I insist on my method after all? /... should I have used the... method?). Participation (Should I stop the flow for students who are not participating? / What should I do if the lesson is paused?).  Repetition (When should I stop the activity? / Should I repeat it more?).  Implementation of the Method (Should I apply to peer learning? / Should I divide it or make it read as a whole? / Should I continue their work alone or with support? / Should I move on to the next activity? / Should I give them the worksheet when they are tired? / Should I take them from their breaks? / Should I let them free in the last minutes? / Should I put them on the board or intervene on the spot? / Should I have them write it in their notebooks? / Should I do it or have them do it? / Should I play that game? / Should I watch a video?).  Unplanned Situations (Do I need to address extracurricular issues? / What should I do in the face of irrelevant questions? / What should I do in the face of unplanned activity requests?).  Misconceptions. (... there are misconceptions about .... Should I interrupt the lesson and correct the misconceptions? / Will including misconceptions distract me from my topic?).

Based on the analysis of the first research question, five themes were determined: self-efficacy, student, environment, classroom management, and teaching.

Self-efficacy is one of the themes related to the influences that had a determining effect on the decisions of the preservice teachers in the teaching practice. In this theme, it was observed that the feeling of being under the supervision of the mentor teacher in the classroom and the emotional tensions experienced due to this were decisive on the preservice teachers' decisions. In addition, the fact that they did not feel competent to fulfill the unexpected interventions and demands from the mentor teachers left the preservice teachers undecided and caused them to question their decisions.

I am aware that my mentor in the class finds me very inadequate. S/he is constantly questioning what I can and cannot do. Sometimes when I am lecturing, S/he shouts at the children and hushes them, supposedly to control the class. I think I am looking at these things too

emotionally. I see this lack in myself. I think I need to be more professional. I make more wrong decisions because I am worried that I will be successful in the class.

I have to change my mind all the time in class. The mentor teacher's interference in the lesson takes me out of what I am supposed to talk about. For example, this week, the mentor teacher wrote a topic on the board that I will not cover in class. S/he assigned a topic that I will not cover in the lesson, which is outside of my learning outcome. Since I did not know what the children knew and how much they knew, and since I did not fully understand what the teacher meant, I was left undecided.

Another theme related to the influences determining the decisions of the preservice teachers during the teaching practice is the student. Participants questioned their decisions and made new decisions on the basis of student behaviors that they evaluated positively or negatively during the course.

I realized that the students were bored with the activity I had done on word prediction and using the word in sentences, so I decided to switch to a different activity. When I saw that they were very enthusiastic and actively participated in this activity, I thought I should have continued on this direction.

At the beginning of the math lesson, I was planning to explain geometric shapes, but I gave up when I realized that the students were bored because they had a good grasp of the subject. I did a review using the question, and answer technique.

Actually, I thought it would be a very good event, but there was very little participation. The students were generally very reluctant. Only 4 or 5 students in the class were very enthusiastic and creative.

Another theme found in the analysis conducted within the scope of this research question is the environment. In this context, it was observed that the participants could not implement what they had planned due to conditions such as the physical characteristics of the classroom, class size, and weather conditions, and that they made new decisions or questioned the decisions they had made.

I would have obtained better results if I had taught the game in the schoolyard, but I had to play it in the classroom because of the weather conditions. I thought it was a game that could also be played in the classroom, but I was wrong. The class size was too large to play in the classroom.

Another theme related to the situations that were decisive on the preservice teachers' decisions during the teaching practice was classroom management. It was realized that the preservice teachers constantly tried new decisions, questioned their decisions, and experienced indecision in the face of management problems that arose in the classroom.

I have a dilemma whether or not to allow students to go to the restroom during class.

Since they are 1st graders, I actually want to allow them. Yet, I think I should not allow them, because it disrupts the flow of the lesson.

When there was a loud noise in the classroom, for a moment I felt like I could not control the class. Then I gave up thinking how useless it was to control it.

The plan was to give balloons to the students, but I only used one balloon because I thought I would not be able to control the class.

Towards the middle of the Turkish lesson, I turned on music and tried to get the students' attention, but then it turned out to be challenging for them to focus on the lesson. I was undecided about that.

The last theme identified within the scope of the research question is related to the teaching. This theme includes time management, giving the floor, inclusiveness, reinforcement, attention, interest, level, method, participation, repetition, unplanned situations and misconceptions. It was observed that the teaching process exposed the participants to a wide variety of problems in terms of their decisions.

I had planned to implement a contrasting panel as well, but then I decided to spend less time on it.

I made a change in my plan. It was the right change for me (Implementing the Plan)

In the sentence formation activity, I changed the method of having the students to the blackboard. They had to choose names from one of the two boxes and sentences from the other. This method did not engage the students in and they did not listen to the lesson. So I distributed the sentences to all the students, and I had the students to the blackboard again by selecting from the box. (Giving the Floor)

The reason I was undecided was that I did not include Iraq in the countries section, ignoring the situation of a student coming from Iraq. I wondered if this would upset the student. I was undecided in the life science lesson. (Inclusiveness)

While explaining geometric shapes in the math lesson, the children had conceptual confusions when the teacher of the class taught the circle as a sphere. Therefore, I had problems with the students during the classification of geometric shapes because they knew the concept incorrectly. At that time, I wondered whether I should have called the circle a sphere. I wondered whether I should have corrected the misconception now. I did not want to confuse the students.

I could have made the problems a little more difficult. (Level)

When I gave stickers as a reward, I thought whether I should have given them or not, because every student wanted stickers. Both those who solved the question and those who did not wanted. (Reinforcement)

I was going to show a slide show to introduce coins in the class. Since I showed the coins first, the attention moved directly there. The students were in a hurry to start. I started the activity immediately so that everyone could participate and we would have enough time. At the beginning of the activity, I forgot the presentation I was going to show. After a student completed the activity, I remembered that I had not shown the presentation. I was undecided whether to open it or not. I opened the presentation again, but I am not sure how much they followed it. (Time Management)

Within the scope of the second research question, the evaluation criteria of the decisions made by the participants were examined. The findings related to the examination are shown in Table 2.

**Table 2.** *Criteria used by participants for evaluating their decisions*

	Decisions in which they felt powerful	Decisions in which they felt helpless
Mastery of Content	I was able to correct the mistake in the textbook... I had a very good command of the subject...	I made mistakes in the content.
Implementing their Plans	The fact that the lessons went as planned made me feel powerful. I achieved what I wanted to do.	I could not implement what I had planned. I mixed up the order of the information to be given.
Classroom Management	I was able to fix the problems appearing in the games. They followed the rules I set in the classroom... I was able to keep control of the class.	There were students who objected to the red cards I had prepared. Towards the end of the lesson, they stood up and made noise. I did not have enough time
Demonstrating Flexibility	Observing the process and continuing accordingly made me feel powerful.	It would have been better if there were alternative materials. I stuck to the textbook. I could not develop different activities aimed at those who had finished.
Associating with Daily Life	We set up a shopping environment in the classroom. We solved problems with examples from daily life.	I could have had them do a germination activity in the life science class.
Gaining Insight into	Seeing that I could make adjustments	I could have kept the sentences shorter... I

Students	according to the students' level...	should have demonstrated all the steps to the students... I could not exactly understand how the class learned.
Giving Individual Attention	I was able to give my students individual attention.	I did not know how to give them individual attention at that moment.
Diversifying Teaching Methods	I was able to use modelling in maths class.	Different activities for better teaching crossed my mind. I could have taught the subject in full.
Arousing Interest	When I saw the interest and affection of the children...	The students looked as if they were saying "let it be over now".
Communication	I was able to teach the lesson in a conversational atmosphere. I was able to enter the worlds of the children.	My narration remained one-sided. I could have set up discussion groups.
Enabling Engagement	I enabled the students to participate. With the tasks, I was able to involve students who did not have a say.	It would have been better if there were sections that children could accompany. I could not involve students who did not have a say.
Providing Enjoyment	When I saw that the students were all happy...	I could have taught the lesson in a more enjoyable way.
Providing Ways to Generate Ideas	When I was able to lead them to inquire by asking the right questions...	-
Engendering Learning	When they answered all my questions correctly...	-

In the second question of the study, the criteria used by the preservice teachers in evaluating the decisions they made during the teaching practice were examined. The criteria used by the preservice teachers were analyzed on the basis of the situations in which they felt powerful and helpless after the decisions they made in the teaching practice. The criteria used by the preservice teachers to evaluate their decisions were analyzed under 5 themes: content knowledge, classroom management skills, student recognition, teaching-learning process, and monitoring and evaluating learning. It was also observed that the preservice teachers predominantly evaluated their decisions depending on the teaching-learning process. In contrast, they rarely used monitoring and evaluation of learning as a criterion for evaluating their decisions. Since the aim of teaching activities is learning, learning is expected to be the first criterion that candidates should consider in evaluating their decisions. Participants expressed that they felt powerful in their decisions that resulted in learning achievement. However, there was no statement regarding the learning outcomes among the situations in which the participants felt helpless. Other criteria that did not appear among the situations that made the participants feel helpless was providing ways of generating ideas. On the other hand, participants rarely stated that realizing they developed some thinking skills in students made them feel powerful.

Preservice teachers' command of content knowledge appears to be a criterion for evaluating their decisions.

Since I prepared the problems myself, a few punctuation errors did not escape the students' attention. I should check them in detail.

The students asked questions that I had never anticipated about the topic I taught in class. I felt helpless when I could not answer their questions.

Another criterion used by students to evaluate themselves was classroom management. Participants expressed that they felt helpless when they could not find solutions to problem situations that arose in the classroom and when they could not dominate the classroom.

Towards the end of the Turkish lesson, I lost control of the classroom because the students wanted to play games. I allowed it, but it was not the right decision.

In contrast to this criterion, dominating the class and managing problem situations made the participants feel strong.

My strength is that I can manage the problems that arise in the games well.

What made me feel strong was that the students followed the rules I told them in class.

One of the situations that made preservice teachers feel helpless in the classroom was the realization that they could not respond to students' learning needs. It was observed that the participants' knowledge and experience before the teaching practice was not sufficient to anticipate the learning needs of the students.

I felt helpless at times when I could not understand how the class was fully learning.

I should have shown the students all the steps when making geometric shapes with Q-tips.

I could have projected all the pages of the storybook and made them follow along.

Realizing that they met the learning needs of students made preservice teachers feel powerful.

I think it was the right decision to make the level of my activity a bit easier.

Competition between groups works well in this class. I realized that and started using it, and I am glad I did.

In evaluating their decisions in the teaching-learning process, the preservice teachers referred to implementing their plans, flexibility, connecting with life, individual interest, diversifying teaching methods, keeping interest alive, being able to communicate, participation, creating a fun learning environment and providing ways to generate ideas.

I felt strong in the part where students wanted to continue the lesson even if the break bell rang. (Keeping interest alive)

I am glad I did the activity of classifying geometric shapes in math class, because the students had fun and comprehended the subject better. (Resulting in fun/learning)

I was happy that the students participated in class and that after the lesson, one of the students told the student who did not come to class today: "I wish he had come. Today was a lot of fun." This statement made me happy. It was a good evaluation for my partner and me. (Participation / Fun)

The six thinking hats technique, the videos shown, the stages used in game teaching were definitely the right choice. (Diversifying Teaching Methods)

I think I am glad that I taught my lesson in this way. I think it makes the most sense to observe the process well and continue accordingly. (Flexibility)

With a single question I asked, they generated new ideas, criticized, and questioned each other's ideas and finally came up with a shared idea. I just listened to them and realized once again how important it was to ask the right question. (Providing Ways to Generate Ideas)

Monitoring and evaluating learning was rarely mentioned. It is quite thought-provoking that preservice teachers rarely considered their decisions on the basis of resulting in learning achievement.

After explaining the topic, the students showed that they understood the topic by giving correct answers to all the questions I asked.

The moment I realize that the students understand the topic, when I see them doing the given examples correctly.

It is striking that the participants did not refer to curriculum elements and reaching new learning outcomes from their experiences in evaluating their decisions. Preservice teachers' ability to turn every experience into a learning tool may depend on seeing it as a benchmark. On the other hand, the fact that the preservice teachers did not refer to a criterion for their decisions regarding the curriculum, which was expected to form the center of their decisions in the classroom, suggests the basis on which the preservice teachers made their decisions.

## DISCUSSION CONCLUSION

In the first research question of this study, the influences determining the preservice teachers' decisions during the teaching practice were examined. As a result of the analysis, five themes were identified: (i) self-efficacy, (ii) student, (iii) environment, (iv) classroom management and (v) teaching. Each theme leads preservice teachers to engage with their decisions on various dimensions. In the context of self-efficacy, it has been observed that the preservice teachers' perception of being inspected in the classroom and under the supervision of the mentor teacher and the emotional states they experienced due to this were influential on their decisions. In addition, the fact that they believed that they did not have the knowledge and experience to be flexible enough to fulfill unexpected interventions and demands of their mentor teachers was also a decisive influence in their decision-making. In this category, it is apparent that the emotional states of the preservice teachers on the basis of their self-efficacy are crucial for their decision-making processes. Supporting this, it is stated in the literature that emotional states are significant on teachers' decisions (Sheppard & Levy, 2019; Young, 2020). It has been revealed that the preservice teachers' judgments on the behaviors they observed in the students during the teaching practice were influential on their decisions. The messages conveyed by the students through verbal or body language are decisive on the upcoming decision of the preservice teachers. Furthermore, such messages lead them to question the decisions they make. Another theme in the study emerged as the environment. In this category, it is marked that the conditions on which the preservice teachers were dependent in implementing their plans are determinative. During the planning phase, unpredictable incidences lead them to change their decisions swiftly or to question their decisions. It has been observed that the circumstances within the scope of classroom management are decisive on the preservice teachers' decisions. Besides, the study demonstrates that the preservice teachers remained indecisive about how to solve the classroom problems they faced or dominate the classroom, frequently attempted to make new decisions, and questioned the decisions they had already made. Lastly, it is noted that many factors in the theme of teaching were decisive on the preservice teachers' decision-making processes. The theme of teaching has been analyzed under such categories as time management, giving the floor, inclusiveness, reinforcement, attention, interest, level, method, participation, reviewing, implementation of the method, out-of-plan cases and misconceptions. The multi-component nature of the teaching process leads the preservice teachers to continually review, change and question their decisions and sometimes results in making unstable decisions.

In the second research question, the criteria used by the preservice teachers to evaluate their decisions during the teaching practice process have been analyzed. The criteria employed by the preservice teachers in evaluating their decisions have been categorized under 5 themes: Content knowledge, classroom management skills, identifying learners, teaching-learning process, and monitoring and evaluating learning. It has been revealed that the preservice teachers predominantly evaluated their decisions based on the teaching-learning process, whereas they rarely used monitoring and evaluating learning as a criterion in reflecting on their decisions. As the aim of teaching activities is learning, it is expected that the first criterion that preservice teachers need to consider in evaluating their decisions is learning. However, no self-critical evaluation criteria were observed on the preservice teachers' reflections in terms of the outcome of learning and providing ways of generating ideas within this research study.

Previous studies examining teachers' decision-making processes on the basis of novice and expert teachers provide significant clues for interpreting research findings. Peterson and Comeaux (1987) report that expert and novice teachers' schemas about classroom settings vary in terms of cognitive complexity. In a similar line of thinking, Borko and Livingston (1989) state that novice teachers have less detailed, less connected, and less accessible cognitive schemas. The study has revealed that preservice teachers have challenges in decision-making during the teaching practice and that they could not benefit sufficiently from their background knowledge in teacher education to overcome these

challenges. Yet, preservice teachers are trained in theoretical and practical courses in teacher education programs on how to cope with the circumstances that are decisive on their decision-making processes. However, the pre-service teachers could not recall and/or use what they had learned during their undergraduate education in their decision-making processes, which may prove what Borko and Livingston (1989) suggest in relation to cognitive schemas. This issue has long been discussed in the context of the integration of theory and practice in teacher education. As indicated by the findings of this study, main drawback of this issue is the inability of preservice teachers to utilize theoretical knowledge sufficiently in their classroom instructional decisions. Therefore, relevant literature emphasises that there is a need to focus on how theoretical knowledge is taught. In fact, Bayrak-Özmutlu (2022), in her article examining the views of preservice teachers on what can be done about the integration of theory and practice, states that the problem of context and trust should be overcome in the teaching of theoretical knowledge. Teaching methods that can overcome these problems in teaching theoretical knowledge can enable preservice teachers to have more elaborated, detailed, and accessible schemas. In a similar vein, Calderhead (1983) states that unlike novices, expert teachers have knowledge-rich schemas that allow them to represent the complexity of the classroom in meaningful ways. The research findings also show that the preservice teachers did not adequately anticipate the complexity of the classroom. This was particularly evident in the theme of environment. It indicates that the preservice teachers could not foresee some of the possibilities of the classroom in terms of realizing their plans and that they had difficulty in producing alternative ways on this basis.

Fogarty et. al. (1983) report that novice teachers fail to adapt instruction in response to student tips. Moreover, Westerman (1991) states that expert teachers are able to think about learning from the student's perspective and adapt their thinking to the needs of students during instruction. In contrast, novice teachers are unable to adapt to meet student needs during instruction. Collaborating with this argument, the findings of this study also show that the preservice teachers were uncertain about the adaptations expected from them by the students during the teaching process. A closer examination of the categories under the theme of students and teaching has revealed that the participants had difficulty in understanding what the students expected from them and what their needs were. The situations summarized in the research findings reveal that the candidates often had to make new decisions and experienced disruptions in bringing their planned practices into the real context of the classroom. The cognitive characteristics of the experts may have been influenced by the fact that they have made many decisions based on professional experience and have known many contexts and students. This provides important insights into what teacher education should look like, allowing preservice teachers to become professional decision-makers. An approach that engages preservice teachers in decision-making processes based on classroom contexts will serve them to grow as professionals who fulfill the requirements of the profession in a qualified manner. Apart from that, Borko and Livingston (1989) also claim that novice teachers have less developed pedagogical reasoning skills. This situation was quite visible in the preservice teachers' inferences based on their observations in the classroom. The study has shown that the preservice teachers were quickly affected by the emotional states of the students and tended to attribute the causes of the events to a single reason.

In this study, the emotions that the preservice teachers felt in directing them to make new decisions emerged as a situation. Emotions are known to have a widespread, predictable, sometimes harmful and sometimes instrumental effect on decision making (Wang, 2021). In fact, Sheppard and Levy (2019) highlights the effect of emotions on teachers' decisions in their article. The results of the study show that teachers conceptualised the classroom as an emotional space, participated in the emotional life of the classroom, and made decisions based on students' actual or predicted emotional responses. Therefore, it is an important requirement for teacher education to recognise the emotions accompanying the teaching process and to highlight their use as an auxiliary instrument. Indeed, acknowledging the important role that emotions play in teachers' decision-making processes, Hoy (2013) emphasises that supporting emotional self-regulation is of critical importance for teacher

education. Another situation that drove the preservice teachers to make new decisions was their self-efficacy. It is known that self-efficacy perceptions are associated with preservice teachers' academic locus of control and academic achievement (Saracaloğlu et. al., 2017), communication skills (Çiftçi & Taskaya, 2010), lifelong learning tendencies (Ayra & Kösterelioğlu, 2015), educational beliefs (İlgaz et. al., 2013), and school climate perceptions (Gündoğan & Koçak, 2017). In this study, self-efficacy also manifested itself in the participants' decision-making processes. Preservice teacher education programs should include content and teaching methods that allow teacher candidates to increase their self-efficacy and control over their emotions in order to train prospective teachers as professional decision makers.

The situations that drove the preservice teachers to make decisions are distributed over a wide variety of themes. When interpreting this research finding, it will be useful to remember that teacher education programmes should be considered on the basis of a broad context and that teaching is not a profession that can be explained only with techniques and procedures (Beyer & Zeichner, 2018). Preservice teachers must learn to interpret the context surrounding the teaching process in all its complexity. In the process of teacher education, preservice teachers try to gain such a perspective through the theoretical course contents. However, teacher education is often criticised for being too theoretical and not cultivating practice (Kagan, 1992). Accordingly, on the one hand, teacher education has to find ways to provide preservice teachers with a wide range of knowledge. On the other hand, it has to ensure that this knowledge finds a place in preservice teachers' professional practice. In this context, decision-based practices emerge as a powerful way to overcome the stated problems. In fact, the characteristics of situations driving preservice teachers to make decisions revealed in this study show that teacher education can be carried out based on the situations that preservice teachers may encounter. Every situation that brings them to the point of making a new decision is already included in theoretical courses in teacher education. However, in practice, the preservice teacher is expected to adapt this knowledge based on specialised situations. Westerman (1991) states that what explains expertise in teaching is the interaction of knowledge rather than knowledge itself. Here, it is important to remember what Clough et. al. (2009) state: decision-based studies allow preservice teachers to think of learning as a set of interrelated skills rather than as separate pieces of knowledge. The findings of this study, in which it is stated that a decision-based approach should be adopted in teacher education, indicate the situations that challenge preservice teacher and emphasize the points that need to be focused on in teacher education.

Under the theme of teaching, the present study has presented the situations that drove the preservice teachers to make new decisions in 14 different categories. In the process of teacher education, the preservice teachers learn teaching principles and methods. However, they need to acquire knowledge and experience of how to adapt these methods to the unique characteristics of the classroom environment. The study clearly shows that the teaching process requires preservice teachers to adapt their knowledge on the basis of new contexts. This requirement indicates that preservice teachers' professional competencies should be developed based on context-based practices. This necessity compels us to consider case-based practices in teacher education. Cases have the capacity to help preservice teachers deal with the contextual nature of teaching and utilise their expanding professional knowledge base. In this respect, cases have a high potential for helping teachers to gain the qualifications that the modern world demands from them (Darling-Hammond & Snyder, 2000). Through cases, teachers can better understand the principles and prototypical dilemmas of teaching (Hammond & Hammerness, 2002). Precisely for this reason, this method has the potential to be effective in helping preservice teachers become professional decision-makers. Helleve et. al. (2021) emphasise that analysing cases will help students understand that every situation in practice is unique. Moreover, studies conducted on preservice teachers reveal that case-based learning is effective in terms of cognitive load, motivation and emotion (Syring et al., 2015). In addition, there are studies showing that case-based practices also bring about great improvements in preservice teachers' pedagogical content knowledge and subject matter knowledge (Ulusoy, 2016). In this respect, an approach is



suggested in which the situations described in the study are handled with a case-based approach.

In the second question of the study, the criteria for evaluating the decisions taken by the participants have been examined. The criteria used by the participants are not independent of their pedagogical reasoning. Investigating beginning teachers' perceptions of problems in teaching from a cognitive developmental framework, Veenman (1984) states that teachers at different developmental stages perceive classroom problems in different ways. Veenman claim further that beginning teachers have more difficulties in classroom management than in teaching the content. Similarly, in this present study, it has been observed that the preservice teachers were very much occupied with the situations related to classroom management. Analyzing the criteria for evaluating the decisions of the participants, it has been found that the participants mainly evaluated their decisions based on the teaching-learning process. However, they rarely used monitoring and evaluation of learning as a criterion for evaluating their decisions. Considering that the purpose of teaching activities is learning, it is expected that learning should be the first criterion that the participants should consider when evaluating their decisions. It is thought-provoking that the preservice did not make any self-critical evaluation regarding the outcome of learning. It has also been observed that the participants did not make a self-critical evaluation of their decisions in terms of "resulting in learning achievements and opening ways to generate ideas". This finding suggests that the preservice teachers are not able to focus on their thinking and learning skills while struggling with a large number of simultaneous situations in the classroom. In line with that, Borko and Livingston (1989) claim that novice teachers have less developed pedagogical reasoning skills. This claim may explain the situation in question: content knowledge underpins other teacher knowledge. In this respect, it corresponds to the most basic type of knowledge for a qualified teacher. Teachers' content knowledge is considered to be of importance, and even some evaluation frameworks have been developed to examine their current status in this regard (please refer to Kinach, 2002). In addition, the study by Akgün (2013), which establishes a positive relationship between preservice teachers' content knowledge and their perceptions of teacher self-efficacy, supports the findings of this study. In the present study, one of the criteria suggested by the participants in evaluating their decisions was flexibility. Flexibility is an important skill, because the classroom constantly confronts the teacher with unpredictable and complex problems. Indeed, explaining the thinking processes that teachers use when making instructional decisions, Perfecto (2012) underlines that teachers' decision-making process should be flexible as teachers need to balance the prescribed demands of the curriculum with the realities of the classroom.

### **LIMITATIONS AND RECOMMENDATIONS**

In this study, the influences determining the preservice teachers' decisions and the criteria utilized by them to evaluate their decisions have been examined. However, the research does not provide any explanation for the quality and appropriateness of the decisions taken by the preservice teachers. In this respect, future researchers can conduct a detailed examination of the state of preservice teachers' decision-making processes based on observation and clinical interviews. The influences determining the preservice teachers' decisions were limited to the reflective evaluations that the participants carried out after their practices. Moreover, the influences determining the decisions were analyzed on the basis of the following measures: leaving candidates undecided, causing them to question their decisions, and pushing them to make new decisions. This study is based on reflective evaluations written by 10 preservice teachers over a period of 10 weeks. Within the scope of the study, no intervention was made related to the preservice teachers' decision-making processes. It is recommended that future researchers design intervention studies related to prospective teachers' decision-making processes. It is also recommended that they conduct studies comparing the decision-making processes of preservice and experienced teachers. The findings of the study show that the preservice teachers frequently encounter new decision-making situations in the classroom. This situation, which led the preservice teachers to experience interruptions in putting their plans into practice, has once again allowed us to see the

demanding nature of the classroom. An effective teacher education should equip preservice teachers with the ability to analyse the classroom correctly, and within the framework of these requirements, to make adaptations to the plans they have made. In this respect, the challenging situations for preservice teachers indicated by the research findings can be focused on in teacher education. In future studies conducted on the basis of the situations indicated by the study, it should be emphasised that preservice teachers can benefit from theoretical knowledge and develop schemata that will enable them to implement effective decision-making processes. The study sheds light on where such practices should begin. In other words, the study reveals practical situations for developing decision-making processes in the teacher education. Another topic that the study focuses on is the criteria used by the preservice teachers to evaluate their decisions. While they are evaluating their decisions, it is expected that their focus will change from teaching towards learning, that is, from what they themselves do towards what they observe in the student. In terms of this requirement, the study reveals the current situation of the preservice teachers in this regard. In teacher education, opportunities should be created for preservice teachers to make decisions and evaluate those decisions. In this way, they can acquire a developed mental structure as professional decision-makers.

## REFERENCES

- Aikenhead, G. S. (1984). Teacher decision making: The case of Prairie High. *Journal of Research in Science Teaching*, 21(2), 167-186. <https://doi.org/10.1002/tea.3660210208>.
- Akgün, F. (2013). Preservice teachers' web pedagogical content knowledge and relationship between teachers' perceptions of self-efficacy. *Trakya University Journal of Education*, 3(1), 48-58.
- Ayra, M., & Kösterelioğlu, İ. (2015). Öğretmenlerin yaşam boyu öğrenme eğilimlerinin mesleki öz yeterlik algıları ile ilişkisi. *Education Sciences*, 10(1), 17-28.
- Bayrak-Özmutlu, E. (2022). The relationship between theory and practice: An examination based on pre-service teachers' beliefs. *Journal of Qualitative Research in Education*, (30), 223-249. <https://doi.org/10.14689/enad.30.10>.
- Bayrak-Özmutlu, E., & Bıkmaz, F. (2022). Teachers' beliefs and possible sources. In F. Bıkmaz, & F. Mızıkacı (Eds.), *Curriculum, teachers and technology in the Turkish and international contexts* (pp. 276-316). Cambridge Publishing.
- Beyer, L. E., & Zeichner, K. (1987/2018). Teacher education in cultural context: Beyond reproduction. In T. Popewitz (Ed.), *Critical studies in teacher education* (pp. 298-334). Routledge.
- Blackley, C., Redmond, P., & Peel, K. (2021). Teacher decision-making in the classroom: The influence of cognitive load and teacher affect. *Journal of Education for Teaching*, 47(4), 548-561. <https://doi.org/10.1080/02607476.2021.1902748>
- Borko, H., & Shavelson, R. J. (1990). Teacher decision making. In J. F. Beau., & I. Lorna (Eds.), *Dimensions of thinking and cognitive instruction* (pp. 311-346). North Central Regional Educational Laboratory.
- Borko, H., & Livingston, C. (1989). Cognition and improvisation: Differences in mathematics instruction by expert and novice teachers. *American educational research journal*, 26(4), 473-498.
- Calderhead, J. (1983, April). *Research into teachers' and student teachers' cognitions: Exploring the nature of classroom practice*. Paper presented at the meeting of the American Educational Research Association, Montreal.
- Clough, M. P., Berg, C. A., & Olson, J. K. (2009). Promoting effective science teacher education and science teaching: A framework for teacher decision-making. *International Journal of Science and Mathematics Education*, 7(4), 821-847.
- Coleman, P. (2022). Validity and reliability within qualitative research for the caring sciences. *International Journal of Caring Sciences*, 14(3), 2041-2045.
- Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into Practice*, 39(3), 124-130. [https://doi.org/10.1207/s15430421tip3903\\_2](https://doi.org/10.1207/s15430421tip3903_2).

- Çiftçi, S., & Taskaya, S. M. (2010). Sınıf öğretmeni adaylarının öz yeterlik ve iletişim becerileri arasındaki ilişki. *Education Sciences*, 5(3), 921-928.
- Darling-Hammond, L., & Oakes, J. (2021). *Preparing teachers for deeper learning*. Harvard Education Press.
- Darling-Hammond, L., & Hammerness, K. (2002). Toward a pedagogy of cases in teacher education. *Teaching Education*, 13(2), 125-135. <https://doi.org/10.1080/1047621022000007549>.
- Darling-Hammond, L., & Snyder, J. (2000). Authentic assessment of teaching in context. *Teaching and Teacher Education*, 16(5-6), 523-545. [https://doi.org/10.1016/S0742-051X\(00\)00015-9](https://doi.org/10.1016/S0742-051X(00)00015-9).
- Grossman, P., Hammerness, K., & McDonald, M. (2009). Redefining teaching, re-imagining teacher education. *Teachers and Teaching: Theory and Practice*, 15(2), 273-289. <https://doi.org/10.1080/13540600902875340>
- Evans, J. S. B. T., & Stanovich, K. E. (2013). Dual-process theories of higher cognition: Advancing the debate. *Perspectives on Psychological Science*, 8(3), 223-241. <https://doi.org/10.1177/1745691612460685>
- Helleve, I., Eide, L., & Ulvik, M. (2021). Case-based teacher education preparing for diagnostic judgement. *European Journal of Teacher Education*, Latest Article, 1-17. <https://doi.org/10.1080/02619768.2021.1900112>
- Fogarty, J. I., Wang, M. C., & Creek, R. (1983). A descriptive study of experienced and novice teachers' interactive instructional thoughts and actions. *The Journal of Educational Research*, 77(1), 22-32. <https://doi.org/10.1080/00220671.1983.10885491>
- Fullan, M.G. (1996). Turning systemic thinking on its head. *Phi Delta Kappan*, 77(6), 420-423.
- Griffith, R., & Groulx, J. (2014). Profile for teacher decision making: A closer look at beliefs and practice. *Journal of Research in Education*, 24(2), 103-115.
- Gündoğan, A., & Koçak, A. (2017). Öğretmen adaylarının okul iklimi algıları ile akademik öz-yeterlik inançları arasındaki ilişkinin incelenmesi. *Sakarya University Journal of Education*, 7(3), 639-657.
- Hoy, A. W. (2013). A reflection on the place of emotion in teaching and teacher education. In M. Newberry, A. Gallant, & P. Riley (Eds.), *Emotion and school: Understanding how the hidden curriculum influences relationships, leadership, teaching, and learning (Advances in Research on Teaching, Vol. 18)* (pp. 255-270). Emerald Group Publishing Limited. [https://doi.org/10.1108/S1479-3687\(2013\)0000018017](https://doi.org/10.1108/S1479-3687(2013)0000018017)
- Ilgaz, G., Bülbül, T., & Çuhadar, C. (2013). Öğretmen adaylarının eğitim inançları ile öz-yeterlik algıları arasındaki ilişkinin incelenmesi. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi*, 13(1), 51-66.
- Kagan, D. M. (1992). Implication of research on teacher belief. *Educational Psychologist*, 27(1), 65-90. [https://doi.org/10.1207/s15326985ep2701\\_6](https://doi.org/10.1207/s15326985ep2701_6)
- Kansanen, P., & Meri, M. (1999). The didactic relation in the teaching-studying-learning process. *Didaktik/Fachdidaktik as Science of the Teaching Profession*, 2(1), 107-116.
- Kinach, B. M., (2002). Understanding and learning-to-explain by representing mathematics: Epistemological dilemmas facing teacher educators in the Secondary mathematics "methods" course. *Journal of Mathematics Teacher Education*, 5, 153-186.
- Kleven, T. A. (1991). Interactive Teacher Decision-making still a basic skill? *Scandinavian Journal of Educational Research*, 35(4), 287-294.
- Klimczak, A. K., Bali, S. J., & Wedman, J. F. (1995). *Teacher decision making regarding content structure: A study of novice and experienced teachers*. The University of Missouri-Columbia.
- Korthagen, F. A. (2011). Making teacher education relevant for practice: The pedagogy of realistic teacher education. *Orbis Scholae*, 5(2), 31-50.
- Leinhardt, G., & Greeno, J. G. (1986). The cognitive skill of teaching. *Journal of Educational Psychology*, 78(2), 75- 95. <https://doi.org/10.1037/0022-0663.78.2.75>
- Lloyd, C. A. (2019). Exploring the real-world decision-making of novice and experienced teachers. *Journal of Further and Higher Education*, 43(2), 166-182. <https://doi.org/10.1080/0309877X.2017.1357070>

- Loughran, J. (2019). Pedagogical Reasoning: The foundation of the professional knowledge of teaching. *Teachers and Teaching: Theory and practice*, 25(5), 523-535. <https://doi.org/10.1080/13540602.2019.1633294>
- Marshall, C., & Rossman, G. B. (2014). *Designing qualitative research*. Sage publications.
- Merriam, S. B. (2009). *Nitel Araştırma: Desen ve Uygulama İçin Bir Rehber*. (S. Turan, çev.) Ankara: Nobel Yayıncılık.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. SAGE Publications, Inc.
- Olson, J.K., Bruxvoort, C.N., Madsen, A.J., & Clough, M.P. (2004, March). *The effect of problem-based learning video case content on preservice elementary teachers' conceptions of teaching*. Paper presented at the National Association of Research in Science Teaching International Conference, Canada.
- Oshima, J., & Shaffer, D. W. (2021). Learning analytics for a new epistemological perspective of learning. *Information and Technology in Education and Learning*, 1(1), 1-11.
- Patton, M. Q. (2014). *Nitel araştırma ve değerlendirme yöntemleri*. Ankara: Pegem Akademi.
- Perfecto, M. R. G. (2012). Contextual Factors in Teacher Decision Making: Extending the Woods Model. *Asia-Pacific Education Researcher (De La Salle University Manila)*, 21(3), 474-483.
- Peterson, P. L., & Comeaux, M. A. (1987). Teachers' schemata for classroom events: The mental scaffolding of teachers' thinking during classroom instruction. *Teaching and Teacher Education*, 3(4), 319-331. [https://doi.org/10.1016/0742-051X\(87\)90024-2](https://doi.org/10.1016/0742-051X(87)90024-2)
- Rich, P. J., & Hannafin, M. J. (2008). Decisions and reasons: Examining preservice teacher decision-making through video self-analysis. *Journal of Computing in Higher Education*, 20(1), 62-94. <https://doi.org/10.1080/19415257.2013.866974>
- Saracaloğlu, A. S., Karademir, Ç. A., Dursun, F., Altın, M., & Üstündağ, N. (2017). Sınıf öğretmeni adaylarının öz-düzenleyici öğrenme becerilerinin, akademik öz-yeterlik, akademik kontrol odağı ve akademik başarıları ile ilişkisi. *Turkish Studies*, 12(33), 379-402.
- Shavelson, R. J. (1973). *The basic teaching skill: Decision making*. Stanford Center for Research and Development in Teaching.
- Sheppard, M., & Levy, S. A. (2019). Emotions and teacher decision-making: An analysis of social studies teachers' perspectives. *Teaching and Teacher Education*, 77(1), 193-203. <https://doi.org/10.1016/j.tate.2018.09.010>
- Siuty, M. B., Leko, M. M., & Knackstedt, K. M. (2018). Unraveling the role of curriculum in teacher decision making. *Teacher Education and Special Education*, 41(1), 39-57. <https://doi.org/10.1177/0888406416683230>
- Stanovich, K. E., West, R. F., & Toplak, M. E. (2011). The complexity of developmental predictions from dual process models. *Developmental Review*, 31(2), 103-118. <https://doi.org/10.1016/j.dr.2011.07.003>
- Syring, M., Kleinknecht, M., Bohl, T., Kuntze, S., Rehm, M., & Schneider, J. (2015). How problem-based or direct instructional case-based learning environments influence secondary school pre-service teachers' cognitive load, motivation and emotions: A quasi-experimental intervention study in teacher education. *Journal of Education and Human Development*, 4(4), 115-129. <https://dx.doi.org/10.15640/jehd.v4n4a14>
- Thakur, S. & Chetty, P. (2020). How to establish the validity and reliability of qualitative research? <https://www.projectguru.in/how-to-establish-the-validity-and-reliability-of-qualitative-research/> adresinden erişildi.
- Trevisan, O., Phillips, M., & De Rossi, M. (2021). Unpacking teacher decision-making: Connecting complex elements. *Italian Journal of Educational Research*, (27), 13-26. <https://doi.org/10.7346/sird-022021-p13>
- Ulusoy, F. (2016). *Developing prospective mathematics teachers' knowledge for teaching quadrilaterals through a video case-based learning environment*. (Unpublished doctoral dissertation). Middle East Technical University.

- Watson, S. (2019, February). *Revisiting teacher decision making in the mathematics classroom: A multidisciplinary approach*. Paper presented at the meeting of Eleventh Congress of the European Society for Research in Mathematics Education, Utrecht.
- Watson, S., Kimber, E., Major, L., & Marschall, G. (2018). A phenomenological study of a novice mathematics teacher's instructional decision making. Unpublished working paper, Cambridge. Retrieved from <http://bit.ly/2x1C7yL>
- Westerman, D. A. (1991). Expert and novice teacher decision making. *Journal of Teacher Education*, 42(4), 292-305. <https://doi.org/10.1177/002248719104200407>
- Worthington, M. (2013). Differences between phenomenological research and a basic qualitative research. <https://eclass.uoa.gr/modules/document/file.php/PPP436/DifferencesBetweenPhenomenologicalResearchAndBasicQualitativeResearchDesign.pdf> adresinden erişildi.
- Wang, Y. (2021). What is the role of emotions in educational leaders' decision making? Proposing an organizing framework. *Educational Administration Quarterly*, 57(3), 372-402. <https://doi.org/10.1177/0013161X20938856>
- Veenman, S. (1984). Perceived problems of beginning teachers. *Review of Educational Research*, 54(2), 143-178. <https://doi.org/10.3102/00346543054002143>
- Young, C. M. (2020). *Classroom emotions and teacher decision-making processes: A qualitative study*. (Unpublished doctoral dissertation). Mount Saint Vincent University.
- Zeichner, K. (2010). Rethinking the connections between campus courses and field experiences in college-and university-based teacher education. *Journal of Teacher Education*, 61(1-2), 89-99. <https://doi.org/10.1177/0022487109347671>

Appendix 1. Reflective Evaluation Form

<p><b>Reflective Evaluation Form</b></p> <p>This study aims to identify the situations determining preservice teachers' decisions during their teaching practice, as well as to examine the criteria they use to evaluate their decisions. You are expected to complete a reflective evaluation form after each week of your teaching practice, and send it to Dr. Emel Bayrak Özmutlu, the lead researcher, via email. The form contains one section and eight questions, and your responses will remain anonymous. The data will be stored on the researcher's encrypted computer and only the researcher will have access to it. Your participation is voluntary, and you may withdraw at any time. Your decision not to participate or to withdraw will not be shared with anyone. Thank you for contributing to the field of teacher education by participating in this study.</p> <p>Dr. Emel Bayrak Özmutlu emelbayrakozmutlu@gmail.com</p>
<p>How was the class this week? Can you write down the complexities and difficulties you felt from all sides?</p>
<p>What made you feel uncertain and in a dilemma in the classroom? Can you elaborate on the situations in which you were indecisive?</p>
<p>What went through your mind while teaching? What were the situations that forced you to make decisions such as “change your mind, continue, give up...” while doing your practice in the classroom?</p>
<p>Do you have any regrets that you wish you had done this instead of that? Could you elaborate on that?</p>
<p>Have you ever made a decision that you were glad you made or that you thought it was absolutely the right choice? Could you elaborate on that?</p>
<p>Could you describe in detail the moment when you felt the most helpless?</p>
<p>Could you describe in detail the moment when you felt the most powerful?</p>
<p>What is your improvement plan for this week to better equip yourself professionally? Can you explain your reasons?</p>

Appendix 2. Unstructured Interview Framework

<p><b>Unstructured Interview Framework</b></p>
<p>The purpose of the unstructured interviews was to obtain more detailed and specific explanations from the participants about their reflective evaluations, and to gather sample situations that support their statements. By asking open-ended questions and encouraging participants to provide examples and explanations, the interviews aimed to gain a deeper understanding of the participants' decision-making processes and criteria for evaluation.</p>
<p>General evaluation of classroom practices: Participants are encouraged to express their thoughts and feelings about their overall experience during the teaching practice.</p>
<p>Situations that left participants indecisive: Discussing specific situations that caused hesitation or uncertainty during classroom practice, and clarifying these situations during the interview process.</p>
<p>Situations that push participants to take new decisions: Discussing specific situations that led to making new decisions in classroom practice, and clarifying these situations during the interview process.</p>
<p>Reflection on decisions made: Encouraging participants to reflect on the decisions they made in classroom practice, and clarifying the criteria they used to evaluate their decisions during the interview process.</p>