Journal of Qualitative Research in Education

ENAD
ONLINE

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Sexuality of Individuals with Intellectual Disabilities from Siblings' Perspective: A Phenomenological Study

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Abstract

The aim of this study is to reveal the perspectives of non-disabled siblings regarding the sexuality of individuals with intellectual disabilities. The research was designed as phenomenology, one of the qualitative research models. Siblings of individuals between the ages of 18-33 and those with intellectual disabilities participated in the study. While collecting the data, a demographic information form and a semi-structured interview form created by the researchers were used. Content analysis steps were followed in the analysis of the data. According to the results obtained from the research, three main themes have been identified: the sexuality and sexual development of individuals with intellectual disabilities through the eyes of their non-disabled siblings, the views of non-disabled siblings on the sexual life of individuals with intellectual disabilities, and the reflections of the sexuality of individuals with intellectual disabilities on their non-disabled siblings' sexuality and social participation. In light of the results obtained, studies on the sexuality of individuals with intellectual disabilities were discussed and parallel results were reached; however, it was seen that more research is needed due to the limited number of studies that included evaluations from the eyes of siblings without disabilities.

Keywords: Sexually explicit behaviour, sexuality, individual with intellectual disability, sibling.

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Introduction

The situation experienced by individuals with intellectual disabilities can be explained as a significant lag in general mental functions caused by one or a series of reasons before, during or after birth, and various difficulties may be experienced due to this development lagging behind (Aydın, 2016). Difficulties in cognitive functions such as memory, speaking, reasoning, decision making, focusing, and being aware of one's own characteristics affect the individual's life both with himself and with others (Aydın, 2016; Varol, 2006). Considering that cognitive development also affects sexual development and related situations, the experience of sexuality by individuals with intellectual disabilities varies in some respects, because the individuals with intellectual disabilities often have incomplete, contradictory, and uncertain information about sexuality (Brkić-Jovanović et al., 2021). This situation makes it difficult to determine the knowledge and attitudes of individuals with intellectual disabilities towards sexuality (Kijak, 2013).

Sexual development emerges as such aspects of human development as emotional, social, and cognitive development. According to the definition of Acun and Erten (1992), sexual development means that the individual changes and grows sexually, has a healthy attitude towards this change and growth, and solves the problems s/he experiences in the sexual field and is sufficient. As can be deduced from the definition, sexual development is not only related to biological development, but to social, emotional and cognitive development, as well (Tuzcuoğlu & Tuzcuoğlu, 2004). Understanding sexual development also requires knowing some basic concepts. In this study, sexuality will be the focus of attention, and other related concepts will be mentioned from time to time.

Sexuality is a process of interaction between two sexes with cognitive, emotional and operational aspects, which provides interest, intimacy, contact, love, desire, pleasure and reproduction (Cumurcu Elbozan et al., 2012). When we consider interpersonal sexuality, it should be noted that sexuality does not only consist of sexual intercourse but that it is an important human right regardless of age, gender, or developmental level. Within this context, it is one of the most basic rights of individuals with intellectual disabilities to experience sexuality, which is also the subject of this study.

Individuals with intellectual disabilities, too, have similar sexual desires and needs to other individuals (Borawska-Charko et al., 2016). However, due to the false beliefs and myths about the sexuality of individuals with intellectual disabilities, this fact can be neglected. As Foucault, stated, sexuality is a concept that cannot be considered separately in a social context (cited in Berktay, 2009). Most of the time, prejudices about the sexuality of individuals with intellectual disabilities come into play (Sınanmış & Kolburan, 2019). The thoughts of parents and society regarding the sexual development and sexuality of individuals with intellectual disabilities should also be taken into consideration (Çelik, 2017b). Because the social attitude towards individuals with intellectual disabilities makes it difficult for individuals with intellectual disabilities to adapt to the changes in adolescence (Çelik & İpçi, 2020). In general, it is a widespread idea that sexual maturation processes cannot occur in individuals with intellectual

disabilities and therefore they cannot enter puberty and will always remain children (Bilge & Baykal, 2008; Menghini, 2012). In addition, it is thought, by a large portion of the individuals who make up society, that individuals with intellectual disabilities need support, protection, or control. In addition, individuals with intellectual disabilities are seen as asexual beings who cannot make appropriate decisions about their own sexuality (Murphy & Young 2005; Swango-Wilson, 2009).

Most of the time, the perception that there is a problem in the sexuality of an individual with intellectual disabilities lies in his inability to control his sexual behaviours when he is with other people and not knowing what to do where and when (Demir & Aysoy, 2002). What is meant by sexual behaviours are the behaviours that fulfil and do not fulfil sexual intercourse (the latter being kissing and touching the breasts and genital area). It can be said that the forms of intercourse that occur before sexual intercourse are included in the behaviours that do not fulfil intercourse (Smith & Udry, 1985). Such features that individuals adopt as culture, ethnicity, and education affect sexual behaviour.

In individuals who need special education, sexual behaviours also differ according to the degree of intellectual disabilities and the level of being trainable (Bilge & Baykal, 2008; Vrijmoeth et al., 2012). It has been observed that individuals with intellectual disabilities exhibit, during adolescence, such behaviours as rubbing on another object, playing with their genitals, touching or reaching out to touch the breasts or genitals of individuals of the opposite sex, kissing their lips, undressing anywhere and uncontrolled masturbation (Bilge et al., 2013; Konuk Er et al., 2016). The main reason for this is thought to be the limitations of individuals with intellectual disabilities in cognitive and social skills (Chave-Cox, 2014). In addition, individuals with intellectual disabilities seem to have difficulties understanding the complexity of sexuality and controlling their sexual behaviour (Lindsay, 2002).

The inadequacy of social awareness about the problems related to sexuality and the lack of research on the subject were also effective in the emergence of the problems (Kijak, 2013). Studies reveal that the level of knowledge of adults with intellectual disabilities is low (Isler et al., 2009; Siebelink et al., 2006), which may lead to negative attitudes towards sexuality (Bernert & Ogletree 2013) and higher rates of sexual abuse (Schaafsma et al., 2013; Liou, 2014) Accordingly, researchers emphasize that any inappropriate or challenging sexual behaviour, such as masturbating in public or interfering with another person's personal space, should be attributed to a lack of knowledge about sexuality, not to the degree of cognitive capacity (Franco et al., 2012). Besides, having no sexual feelings or desire is a condition that can be seen in individuals with intellectual disabilities (Bosch, 2006; Treiber, 2011). This situation changes according to the individual's level of intellectual disability and, therefore, their level of being trainable (Vrijmoeth, et al., 2012). Therefore, individuals with intellectual disabilities need the support of their parents to meet their age-appropriate physical, psychological, and sexual needs (Barnett et al., 2003).

When the literature is examined, it is seen that most of the studies are based on the results obtained from the parents—especially the mothers—of individuals who need special education and have intellectual disabilities. The fact that most of the care responsibilities of individuals with mental retardation rest with the mother can be seen as one of the reasons for this. In addition, it is difficult to collect direct information, especially from people with advanced mental disabilities, in the needs analysis regarding sexual education to be conducted for the mentally handicapped, and the collected information may be insufficient. For this reason, healthier information can be collected from individuals with mild intellectual disability. To eliminate this limitation, information can be collected from both individuals with mild intellectual disability, teachers, and parents (Anderson, 2015; Dallos & Draper, 2012; Finlay et al., 2015; Kök, 2010; Schaafsma et al., 2015; Wilkinson et al., 2015).

When the family is considered to be a system, the presence of an individual with intellectual disabilities and special needs in the family will affect all the individuals in this system. The other sibling or siblings will also have their share of positive or negative effects. From this point of view, it is possible for siblings of individuals with special needs to experience many emotional and behavioural problems (Naylor & Prescott, 2004; Walton & Ingersoll, 2015). For example, Sarı (2004) enumerates the reactions of individuals with normal development towards their siblings with special needs as resentment, enmity, jealousy, fear, guilt, rejection, shame, boredom, and sadness.

When the relevant literature is examined, it is seen that there are very few studies on the sexuality and sexual development of adults with intellectual disabilities, and the absence of a study addressing how siblings are affected by this process, what they experience, and their perspectives on their siblings with intellectual disabilities increases the importance of the present research. It is thought that the data to be obtained from this study will be beneficial to the experts who will conduct research in terms of the sexuality of individuals with intellectual disabilities and the mental health of their non-disabled siblings, the families of individuals with intellectual disabilities and the whole society. In this context, the research aims to reveal the sexuality of individuals with intellectual disabilities from the perspective of their non-intellectual disabilities siblings'. The research sought answers to the following questions:

1) What is the sibling's view of the sexuality of the mentally retarded individual?

2) What are the sibling's reactions towards the sexual acts of the mentally retarded individual?

3) How did the sexuality of the mentally retarded individual reflect on his/her sibling's sexuality?

Method

Within the scope of the research, how individuals with intellectual disabilities experience sexuality and how this process reflects on the sibling with normal development have been tried to be discussed from the perspective of their siblings. For this purpose, the qualitative research method was preferred. Allowing for the search and understanding of events, facts and situations in their natural environments, qualitative research helps to make the subject matter visible by creating various themes and sub-themes (Neuman, 2006; Punch, 2011; Yıldırım & Şimşek, 2006).

The research was designed as phenomenology, one of the qualitative research models. How a phenomenon is experienced by people, what it means to them, and how it affects them are among the fields of phenomenology (Creswell, 2017). Within the scope of the research, it was decided that, with the phenomenology model, it would be more appropriate to look at the perspectives and reactions of siblings regarding the sexuality of individuals with intellectual disabilities and what reflections this situation has.

Participants

The study group consisted of 10 siblings, 5 female and 5 male, aged between 19-32, showing normal development. Individuals with intellectual disabilities (1 female and 9 male), on the other hand, have the characteristics of mild-moderate or severe intellectual disability in the 18-33 age range. While determining the study group, snowball sampling, one of the purposive sampling methods used in qualitative research, was used. Due to the sensitivity of the subject and the difficulty in reaching the study group the individuals in the study, group were reached through the guidance of individuals who knew each other.

Demographic information about the individuals who make up the study group is presented in Table 1:

Table 1.

Demographic Information of the Study Group

Participants	Age	Education	Gender	Marital status	Disability level	Disabled sibling's age	Disabled sibling's gender
P1	29	University	Female	Single	Mild	29	Male
P2	29	University	Male	Single	Mild	30	Male
P3	29	University	Male	Married	Moderate	23	Male
P4	21	University	Female	Single	Moderate	18	Female
P5	22	University	Female	Single	Moderate	20	Male
P6	32	University	Female	Married	Severe	24	Male

P7	24	Master	Male	Single	Moderate	23	Male
P8	24	University	Female	Married	Severe	23	Male
P9	32	High school	Male	Married	Severe	33	Male
P10	19	University	Male	Single	Moderate	26	Male

Materials

Demographic Information Form: This is the form prepared by the researchers in which information about the age, gender, education level and degree of intellectual disability of the participants and their siblings is collected.

Semi-Structured Interview Form: A semi-structured interview form was prepared to reach the views of siblings with normal development regarding the sexuality of individuals with intellectual disabilities. The questions in the form, which aimed to gather the participants' perspectives on the sexuality of their siblings with intellectual disabilities, their reactions, and reflections on sexually explicit behaviours, were carefully crafted. In preparing the questions, care was taken to ensure that they were easy to understand, multidimensional, and did not guide the respondents.

Data Analysis

First of all, Ethics Committee Permission was obtained from Istanbul Okan University for the study (meeting date: 10.11.2021 and number of meetings: 144). Then, a semi-structured interview form was prepared. Although the questions were prepared as a draft in advance, care was taken to arrange the topics that may be meaningful for the research during the interview in a way that allows them to be discussed and that the questions and the way they are asked are not guided. In the first part of the interview, an interview form consisting of personal information was filled out by the participant. After the preliminary briefing explaining the research subject, data collection purposes, voluntariness, and ethical commitments to the protection of personal data, interviews were started. In the personal information section of the interview forms, demographic information about the participant, his/her siblings and parents was collected. The interviews lasted approximately 30 minutes.

After the transcription of the audio recordings of the interviews, the transcriptions were combined with the notes of the interviewer; and content analysis was carried out on the themes determined according to the answers given for research purposes. In the analysis process, multiple readings and note-taking were carried out, then the main themes and sub-themes were determined, and the data were organized and interpreted by including the expressions stated by the participants. Participants in the study group (Participant 1 = P1) were coded and these codings were used in the analysis of the data.

The Participatory Role of Researchers

After one of the researchers completed his undergraduate and graduate education in the field of special education, he worked with students from different age groups and their families in the field of special education for a long time and carried out his academic studies within this scope. He has studied on the sexuality, sexual development and sexual health of individuals who need special education. In addition, he has been responsible for the training of special education teacher candidates for a long time. The other researcher was trained in the field of guidance and psychological counselling and worked with children with autism and their families for a while. She also has studies on parent-child relationships.

Persuasiveness

Many methods are used to increase credibility in qualitative research, the diversification method being one of them. This method means using more than one method: the researcher and the data collection method (Lincoln & Guba, 1985). In this study, attention was paid to the fact that the participants, who were the data source, had different characteristics (gender, siblings' intellectual disability levels, etc.) and contributed from different perspectives. In addition, in order to increase credibility, the researchers returned to the data sources repeatedly and analyzed the emerging themes and sub-themes in a comparative way. In addition, the researchers received support in the process by seeking expert opinions on the design and conclusion of the research.

Transferability

Transferability is when research to be conducted in the context of the same topic with different participants yields similar results (Lincoln & Guba, 1985). In order to ensure transferability, the demographic information of the participants is given in detail. One of the methods used in the research to increase transferability is direct citation. In the results of this research, the narratives of the participants were directly quoted, allowing them to reflect their thoughts and feelings with their own expressions.

Consistency

In order to ensure consistency in qualitative research, it is necessary to conduct a consistency analysis (Lincoln & Guba, 1985). In this study, consistency analysis was conducted by an assistant professor from Istanbul Okan University Special Education Teaching Department. In the research, the consistency in the data collection and coding processes, the conceptual consistency and the relationship between the data and the results were supervised by the expert and his support was taken to ensure the reliability of the research.

Findings

In this section, the views of the participants about the sexuality of their siblings with intellectual disabilities are discussed. After the research data from semi-structured interviews were converted into texts, they were analyzed by applying content analysis. The findings obtained as the result of the analysis of the data in line with the purposes of the research were gathered under three main themes. These themes, sub-themes, and samples from participant views on related themes are given below.

Theme 1 Sexuality and sexual development of individuals with intellectual disabilities in their siblings' view

Table 2.

Sexuality and Sexual Development of Individuals with Intellectual Disabilities in Their Siblings' View

Main theme	Sub-themes	Codes	Participants
Sexuality and sexual development of individuals with intellectual disabilities in their siblings' view	sexual development	development unlike a normal individual	P7,
		lack of sexual urges	P7, P10, P1, P4
		siblings as all-time babies	P9, P5,
		view of siblings as little brothers and sisters	P4,
		having sexual development like a normal individual	P10,
		beginning to notice the opposite sex	P4,
		having erections	P7,
	sexually explicit behaviours	rubbing	P1, P2, P8,
		masturbation	P2, P3, P10,
		touching and want to touch	P2, P3, P1, P4, P6,
		no sexual behaviour	P5, P9,
	places of sexually explicit behaviour	in her/his room	P1, P8
		in society	P2, P1,
		where she/he is alone	P10, P2,
	Emotions related to the sexuality of siblings with intellectual disabilities	getting excited	P3,
		getting angry	P10,
		not knowing what affects them	P9, P1,

As seen in Table 2, when the views of the siblings who constitute the study group regarding the sexuality and sexual development of their siblings with intellectual disabilities were taken into consideration, four sub-themes emerged. The four sub-themes that make up the content of this theme were sexual development (did not develop like a normal individual, sexual impulses do not develop, siblings are always babies, siblings are always seen as little siblings, sexual development like a normal individual, starting to notice the opposite sex, having an erection), sexually explicit behaviours

(rubbing, masturbation, touching and wanting to touch, no sexual behaviour), places where sexual behaviour is done (in his own room, in the community, where he is alone), and the feelings related to sexuality (excitement, anger, not knowing what is affected). Some examples of the answers of the siblings regarding these sub-themes are given below:

Opinions of siblings on sexual development

Upon considering the findings obtained as the result of the evaluation of the research data, it was seen that the siblings emphasized that the sexual development of individuals with intellectual disabilities was different from that of normal individuals. This situation can be seen in the speech of P7, one of the siblings, regarding the sexual development of his brother with mental retardation: "Now I can say that it does not develop like a normal individual. These are the things we definitely observe in his family environment. Nothing much to do with the sexual development of a normal adolescent or a normal individual... And, I don't think his urges have developed... The age of puberty and so on weren't the same as mine." (P7). One of the siblings, P9, said that she always saw her brother with intellectual disabilities as a baby: "My elder brother was like an adult baby living by us.". On the other hand, some siblings say that the sexual development of their mentally retarded sibling is not different from normal individuals. (P10) expressed this as "My brother's sexual development is normal, I guess. Of course, it is a bit different from that of a normal man, but it's nothing extraordinary." P4, one of the siblings, stated the sexual development of her sibling with intellectual disabilities as "You know, they don't have such sexual drives in sexual development." (P4).

When the views of the siblings participating in the research were evaluated, it was seen that the sexual development of siblings with mental retardation is different from that of normal individuals and that their siblings will always remain like babies even if they grow up. Some of the siblings also stated that the sexual impulses of their siblings with intellectual disabilities did not develop.

Opinions on sexually explicit behaviours

When the "sexual behaviours" sub-theme obtained as the result of the analysis of the data was evaluated, it was stated that the sexual behaviours of siblings with mental retardation were generally behaviours such as rubbing, masturbation, touching and touching other people. Regarding his brother's rubbing behaviour, P8 said: "When he had a sexual need, he would go to a different room and take a pillow-like item under him and crawl on the floor. He wouldn't want us to enter the room," while P1 also stated, "There is rubbing behaviour; he is rubbing while lying face down on a hard floor" in support of this. Regarding masturbation, one of the brothers, P1 said, "He used to masturbate too. At first, he didn't know what to do. You know, he was touching himself, but he couldn't quite do it. But later he slowly figured it out himself. He started to do it, of course, we tried to teach him that not everyone should do this– he should go to a place alone when he needs such a thing. We have had some success with that. He

doesn't do it anymore. He can isolate himself and satisfy these needs," while P3 said that his brother with mental retardation masturbates. "Let me tell you about his masturbation behaviour at some point every day, he did not do it every day, but he had contact with himself. Every day at certain points now. Since we couldn't get into his head, I don't know what he would be affected by" (P3).

On the other hand, one of the participants explains the behaviour of his brother with intellectual disabilities as touching his genitals, unlike masturbation, as follows: "At that time, I saw that she was putting his hand into his pajamas, but she was not doing anything, I mean, she was just putting it in, not like masturbation. At that time, for example, we were warned. … For example, something happened. She did a lot for a while and then gave it up. For example, she did this at night, and at night she put her hand inside. But you know, for a very short time, you know, not like a masturbation period." (P4). While the behaviour of touching someone else may be directed towards someone both within the family and outside the family, the siblings P1 and P2 shared their observations and experiences in this regard: "He tried to touch my breasts when I was 11-12 years old during my developmental period. But now he's not doing it. He wanted so much to touch me. For example, as I was walking in the corridor, I was passing by him, and he was throwing his hand like that. Probably he wondered why it was not flat there because first, he was looking at himself, then he stretched out his hand there. He did this a lot on the street. For example, as we were walking, a woman came in front of us and put her hand there directly. He wanted to touch every woman he saw on the street." (P1) and "For example, when he saw a woman at work, he had things like going and touching her, he could do it to anyone in the middle of the street. He was making these touches on everyone, he was touching my mother, my cousins, everyone. We experienced them." (P2). One of the brothers, P4, also said along these lines, "My brother was doing it to people. Dad's sisters, mom's sisters, and the like. You know, that's not nice." (P4), while P6 expressed the sexually explicit behaviour of his brother with mental retardation as "He tends to reach out and hug people. He wants to hug and touch… that's a constant problem between us."

When the answers given by the siblings are evaluated, it is seen that the sexual behaviours of the siblings with intellectual disabilities are generally revealed as masturbation, rubbing and touching someone of the opposite sex. In addition, it is seen that some siblings touch the mother and sisters in the family with no apparent awareness of family relations or social environment.

Opinions on the places where sexually explicit behaviours are made

The sub-theme of "Places where sexually explicit behaviours are made", which emerged as the result of the analysis of the research data, was created within the framework of three codes: in his own room, in public and in the places where he is alone. When the concepts that make up this sub-theme are examined, some of the opinions of the siblings can be given as follows: "It causes too much rubbing. But it's usually like this. My parents taught him, so when such a situation happens, he closes the door of his room and we

do not see him." (P1). One of the siblings, P3, said that his mentally retarded brother went to a place where he could be alone while masturbating. "He can isolate himself and meet this need." P10 also said on these lines that his mentally retarded brother chose places where he could feel comfortable while masturbating. One of the siblings, P1, described another sexually explicit behaviour of "touching someone" in public as follows: "For example, we were going to visit a relative. There were girls there. He wanted to touch them, or he wanted to touch me, or he wanted to touch my mother." P2's mentally retarded brother did the act of touching another person everywhere: "He was directly touching women in his adolescence. I was afraid to go out with my brother."

While some participants' statements show that their intellectually disabled siblings would prefer to perform sexual behaviours in places where they feel comfortable and in their own rooms, others show that they did it in public.

Opinions of siblings regarding sexually related emotions of individuals with intellectual disabilities

Another sub-theme, which emerged as a result of the evaluation of the answers given by the siblings during the interview, is the opinions of siblings regarding the sexually related emotions of individuals with intellectual disabilities. The codes that make up this theme are excitement, anger, and not knowing what affects them.

In the sexuality of individuals with intellectual disabilities, the emotions observed by their siblings were often extreme excitement and anger when they could not perform the sexual behaviour. One of the siblings, P3 said, "It doesn't matter whether it's a lady or a girl relative or whoever it is, his behaviour changes and he gets extremely excited... of course, he gets angry when he can't express his feelings." Another sibling, P10, expressed that his mentally retarded sibling was not able to experience sexuality and that he was angry as "...sometimes he gets angrier, maybe because he did not experience sexuality".

As the last thing in this theme, there are opinions of the participants who say that they have not seen any sexual behaviour, impulse, etc. in their siblings: "I don't think I know much about it, frankly, it's that advanced. It's because I don't see it. I don't see any sexual behaviour, so no. I never noticed." (P5). P8, one of the siblings who participated in the research, stated that she did not observe anything about the sexual behaviour of her sibling with intellectual disabilities and that it was difficult for her to talk about it as follows: "My brother did not have such a thing about sexual development. It is difficult for me to talk about these issues."

When we look at the statements of the siblings, it is seen that the siblings with mental retardation show their feelings about sexuality with extreme excitement and they get angry because they cannot express them.

Theme 2 Opinions of siblings about the sexual life of individuals with intellectual disabilities

Table 3.

Reactions of Siblings Towards the Sexual Life of Individuals with Intellectual Disabilities

Main theme	Sub-themes	Codes	Participants
Siblings' reactions to the sexual lives of individuals with intellectual disability	Emotional reactions	surprise	P4,
		sadness	P2,
		embarrassment	P1, P2,
		anxiety	P7, P4,
		happiness	P4, P10,
		anger	P1, P6,
		unresponsiveness	P3, P7,
	Cognitive reactions	like a child	P9,
		mustn't get married	P7, P1, P4, P6, P10
		can get married	P2,
		I wish she/he would have sex	P3,
		can't have sex with someone	P1,

As can be seen in Table 3, where the reactions of siblings without intellectual disabilities regarding the sexual lives of individuals with intellectual disabilities are given, these views were toned down under two sub-themes. These sub-themes are in the form of emotional reactions (surprise, sadness, embarrassment, anxiety, happiness, anger, not reacting), and cognitive reactions (he should not marry like a child, he can get married, if only he had sex, he could not have a sexual relationship with someone). Some of the statements of the siblings regarding these sub-themes are given below.

Emotional reactions

As a result of the analysis of the data in the research, the first sub-theme of the main theme of "Siblings' reactions to the sexual lives of individuals with intellectual disabilities" was emotional reactions.

The emotional response sub-theme consisted of seven codes: surprise, sadness, embarrassment, anxiety, anger, happiness and unresponsiveness. Some of the statements of the siblings regarding these sub-themes are given below.

One of the siblings, P4, said that they were surprised when they saw the sexually explicit behaviour of their brother with mental retardation: "I was very surprised. For example, I was very surprised that he touched our breasts, but we didn't show it, we didn't react anyway, we just thought, where does it come from." Another brother said that he felt sorry for the sexual behaviour of his mentally retarded sibling: "When I see him like that, his breathing changes in distress, I see his face reddening, I know he can't do it, and of course, what can you feel? He wants to do the natural thing, but he can't, he's in trouble." P1 and P2, on the other hand, expressed their embarrassment due to the behaviour of touching and groping another person exhibited by their mentally handicapped siblings

as follows: "I used to feel very embarrassed when women touched their breasts - especially if it was someone we didn't know outside- and I wished I hadn't been out with her." (P1), "I was just ashamed. In other words, I was thinking about how we would explain it when a girl who was around our age or just in the developmental stage, for example, a twenty-year-old girl, went to the street and he touched her breast" (P2).

P7, one of the siblings who participated in the research, expressed that he was worried about the sexual behaviour of his brother with mental retardation as follows: "Now I worry about my brother like this, if what he is doing is misunderstood by people, if the other party reacts to it because we see such news in Turkey, maybe you must know something about the violence against people with disabilities. We are afraid, of course, whether there is such a thing as a disabled person who does not make him conscious, whether he stays in the institution or if his place of residence is safe. So, after all, we don't know what the caregivers are thinking there.". P6, one of the siblings, expressed that he got angry when he saw the sexual behaviour of his sibling with mental retardation as follows: "He tends to reach out and hug people. Wants to hug, wants to touch. What's my reaction? I'm yelling, look, didn't I tell you!" P4 and P10, on the other hand, expressed that they were happy when their mentally retarded siblings exhibited sexual behaviour in this way: "It shows all the features of young girls. I am being so happy," said P4. And "But when I saw it for the first time, it was not surprising to me that it was seen as instinctive, that is, it was the first time that I saw him instinctively using his instincts and trying to relax in this way. But I was still pleased, just because such a thing happened, I was glad that after all, he was listening to his instincts and doing such a thing." said P10. P3 and P8 also expressed that they did not have any reaction when they saw the sexual behaviour of their siblings with mental retardation as follows: "I did not give an extreme reaction when I saw the sexual behaviour of my brother." (P3) and "We did not have a reaction, we allowed him to do this. He already had a private space, as he wanted, and no one bothered him during that time." (P8).

When the codes constituting this sub-theme were examined, it was seen that their emotional reactions to the sexual behaviours of their siblings with intellectual disabilities were basically a surprise, because it was an unexpected situation when they first encountered these behaviours. They were sad because their siblings with intellectual disabilities did not exhibit these behaviours when they were alone, and they were embarrassed because their siblings exhibited their sexual behaviours against everyone in society. At the same time, the participants are worried because they do not know where their brothers and sisters learned some sexual behaviours—they could be taught by someone. They are happy because their siblings' sexual behaviours are a part of development, and they show natural development. They are angry at their siblings' sexual behaviours because it will create misunderstandings and discomfort in the environment. And the participants did not respond to the sexual behaviour of their siblings with mental retardation, as it was normal.

Cognitive reactions

One of the sub-themes that emerged as a result of the analysis of the research data is "cognitive reactions"; which is composed of seven codes: a child, should not get married, can get married, if only they would have sexual intercourse, cannot have sexual intercourse with someone, should receive sexual education, and cannot receive sexual education. Some of the opinions that make up these codes are given below.

From some cognitive point of view, the participants see their mentally retarded siblings as children. P9 said, "I did not think that my brother would experience sexuality because he is a disabled person, who is closed to communication and does not speak. My brother was like a grown baby living with us. So, what can you say to a one-year-old? Whatever you can say to an infant about marriage, you can only say to my brother." Another participant, P7, stated that it would "not be ethical" for his brother to get married: "I don't think it's ethical for my brother to get married. Think of it this way: you are an individual, but your parents are not self-sufficient people, they do not meet their own life needs, I am talking about basic life needs. So, I think that would be a very devastating thing for a child." P1 said that the marriage of his mentally handicapped brother would create chaos: "He is not able to live a life with someone. After all, it is a sexual need. They also have these needs, and they must satisfy them somehow. That's why he's exhibiting sexual behaviour. But, as I said, getting him to marry someone and letting him have a relationship with someone, I think, will drag us into great chaos." P4, P6 and P10 also made statements along similar lines: "My sister is not one to get married. What kind of person she will marry—you know, these are a lot of question marks. Because he may not be able to live in the same house with a person," (P4). "How would that be if such individuals got married or how would their sexual life be, I thought about that at that moment. So, in the end, it seemed like something very bad was going to happen. For example, let's say they had sexual intercourse and a pregnancy took place. Their children would be mentally handicapped, sort of like this" (P6). "My brother's sexuality does not scare me, but if it comes to marriage or something, I don't know what the consequences will be, so it may have slightly different results. well," (P10).

One of the participants, P1, said that a long-lasting marriage could be good for his brother, "He can have a relationship to get married, but I don't want it to happen if it's not going to be permanent. For once, I don't want him to live, so it's better not to live at all. He'll have a relationship for once, and instead of getting attached to him he'll suffer from it for years, and my brother should not suffer at all." One of the participants, P3, stated that her brother should experience sexuality: "I wish my brother could experience sexuality. You know, such an environment, such an education. I wish he had a place to live. After all, people have needs too. I don't know how far this can go. I myself didn't experience a thing like that, because I had a girlfriend at a very young age and got married at an early age. I got married as soon as I finished college. I can only imagine what kind of troubles not being able to experience these things can cause." P9, another participant, said that he could not feel the sexual feelings of his brother with intellectual disabilities: "I did not observe anything in terms of sexuality in my childhood and

adulthood. I don't think you will feel these feelings. You know, he cannot experience anything emotionally."

P1, P2 and P6 stated that it would be beneficial for their siblings with intellectual disabilities to receive sexual education in order to control their own sexual behaviours as follows: "I think that sexual education is an important issue for individuals with special needs, and they should receive training when necessary. I think this affects their behaviour both towards us and towards others," (P1). "My brother can get sexual education. Why would it be so good? What's the use? He will learn to control it. For example, it would be very good. It could be of use for so many things. Maybe it will give him daily relaxation. Maybe it would be better if he received sexual education, could masturbate more comfortably, and could do it on his own regularly, on his own will," (P2). "I think a good sex education will be beneficial for him and myself. I do not know what to do. Look, you asked me, does my brother ejaculate, or masturbate? I don't know anything about them. I'm just guessing" (P7).

When we evaluate the discourses of the siblings who participated in the research, it is seen that the siblings are worried about the sexuality and marriage of their siblings with mental retardation, they do not find it "ethical" for their siblings with intellectual disabilities to get married, and some siblings do not know what kind of result this situation will create. It was also observed that some of the siblings stated that it is necessary to receive sexual education in order for their mentally retarded siblings to better exhibit their sexual behaviours and to have a healthier sexual life.

Theme 3 Reflections on the sexuality of individuals with intellectual disabilities on their non-disabled siblings' sexuality and social participation

Table 4.

Opinions of Individuals with Intellectual Disabilities on the Reflection of Their Sexuality on Their Non-Disabled Siblings' Sexuality and Social Participation

Main theme	Sub-themes	Participants
Opinions of individuals with intellectual disabilities on the reflection of their sexuality on their non-disabled siblings' sexuality and social participation	Imitation	P1, P2,
	inability to share sexual topics	P2,
	disgust with sexuality	P8,
	had no effect	P3, P4, P7, P10
	siblings' sexual behaviour affects social participation	P3, P1,
	siblings' sexual behaviour does not affect social participation	P2, P4, P7, P8, P10

As seen in Table 4, the opinions of individuals with intellectual disabilities regarding the reflections of their sexuality on their non-disabled siblings' sexuality and social participation consist of six sub-themes. These sub-themes are imitation, inability to share

sexual issues, disgust with sexuality, no effect, and siblings' sexual behaviours affect participation in society, siblings' sexual behaviours do not affect participation in society.

The last theme that emerged as the result of the analysis of the data is the effect of the sexuality of individuals with intellectual disabilities on their siblings' sexuality. The sub-themes that make up this theme are imitation, isolation, aversion to sexuality and no effect. One of the participants, P1, said that he imitated the sexual behaviour of his mentally retarded brother: "As my mother said, I saw my elder brother rubbing when I was 4-5 and tried to imitate him. This happened a few times but then didn't happen again." Another participant expressed how he was affected by his sibling's sexual orientation as follows: "But now that you asked, something came to my mind. I have nothing to learn from my elder brother. This is what came to my mind. My brother was obsessed with boobs. When I first thought of sexual things in adolescence, the first thing that caught my attention was breasts, that is, on a woman's body. Then my elder brother turned to legs, and legs attracted my attention after breasts. I wonder if my elder brother and I are going the same way. For example, if my brother were normal, his sexual development would be ahead and I could share something with him," (P2). From a different point of view, P8 stated how she was disgusted with sexuality because of the sexual behaviours of her brother as follows: "When he had a sexual need, he would go to a different room and take a pillow-like thing under him and crawl on the floor. He didn't want us to enter the room. For me, the concept of sexuality was a sickening thing back then. So, I was ashamed and disgusted. I am just trying to get over it," (P8). Among the participants, P3, P4, P7 and P10 stated the reasons why their siblings' sexual development and behaviours did not reflect on their own sexuality as follows: "I know my brother's sexual development periods and their transition to puberty. My brother's sexual behaviour seems like his sexual orientation was revealed a little late, like masturbation, so it did not affect my sexual development much," (P10). "My brother's sexual behaviour has no effect on my sexual life. We live completely independently. I am conscious of that. So, I don't think so," (P7). "My brother's sexual behaviour did not affect my sexual life," (P3). "My sister's sexual life is of course very different from mine. I have a brother right now. Here's what I can say, I can experience feelings such as touching, getting pleasure, kissing, and hugging him whenever I want. Here's the other way I get my period, I can masturbate when I want. But I am aware of this, and I am aware of where it can be done and where it cannot be done, do I want it now and is the environment suitable, but how does my sister say whether she wants it or not, how does she realize it?" (P4).

When we evaluate the answers given by the participants, it is seen that some participants are not affected by the sexuality and sexually explicit behaviours of their siblings with mental retardation. In addition, a participant was disgusted with sexuality for a long time because of his sibling's sexual behaviours.

Among the siblings participating in the study, P1 and P3 stated how their social participation was affected by the sexual behaviour of their siblings with intellectual disabilities as follows: "For example, we were going to visit a relative. There were girls

there. He wanted to touch them. Or he wanted to touch me, or he wanted to touch my mother. If I had cousins, he would want to touch them. He wanted to touch everyone he saw. When my brother was only 15-16 years old, we would all be nervous when we were outside," (P1). "My brother's sexual behaviour and disability naturally affect participation in the social environment. For example, my brother is even attracted to my wife. When we sit together, he gets very excited, of course, when he cannot express his feelings, he gets angry. For example, he swears a lot. My brother started swearing or something. He has a habit of biting his hand when he gets angry. He starts biting his hand and gets very excited. He is also extremely interested in my sister-in-law. Likewise, when he sees her," (P3). On the contrary, some participants, P2, P4, P7, P8 and P10 stated how their siblings' sexual behaviours did not have any effect on their participation in society as follows: "He was directly touching women at puberty. At that time, I was afraid to go out with my elder brother, but it did not affect me much to enter my social circle. Anyway, we didn't have anything to hold my brother and let's go out together," (P2). "My sister's sexual behaviour did not affect my social participation, no," (P4). "There was no change in my social environment because of my brother's sexual behaviours. I may have been in isolation just because my brother is disabled. Another thing I would like to add about my brother's sexuality is that society is not conscious of it," (P7). "There was no obstacle related to this issue," (P8). "It did not create any problems regarding my social participation. No. I did not see any sexual orientation in my brother or any behaviour that would cause distress in society," (P10).

When the participants' discourses are analysed, it is seen that some of the participants' social participation is affected due to their siblings' sexual behaviour; but, on the other hand, some participants state that they are not affected by this situation.

Results and Discussion

Talking about sexual development and discussing perspectives on sexuality are very difficult topics in many societies today. There are very limited studies on the sexuality of individuals with intellectual disabilities (Boyacıoğlu et al., Gümüş & Altınsoy, 2015; Yıldız, 2020). When the literature is examined, in some studies on the subject, opinions about the sexuality of individuals with intellectual disabilities were obtained from their parents (mostly their mothers), teachers and field experts (Çelik, 2017a; Çelik, 2017b; Günlü, 2015; Gürbüz, 2018; Palas Karaca et al., 2016). In this study, it is aimed to examine in depth the perspectives of non-disabled siblings regarding the sexuality of individuals with intellectual disabilities, unlike the aforementioned study groups. Since the studies on the sexuality of individuals with intellectual disabilities from the viewpoint of their non-disabled siblings are quite limited, it is difficult to make comparisons across the relevant literature.

The first results reached in our study in line with the related purpose are that the sexual behaviour of individuals with mental retardation is mostly in the form of rubbing and masturbation, that these behaviours are at home and outside the home, and that

emotions such as excitement and embarrassment are accompanied during the behaviours. As stated at the beginning, these observations belong to the siblings of individuals with intellectual disabilities. Masturbation and rubbing behaviours may be useful for relaxation, falling asleep faster, balancing the effects of negative life experiences, etc. (Morales et al., 2018). If these behaviours develop feelings such as embarrassment and excessive excitement in the individual with intellectual disabilities, if there is a problem in performing other activities in daily life due to excessive sexual behaviour, if the family overly emphasizes such behaviours attracting attention and constantly warning, sexual behaviours may become harmful and occur in inappropriate places and times (Kavaklı, 1992). Research has shown that families, especially their children with intellectual disabilities, engage in sexual behavior in front of others or outside, causing them fear, and that they want to keep this situation under control (Gürol et al., 2014; Kök & Akyüz, 2015). Kijak's (2013) study with 133 individuals with intellectual disabilities revealed that men masturbate approximately twice as often as women. Considering that the individuals with intellectual disabilities in our study were males, except for one person, it can be said that the findings of the present research are compatible with this finding.

Another result reached in our study is that some of the participants stated that their siblings with intellectual disabilities did not have any sexual impulses. This situation is in parallel with the information in the literature that individuals with intellectual disabilities often cannot make appropriate decisions about their own sexuality due to the need for support, protection, and control, and they are affirmed as asexual (Murphy & Young 2005; Swango-Wilson, 2009).

It was observed that some of the participants emphasized that their siblings with mental retardation were "like children" and that they did not actually encounter any sexual behaviour. Similarly, in studies in which parents' opinions are sought regarding the sexuality of individuals who need special education and have intellectual disabilities, it has been found that parents continue to see their children as young children who do not display any sexual behaviour (Bilge & Baykal, 2008; Çelik, 2017a; Çiftçi Tekinarslan & Eratay, 2013; Menghini, 2012; Moll & Moll 2010). Families can sometimes use doing nothing as a method against the sexual behavior of individuals with mental disabilities (Kürtüncü & Kurt, 2020). However, when an individual completes childhood and becomes an adolescent, his or her changing sexual behavior may be ignored and described as "child-like".

Another result obtained from the research is that the reactions of the participants regarding the sexuality of individuals with intellectual disabilities are quite different. The results show that siblings react emotionally in a wide rangeof ways, from happiness to anxiety and anger. Some of them stated that they did not have any emotional reactions. The possibility that they may have had difficulty in describing or expressing their feelings, especially on such an issue, was also taken into consideration. The mentally retarded sibling's taking a step into adult sexuality during adolescence makes some siblings happy. Again, it was observed that the possibility of sexual abuse of the mentally

retarded individual and not knowing how to support their mentally retarded siblings in the process worried the siblings. Unlike siblings, Çelik's (2017a) study similarly focuses on the intense emotional reactions experienced by mothers around fear and anxiety. Since being the sibling of an individual with intellectual disabilities is defined as "being like his mother" according to the statements of a few of the participants, it is not an unexpected result that siblings also experience similar feelings (Moll & Moll 2010).

In the data of the study, regarding cognitive reactions apart from emotional reactions, it is seen that a significant part of the participants has the idea that their siblings should not get married regarding the future lives of their siblings with mental retardation. Based on this thought, there are some views that s/he cannot establish a long-term relationship because s/he has a mental deficiency, that the person s/he will marry will not want to deal with her/him for life, and that if s/he has a child, this may have negative effects on the child. Although the majority have a similar opinion, there are also some brothers and sisters who think otherwise. In addition, it has been determined that the participants of the research have requested to receive sexual education on issues related to sexuality and the sexual development of their siblings with mental retardation. When some studies are examined, individuals with intellectual disabilities have low knowledge levels (Isler et al., 2009; Siebelink et al., 2006), negative attitudes towards sexuality (Bernert & Ogletree 2013) and higher rates of sexual abuse (Schaafsma et al., 2015). According to siblings, it would be beneficial to give sexual health education to both parents and themselves and to individuals with intellectual disabilities (Lambrick & Glaser, 2004). Considering that information about sexuality is mostly learned from family and the immediate environment, it is thought that it would be more effective to include other members of the family along with individuals with intellectual disabilities in sexual health education.

Considering the effects of the sexuality of siblings with intellectual disabilities on their own sexuality and their participation in social life; most of the participants stated that they did not have any positive or negative effects on their inclusion in social life due to the sexual behaviour of their siblings with mental retardation. A few of the participants stated that they engaged in some sexual behaviour by imitation, especially in the early stages, or that they were disgusted with sexuality for a long time and were just trying to overcome this situation. Being exposed to sexual stimuli too much, especially in the early stages, can negatively affect the sexual development of individuals with or without intellectual disabilities. However, the lack of or less social awareness of the sexuality of individuals with intellectual disabilities or the limited number of studies on the subject make it difficult to determine the knowledge and attitudes of individuals with intellectual disabilities towards sexuality (Kijak, 2013) and the knowledge of siblings about their own sexuality, influencing their attitudes. In addition, it should be taken into account that it may be difficult for some individuals with intellectual disabilities to receive feedback directly from themselves, to talk about and learn about sexual development, sexual behaviors or sexual health, due to limitations in the speech field (Yılmaz, 2020).

Although it has been observed that various results have been revealed in studies conducted with siblings of individuals with intellectual disabilities, siblings with typical development in the relevant families may be affected by the stress experienced by the parents, problem-solving skills in the family, communication style, etc. It was concluded that it was affected by these factors (Giallo & Gavidia-Payne, 2006). It is thought that it is appropriate to make evaluations from a holistic perspective, taking into account all elements in the family in the process and without neglecting anyone.

Recommendations

Considering the results obtained from the research, the sexuality of individuals with intellectual disabilities is a subject that should be discussed both in a psychological and sociological context. Although living with an individual with intellectual disabilities is mostly handled from the perspective of mothers, the relationship that the individual has with his/her sibling, who shares the same room, goes out together, sexual behaviours, their reflections, etc. are very important issues. However, the fact that this issue has not been mentioned much until now suggests that siblings of individuals with intellectual disabilities are a group that can be ignored. More work on this topic is essential.

It can be said that it is important to provide sexual health education to individuals with mental disabilities, and that this education should be designed and implemented to include the whole family. It may be recommended to conduct family education programs and cognitive level education, as well as practical and skill development-oriented studies that include interaction between parent-child and siblings.

Another suggestion is to support individuals with mental disabilities and their families socially and emotionally. For this purpose, group psychological counseling, group guidance or psycho-educational studies can be designed especially for typically developing siblings with common experiences.

It is thought that the study will make an important contribution to new research with several results and an original topic. However, there are certainly some limitations to this study. The data obtained in the study are limited to the views shared by 10 adult participants living in Istanbul and their answers to the questions in the interview form. Considering that sexuality is affected by intercultural differences, this issue can be studied with different cultures and age groups in Turkey.

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Genişletilmiş Türkçe Özet

Aile bir sistem olarak düşünüldüğünde, ailede zihin yetersizliği ve özel gereksinimleri olan bir bireyin varlığı bu sistemdeki tüm bireyleri etkileyecektir. Olumlu ya da olumsuz etkilerden diğer kardeş ya da kardeşler de payını alacaktır.

Alan yazın incelendiğinde zihin yetersizliği olan yetişkin bireylerin cinselliklerine ve cinsel gelişimlerine ilişkin çok az çalışma olması ve kardeşlerin bu süreçten nasıl etkilendiklerine, neler deneyimlediklerine ve zihin yetersizliği olan kardeşlerine ilişkin bakış açılarına değinen bir çalışmanın olmaması araştırmanın önemini arttırmaktadır. Bu çalışmadan elde edilecek verilerin zihinsel yetersizliği olan bireylerin cinselliği ve yetersizliği olmayan kardeşlerinin ruh sağlığı açısından araştırma yapacak uzmanlara, zihin yetersizliği olan bireylerin birlikte yaşadıkları ailelerine ve toplumun bütününe yararlı olacağı düşünülmektedir. Bu çerçevede araştırmanın amacı; zihin yetersizliği olan bireylerin cinselliklerini zihinsel yetersizliği olmayan kardeşlerinin bakış açısıyla ortaya koymaktır. Araştırmada aşağıdaki sorulara yanıt aranmıştır:

1) Zihin yetersizliği olan bireyin cinselliğine ilişkin, kardeşinin bakışı nasıldır?

2) Zihin yetersizliği olan bireyin cinsel içerikli eylemlerine yönelik, kardeşinin tepkileri nelerdir?

3) Zihin yetersizliği olan bireyin cinselliğinin, kardeşinin kendi cinselliğine yansımaları nasıl olmuştur?

Araştırma nitel araştırma modellerinden fenomenoloji (olgubilim) olarak tasarlanmıştır. Çalışma grubu, yaşları 19-32 arasında, normal gelişim gösteren, 5 kadın ve 5 erkek toplam 10 kardeşten oluşmaktadır. Zihin yetersizliği olan bireyler (1 kadın ve 9 erkek) ise 18-33 yaş aralığında, hafif-orta ya da ağır derece zihinsel yetersizliği olma özelliklerine sahiptir. Çalışma grubu belirlenirken nitel araştırmalarda kullanılan amaçlı örnekleme yöntemlerinden kartopu örneklemeden yararlanılmıştır. Veri toplama aracı olarak araştırmacılar tarafından hazırlanan demografik bilgi formu ve yarı-yapılandırılmış görüşme formu kullanılmıştır.

Elde edilen veriler neticesinde sonuçların üç ana tema etrafında şekillendiği tespit edilmiştir: (1) kardeşlerinin gözünde zihinsel yetersizliği olan bireylerin cinselliği ve cinsel gelişimi, (2) zihinsel yetersizliği olan bireylerin cinsel yaşamlarına ilişkin kardeşlerinin görüşleri ve (3) zihinsel yetersizliği olan bireylerin cinselliklerinin tipik gelişim gösteren kardeşlerinin cinselliklerine ve sosyal katılımlarına yansımaları.

İlgili amaç doğrultusunda çalışmamızda ulaşılan ilk sonuçlar; zihin yetersizliği olan bireylerin cinsel içerikli davranışlarının daha çok sürtünme ve mastürbasyon şeklinde gerçekleşmesi, bu davranışların evde ve ev dışında olması ve davranışlar esnasında heyecan, utanma gibi duyguların eşlik etmesidir. Bu gözlemler başta da belirtildiği gibi

zihin yetersizliği olan bireylerin kardeşlerine aittir. Araştırmaya katılan kardeşlerin bir kısmı zihin yetersizliği olan kardeşlerinin "çocuk gibi" olduğunu belirterek aslında herhangi bir cinsel içerikli davranışla karşılaşmadığını vurguladıkları görülmüştür.

Araştırmadan elde edilen bir başka sonuç ise zihin yetersizliği olan bireylerin cinselliğine dair kardeşlerin tepkilerinin oldukça farklı içerikte olmasıdır. Elde edilen sonuçlar kardeşlerin duygusal açıdan mutluluktan endişeye ve öfkeye uzanan geniş bir yelpazede tepki verdiklerini göstermektedir.

Özellikle cinsel içerikli davranışların uygun olmayan ortamlarda ve uygun olmayan kişilere yönelik gerçekleşmesi kardeşlerin utanmalarına, öfkelenmelerine neden olduğu görülmektedir. Yine zihin yetersizliği olan bireyin cinsel istismara uğraması ihtimali ve zihin yetersizliği olan kardeşlerine süreçte nasıl destek olacaklarını bilememe konusu kardeşleri endişelendirdiği görülmüştür.

Araştırmanın duygusal tepkiler dışında bilişsel tepkiler ile ilgili verilerde ise kardeşlerin önemli bir kısmının zihin yetersizliği olan kardeşinin gelecekteki yaşamına ilişkin olarak "evlenmemeli" düşüncesine sahip olduğu görülmektedir. Bu düşüncenin temelinde ise zihin yetersizliği olduğu için uzun süreli bir beraberlik kuramayacağı, evleneceği kişinin onunla yaşam boyu ilgilenmek istemeyeceği ve çocuk sahibi olması durumunda bunun çocuğa olumsuz etkileri olabileceği düşünceleri yatmaktadır. Çoğunluk benzer fikre sahip olsa da aksini düşünen kardeşler de vardır. Ayrıca araştırmaya katılan katılımcıların zihin yetersizliği olan kardeşlerinin cinsellik ve cinsel gelişimine ilişkin konularda cinsel eğitim alma taleplerinin olduğu da tespit edilmiştir.

Araştırmaya katılan katılımcıların, zihin yetersizliği olan kardeşlerinin cinselliklerinin kendi cinselliklerine olan etkileri ve toplumsal yaşama katılımlarına ilişkin sonuçlara bakıldığında; çoğu katılımcı zihin yetersizliği olan kardeşlerinin cinsel içerikli davranışlarından dolayı kendilerinin toplumsal yaşama dahil olmada herhangi bir olumlu-olumsuz etkilenme olmadığını belirtirken, katılımcıların birkaçı, özellikle erken dönemlerde taklit yoluyla bazı cinsel içerikli davranışlarda bulunduklarını ya da cinsellikten uzun süre iğrendiklerini ve yeni yeni bu durumu aşmaya çalıştıklarını belirtmişlerdir.

Araştırmadan elde edilen sonuçlar göz önünde bulundurulduğunda zihin yetersizliği olan bireylerin cinselliği hem psikolojik hem de sosyolojik bağlamda tartışılması gereken bir konudur. Zihin yetersizliği olan bireyle yaşamak daha çok annelerin bakış açısıyla ele alınsa da bireyin aynı odayı paylaştığı, sokağa birlikte çıktığı kardeşi ile kurduğu ilişki, cinsel içerikli davranışlar, bunun yansımaları vb. oldukça önemli konulardır. Ancak şimdiye dek bu konuya çok fazla değinilmemiş olması, zihin yetersizliği olan bireylerin kardeşlerinin göz ardı edilebilen bir grup olduğunu düşündürmektedir. Bu konuyla ilgili daha fazla çalışma yapılması elzemdir.

Ethics Committee Approval: The ethics committee approval for this study/reserach was obtained   from   İstanbul Okan University (number: 144 date: 10.11.2021).

Informed Consent: Informed consent was obtained from the 10 of participants.

Peer Review: This study was peer-reviewed.

Authors'   Contribution: 1st author: %50; 2nd author: %50

Conflict of Interests: The authors have no conflict of interest to disclose.

Financial Disclosure: There wasn't funding to report for this submission.

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The Relationship Between Work Engagement, Initiative-Taking, Career Planning and Uncertainty Management in Educational Administrators: A Mixed Methods Research*

Savaş Varlık **

Abstract

The aim of this study is to determine the relationships between work engagement, initiative, career planning and uncertainty management in education administrators. In the study, the descriptive sequential mixed method design was used and the process included first collecting quantitative data and then supporting the quantitative results with comprehensive qualitative data. The quantitative part sample of the research was carried out by cluster and simple random sampling method from education administrators working in Karatay, Meram and Selçuklu districts of Konya province; The qualitative part sample was selected from the educational administrators in the quantitative part sample on a voluntary basis by the criterion sampling method, which is one of the purposive sampling methods. The quantitative data of the study were collected with the scales of Uncertainty Management, Taking Initiative, Work Engagement, Career Planning, and the qualitative data were collected with a semi-structured interview form prepared for use in the research. Descriptive and inferential statistics were made for the quantitative part, and theme, descriptive and content analyses were made for the qualitative part. In the quantitative part of the study, it was found that there was a statistically significant relationship between the variables of work engagement, initiative, career planning and uncertainty management, and that work engagement, initiative and career planning predicted uncertainty management; In the qualitative part, it has been concluded that competent, adequate and qualified education administrators should be selected on the basis of merit and fairly, in order for education administrators to manage uncertainty, integrate with the job, take initiative and make career planning.

Keywords: Uncertainty management, work engagement, initiative taking, career planning, mixed methods research.

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* This article is produced from the author's doctoral thesis no. 736334.

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Introduction

Education organizations often find themselves uncomfortable with uncertainty, which is inherent in their nature and is characterized by unpredictability, complexity, and a lack of security. Therefore, they prefer to have their objectives and structures defined in advance through written forms. However, individuals working in educational organizations are social beings, and despite comprehensive written rules, not every social behavior can be meticulously documented step by step. Hence, there is a need for educational administrators who can effectively manage uncertainty by taking initiative, integrating their work, and pursuing a career in educational leadership.

Uncertainty is one of the most natural and probable occurrences in our daily lives. Consequently, coping with uncertainty is considered a fundamental principle in managing complex organizations (Clampitt & Dekoch, 2001). Uncertainty can be distressing and challenging both cognitively and emotionally. It can create a vulnerability or anxiety that may actively distort perceptions and information. This can lead to premature decision-making, dilemmas, rejection of relevant information, rigid categorization, and a return to old methods (Clampitt & Williams, 2004). Therefore, the effective management of uncertainty requires educational administrators who can take initiative. However, their initiatives must align with the organization's objectives, and the power and authority they employ should be used within legitimate boundaries.

Taking initiative also requires being more flexible (Naswall, Hellgren & Sverke, 2008). Especially in educational organizations where bureaucratic tendencies are prevalent, a more hierarchical management style is often in place. Sometimes, disruptions caused by this hierarchical management style can hinder the smooth flow of work. In such cases, managers may need to take initiative to address these issues (Belschak, Hartog & Fay, 2010). The word "initiative" has been borrowed into Turkish from French. Taking initiative requires active and persistent efforts to address problems. It is considered normal for employees to encounter issues or difficulties in their work environment when engaging in such efforts. However, if employees quickly give up when facing challenges in the workplace, it cannot be said that they are demonstrating initiative (Frese et al., 1996). Moreover, in educational systems, most decisions regarding education are made by central governments. These decisions limit the decision-making authority of school administrators, and during the implementation of these decisions, educational administrators often have to incorporate their own interpretations into the process. Furthermore, it is unrealistic to expect effective initiative from educational administrators whose decision-making authority is as limited as possible. Educational administrators, who are often required to make quick decisions to bring together various elements and create a whole, often do not dare to take such initiatives due to a lack of authority (Bursalıoğlu, 2002). However, we can say that education administrators who are integrated into their work can courageously take initiative, even though the decisions of central governments affect them systemically. This is because education administrators are expected to work in an integrated manner with their roles.

Kahn (1990), who initially introduced the concept of work engagement, described it as an employee's strong attachment to their job, involving their body, emotions, thoughts, and understanding while carrying out their work in the workplace, allowing them to express themselves more comfortably in their role (Kahn, 1990). According to Ashforth & Humphrey (1995), an integrated employee dedicates their mind, heart, and hands to their work, leading to effective job performance. Employees who integrate with their work consistently and effectively channel their physical energy and efforts into their tasks. In essence, work engagement can foster positive emotions in employees, such as motivation, enthusiasm for their work, and a strong commitment to their tasks. This positive emotional state can significantly enhance the quality of an employee's work, their level of engagement, their skills, creativity, and their contributions to the organization (Keser & Yılmaz, 2012). Furthermore, employees who are integrated into their work contribute to fostering a positive working environment within the organization, which, in turn, enhances overall job performance (Kavgacı, 2014). Consequently, work engagement inherently supports employees in both their individual and organizational career development plans.

The initiation and advancement of an employee's career upon entering a job position depend on the organization's implemented socialization program and the success of the employee in this process (Can, 1999). The term "career" originates from the Latin word "carraria," meaning road or main road (Bozkurt, Ergun & Sezen, 2014). It is used to describe a profession or occupation that offers opportunities for promotion and personal development, which an individual will pursue throughout their life. The concept of a career holds significant importance in the lives of individuals who begin planning their future at an early age. Individuals with various motivations aim to focus on a specific profession, acquire expertise through education and experience, and specialize in their chosen field. At the macro level, demographic characteristics of countries, development levels, employment policies, training strategies, global trends, national and international competitive conditions, and at the micro level, individual talents, expectations, opportunities, as well as organizational and regional factors collectively contribute to shaping and determining one's career path (Dündar, 2013).

In today's organizations, it is no longer sufficient for employees to perform their job tasks; they are also expected to embrace organizational values, understand their roles and responsibilities, continuously develop themselves, and act in harmony with the organization's goals. Simultaneously, forward-looking organizations strive to provide their employees not only with secure and long-term job opportunities but also a successful future and career growth. Employees, on the other hand, aspire to advance in their careers, earn higher incomes, achieve job satisfaction, and gain prestige (Bozkurt, Ergun & Sezen, 2014; Long, 2004). The concept of "career" can be interpreted and used in various ways. It can refer to an individual's commitment to a specific field of expertise or related professions, their gradual advancement within a profession, and their overall life success (Eryılmaz, 2008). Aytaç (1997) suggests that the term "career" can be applied to professions requiring expertise in fields such as management, law, or

medicine, while other jobs not requiring such expertise may be termed "employment." Essentially, "career" encompasses the idea of an individual having the opportunity to work at a young age, job security, opportunities for advancement, and assurance of employment until retirement (Eryılmaz, 2008). Tortop (2005) defines a career as "a step-by-step, continuous progress in any field of work, gaining experience and skills over the years, enabling a person to continue working." Can (1999) and Soysal (2007) define organizational career as "the collection of attitudes and behaviors an individual perceives regarding work-related experiences and activities acquired throughout their life." Career involves equipping employees with the necessary knowledge, skills, and abilities to fulfill their job role expectations and aspirations (Özgen, Öztürk & Yalçın, 2002). Uzun (2004) views the concept of career as an individual's occupation, generally continuing until the end of their working life, while Tortop (2005) sees it as a part of the legal framework that enables job transitions. Today, the concept of career emphasizes a process that holds positive meaning for employees, ensuring their psychological satisfaction. In this context, it is more critical for employees to acquire knowledge, develop skills, and enhance themselves than simply advancing within an organization (Erdoğmuş, 2003). However, when examining the career planning of educational managers within the current circumstances and normative regulations, it becomes evident that their career planning is filled with uncertainties, making it challenging for them to formulate career plans under existing conditions.

Despite the existing development plans, education summits, and normative regulations aimed at equipping educational managers with human resources principles (Yüksel, 2003) and transforming them into qualified, competent, and capable educational managers (MEB, 2021), it is observed that these goals have not been fully realized. Educational institution administrators often attempt to carry out their duties without possessing the required knowledge and skills, and without developing positive and meaningful attitudes towards their profession (Turhan & Karabatak, 2015). The ability of educational managers to manage uncertainty, integrate with their work, take initiative, and engage in career planning appears challenging and uncertain within the current context of theory and practice. On the other hand, uncertainty refers to the inability to predict future events or possible outcomes with precision. It should be noted that educational organizations, which involve people, are often characterized by a high degree of uncertainty, making it essential for educational institutions to address uncertainty as a fundamental aspect of their managerial processes. Moreover, managing uncertainty in alignment with the organization's goals necessitates the presence of qualified, competent, and capable educational managers who can take personal initiatives, integrate with their work, and engage in career planning. However, when examining the literature related to these variables, it is evident that numerous studies have been conducted on uncertainty (Allais & Hagen 1979; Carriero, Clark & Marcellino, 2018), work engagement (Brummelhuis & Bakker, 2012; Schaufeli & Salanova, 2011; Van den Heuvel et al., 2010), initiative-taking (Akın, 2012; Frese & Fay, 2001; Daniels, Vimalasiri & Cheyne, 2011; Speier & Frese, 1997), and career planning (Seymen, 2004; Tunçer, 2012; Uzun, 2004). However, the majority of these

studies have been conducted in fields such as physics, mathematics, business, economics, software and information technology, psychology, healthcare, and communication, rather than in educational organizations. Furthermore, it has been observed that these studies primarily focus on disciplines other than educational management. In fact, no study has been found that comprehensively investigates all these variables within the scope of educational organizations. Consequently, there appears to be a gap in the literature regarding educational organizations and educational management. For this reason, the analysis of how the work engagement, initiative-taking, and career planning of educational managers predict uncertainty management has been selected as the main problem of this research.

Purpose of the Research

The aim of this study is to determine the prediction of uncertainty management by educational administrators' work engagement, initiative and career planning. For this purpose, answers to the following questions were sought throughout the research.

1) Is there a relationship between the perception levels of education administrators on uncertainty management, work engagement, initiative and career planning?

2) Do work engagement, initiative and career planning predict uncertainty management?

3) What is the relationship between work engagement and uncertainty management in terms of educational management?

4) What is the relationship between initiative taking and uncertainty management in terms of educational management?

5) What is the relationship between career planning and uncertainty management in terms of educational management?

Method

Model and Paradigm of the Research

This research aims to investigate how educational administrators' work engagement, initiative-taking, and career planning predict uncertainty management, and it is a mixed-methods study that combines quantitative and qualitative research methods. Mixed-methods research is a type of research in which the researcher combines quantitative and qualitative research models to comprehensively understand and reveal reality (Teddlie & Tashakkori, 2009). According to Creswell (2015), mixed-methods research should be used based on keywords that determine the rationale and design choice. In research designed with mixed methods, key concepts such as 'interaction level, priority determination, timing determination, how and where to combine quantitative

and qualitative data' are used to make decisions about design to illuminate the problem (Clark & Ivankova, 2018). By using these key concepts, it was decided to use the explanatory sequential design for this research. The model for the explanatory sequential design from mixed-methods research is provided in Figure 1."

Figure 1.

Mixed Method Research Descriptive Sequential Pattern Model
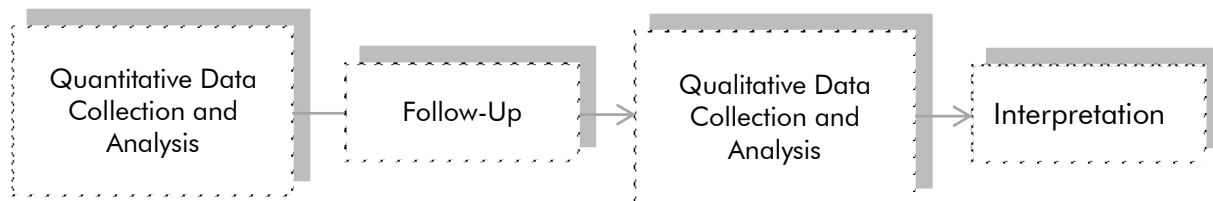
Source: Creswell, 2015

In this research, an explanatory sequential design (explanatory sequential design) and its sub-design, the follow-up explanations variant, were used [MMR(f)= QUANTITATIVE x qualitative, QUANT→qualitative]. This design involves first collecting and analyzing quantitative stage data, followed by collecting and analyzing qualitative data (Creswell & Clark, 2018). The quantitative research was conducted in a descriptive survey model. Survey models fall within the category of non-experimental research models among quantitative research methods. The main aim of survey models is to describe the characteristics of a group or population. In survey research, a sample is taken, and a research purpose-appropriate scale is applied to reveal participants' attitudes, thoughts, behaviors, experiences, or other characteristics (Creswell & Creswell 2018). The qualitative design of this research was conducted according to the embedded single-case design of the case study. A case study design is preferred by researchers when they seek answers to "How?" and "Why?" questions as it allows for in-depth analysis (Yin, 2016). The case study is a research strategy that involves the experimental examination of a specific contemporary phenomenon within its real-life context using multiple sources of evidence (Arthur et al., 2017). Furthermore, the paradigm of this research is pragmatism, which combines both realism and idealism philosophies and is oriented towards "whatever works" (Gunbayi & Sorm, 2020).

Population and Sample of the Research

The quantitative study population of the research consists of education administrators working in the central districts of Konya, namely Karatay, Meram, and Selçuklu. According to the data obtained from the Konya Provincial Directorate of National Education Strategy Development Unit on April 5, 2021, the number of permanent education administrators in Karatay district is 369, in Meram district, it is 362, and in Selçuklu district, it is 567. The total number of permanent education administrators in these three districts is determined to be 1298. To determine the sample size, the $\alpha=0.05$ table by Arıkan (2005) and Altunışık et al. (2010) was considered. As a result of the

examination, it was decided that a sample group of n=296+ individuals could represent a population of 1298 individuals at a significance level of 0.05 and with a 5% tolerance level. Probability-based sampling techniques, specifically cluster sampling and simple random sampling, were used in the selection of education administrators. The general sample rate was calculated as [296/1298=0.228] to determine the number of samples allocated to each cluster. Accordingly, 84 education administrators from Karatay district, 83 from Meram district, and 129 from Selçuklu district were selected for the sample. The education administrators included in the sample were selected using the simple random sampling technique, which is one of the probability-based techniques. On the other hand, in the qualitative part of the research, the "criterion sampling" technique, which is one of the purposeful sampling methods, was used. Criterion sampling involves including individuals who meet specific criteria related to the research purpose (Given, 2008). In this research, the criteria for inclusion were defined as education administrators working in central or provincial organizations, having completed postgraduate education in educational administration, and having given low scores to measurement tools. Nine education administrators who met these criteria were included in the research on a voluntary basis.

Data Collection Tools

The Uncertainty Management Scale was developed by Mazlum (2019). The scale consists of thirty-one items and four dimensions under the factors of uncontrollable forces, organizational change, manager-employee relationship and communication, uncertainty tolerance. The Work Engagement Scale was developed by Schaufeli, Bakker & Salanova (2006). The short version of the scale has been translated into Turkish by Özkalp & Meydan (2015). The scale consists of nine items and three factors: fitness, dedication and concentration, in accordance with the authors' conceptualization. The Initiative Taking Scale was developed by Akın (2012). The scale consists of thirty-two items and three factors: proactivity, spontaneous onset, persistence. The Career Planning Scale was developed by Aydın (2010). The scale consists of fourteen items and one dimension. The results of the confirmatory factor analysis for the measurement tools used in the study are given in Table 1.

Table 1.

Confirmatory Factor Analysis Model Fit Criteria and Model Results

Model Fit Criterion	Acceptable Fit	Uncertainty Management	Work Engagement	Taking the Initiative	Career Planning
$X2$ Fit Test	$0,01 < p \leq 0,05$	,000	,028	,000	,000
CMIN/SD	$X2 /sd \leq 5$	1,913	1,634	1,350	1,913
Comparative Fit Indices					
IFI	$,90 \leq IFI$	,962	,971	,954	,962
CFI	$,95 \leq CFI$	,961	,971	,953	,961
RMSEA	$RMSEA \leq 0,08$	,052	,045	,032	,052
Absolute Fit Indices					
GFI	$0.85 \leq GFI$	,956	,974	,909	,956

AGFI	0.85 ≤ AGFI	,917	,950	,888	,917
Residual Based Compliance Indices					
RMR	0 < RMR ≤ 0,08	,039	,021	,036	,039
Model Comparison Fit Indices					
AIC	Smallest model	205,148	81,581	778,270	205,148
CAIC	Smallest model	441,766	186,415	1265,993	441,766
ECVI	Smallest model	,605	,257	2,296	,605

Source: Byrne, 2016; Collier, 2020; Kline, 2016; Thompson, 2004

When the values in Table 1 for the confirmatory factor analysis model fit criterion and model results were examined, it was seen that the values obtained were smaller than both saturated and independent models. In this case, it has been concluded that scale models are close to reality (Byrne, 2016). The reliability coefficient for the overall uncertainty management scale was α=.870, the reliability coefficient for the overall work engagement scale was α=.734, the reliability coefficient for the overall personal initiative scale was α=.879, and the reliability coefficient for the overall career planning scale was α=.789. An alpha coefficient of 0.60 and above indicates that the scale is quite reliable (Alpar, 2011; Strap, 2010; Ozdamar, 2017). In this study, the reliability coefficients of the scales are 0.60 and above, which shows that they are reliable.

In the qualitative phase of the research, a semi-structured interview form was used to explain the results obtained from quantitative analyses in depth. The interview technique can also be called a traditional questionnaire created by asking questions in turn, recording, or marking the answers (Arıkan, 2005). The purpose of the structured interview is to determine the parallelism and difference between the information given by the interviewees and to make comparisons within this framework (Yıldırım & Şimşek, 2005). On the other hand, ethical principles were meticulously followed at every stage of the research. The Akdeniz University Scientific Ethics Committee has obtained the necessary legal permissions with the number 128851 dated December 7, 2020.. It was ensured that the questionnaires were filled in by the education administrators on a voluntary basis. The purpose of the study was explained to the relevant parties with the attached consent form and the research was continued in line with the permission obtained. To further ensure confidentiality, the names of the interviewees were coded as "A-B-C-D-E-F-G-H-I". In the consent forms, information about the rights of the right holders not to answer or refuse questions about the sensitive issues of the participants is explained. In addition, they are assured that they can withdraw from this research at any time until the research article is accepted. On the other hand, since all the records of this study are private, they are stored with password protection and have not been shared with anyone.

Data Analysis

In the quantitative part of the study, SPSS 25 and AMOS 23 package programs were used. The kurtosis and skewness values for the normal distribution were determined as -3 and +3 reference intervals (Kalaycı, 2010). If kurtosis values are less than three, the

distribution exhibits wider peaks, and kurtosis values greater than three exhibit sharper peaks in the center of the distribution than those in the normal distribution, disrupting the normal distribution (Aldrich & Cunningham, 2016; Cohen, Manion & Morrison, 2018; Young, 2017). The skewness and kurtosis coefficients obtained for this study showed that the data were normally distributed. Descriptive statistics and inferential statistics were calculated for the data collected in this study. The relationship between two or more variables that change together is examined by correlation. The direction of the relationship, that is, whether it is in the opposite or right direction, and the strength of the relationship are determined by a coefficient called the correlation coefficient. While the correlation coefficient shows the direction and strength of the relationship between variables, it does not provide information about the mathematical structure of the relationship between variables (Güriş & Astar, 2015). Regression analysis is the most common method used to model the relationship between two or more variables in inferential statistics. In regression analysis, the relationship between variables is explained by a mathematical model. If the analysis is performed using a single variable to model the output, it is called univariate regression analysis, and if more than one variable is used, it is called multivariate regression analysis (Pektaş, 2013). In the study, the calculations regarding whether work engagement, initiative and career planning predict uncertainty management were made by regression analysis. A general score was obtained from the measurement tools used in the research with the mean and the correlation and regression analyzes in the quantitative part of the research were calculated with this average score.

In the qualitative part of the study, the NVIVO 10 package program was used. Qualitative data analysis is divided into four groups: "theme analysis, descriptive analysis, content analysis, and analytical generalization" (Gunbayi, 2023). After the thematic and descriptive analyzes were made for this research, analytical generalization was made. In the study, kappa analysis was performed to calculate the reliability of the coding processes of qualitative data. An inter-encoder reliability coefficient was found [κ=.914 t=10.754 p=.001]. This coefficient indicates that the inter-encoder reliability is significantly high (Landis & Koach, 1977).

Findings

The findings on the relationship between uncertainty management, work engagement, initiative and career planning are given in Table 2, and the findings and interpretations regarding the prediction of uncertainty management by work engagement, initiative and career planning are given in Table 3.

Table 2.

Correlation Analysis Results on Uncertainty Management, Work Engagement, Initiative Taking and Career Planning

	Uncertainty Management	Work Engagement	Taking the Initiative	Career Planning
Uncertainty Management	1			
Work Engagement	,660**	1		
Taking the Initiative	,284**	,142*	1	
Career Planning	,393**	,258**	,340**	1

** $p < 0.01$ *$p < 0.05$

When the results of the correlation analysis of the relationship between uncertainty management, work engagement, initiative and career planning are examined in Table 2, it is seen that there is a positive and statistically significant relationship between all variables included in the study. There is a positive and statistically significant relationship between uncertainty management and work engagement [$r = .660$ $p < 0.01$]. There is a positive and statistically significant relationship between uncertainty management and taking initiative [$r = .284$ $p < 0.01$]. There is a positive and statistically significant relationship between uncertainty management and career planning [$r = .393$, $p < 0.01$]. There is a positive and statistically significant relationship between work engagement and taking initiative [$r = .142$ $p < 0.05$]. There is a positive and statistically significant relationship between work engagement and career planning [$r = .258$ $p < 0.01$]. There is a positive and statistically significant correlation between initiative taking and career planning [$r = .340$, $p < 0.01$].

Table 3.

Multiple Regression Analysis Results on the Prediction of Uncertainty Management by Work Engagement, Initiative Taking and Career Planning

	B	Standard Error	β	t	p
Constant	1,557	,175	-	8,914	,001*
Work Engagement	,429	,030	,590	14,349	,001*
Taking the Initiative	,093	,029	,134	3,168	,002*
Career Planning	,130	,029	,195	4,504	,001*

(i) Regression Model Materiality Test $F_{(3-315)} = 106,750$ $p = .001*$ $R = .710$ $R^2 = .504$ Corrected $R^2 = .499$ Durbin-Watson Value 1.567 Tolerance values Work Engagement .930 Initiative Taking .881 Career Planning .839 VIF values Work Engagement 1.075 Taking Initiative 1.135 Career Planning 1.191 and the mean of waste was found to be zero. The skewness and kurtosis values for the normal distribution assumption are given in Table 3.13 in the descriptive statistics section. Dependent Variable: Uncertainty Management

(ii) * $p < 0.05$ significance level

When the results of multiple regression analysis on the prediction of work engagement, initiative and career planning for uncertainty management are examined in Table 3;

The significance value of the model established under the influence of work engagement in (X_1), initiative taking (X_2) and career planning (X_3) independent variables on the uncertainty management $_{(\hat{Y})}$ dependent variable is less than 0.05. shows [$F_{(3-315)}$= 106,750 p=,001*]. Therefore, the established regression model (1) can be used for prediction.

$$\hat{Y} = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + \varepsilon$$
(1)

In the table above, when the coefficients are substituted in the regression model (1), the regression equation (2) is as follows.

Uncertainty Management = 1,557 + (,429 x Work Engagement) + (,093 x Initiative) + (,130 x Career Planning) +ε (2)

The significance value of the β_0 parameter t test was [t=8.914 p=.001*] β the significance value of the 1 parameter t test was [t=14.349 p=.001*] β the significance value of the 2-parameter t test was [t=3.168 p=.002*] and the significance value of the β_3 parameter t test was [t=4.504 p=.001*]. These values show that the independent variables of work engagement, initiative and career planning are statistically significant in predicting uncertainty management, which is the dependent variable. According to the adjusted value of R^2=.499, the independent variables of work engagement, initiative and career planning explain 49.9% of the total variance of the uncertainty management dependent variable. When the predictive power of the model is examined, it is seen that the best predictor of uncertainty management according to standardized beta coefficients is work engagement with 59.0% [β=.590]. This finding shows that the integration of the training manager with the job is an important predictor on managing uncertainty. When the predictive power of the model is examined, it is seen that the second-best predictor of uncertainty management according to standardized beta coefficients is career planning with 19.5% [β=.195]. This finding shows that the career planning of the training manager is an important predictor of managing uncertainty. When the predictive power of the model is examined, it is seen that the third-best predictor of uncertainty management according to standardized beta coefficients is initiative taking with 13.4% [β=.134]. This finding shows that the initiative of the training manager is an important predictor of managing uncertainty.

The themes, categories, and subcategories of the relationship between work engagement and uncertainty management are given in Table 4, the themes, categories, and subcategories of the relationship between initiative and uncertainty management are given in Table 5, and the themes, categories and subcategories of the relationship between career planning and uncertainty management are given in Table 6.

Table 4.

Themes, Categories and Subcategories of the Relationship Between Work Engagement and Uncertainty Management

Main Theme	Category	Sub-Themes	A	B	C	D	E	F	G	H	I
The Relationship Between Work Engagement and Uncertainty Management	Change Effect	Ability to Foresee Innovations	✓			✓		✓			
		Implementing Technological Innovations	✓	✓			✓		✓	✓	
	Impact on Employees	Increased Contact with Stakeholders	✓		✓			✓	✓		
		Informing Employees in a Multifaceted Way	✓	✓		✓				✓	✓
		Reassuring Stakeholders	✓				✓				✓
	Predictive Effect	Making the Right Plans	✓				✓	✓	✓		
		Easily Implement Instructions		✓		✓				✓	
	Acceptance Effect	Not rejecting ambiguity	✓				✓			✓	
		Not Afraid of Uncertainty			✓		✓		✓	✓	
		Feeling Self-Sufficient	✓					✓		✓	✓

When the findings of the main themes, categories and sub-themes of the relationship between work engagement and uncertainty management are examined in Table 4, the sub-themes of the relationship between work engagement and uncertainty management are divided from the sub-themes of "anticipating innovations, implementing technological innovations" to the "Change Effect" category, from the sub-themes of "increasing contact with stakeholders, informing employees in a multifaceted way, relieving stakeholders" to the "Impact on Employees" category, The category of "Prediction Effect" was reached from the sub-themes of "making correct plans, applying instructions easily", and the category of "Acceptance Effect" was reached from the sub-themes of "not rejecting uncertainty, not being afraid of uncertainty, feeling self-sufficient". The statements of the education administrators on the subject are as follows:

[... Work engagement has an impact on uncertainty management. The more integrated the training manager is with his job, the easier it is to manage uncertainty. I can say that it has a change effect. Because a training manager who is integrated with the business can foresee innovations in the name of change. He can even apply technological innovations to his school right away.

[... Work engagement has an impact on uncertainty management, and I would say that it is multidimensional. Training management needs to inform its employees about uncertain issues in uncertainty management. Uncertainty, in my opinion, arises from deficiencies in information sources. What will happen? How will it be? An ambiguous atmosphere prevails in the environment. At this point, the training manager can convey the right information to his employees in a versatile way by using communication resources D, OM-E].

[... Work engagement should naturally have an impact on uncertainty management. If you want to manage uncertainty, you shouldn't be far away from technology, you should even follow technological changes and implement them in your school (G, MY-K].

[... I would say that uncertainty also has an impact on employees. Here, what the training manager needs to do is to inform his employees in a multifaceted way, otherwise an atmosphere of fear will quickly spread in the environment and disrupt the working atmosphere (H, MY-E].

[... You have to accept uncertainty, if a training manager integrated with the business accepts uncertain situations and considers himself competent to managethem, he can manage uncertainty I, MY-E].

Table 5.

Themes, Categories and Subcategories of the Relationship Between Initiative Taking and Uncertainty Management

Main Theme	Category	Sub- Theme	A	B	C	D	E	F	G	H	I
The Relationship Between Initiative Taking and Uncertainty Management	The Mindfulness Effect	Making Plans by Predicting			✓	✓					✓
		Ability to Act Flexible in Uncertainty	✓				✓		✓		
		Recognizing the Unforeseen		✓	✓			✓	✓		
	Communication Impact	Instant Notification of Developments			✓		✓	✓			
		Providing Accurate Information	✓					✓			✓
		Supporting Stakeholders		✓		✓			✓	✓	
	The Impact of Creating Change	Researching for Change	✓					✓	✓		
		Innovativeness			✓	✓					✓
		Embracing Developments		✓				✓			✓
		Applying Changes to School		✓			✓		✓	✓	

When the findings of the main themes, categories and sub-themes of the relationship between initiative taking and uncertainty management are examined in Table 5, it is stated that the upper theme of the relationship between initiative taking and uncertainty management is changed from the sub-themes of "making plans by predicting, acting flexibly in uncertainty, recognizing unpredictable situations" to the "Awareness Effect" category, from the sub-themes of "instant news about developments, providing accurate information, supporting stakeholders" to "Communication." The category "Impact of Creating Change" was reached from the sub-themes of "researching for change, being innovative, adopting developments, applying changes to the school". The statements of the education administrators on the subject are as follows:

[... Taking initiative has an impact on uncertainty management. The training manager who takes the initiative is not cowardly and is always determined. It also recognizes uncertain situations in advance so that it can manage uncertainty more easily B, OM-E].

[... Taking initiative definitely has an impact on uncertainty management, because a person who does not take initiative cannot be a training manager in my opinion. If you are a training manager, you already have to know how to take the initiative. Uncertain situations do not arise all at once, however, the training manager who plans and takes the initiative can manage the uncertainty. In one aspect, this is the ability of the training manager, who can take the initiative, to recognize the uncertainty D, OM-E].

[... Since the training manager who takes the initiative is always open to communication with his employees, he informs them instantly about the developments, thus managing uncertainty. The ability of the training manager to take the initiative is extremely important in terms of uncertainty management (C, OM-K].

[... Educational managers are already change-oriented, for them the old concept is called very bad, they always want to be innovative, and I think innovation is enough to manage uncertainty (D, OM-E].

Table 6.

Themes, Categories and Subcategories of the Relationship Between Career Planning and Uncertainty Management

Main Theme	Category	Sub-Theme	A	B	C	D	E	F	G	H	I
The Relationship Between Career Planning and Uncertainty Management	Individual Impact	Collaborating with Employees	✓				✓				✓
		Getting Employee Ideas				✓			✓		
		Not being intimidated by uncertain situations	✓					✓	✓		
		Respect for Employees			✓		✓				✓
		Being a Suitable Person for the Job		✓				✓			
		Ability to Take Initiative					✓			✓	
	Organizational Impact	Valuing Performance				✓			✓		
		Making Rational Decisions	✓				✓			✓	✓
		Increased Internal Communication				✓	✓				✓
		Balance of Authority and Responsibility				✓				✓	
		Clarity of Task Distribution	✓	✓				✓			

When the findings of the main themes, categories and sub-themes of the relationship between career planning and uncertainty management are examined in Table 6, the sub-themes of "cooperating with employees, getting the opinions of employees, not being afraid of uncertain situations, respecting employees, being a suitable person for the job, taking initiative" are included in the "Individual Impact" category, The category of "Organizational Impact" was reached from the sub-themes of "valuing performance, making rational decisions, increasing communication within the organization, balance

of authority and responsibility, clarity of task distribution". The statements of the education administrators on the subject are as follows:

> *[... Career planning has an impact on uncertainty management, and I think it has both a personal and organizational impact. Why? A person who wants to be successful in his education manager career enters a career planning process by knowing his strengths and weaknesses, and if he is successful, he rises. With such planning, the training manager consults the opinion of the employees to manage the uncertainty in uncertain situations and prefers to act in accordance with their opinion D, OM-E].*

> *[... Career planning has an impact on uncertainty management. The training manager who makes career planning prefers to be an education manager by correctly identifying his talents and making future plans for his career, such a training manager knows how to take the initiative easily in uncertain situations H, MY-E].*

> *[... The only thing that the education manager who makes career planning will do in case of uncertainty at school is to clearly determine the distribution of duties, so that he can manage the uncertainty in a better way B, OM-E].*

> *[... The education manager who makes career planning is expected to do his best to increase communication in school environments in the institutional sense, and if he establishes the balance of authority and responsibility properly, he can also manage uncertainty C, OM-K].*

> *[... The training manager who makes career planning can manage uncertainty better because he has good communication within the organization and makes rational decisions I, MY-E].*

Results and Discussion

In the study, it was concluded that there is a positive and statistically significant relationship between uncertainty management and work engagement, taking initiative, and career planning. This result is similar to the results of Mazlum (2019), Yamen (2021, İnanır (2020), Altok (2019), Çelik (2019), Özkeskin (2019), Akdeniz (2018), Atik (2018), Kavgacı (2014), Sevil (2019), Tekin (2019), Tekeş (2018), Aydın (2021), Bulgur (2021) and Ece (2016). It can be said that it is related to the fact that education administrators feel very energetic, strong and vigorous in terms of work engagement, constantly looking for ways to do their jobs better in terms of taking initiative, creating new goals and objectives that they think will improve the school, taking more initiative in the school when there is uncertainty in the education processes, and taking precautions at the school for the problems that may arise from changes and innovations. Educational

organizations, as well as individuals, are disturbed by uncertainty due to the unpredictable prediction, complexity, and insecurity inherent in uncertainty (Clampitt & Williams, 2004). For this reason, organizations want their goals and structures to be determined in advance in written forms. From this point of view, even the areas of movement of the people working in organizations are determined by written rules. However, since the person is a social being, even if a set of written rules is created, not every social behavior in organizations can be put into written rules step by step. Therefore, in order to manage uncertainty, there is a need for qualified education managers who are able to take initiative, integrate with their work and make career planning in the field of education management.

Similarly, Midthassel, Bru & Idse (2000) define education administrators as those who take part in activities that contribute to the development of the school and take initiatives that support cultural changes. On the other hand, employees who integrate with their work always improve themselves in a determined and effective way by transferring their physical energy and bodies to their work. They use their minds by mentally developing new ideas and thoughts, finding solutions to problems. This shows that they are not afraid to take responsibility in a creative and innovative way, but rather brave. At the same time, they become emotionally attached to what they do, making sense of it and enjoying it. They involve themselves in the workflow, forgetting the difficulties they face while doing their job (Imperatori, 2017). When the level of career planning and initiative of training managers increases, the level of work engagement also increases. Training managers should be proud of their work in terms of work engagement, feel happy even in intense work and work in a state of being buried in work, try to do even jobs that are not clearly defined as the duty of a training manager in the legislation in taking initiative, providing rotation opportunities by evaluating according to talent and education status in terms of career planning, organizing job adaptation and orientation programs, career management and planning. It can be said that the implementation of written procedures and policies to guide their efforts, the provision of equal and fair promotion opportunities, and the enthusiasm and inspiration of the work of education managers in work engagement are related to their enthusiasm and inspiration, and their intense desire to go to their jobs.

In the study, it was concluded that work engagement is an important predictor of uncertainty management. According to Ashforth & Humphrey (1995) and Imperatori (2017), work-integrated individuals emotionally concentrate on what they do, make sense of it, and enjoy what they do. They immerse themselves in what they do, coping with the difficulties they face. By performing at a high level, they give their minds, hearts, and hands to their work. In short, an employee who is integrated with the work gives himself completely to his work. Such employees are always ready for action, determined and effective. They improve themselves by giving their bodily energy and body to their work. Mentally, they find solutions to problems by developing new thoughts and ideas. Employees who are integrated into their work are innovative and creative. They are not afraid to take responsibility and are brave. For this reason, it can be said that education

administrators, who feel very energetic, strong and vigorous while doing their jobs and believe that their work inspires and enthusiastizes them, will be more effective in uncertainty management by taking more initiative in their schools when there is uncertainty in their education processes, by creating more awareness in their schools of uncertainties caused by developments beyond their control, by not having difficulty in making decisions and by not ignoring uncertainties.

In the theme analysis made in the qualitative stage, the categories of "change effect, effect on employees, prediction effect, acceptance effect" were reached on the uncertainty management of work engagement. In contrast to the quantitative stage, the effects of work engagement on uncertainty management are expressed in sub-themes. According to training managers, the ability to anticipate innovations for the category of change impact on uncertainty management, the implementation of technological innovations; increasing contact with stakeholders for the category of impact on employees, informing employees in a multifaceted way, reassuring stakeholders; making the right plans for the category of predictive effect, easy implementation of instructions; For the category of acceptance effect, it is expressed as not rejecting uncertainty, not being afraid of uncertainty, and feeling competent for the education administrator.

Business-integrated education managers can see new ways to deal with uncertainty and use those new ideas in their schools or institutions when they use qualitative theme analysis to look at the category of change effect of work engagement on uncertainty management (Bakker & Schaufeli, 2008; Bakker & Leiter, 2010).New ideas, practices, and objects perceived by individuals and organizations are called innovations. By anticipating innovations, education managers can also develop alternative solutions to problems related to uncertainty, as well as produce new solutions for perceiving problems and needs (Clapham & Cooper, 2005). If the integrated education manager wants to bring about change in the situation of uncertainty, he must consciously choose the innovation perspective towards the realization of the school's goals, because organizations benefit themselves with rational reason. They prefer to implement innovations that are compatible with their goals (Hsiung, 2012). From the point of view of the education system, the questions of how the lessons will be taught in the coming years, how schools should be designed according to technology, whether students and teachers are ready for technological changes, whether technological devices will replace books or notebooks, and how the course contents should be compatible with technology remain unclear about the future. From this point of view, if the education manager, who is integrated with the business, wants to manage uncertainty in the name of change, smart boards, tablets, laptops, classmates, virtual glasses, distance education, etc., should follow technological innovations in the name of education and be able to carry out this together with all stakeholders.

When the category of qualitative theme analysis examines the effect of **work engagement** on **uncertainty management on employees,** training managers who are

integrated with their work can manage uncertainty by increasing contact with stakeholders in uncertainty management, informing employees in a multifaceted way and reassuring stakeholders (Demerouti et al., 2001). Teachers, parents, students and individuals or institutions outside the school are considered stakeholders of the school. Schools aim to ensure that teaching is carried out effectively in line with the predetermined objectives. In order to achieve this goal, all stakeholders have important duties. The duty of the education administrator is to ensure that all activities in the school are carried out together with all stakeholders in accordance with academic objectives. In line with these goals and task, the integrated training manager should try to ensure coordination by increasing contact with internal and external stakeholders in uncertain situations and demonstrating good governance (Mauno, Kinnunen & Ruokolainen, 2007). Uncertainty is a cognitive state that occurs because there are not enough clues about an event or because the event is not structured. Lack of knowledge can also be caused by insufficient experience, and even the interpretation of information can reveal significant problems. Therefore, if the training manager who is integrated with his job wants to manage uncertainty in uncertain situations, he needs to inform his employees in a multifaceted way (Hobfoll et al., 2003). From the point of view of educational institutions, teachers can react more emotionally than administrators to uncertainties in the implementation processes and may experience more feelings of disappointment, anxiety, and fear under uncertainty. For this reason, we can say that education managers who are integrated with the work that will comfort and guide teachers, students and parents under uncertainty can be more successful in uncertainty management.

When the category of predictive effect **of work engagement on uncertainty management is examined in qualitative theme analysis**, training managers who are integrated with their work can manage uncertainty by making the right plans and easily applying instructions in uncertainty management (Halbesleben & Wheeler, 2008). Management processes consist of various functions. Although it is referred to by different names in the literature, we can generally evaluate it under four headings as planning, organizing, directing, and supervising (Tortop, 2005). Planning, which is one of the functions of management processes, is the measure that will ensure the coordination between the strategies that will enable an organization to achieve its goals and the coordination between these strategies. Planning includes the means and goals of how and what to do (Tunçer, 2012). We can say that the training manager, who is integrated with the business, also needs to make the right plans in order to foresee uncertainty. The education system is among the systems most affected by the continuous changes in technological, sociological, political, and economic conditions. Since education managers are also involved in this change, they need effective planning to adapt to changing conditions (Hunt, Tourish & Hargie, 2000). A training manager who is integrated with his business can ensure that uncertainty management is combined through planning, make it possible to foresee changes by looking ahead, and most importantly, prevent waste of effort and time (Drucker et al., 2008). It appears with names such as directing, execution and command-command, which are the functions

of management processes (Tortop, 2005). However, the subject of the management function is human, and education managers are trying to fulfill the work by adhering to the plans within the human subject. The education manager, who is integrated with the work, is obliged to fulfill urgent tasks such as fulfilling orders and instructions, motivating teachers, and increasing communication within the framework of the decisions and plans taken in educational institutions in uncertain situations (Salanova et al., 2005). From this point of view, we can say that it is important for the education manager who is integrated with the business to get to know the teachers, students, and employees better, not to get stuck in the details, to operate the control mechanism, and to have an exemplary education manager around him in order to easily implement instructions in uncertainty management. When the **category of the acceptance effect** of qualitative theme analysis on uncertainty management of work engagement is examined, training managers who are integrated with their business can manage uncertainty by not rejecting uncertainty in uncertainty management, not being afraid of uncertainty and feeling self-sufficient. What people know is often not enough to explain existing situations and take steps towards the future (Prins et al., 2009). For this reason, people should adopt an attitude of acceptance of uncertain things. The integrated education manager must also learn to live with a modicum of uncertainty, accepting that we will not be able to fully know the universe today and in the future (Rothmann, Jorgensen & Hill, 2011). Considering that uncertainty is complexity, it must accept that knowledge will always be hidden. Uncertainties are seen as fears and threats in organizations (Koppenjan & Klijn, 2004). However, it should not be forgotten that uncertainty is an opportunity. Integrated education managers approach the fear of uncertainty with confidence in their coping processes and can recognize it as soon as it arises (Van den Bos, 2009). In this way, training managers, who can recognize it in advance, can control the uncertainty before it gets out of control. The atmosphere of the educational environment and the behavior of the educational administrator return to the school environment due to their mutual influence. Therefore, poor communication between the education administrator and school staff leads to a high level of uncertainty in the work environment (Van den Bos & Lind, 2002). The warm climate of the working environment can be explained by the communication skills of the training manager and the feeling of competence against uncertainty management (Berger, 1986). We can say that it is quite sufficient for the training manager, who is integrated with his job, to feel competent in the working environment, to put fair, clear information, and attitudes into practice in coping with uncertainty.

In the study, it was concluded that career planning is an important predictor of uncertainty management. This result shows that the career planning of the training manager has a certain effect on managing uncertainty. According to Karadal (2008), career planning is a process that concerns the person who wants to be successful in his career. The person evaluates his/her own knowledge, skills and interests, strengths and weaknesses and makes plans for his/her advancement in the organization. Organizations, on the other hand, should provide support with future-preparatory programs such as determining the training needs of their employees through

organizational career planning, evaluating success, increasing the level of job satisfaction and increasing their organizational commitment, encouraging them to go to business development and new departments. Because successful organizational planning is based on effective career planning (Şimşek & Soysal, 2004).

In the theme analysis made in the qualitative stage, the categories of "individual impact, organizational impact" were reached on the uncertainty management of career planning. In contrast to the quantitative stage, the effects of career planning on uncertainty management are expressed in sub-themes. According to the training managers, for the category of individual impact on uncertainty management, it is necessary to cooperate with employees, to get ideas from employees, not to be afraid of uncertain situations, to respect employees, to be a suitable person for the job, to take initiative; For the category of organizational impact, it is expressed as valuing performance, making rational decisions, increasing communication within the organization, establishing a balance of authority and responsibility, and having a clear distribution of duties.

When the category of individual impact of **qualitative theme analysis on the uncertainty management of career planning** is examined, it has become necessary to plan the development and growth of the personnel within the organization, considering the developments that may arise in the long term in terms of both the employee and the organization. Career planning is a process that consists of determining career goals and planning training and development programs that will achieve these goals by being aware of the individual, himself, his opportunities and limitations, the choices he makes and their consequences (Uzun, 2004). In the career planning process, the organization and the individual do not form different parties but work together as complementary parts. In this context, career planning emerges in two different dimensions, especially organization-centered and individual-centered (Dündar, 2013). Training organizations, like other organizations, attach great importance to job roles and the division of labor so that their employees can perform their duties faster (Erdoğmuş, 2003). However, developing technology and innovations in the design of jobs have increased the importance of collaboration rather than job roles and divisions of labor. Collaboration reduces the crude hierarchy that does not exist in training organizations and increases the level of interdependence of education workers (Heslin, 2005). Therefore, we can say that the cooperation of education managers in their individual career planning will have an impact on their management of uncertainty. As in all organizations, it is important to train organizations to care for and listen to the ideas of their employees and to show them that they are noteworthy through communication (Canman, 2000). In uncertain situations, it may be difficult for some employees to express their opinions freely, while others may find it difficult to get their opinions, in such a case, the education manager should prepare a good environment where all employees in the school or institution can express their opinions without hesitation. If the training manager shows that he takes the ideas of the employees and uses the ideas of the employees in his actions, it will also increase the commitment and performance of the employees towards their work

(Griffin, Phillips & Gully, 2019). Therefore, we can say that training managers' individual career planning will have an impact on the management of uncertainty. The concept of uncertainty is used together with the concepts of crisis, risk and confusion in the relevant literature. Uncertainties are seen as fears and threats in educational organizations (Smithson, Bammer & Group, 2008). However, it should not be forgotten that uncertainty is an opportunity: Successful education managers approach the fear caused by uncertainty with confidence in their processes of coping with uncertainty and can recognize it as soon as it arises (Grote, 2009). Therefore, we can say that the fact that education administrators are not afraid of uncertain situations in their individual career planning will have an effect on their management of uncertainty. From the point of view of educational institutions, respect for education workers can ensure that education workers are engaged, productive, and highly engaged (Wiltbank et al., 2009). In the same way, the training manager's respect for his employees can instill confidence in the employee and even increase the courage of the employee in uncertain situations, and the respect of the training manager for his employees can create a respectful and fair working environment, resulting in an environment where information sharing increases and stress decreases (Allen, Jimmieson, Bordia & Irmer, 2007). For this reason, we can say that the respect of training managers for their employees in their individual career planning will have an impact on their management of uncertainty. Whether the individual knowledge, skills, and attitude of the education administrator are suitable for education management is a question that needs to be mutually addressed. Organizational efforts to include and select competent, adequate, and qualified training managers in accordance with normative regulations are among the issues raised (Gamboa et al., 2009).We can say that the key word of being a suitable person for the job is "merit". Merit is the inclusion of competent and business-savvy people in the system as training managers (Uzun, 2004). Education managers, who will make individual career planning, should prefer the profession of education management if they deem themselves sufficient in terms of their knowledge, skills, and attitudes. Otherwise, the fact that people who are not suitable for the job with the union and crony sergeant relationship are education administrators will become the subject of uncertainty rather than managing the uncertainty and will also harm the educational pillar of social development (Çalık & Ereş, 2006). Therefore, we can say that the fact that education managers are suitable for the job in their individual career planning will have an impact on their management of uncertainty. Taking personal initiative positively increases both individual and organizational effectiveness (Frese, 2001). Since it increases organizational effectiveness, the interest of organizations in the concept of personal initiative is increasing day by day. Personal initiative is characterized by employees persistently fighting against pressure and obstacles and resolutely trying to achieve their goals (Frese, Garst & Fay, 2007). For this reason, we can say that the fact that education administrators take initiative in their individual career planning will have an impact on managing uncertainty.

When the organizational impact category of **qualitative theme analysis on the uncertainty management of career planning** is examined, competence is the set of

observable behaviors that include the knowledge, skills, and attitudes of the training manager in achieving his performance. In the context of the current situation, it seems difficult in terms of organizational career planning to say that education managers are selected by valuing their competence and performance (Turhan & Karabatak, 2015). The necessity of objectively evaluating and competency-based selection of education administrators, objectively distinguishing them from average or high performers from the moment they are included in the system, and valuing their performance are among the facts expected to be done today (Bozkurt, Ergun & Sezen, 2014). Because, when considered in terms of educational organizations, uncertainty can only be managed by qualified and competent education managers. Therefore, we can say that valuing the performance of training managers in their organizational career planning will have an effect on managing uncertainty. Rationality is the determination of human actions that are future-oriented and purposeful. Decision-making is the heart of management processes and the axis of all processes (Dündar, 2013). From this point of view, the education manager is not only the administrator or manager, but also the decision-maker. We can say that a rational decision is one that maximizes utility for educational organizations, because a rational decision is one that can balance the preferences and judgments of the decision-maker with values and uncertainty about the results (Tortop, 2005). Therefore, we can say that the rational decision-making of education managers in organizational career planning will have an impact on managing uncertainty. Organizational communication is the process of sending and receiving verbal or non-verbal messages within the organization, and this communication is also shaped according to the organizational structure (Greenhaus & Callanan, 2006). Intra-organizational communication is the coordinated and planned communication of education employees gathered for a common purpose to achieve this goal (Anafarta, 2001). Thanks to intra-organizational communication, education employees exhibit their behaviors accordingly and learn what they should and should not do (Özgen, Öztürk & Yalçın, 2002). Therefore, we can say that increasing communication within the organization in the organizational career planning of training managers will have an impact on managing uncertainty. Authority is the power to give orders, to obey them, to make decisions to achieve predetermined goals, and to have others do work (Çalık & Ereş, 2006). Responsibility, on the other hand, is the state of being obliged, accountable, in short, responsible (Uzun, 2004). When considered in terms of educational organizations, the authority and responsibility given to education administrators should be equal, which is also one of the basic principles of effective management (Bursalıoğlu, 2003). However, both theoretically and practically, we can say that the balance of authority and responsibility of education managers has not been established. Because, although the powers of education administrators are very limited in normative regulations, their level of responsibility is abstract and quite high, and even education administrators sometimes take part in or are employed in authorized positions in jobs for which they are not responsible. This situation emerges as a separate problem that contains uncertainty rather than managing uncertainty (Mowles, 2015). Authority without responsibility leads to abuse of authority, and unauthorized responsibility leads

to non-performance of work (Bozkurt, Ergun & Sezen, 2014; Tortop, 2005). Therefore, we can say that establishing a balance of authority and responsibility in the organizational career planning of education managers will have an effect on managing uncertainty (Smith, 2016). Considering that human relations are at the forefront in educational institutions, it is not possible to come across a rough hierarchical structure, but this situation brings with it uncertainty about what the duty of the education administrator is. The main reason for this uncertainty is the argument that the education administrator can do any job according to classical understanding (Bursalıoğlu, 2003). This argument causes the job description and distribution of the training manager to be unclear and to create uncertainties, so we can say that the clear distribution of duties in the organizational career planning of training managers will have an effect on managing uncertainty.

In the study, it was concluded that taking initiative is an important predictor of uncertainty management. This result shows that the training manager's initiative has a certain effect on managing uncertainty. Frese et al., (1996) concluded that people with a high level of personal initiative adopt a long-term approach when struggling with difficulties, overcoming problems, and considering alternative options for doing a job. According to Crant (2000), employees who take initiative are more passive and reactive in contrast to a pattern of behavior, while proactive people actively seek out knowledge and opportunities to improve things; They do not passively wait for information and opportunities to come to them. The education administrator constantly seeks ways to enhance job performance and professional development. They address work-related issues proactively, undertake tasks beneficial to the school even if not explicitly mandated by legislation, and aspire to shoulder significant responsibilities. In the face of challenges, the administrator persists in seeking solutions, employing various communication resources to navigate uncertainty in managerial processes. Effectively managing uncertainty involves obtaining diverse information about complex situations at the school, supporting employees to alleviate fears and concerns arising from uncertainty, and promptly adapting to changes and innovations in education.. It can be said.

In the theme analysis made in the qualitative stage, the categories of "awareness effect, communication effect, change creation effect" of taking initiative on uncertainty management were reached. In contrast to the quantitative phase, the effects of taking initiative on uncertainty management are expressed in sub-themes. According to education administrators, effective uncertainty management involves creating predictive plans to address the awareness impact category, demonstrating flexibility in the face of uncertainty, and recognizing unpredictable situations. In terms of communication impact, administrators emphasize the importance of providing timely updates on developments, furnishing accurate information, and supporting stakeholders. Additionally, for the change creation effect category, administrators highlight the significance of researching for change, fostering innovation, embracing developments, and implementing changes within the school.When the category of the awareness effect of **qualitative theme analysis**

on uncertainty management is examined, personal initiative is a set of actions initiated by the person himself, in harmony with the vision and mission of the organization, goal and activity-oriented, long-term, persistent in the face of difficulties and struggles (Frese, 2005). Education managers with a high level of personal initiative take a long-term approach to tackling challenges, overcoming problems, and considering alternative options for doing a job (Parker, Bindl & Strauss, 2010). Because a long-term approach leads people to exhibit a proactive behavior approach rather than waiting until problems arise. In this way, education managers who take the initiative can make predictive plans for uncertainty management, act flexibly in uncertainty situations and recognize unpredictable situations (Frese & Fay, 2001). Since future situations are shaped by today, planning is done to deal with future events (Syrett & Devine, 2014). By planning, the training manager who takes the initiative can see future risks, threats, and opportunities, predict the future, choose between options by setting priorities and manage uncertainty (Clampitt & Williams, 2004). Management has its own principles, and the principle of flexibility is not rigid, but it can be adapted from situation to situation within the organizational structure (Silva & Ferreria, 2017). Educational organizations are forced to change under the influence of the internal and external environment. In order to keep up with these changes, educational organizations are expected to have a dynamic structure, and the training managers who will manage this structure are expected to act flexibly in uncertain situations by following the principle of flexibility and taking initiative in order to manage uncertainty (Teece, Peteraf & Leih, 2016). In uncertain situations, managers are expected to make decisions by understanding or reducing uncertainty as much as possible. Since it is not possible to completely eliminate uncertainty, it is critical for education managers to make predictions in order to make decisions about the future (Naswall, Hellgren & Sverke, 2008). The prediction must have a rational explanation. Because foresight is not knowing the future but making it easier to understand the future. In addition, training managers who take the initiative should have the competence to understand and use foresight in uncertainty management.

When the category of the communication effect of **qualitative theme analysis on the uncertainty management of initiative** taking is examined, communication is a shared and jointly benefical process that occurs with an exchange relationship between the sender of the message and the receiver of the message (Griffin, 2012). Interaction, on the other hand, is the process by which individuals mutually influence each other, which reveals that the individual is in constant interaction with his environment and other individuals (Lantz & Andersson, 2009). From this point of view, if the education administrator who takes the initiative wants to manage uncertainty, he should always be able to keep the communication channels open with school employees, internal and external stakeholders, and should always be able to inform his internal and external stakeholders about instant developments by interacting in uncertain situations (Kramer, 1999). In a fundamental sense, truth is the determining concept of knowledge, because every knowledge claims to be trueis either false or true (Brashers, 2001). For this reason, one of the features that make information information is the ability of information to be true or false. From this point of view, the training manager who takes the initiative should

try to provide accurate information to his employees by separating the right from the wrong in uncertainty management (Nikolaidis, Mourelatos & Pandey, 2011). It seems very important today to know what kind of impression educational organizations have in the eyes of internal and external stakeholders and to determine the quality of the level of coordination between them (Cicero, Pierro & Knippenberg, 2010). From this point of view, the training manager should determine what his stakeholders expect from the organization and try to align the messages from the stakeholders with the goals of the training organization (Rayner, 2018). In addition, it should be able to support and receive support from stakeholders. In order to achieve this, the training manager who takes the initiative should prepare a communication plan in uncertain situations and should know which stakeholder should be able to reach which stakeholder with which message, how to get support from stakeholders and how to support stakeholders.

When qualitative theme analysis examines the category of the **effect** of initiative on uncertainty management, change may not always occur under the supervision or guidance of the training administrator (Teece, Peteraf & Leih, 2016). We can think of this situation as a kind of unplanned changes. Unplanned changes can occur without the influence of the training manager or by chance. In uncertain situations, education managers who have not planned, do not have a plan, do not have predictions about the future, and do not do research may face unplanned changes (Berkes, 2007). In planned change, there is research and the special efforts of the education manager. Training managers who take the initiative should also be able to initiate planned change by reviewing performance gaps in uncertain situations and conducting research to close them (Henisz, & Delios, 2001). When considered in terms of educational organizations, we need to look at the concept of innovation as a value for people who receive education services rather than looking at it as technology or science (Kasperson, 2008). As it is known, innovation originates from the outside rather than from within in educational organizations, as in other organizations (Ashforth & Humphrey. 1995; Imperatori, 2017). Knowing what is required and identifying the needs of education stakeholders can provide easier access to new technology and information (Fay & Frese, 2000). Based on the argument that there is a high risk in innovation, it is highly likely that most of the education manager's innovation efforts will fail in uncertain situations (Van Asselt & Vos, 2006). Because even in normal times, it can be difficult for training organizations to achieve success and the process can take years. In addition, it may seem impossible for educational organizations to determine the scale of success that innovation will bring, or nothing may be certain until it happens (Angkiriwang, Pujawan & Santosa, 2014). From this point of view, the education manager who takes the initiative is expected to be innovative in the effect of creating change in uncertain situations, to look at innovation as a value for those who receive education services in terms of their institution, and to work patiently and devotedly for innovation that takes a long time (Turgut, 2011). In terms of educational organizations, development is an important concept as a response to the incredible changes that have left their mark today. Development is a fundamental tool for achieving qualitative changes in scientific, communicative, technological, and political dimensions (Bakker & Demerouti, 2008). In order to ensure

development in educational organizations, there is a need for training managers who have a good command of the structure of the training organization, can take initiative, communicate with people, and adopt developments in uncertain situations. Changes necessitate a review and reorganization of the organization, management, school-environment relations, learning-teaching process, and educational functions of schools (Fredrickson, 1998). In fact, a change from the structure called central management to the school's student-centered structure is changing direction day by day. Because of uncertain situations, unclear practices, assessments, principles, and management styles directly affect the implementation or change of changes in the school. Therefore, there is a need for qualified education managers who can take initiative in uncertain situations and successfully manage changes.

Recommendations

Based on the results obtained from the research, the following suggestions have been developed for the research and for the researchers.

Research Recommendations

1. In the quantitative part of the study, it was determined that education administrators were an important predictor of work engagement, initiative, career planning and uncertainty management. Therefore, necessary studies should be carried out to improve the level of integration of education managers with work, taking initiative and career planning.

2. In the qualitative part of the research, it is stated that uncertainty can be managed even better with a flexible management approach, applying changes to the school, coming to work with merit and not being afraid of uncertainty. Therefore, necessary studies should be carried out to select education administrators on the basis of merit.

Recommendations for Researchers

1. In the relevant literature, it has been observed that the quantitative research on uncertainty management, work engagement, initiative and career planning does not include the effect sizes regarding whether they work in practice or not. From this point of view, meta-analysis research can be considered by considering these variables holistically or singularly.

2. In the relevant literature, it has been observed that qualitative research on uncertainty management, work engagement, initiative, and career planning is very rare. Qualitative research on these variables will be conducted, and when the number of qualitative studies increases, metasynthesis research for these studies can be considered.

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Genişletilmiş Türkçe Özet

Eğitim yöneticilerinin işle bütünleşme, inisiyatif alma ve kariyer planlamasının belirsizlik yönetimini yordamasını amaçlayan bu araştırma, nicel ve nitel araştırma yöntemlerinin birlikte uygulandığı karma yöntem araştırmasıdır. Karma yöntemle desenlenen bir araştırmada, probleminin aydınlatılması için desen seçimine karar veren "etkileşim seviyesi, önceliği belirleme, zamanlamayı belirleme, nicel ve nitel verileri nasıl ve nerede birleştirileceğini belirleme" anahtar kavramları kullanılarak bu araştırma için açıklayıcı sıralı desenin kullanılmasına karar verilmiştir. Bu araştırmada açıklayıcı sıralı desen (explanatory sequential design) ve bu desenin alt deseni olan takip eden açıklamalar deseni (follow-up explanations variant) kullanılmıştır [MMR(f)=QUANTITATIVE x qualitative, NİCEL→nitel]. Bu desen ilk önce nicel aşamanın verilerinin toplanması ve analizini, daha sonra nitel verilerin toplanması ve analizini içermektedir. Nicel araştırma, betimsel tarama modelinde yürütülmüştür. Araştırmanın nitel deseni ise durum çalışmasının iç içe geçmiş tek durum desenine göre yürütülmüştür. Bu araştırmanın paradigması hem realizm hem de idealizm felsefelerini bir araya getiren "işe ne yararsa" yönelimli pragmatizmdir. Araştırmanın nicel çalışma evrenini, Konya ili merkez Karatay, Meram ve Selçuklu ilçelerinde görev yapan eğitim yöneticileri oluşturmaktadır. Örnekleme dahil edilen eğitim yöneticileri olasılıklı tekniklerden basit tesadüfi örnekleme tekniği ile seçilmiştir. Öte yandan araştırmanın nitel kısmında, amaçlı örneklem yöntemlerinden "ölçüt örneklem" tekniği kullanılmıştır. Ölçüt örnekleme tekniği, araştırmanın amacına uygun olarak belirli kriterleri taşıyan bireylerin araştırma kapsamına dahil edilmesidir. Bu araştırmada ölçüt olarak eğitim yöneticilerinin "merkez veya taşra teşkilatında yönetici olarak çalışıyor olmaları, eğitim yöneticiliği alanında lisansüstü eğitim yapmış olmaları, ölçme araçlarına düşük puan vermiş olmaları" esas alınarak belirlenmiştir. Bu kriterleri sağlayan dokuz eğitim yöneticisi gönüllük esasına göre araştırmaya dahil edilmiştir. Belirsizlik Yönetimi Ölçeği Mazlum (2019) tarafından geliştirilmiştir. Ölçek, kontrol dışı güçler, örgütsel değişim, yönetici-çalışan ilişkisi ve iletişim, belirsizlik toleransı faktörleri altında otuz bir madde ve dört boyuttan oluşmaktadır. İşle Bütünleşme Ölçeği Schaufeli, Bakker & Salanova (2006) tarafından geliştirilmiştir. Ölçeğin kısa versiyonu ise Türkçeye Özkalp & Meydan (2015) tarafından tercüme edilmiştir. Ölçek, yazarların kavramsallaştırmasına uygun olarak zindelik, adanmışlık ve yoğunlaşma olmak üzere dokuz madde ve üç faktörden oluşmaktadır. İnisiyatif Alma Ölçeği Akın (2012) tarafından geliştirilmiştir. Ölçek, proaktiflik, kendiliğinden başlama, ısrarcılık olmak üzere otuz iki madde ve üç faktörden oluşmaktadır. Kariyer Planlaması Ölçeği Aydın (2010) tarafından geliştirilmiştir. Ölçek on dört madde ve tek boyuttan oluşmaktadır. Araştırmada kullanılan ölçme araçları için yapılan doğrulayıcı faktör analizi yapılmıştır. Araştırmanın nitel aşamasında, nicel analizlerden elde edilen sonuçların derinlemesine açıklanabilmesi için yarı yapılandırılmış görüşme formu kullanılmıştır. Araştırmanın nicel kısmında SPSS 25 ve AMOS 23 paket programları kullanılmıştır. Araştırmanın nitel kısmında NVIVO 10 paket programı kullanılmıştır. Nitel veri analizini "tema analizi, betimsel analiz, içerik analizi ve analitik genelleme" olmak üzere dört gruba ayrılmaktadır. Bu araştırma içih tema ve

betimsel analizler yapıldıktan sonra analitik genellemeye gidilmiştir. Araştırmada, nitel verilerin kodlama işlemlerinin güvenirliğinin hesaplanması için kappa analizi yapılmıştır. Araştırmaya dahil edilen tüm değişkenler arasında pozitif ve istatistiki olarak anlamlı bir ilişkinin olduğu görülmektedir. İşle bütünleşme, inisiyatif alma ve kariyer planlamasının belirsizlik yönetimini yordamasına ilişkin çoklu regresyon analizi sonuçları incelendiğinde bütün değişkenlerin belirsizlik yönetimini yordadığı bulgusuna ulaşılmıştır. işle bütünleşme ile belirsizlik yönetimi arasındaki ilişkiye ait üst temasına ilişkin olarak "yenilikleri önceden görebilme, teknolojik yenilikleri uygulama" alt temalarından "Değişim Etkisi" kategorisine, "paydaşlarla temasın artması, çalışanları çok yönlü bilgilendirme, paydaşları rahatlatma" alt temalarından "Çalışanlara Etkisi" kategorisine, "doğru planlamalar yapma, talimatları kolayca uygulama" alt temalarından "Öngörme Etkisi" kategorisine, "belirsizliği reddetmeme, belirsizlikten korkmama, kendini yeterli hissetme" alt temalarından "Kabul Etkisi" kategorisine ulaşılmıştır. İnisiyatif alma ile belirsizlik yönetimi arasındaki ilişkiye ait üst temasına ilişkin olarak "öngörerek planlamalar yapma, belirsizlikte esnek davranabilme, öngörülemez durumları fark etme" alt temalarından "Farkındalık Etkisi" kategorisine, "gelişmelerden anlık haber verme, doğru bilgi verme, paydaşlara destek olma" alt temalarından "İletişim Etkisi" kategorisine, "değişim için araştırma yapma, yenilikçi olma, gelişmeleri benimseme, değişiklikleri okula uygulama" alt temalarından "Değişim Yaratma Etkisi" kategorisine ulaşılmıştır. Kariyer planlaması ile belirsizlik yönetimi arasındaki ilişkiye ait üst temasına ilişkin olarak "çalışanlarla iş birliği yapma, çalışanların fikirlerini alma, belirsiz durumlardan ürkmeme, çalışanlara saygı duyma, işe uygun insan olma, inisiyatif alabilme" alt temalarından "Bireysel Etki" kategorisine, "performansa değer verme, kararları rasyonel verme, örgüt içi iletişimin artması, yetki ve sorumluluk dengesi, görev dağılımının netliği" alt temalarından "Örgütsel Etki" kategorisine ulaşılmıştır. Araştırmadan elde edilen sonuçlardan yola çıkarak araştırmaya yönelik ve araştırmacılara yönelik öneriler geliştirilmiştir.

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Academic Reading in Graduate Students

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Abstract

The aim of the study was to determine the academic reading experiences of graduate students in Turkish Education. The study data was provided in the context of the principles of the Interpretative Phenomenological Analysis (IPA) method. The information was collected through in-depth interviews with 20 students who have received postgraduate education in Turkish at different universities and determined by the criterion-sampling approach. Contextual analysis principles were used to analyze the data. There was evidence that graduate students favor reading academic articles and theses. The project and evaluation essays were taken out of this class. Additionally, the authors searched the findings, discussion, and conclusion parts of academic literature for important information. The authors used this material by quoting, highlighting, marking, recording, taking notes, and crafting their phrases to represent it. However, it was shown that students struggle with issues including reading various academic sources, identifying important information, comprehending academic language, and synthesizing data from several sources. In this context, in order for students to have academic reading skills at the graduate level, academic reading courses should be offered at the master's level and advanced academic reading courses should be offered at the doctoral level.

Keywords: Academic language, academic reading, graduate students in Turkish education, experiences.

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Introduction

Academic texts are intensively interpreted and created in postgraduate education, which varies from undergraduate education. The effectiveness of academic reading determines the quality of activities at the postgraduate level, where scientific research is conducted, and new information is produced. As a result, the fundamental factor determining scientific progress is the experience students will gain during their postgraduate studies, which is the foundation of academic life. In this context, gathering information about postgraduate students' academic reading experiences is crucial for organizing the postgraduate education process. Both undergraduate and graduate students require academic reading abilities for a variety of tasks, including academic growth, lecture and presentation preparation, literature reviews, and the creation of academic texts.

Some researchers claim that this kind of reading is necessary to keep up with current events, prepare for conferences and literature reviews, publish research results, and critically evaluate the material already available (Keshav, 2007; Padagas & Hajan, 2020). Additionally, it was underlined in the studies that academics provided students with training in this area and that academic reading was imparted as knowledge and talent (Coady, 1993; Anderson, 2015, p. 107; Howard, Gorzycki, Desa & Allen, 2018, p. 199). At this time, Keshav (2007) made the startling claim that students can experience frustration when they attempt to learn academic reading through trial and error. Having academic reading skills is an important competence in order to avoid such situations in the academic process. Although the process of having this competence may differ from person to person, it is not fully known to what extent students have this competence, especially in postgraduate education. In this study, the aim is to explore the academic reading experiences of graduate students in the field of Turkish education through the lens of the Interpretative Phenomenological Analysis (IPA) method. With this aim in mind, the study investigated the methods students employ, the challenges they face, and the strategies they utilize in the reading process. This was the first stage of the process of identifying and enhancing the academic reading experiences of graduate students in Turkish Education. At this stage, the study made a phenomenological identification of the relevant experiences. Afterwards, an experimental project was developed to advance academic reading abilities within the parameters of the identified experiences. Therefore, the study also aims to assist in the implementation of the proposal put forward by the Council of Higher Education during the 'Workshop on the Improvement of Doctoral Education' to enhance student practices, including scientific projects, paper preparation, presentations, case studies, and analyses, within various courses (2022:13).

Academic Language

Postgraduate education is the education received for specialization in science by those who have completed their undergraduate education. In Turkey, this education is often separated into master's and doctoral degrees. Academic language proficiency is one of the most critical requirements for success at this level of education. The most fundamental requirements are comprehending the academic information required at

this level, producing academic content (Snow & Uccelli, 2009: 112), speaking in academic settings, and successfully interpreting what is said. Turkey has the lowest percentage of graduate and doctoral students enrolled in higher education in this context, according to data released by the OECD (TEDMEM, 2022: 18). The concerns about the students' poor academic language abilities could be argued to be at the root of this situation because academic language is a distinct type of language used in the context of formal education to learn academic subjects (Richards & Schmidt, 2010: 2). Academic language is one of the most critical factors that separates successful students from unsuccessful ones (Wong Fillmore, 2004 in: Zwiers, 2014). Academic language is described in another definition as a tool instructors and students use to develop their knowledge and skills (Chamot and O'Malley, 1994, p. 40). Academic language was defined by Demir (2020, p. 5) as a tool for communication among scientists working in the same field. According to a different interpretation, academic language is fluid and developing and encompasses more than just verbal or written communication (WIDA, 2014: 6). Cummins and YeeFun (2007, 800-801) emphasized that academic language is the capability of accessing and mastering oral and written academic records, understanding and expressing both oral and written concepts/ideas related to success in school. Dalton-Puffer (2017: 129) compiled academic language functions from various sources and listed them in fourteen items. These include analysis, grouping, contrasting, describing, inferring, evaluating, explaining, positing, guessing, informing, telling, persuading, and asking for or providing information. Academic language, one of the primary tools used in academic settings, is divided into the sub-components of speaking, listening/watching, reading, and writing. Speaking and writing abilities come from listening/watching and reading/understanding skills. Academic reading stands out among these abilities because it generates both academic understanding and academic production.

Academic Reading

There are various definitions of academic reading in the literature. Academic reading is critical reading with the goal of enabling learning in specific subject areas. (Sengupta, 2002: 3). Irmawati (2012, 91) emphasized that academic reading is used in higher education and requires familiarity with various features of academic texts, such as definitions, generalizations, hypotheses, and assertions with or without proof. According to Martiarini (2018, 25), this kind of reading contains various components. This definition states that academic reading entails looking for evidence to develop understanding, comprehending concepts or theories, identifying writers' points of view, and supporting individual viewpoints. Ülper (2019, 19), on the other hand, asserted that this type of reading is employed to increase the academic level. These definitions together demonstrate how academic reading encompasses ideas like "purpose," "criticism," "generalization," "hypothesis," "claim," "understanding," "evidence," and "academic development."

It could be observed that there is information detailing the components and characteristics of academic reading in addition to the definitions. Lee and Wong (2020,

24) stated that academic vocabulary and terminology are among the elements of this type of reading. Sohail (2015, 116) also pointed to the academic vocabulary of Lee and Wong (2020) by drawing attention to the challenging words and sentences based on the fact that academic texts have philosophies expressed in a complex language. One of the requirements for academic reading comprehension might be considered to be the explanations provided by Lee and Wong (2020) and Sohail (2015). In addition, reading for education/learning and reading to acquire knowledge are the two main goals of academic reading, according to Çelik (2020, 36).

The search was conducted on "YÖK Thesis Search", "TR Dizin", "DergiPark", Google Academic," "Clarivate Analysis," and "ERIC" databases. The keywords that were investigated in these databases were "Akademik Okuma", "Academic Reading", "Akademik dil" and "Academic language". As a consequence, it was discovered that there was no published research on graduate students' academic reading abilities. However, there are studies in the international literature that cover a range of academic reading-related topics. Academic reading techniques have been the subject of several of this research. (Shih, 1992; Keshav, 2007; Irmawati, 2012; Yüksel & Yüksel, 2012; Zhang vand Seepho, 2013; Akarsu & Harputlu, 2014, McWhorter, 2014; Poole, 2014; Saengpakdeejit & Intaraprasert, 2014; Sohahil, 2015; Lopatovska, 2016, Shehata, 2019; Fitriana, 2018; Baker, Bangeni, Burke & Hunma, 2019; Suraprajit, 2019; Rahman, 2020). Academic reading issues and challenges have been the subject of certain research (Snow, 2010; Hirano, 2015; Anderson, 2015; Martiarini, 2018; Kaoropthai, Natakuatoong & Cooharojananone, 2018; Singh, 2019; Cawley Haselden, 2020).

In addition, digital academic reading (Qayyum, 2008; Khadawardi, 2021), academic reading teaching (Hermida, 2009; Kemaloglu-Er, 2020), academic reading skills of students (Miller & Merdian, 2020), academic reading motivation (Munoz and Valenzuela, 2020; Yulia, Sulistyo & Cahyono, 2020), academic reading anxiety (Rahmat, Arepin & Sulaiman, 2020), academic reading perception (Howard, Gorzycki, Desa & Allen, 2018), students' academic reading needs (Şahbaz Hekmen, 2005) ; Padagas & Hajan, 2020), academic reading proficiency (Gorzycki, Howard, Allen, Desa & Rosegard, 2016), academic reading experiences (Mizrachi, 2015; Gorzycki, Desa, Howard & Allen, 2020), academic reading and critical thinking (Li & Ren, 2020, Lee & Wong, 2020), genre awareness in academic reading (Negretti & Kuteeva, 2011) and vocabulary (Qian, 2002), the role of academic reading (Maguire, Reynolds & Delahunt, 2020), and students' academic reading expectations (Eroğlu, 2005, Anderson, 2015) are other areas of focus in research. The literature about the academic reading experiences of graduate students in Turkish Education is deficient when national and international publications are considered.

Purpose of the Research

Through the reading processes graduate students in Turkish Education use, the issues they run into, and the strategies they employ, this research made a phenomenological

determination about their academic reading experiences. This study mainly tried to understand "How is the academic reading experience of graduate students?" The following supplemental questions were used to reveal the overall perspective of these encounters.

Method

Research Design

The primary methodological technique used in this study, which focuses on the academic reading experiences of graduate students, is known as Interpretative Phenomenological Analysis (IPA). Smith, Flower and Larkin (2009: 45) recommended the use of IPA for studies that focus on creating meaning in a particular context, for people who share a particular experience. In this context "Researchers using interpretative phenomenological analysis (IPA) within applied research typically use homogenous samples exploring shared perspectives on a single phenomenon of interest" (Larkin, Shaw and Flowers, 2019: 182). in this study, participants with uniform demographic characteristics were purposefully selected and their experiences regarding academic reading were investigated. In this research process, the four main indicators that IPA should carry (Constructing a compelling, unfolding narrative, developing a vigorous experiential and/or existential account, canalytic reading of participants' words, attending to convergence and divergence) were tried to be reflected at a minimum level (Nizza et al. 2021:371).

Study Group

IPA the aim is to select participants in order to illuminate a particular research question and develop a full and interesting interpretation of the data (Brokki and Wearden, 2006: 95). In this context "researchers using interpretative phenomenological analysis (IPA) within applied research typically use homogenous samples exploring shared perspectives on a single phenomenon of interest" (Larkin, Shaw and Flowers, 2019: 182). Although Smith and Osborn (2003) state that the sample size depends on a number of factors and that there is no correct sample size, the number of participants in such studies varies between one and thirty (Brokki and Wearden, 2006: 94). Criterion sampling, one of the purposive sampling strategies, was used to select the study group. The investigation of all circumstances that satisfy a set of specified criteria is known as criterion sampling (Yıldırım and Şimşek, 2008: 112). The study criterion was studying for a master's or doctoral degree program in Turkish education. Table 1 contains information about the participants.

Table 1.

Demographic information of the study group

Participant	Gender	Education Status
P1	Female	Master's degree
P2	Female	Doctoral degree
P3	Female	Doctoral degree
P4	Male	Doctoral degree
P5	Male	Doctoral degree
P6	Male	Doctoral degree
P7	Male	Doctoral degree
P8	Male	Doctoral degree
P9	Female	Doctoral degree
P10	Female	Doctoral degree
P11	Male	Doctoral degree
P12	Female	Doctoral degree
P13	Female	Doctoral degree
P14	Male	Master's degree
P15	Female	Master's degree
P16	Female	Doctoral degree
P17	Female	Master's degree
P18	Female	Master's degree
P19	Male	Doctoral degree
P20	Male	Doctoral degree

Fifteen participants were doctoral students, and 5 were graduate students, as shown in the table. 9 of the 20 participants were males, and 11 were females.

Data Collection Tool and Data Collection

A depth interview was employed as a data collection method in keeping with the nature of IPA because this study aims to ascertain the academic reading experiences of graduate students. The fact that this productive method, which allows interaction between interviewers, provides a deeper perspective on the research, can ask in-depth questions to understand the participant's view, and enables researchers and participants to offer solutions to ideas and problems, was the reason for preference in the study. In this situation, the required ethical approvals (01.09.2022-205937) were obtained to gather the study data. While collecting data, semi-structured interview categories were prepared to address specific research questions. Smith and Osborn (2003) describe semi-structured interviews as the exemplary method for IPA and most of the work published using IPA follows suit (Brokki and Wearden, 2006: 90). In this context

according to Alase, each of these categories was coded to make it simpler to reach the "meaning units" by being condensed in terms of repetitions and key sentences with the intention of "forming the essence" (2017, 15). The form consisted of two parts. The first section of the form, which was finalized after consulting experts and making preliminary applications, included the researchers' gender, program, and level of postgraduate education. There were questions about sub-problems in the second section. Data were collected using digital tools. The questions included in the semi-structured form and asked of the participants are as follows:

1. Which academic texts do you read?

2. From where(s) do you access academic texts?

3. How do you read academic texts?

4. How do you distinguish the information in academic texts that is important to you? How do you use/manage important information in academic texts?

5. Which tools do you use to do academic reading? What are the reasons you prefer the tools you mentioned?

6. Explain the difficulties you experience while doing academic reading.

7. How does academic reading benefit you? Explain.

8. What can be done for more effective and useful academic reading?

Data Analysis

The study data were examined using the content analysis method. In content analysis, researchers create several categories, count the instances that fit into each category, and then record the results (Silverman, 2018: 162). The study employed process and pattern coding, one of the first and second-cycle coding techniques (Saldaa, 2022). Gerunds are used in process coding to express actions in data (Saldaa, 2022: 111). While the codes were verbally expressed during the process coding process, the codes were grouped correctly during the pattern coding process, leading to categories and themes (the main category).

The validity and reliability of some issues were taken into account during the data collection and content analysis process. Comments, biased statements, and language based on orientation were avoided when creating the questions. The participants had enough time to respond to the questions. The researchers independently coded after analyzing the data in its current state. According to Cohen's Kappa analysis, the agreement between coders was calculated as 0.87 (Kılıç, 2015). As Kılıç (2015, p. 143) states, this result means "excellent agreement," according to Kappa analysis. Participant opinions on the codes were explicitly incorporated, and the study procedure was described in depth. A faculty member with qualitative and practical experience was

consulted as part of the researcher triangulation to assess the validity of the codes, categories, and themes identified throughout the research (Patton, 2014: 247). Creswell (2019: 197-198) also mentions the peer/external auditor research approach known as researcher triangulation. In this instance, the specialists who oversaw the research provided a written report describing the study.

When Turkish education graduate students' experiences towards academic reading were analyzed with the Interpretative Phenomenological Analysis approach, five superordinate themes were identified: "reading preference, reading strategy, reading difficulties, reading gains and feedback". Each of these themes has various sub-themes. While presenting the data in the study, a balance was tried to be observed by taking into account the criticisms (Tuffour, 2017) that the Interpretative Phenomenological Analysis approach is mostly descriptive, that is, it is not interpretive enough.

Table 2.

Main and Subthemes

Main Themes	Sub Themes	Dataset Formation
Academic Reading Preferences	Text type preference Access to resources Reading Method Selection	All participants
Strategies for Reading Academic	Distinguishing important information Managing important information	9 participants
Difficulties in reading academic	Reader related problems Reference-citation related problems Academic language sourced problems Author related problems	All participants
Gains of academic reading	Enriching literature-based information Contributions to academic writing Contributions to academic development	16 participants
Feedback on academic reading	Feedback on legislation Feedback on academic reading strategies Feedback on reader	18 participants

Findings

In this section, findings regarding the academic reading experiences of Turkish education graduate students are included.

Findings Regarding Academic Reading Preferences of Graduate Students
Text type preference
Figure 1.
Types of Academic Texts Read by graduate students
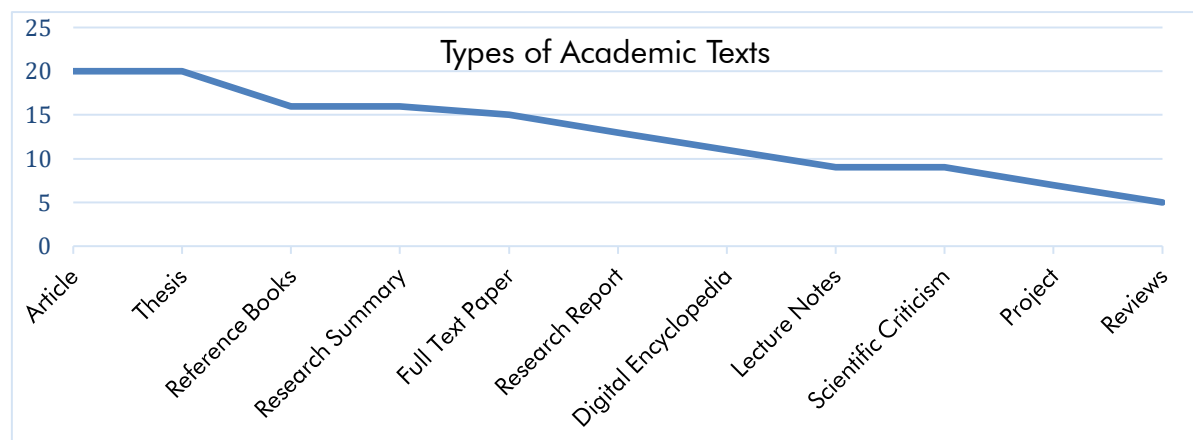
The data above shows that most articles and theses are read as expressions of popular opinion. The following types of texts are listed in order: reference books (Scientific books/textbooks), full-text papers, research reports, digital encyclopedias, lecture notes, scientific criticism, project articles, and evaluation articles. However, in terms of personal preferences, scientific criticism, projects, and evaluation articles stand out.

P5: *I mostly use articles and theses as academic reading genres because I don't think other genres will serve my purpose.*

P12: *We were shown ways of accessing theses and articles during the graduate courses. I do not have information on how to benefit from scientific criticism or project texts.*

P19: *Articles and theses are the main sources for me due to our assignments and course contents.*

P3: *We did not read scientific criticism, project and evaluation texts in courses or individual consultancy.*

Graduate students' lack of awareness of benefiting from different types of academic texts in their master's and doctoral journeys and the fact that they are mostly concentrated in articles and theses can be attributed to the fact that different sources of information are not introduced to students by academics during the education process and that students do not improve themselves in terms of academic personal development.

Access to resources
The following results are related to the sources that graduate students in Turkish Education used to access the aforementioned academic texts:

Figure 2.

Resources Graduate students Used to Access Academic Texts
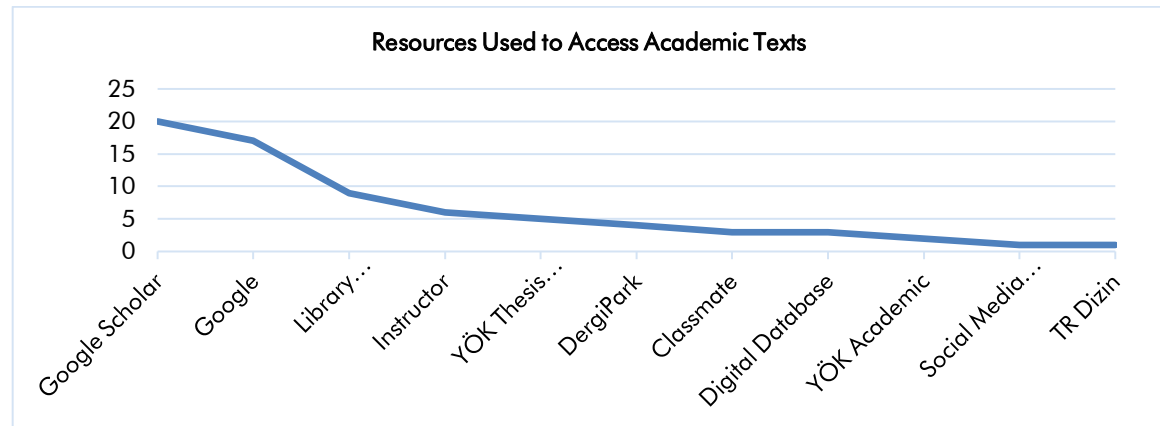
The sources of academic texts available to graduate students in Turkish Education are listed in Figure 2. Students typically access academic texts through the "Google Scholar" public network address. "Google," "library infrastructure," "instructor," "YÖK Thesis Center," "DergiPark," "classmate," "digital database," "YÖK Academic," "Social Media Working Groups," and "TR Dizin" are the specified addresses in the order listed above. It is noteworthy that some students access academic texts through "social media study groups". In addition, the fact that students do not prefer "TR Dizin" could be considered a remarkable finding. In this context, while the understanding of accessing academic texts through the "Google Scholar" and "Google" search engines is a common opinion in the study group, the use of "Social Media Working Groups and "TR Dizin" comes to the fore as an individual preference.

P7: *Google Scholar and Google are generally used in graduate courses.*
P14: *I do not have any information on how to use DergiPark and TR Index databases. According to the impression I got from the courses, I think Google Scholar includes all databases.*
The low preference for TR Index and DergiPark databases may be attributed to the fact that graduate students do not know how to use these resources and that academics who teach graduate courses prefer Google Scholar more in their courses.

Reading Method Selection
The following results are related to how graduate students in Turkish Education like to read academic texts:

Figure 3.
The Reading Techniques Used by Graduate Students for Academic Texts

When the authors examined how graduate students read academic texts, it was found

Reading Techniques for Academic Texts
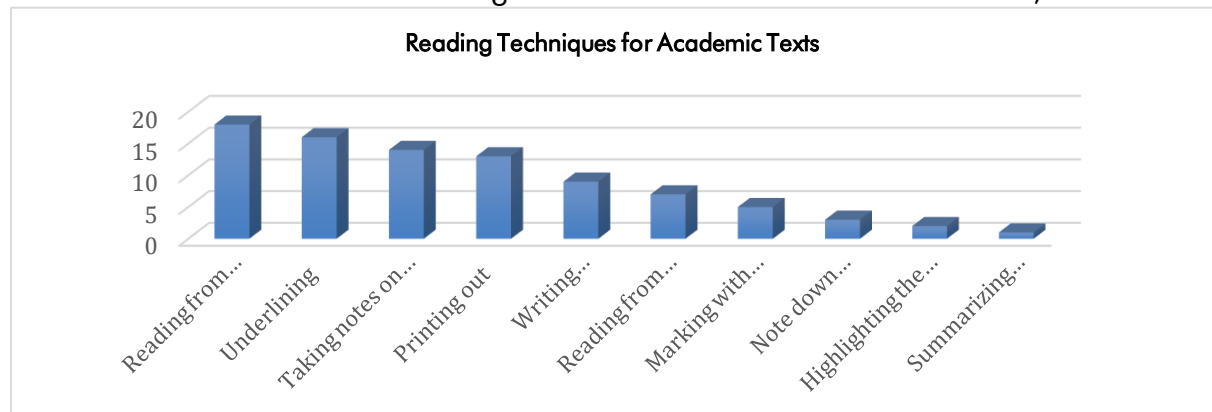
that they tend to use a variety of reading strategies, including "Reading from the computer screen," "Underlining," "Taking notes on the margins," "Printing out," "Writing descriptions on pdfs," "Reading from the phone screen," "Marking with Citavi, "Noting down quotes on related topics", "Highlighting the text", and "Summarizing with Endnote." While "Reading from the computer screen," "Underlining," "Taking notes on the margins," and "Printing out" practices are commonly employed, "Highlighting the text" and "Summarizing with Endnote" come out as more individual preferences of graduate students' while reading academic texts.

With the increasing possibilities of digital reading, it is understandable to read on a computer, take notes on a pdf, use a phone screen, or use Citavi and Endnote. However, it is thought-provoking that tools that facilitate direct digital reading such as Citavi and Endnote are less preferred. In addition, it is noteworthy that traditional reading approaches such as underlining, taking notes in the margins, or printing them out are frequently used. The opinions regarding this reading approach are as follows:

P2: *I prefer to print it out and make markings on it while scanning the literature or reading articles/theses because we usually do this in the lessons.*

P11: *I have a prejudice against reading from the screen and reading with digital tools.*

P20: *I don't know how to mark or take notes with digital tools. Moreover, I don't know how to store and manage the important information I have marked with digital tools. I have not taken a course on this, nor have I received any guidance.*

Findings Regarding Graduate Students' Strategies for Reading Academic Texts

The following are the strategies used by graduate students to identify core knowledge in academic texts:

Table 3.

Strategies for reading academic texts

Theme	Code
Strategies to distinguish important information	Key information has the same keywords as the reader's research
	Significant information is in the findings, conclusions, and discussion
	Presents important information in the summary section
	Important information fills gaps in the reader's research
	Important information supports the reader's research
	Presentsimportant information in the summary, method, conclusion, and recommendations
	Presentsimportant information in the summary and conclusion sections
	Presentsimportant information in the summary, conclusion, discussion, and suggestion sections
	Significant information is directly relevant to the subject under investigation.
	Searches important information in each chapter's summary sentence
	Searches important information in the bibliography
	Searches important information in answers to research questions
Strategies for managing important information	Citing, archiving important information
	Underlining, marking
	Taking notes on
	Marking important information on Citavi
	Expressing important information in their own words
	Filing important information
	Summarizing

When the methods graduate students used to read academic texts are examined, it becomes clear that they primarily employ " distinguishing important information" and " managing important information." In this context, it is seen that graduate students use basic strategies suitable to the nature of academic reading to distinguish important information, such as having the same keywords as the reader's research, important information presented in the findings, conclusion, and discussion sections, and important information presented in the summary section. Graduate students use strategies such as citing, archiving, underlining, marking, taking notes, expressing themselves in their own words, filing, and summarizing to manage important information. Detailed views on the strategies used are as follows:

Table 4.

Strategies to manage important information

Participant	Strategy	Type
P1	*I use important information to summarize and report on the work I reviewed in course assignments. While doing this, I explain the research in the most clear and understandable way in my own words, and I cite from it.*	Express important information in your own words.
P2	*If I am reviewing a thesis or an article, I read the abstracts first to see if the keywords are directly related to the topic. If it is directly related to the topic, I read the entire text, underlining/emphasizing, and taking notes.*	Paying attention to keywords, underlining, taking notes
P3	*I attempt to locate the original source. I compare the data in the source. I transfer data from the sources to files. I organize my files by comparing them to other data. Sufficient time is required to think about this information.*	Filing, archiving
P4	*When I print them out, I mark them with a highlighter and then I write them on another piece of paper by hand.*	Marking, taking notes
P5	*My reading purpose assists me in distinguishing information that may be considered important. I use the Citavi program to mark statements that express judgment and express the subject best that I have not heard before and send them to my work folder using various tags. When I need or want to delve deeper into a topic, I use multiple tags in Citavi and read again by going to the source where important statements about that field are mentioned.*	Using a digital tool
P6	*I underline the important parts. Then, I make a filing according to the method of the studies and the possibility of benefiting in line with my plan. Thus, I avoid confusion in source research, and I can directly access the source I want.*	Underlining, Filing
P7	*In academic texts, I always make notes of important information. I frequently write summaries that refer to different parts of the text.*	Taking notes, Summarizing chapters
P8	*I decide what I need before beginning my reading. By reading more than one text for my purpose, examining the findings of the studies I discussed, as well as the conclusion and discussion section, I can easily distinguish important information in texts.*	Determining the purpose of reading
P9	*I highlight important information and copy it so that I can use it as a reference.*	Underlining, archiving

Findings on graduate students' difficulties in reading academic texts

The following points were thematic problems and detailed justifications for the difficulties encountered by graduate students while reading academic texts:

Figure 4.
Academic reading difficulties of graduate students
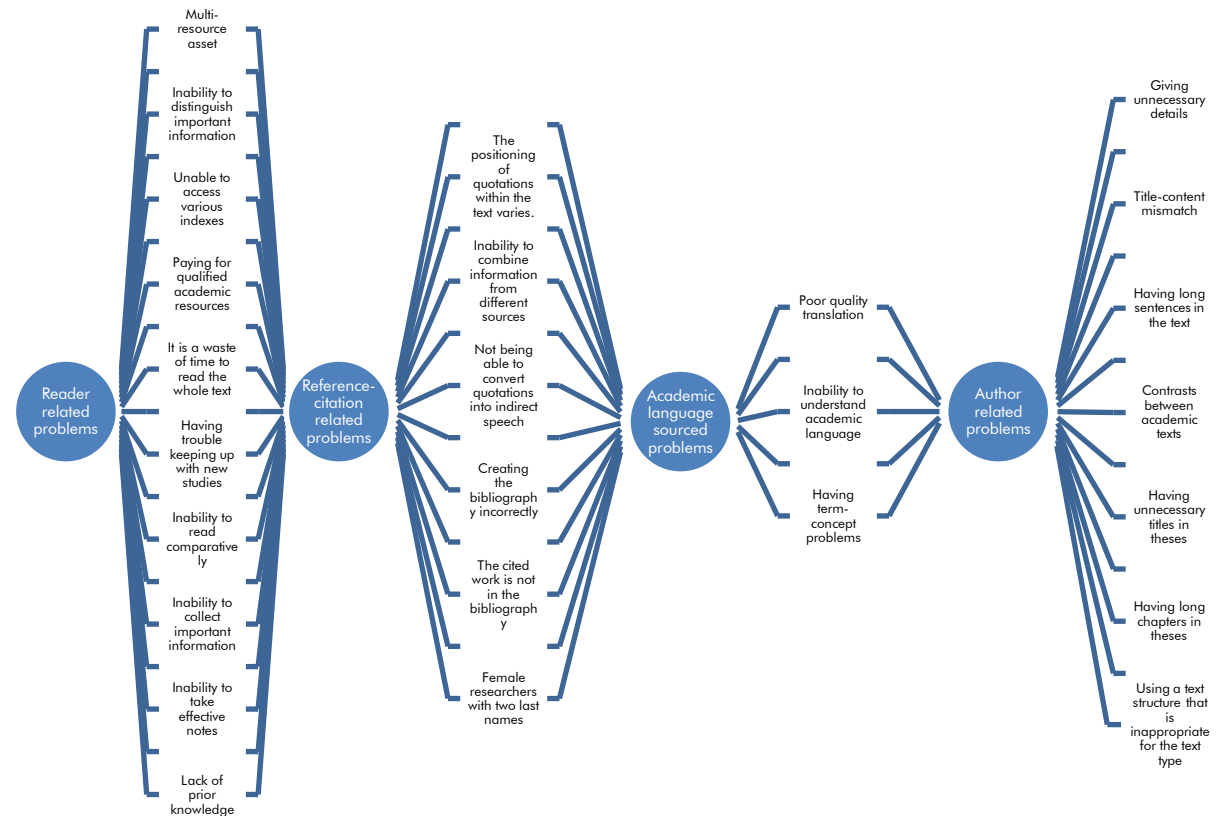
As can be seen, there are four main reasons why graduate students have difficulty with academic reading: reader, reference-citation, academic language and writer. In this context, the following elements stood out in the category of reader problems: inability to find the right source due to the abundance of sources; inability to distinguish important information; inability to reach various indexes; paying for qualified academic resources; inability to follow new studies; inability to read comparative resources; and lack of prior knowledge. The participants' views in this circumstance are as follows:

P8: *"After obtaining the necessary information for my research from the sources I have read, I find it difficult to combine them."*

P11: *"I find it difficult to follow new studies. Because there are similar studies in many different sources. It is impossible for me to read them all."*

P15: *"It is difficult to separate important information from the texts and file them systematically."*

Concerning reference-citation issues, the study identified key factors including unclear placement of quotations in the text, difficulty in synthesizing information from different sources, challenges in converting direct quotations into indirect speech, inaccuracies in the bibliography, omission of cited works in the bibliography, and misrepresentation of female researchers with two surnames.In this context, the opinions of the participants are as follows:

P3: *"The use of marriage surnames only instead of two surnames when citing the studies of female researchers and the misstatement of this in the bibliography. For example, the work of researcher Ayşe Yılmaz Mert should be cited as in-text (Yılmaz-Mert, 2022, p. 5) according to the APA rules and should be placed at the end because of the letter Y in the bibliography. Unfortunately, we see it (Mert, 2022, p. 5) in 80% of the sources."*

P20: *"The work cited in the related text is not included in the bibliography. That is why we cannot reach the study in question."*

Within the scope of academic language problems, basic barriers such as poor quality of translation, the inability to understand the academic language, and the existence of term-concept problems were identified. In this context, the opinions of the participants are as follows:

P1: *"I think that the language of some academic studies can be difficult to understand and complex for someone who has just started postgraduate studies."*

P14: *"Errors and sloppy translations in translated books are the difficulties I have while reading."*

P11: *"I get bored of reading the text when too many terms are used in the text."*

Long sentences, contradictions between academic texts, unnecessary titles in theses, long chapters in theses, and the use of a text structure unsuited to the type of the text are just a few of the issues that arise from the author. The participants' views on this situation are as follows:

P14: *"We see title and text inconsistencies, statements written solely to increase the volume of the academic text."*

P15: *"It is difficult for me to find the correct and targeted information that I require among so much information."*

P16: *"If the titles of academic texts do not adequately reflect the content of the subject, I have to spend more time looking for the information I need."*

Findings regarding the gains of academic reading according to graduate students

The findings regarding the gains of academic reading, in the opinions of graduate students, could be grouped around three themes: "enriching literature-based information", "contributions to academic writing" and "contributions to academic development" Information on the advantages under the pertinent themes in this context is as follows:

Figure 5.
Gains of academic reading
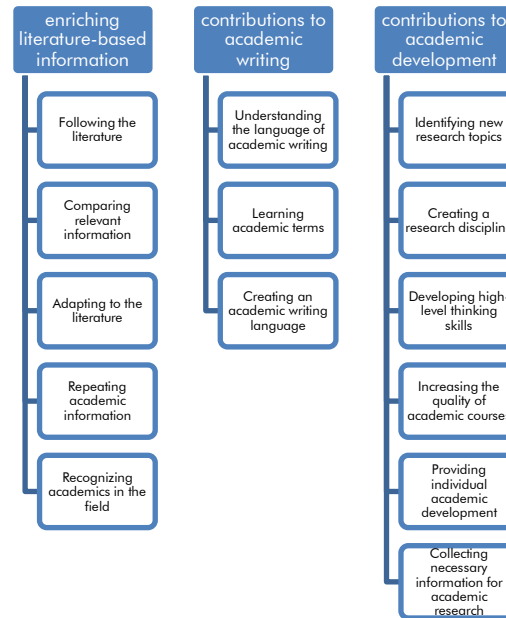
As can be seen, according to the opinions of graduate students, academic reading provides gains in many ways, such as following the literature, recognizing academics in the field, developing academic writing skills, creating academic writing language, collecting the necessary information for academic research, providing individual academic development, increasing the quality of academic courses, developing high-level thinking skills, creating a research discipline. It is an amazing discovery that academic reading enhances academic writing abilities. The opinions of the relevant participants in this regard are as follows:

P5: *It gives ideas for new publications. It improves the quality of the education we provide.*
P10: *I am able to better understand the studies in my field and gain inspiration for future studies because of academic reading. I notice that my abilities in areas like academic writing, watching, and listening have all improved as a result of my reading.*
P13: *It makes it easy to follow the literary context of the subject being studied. If a study is conducted, academic reading is necessary. Without academic reading, it is impossible to write the conclusion and discussion sections of a literature review.*

P20: *Thanks to academic reading, my academic writing skills are also improving. Because the knowledge gained by reading academic texts is also reflected in academic writing.*

Findings on Graduate Students' Feedback on Academic Reading
When the findings related to Turkish education graduate students' feedback on academic reading are examined, it is seen that they are grouped under three different themes:

"Feedback on legislation", "Feedback on academic reading strategies" and "Feedback on readers". The following information is relevant in this situation:

Table 6.
Graduate students' feedback on academic reading

Theme	Code
Feedback on legislation	Making the academic reading course compulsory at the undergraduate level
	Organizing trainings for academic reading skills by YÖK
	Organizing in-service training
Feedback on academic reading strategies	Reading, discussion, and evaluation activities with the group
	Identifying a personalized reading strategy
	Making comparative academic reading
	Reading academically with a purpose
	Making critical academic reading
	Learning techniques such as archiving, filing, note-taking, tagging
	Ensuring academic reading continuity
	Reading academic publications in a foreign language
	Following current publications
Feedback on the reader	Learning ways to access academic resources
	Mastering the academic text type and structure
	Following prominent authors in the field
	Reading theses related to the field
	Benefiting from the academic reading experiences of experienced academics
	Reading quality academic resources
	Identifying academic reading problems with various studies
	Following publications related to academic reading

Investigating the table, it is clear that ideas like making academic reading compulsory starting at the undergraduate level, planning trainings for academic reading skills by YÖK, and providing in-service trainings fall under the legislation category. Following are some viewpoints in this regard:
P6: "*I believe that academic reading should be required in all undergraduate and graduate programs.*"

P9: "*Although it remains theoretical in general, a new course should be created, such as the* "*Research Methods and Techniques*" *course given at universities.* "*Academic language skills*" *courses should be added to the academic catalogs of specific faculties.*
Employing academic reading strategies was yet another piece of feedback fromgraduate students. In this context, it is clear that methods like notetaking, classifying, group reading, discussion and evaluation, comparative academic reading, academic reading with a purpose, critical academic reading, archiving, filing, and filing come into play. Some viewpoints in this regard include the following:

P7: *"Works like group reading, discussion, and evaluation can be done to go deeper into academic texts' surface structure."*

P19: *"I believe that techniques like notetaking, archiving, filing, and labeling will increase academic reading's effectiveness and permanence."*

P20: *"Having a purpose can help people read for academic purposes more successfully."* Following the most well-known authors in the field, understanding how to access academic resources, being proficient with academic text type and structure, learning from the academic reading experiences of more seasoned academics, and identifying academic reading issues with various research and academic research are all suggestions graduate students make to readers. There was feedback that would directly assist in the improvement of academic reading abilities, such as reading publications that are related to reading. Some viewpoints in this regard include the following:
P2: *"Academic publications can be read, and training can be taken."*

P4: *"However, readers who are familiar with the format of scientific texts will find what they are looking for more quickly. It might be helpful to read about the text type and structure at this point.*

P10: *"Experienced scholars can share their knowledge of academic reading with scholars who have just received their training."*

Results and Discussion

Some studies in the literature showed that academic reading was still current in terms of student success (Gorzycki, Howard, Allen, Desa & Rosegard, 2016; Miller & Merdian, 2020) and that the problems related to this skill still continued (Hirano, 2015, Martiarini, 2018), Singh, 2019; Padagas & Hajan, 2020).

In this context, to reveal the validity of this situation among graduate students in Turkish Education, firstly, the academic text types read by the students were focused on. Considering the findings obtained in the research, it was determined that the related students mostly preferred articles and theses as academic resources. This result emerged naturally from accessing theses and articles from public network addresses. In addition to thesis and articles, scientific books/textbooks, research summaries, full-text papers, research reports, and digital encyclopedias are less preferred. In this context, similar to previous research it revealed the preferred academic text types. (Jackson, Meyer & Parkinson, 2006; Mizrachi, 2010; Lopatovska & Sessions, 2016; Karakoç, Ruegg & Gu, 2022). Additionally, the research drew attention to a unique finding that graduate students read their lecture notes. On the other hand, it could be argued that the low preference for project and evaluation texts is a result of the students' inability to access them and the instructors' lack of use of them.

Examining the sources used by students to access academic texts revealed that they primarily use "Google Scholar," a public network address, along with other public network addresses. Additionally, students also consult informational resources like the library's physical layout, their instructors, and their fellow students. A significant finding was the lower preference for official public network addresses like TR Dizin, YÖK Akademic, and DergiPark. Additionally, it was noted that students rarely used international directories like Clarivate Analytics, ERIC, SCOPUS, and Web of Science. Although this was very important for the national literature in terms of accessing academic reading resources, it could be argued that it is not preferred because of the situation of graduate students turning to convenience and being satisfied with the national literature. Most reading strategies are based on digital resources, according to the findings from graduate students in the study by Lopatovska and Sessions (2016, p. 509). This conclusion is consistent with what was found in the study. Given the first and second sub-findings of the study, graduate students need to be pointed in the direction of various academic text types and given information on how to access them.

When the results regarding how graduate students in Turkish Education read academic texts are examined, it could be noted that they prefer reading strategies like underlining, taking notes in the margins, printing, writing comments and descriptions on pdfs, reading from the phone screen, and using various digital tools. In terms of academic reading, Yüksel and Yüksel (2012) assessed the metacognitive awareness of Turkish university students learning English as a second language and identified strategies like underlining key passages and taking notes. Graduate students made use of processes like underlining, highlighting, taking notes, and marking with various symbols, according to the study by Qayyum (2008) that examined how they read articles from e-journals. Given this situation, it could be argued that the studies' approaches to academic reading are parallel. In addition to this information, Martiarini (2018) discovered that the participants in his study of academic reading issues among students of visual arts had trouble "taking short notes" and "re-expressing using their own words." The author claimed conclusions run counter to what was discovered in this study about "taking notes in the margins" and "writing comments and descriptions on pdf." The fact that the participants in the two studies were studying in different departments could be the cause of this discrepancy. When the data from this study are combined with the information from the literature, it could be argued that postgraduate students primarily benefit from the possibilities of digital reading, even though some students prefer the "printout" method, which is a form of the traditional format. Despite the extensive use of technology, the participants' use of "printing" might be a result of their ignorance of digital academic reading techniques.

When the methods used by graduate students in Turkish Education to identify and organize crucial information in academic texts were examined, it was found that they primarily focused on keywords. The summary, method, findings, discussion, conclusion, and recommendation sections are thought to contain important information as well. Studies in the literature that focus on differentiating important information support the findings of this research (Keshav, 2007; Li & Ren, 2020; Lopatovska & Sessions, 2016;

Martiarini, 2018; Rahman, 2020). The participants also use techniques like quoting, archiving, underlining, marking, taking notes on it, filing it, and expressing it in their own words to manage the important information they have identified. The important information management techniques covered in this study are in line with the conclusions of Yüksel and Yüksel (2012), Qayyum (2008), and Martiarini (2018). It was concluded that significant information in academic texts is typically sought in various parts of the text after considering records in the literature and the data from this research. From this point of view, it was concluded that graduate students should be supported to develop their ability to reach important information from the sections that make up the academic text and to benefit from academic texts.

Several causes were identified in the analysis of the academic reading challenges graduate students in Turkish Education faced: having a lot of sources, being unable to separate important information, being unable to access different indexes, paying for qualified academic resources, using unqualified translations, being unable to understand academic language, having term-concept issues, including extraneous details, a lack of harmony between the title and the content, unclear text citations, and collecting information from multiple sources but being unable to combine them. Studies pointing to the bad reading habits of students (Sohail, 2015) are recorded in the literature. For example, the inability to synthesize the literature (Manjet, 2013; Kuzborska, 2015; Manjet, 2017; Padagas & Hajan, 2020), the inadequacy of words and academic terms negatively affect academic reading (Şahbaz Hekmen, 2005; Manjet, 2013, Manjet, 2017; Liu & Read, 2020), the inability to transform information and the place to be quoted in one's own words (Hirvela & Du, 2013, Martiarini, 2018), the lack of time to read many publications (Hirano, 2015). According to the study's findings and the data from the literature, postgraduate students in the context of academic reading encounter issues that do not vary much from reader to reader. From this vantage point, it could be argued that graduate students should get relevant help.

Numerous noteworthy advantages were discovered when the data on the advantages of academic reading experienced by graduate students in Turkish Education were reviewed. Following the literature, comparing information on the subject, understanding academic language, learning academic terms, identifying new research topics, developing academic writing abilities, creating academic writing language, offering personal academic development, and raising the caliber of academic courses are a few of these. This result agrees with what Miller and Merdian (2020) found. Miller and Merdian's research revealed the advantages of academic reading, including knowledge expansion, learning reinforcement, topic knowledge expansion, and spotting knowledge gaps in the field. Additionally, Bridgeman and Carlson (1984) noted that for undergraduate and graduate students, organizing material from diverse sources, analyzing ideas and quotes, and criticizing are crucial skills. This study was supported by relevant findings. Reading is crucial for academic performance because it helps students compare and synthesize materials, according to Rosenfeld, Leung, and Oltman (2001). These findings provided credence to the research's conclusion that "comparing information on the issue" was important. According to Smayilli Karakoç, Ruegg, and Gu (2022), academic reading

abilities are crucial for completing written tasks as well as reading materials, which confirms the findings from this study about "developing academic writing abilities."

The following information stood out in the research's final sub-finding on suggestions for academic reading: compulsory academic reading courses at the undergraduate level, reading with digital tools, group reading discussion and evaluation, determining personalized reading strategies, ensuring continuity in academic reading, academic reading in a foreign language, critical academic reading and identifying academic reading problems through various studies. Gravatt, Lewis, and Richards (1998) determined that students cannot synthesize information, instead prefer memorization, and experience problems in critical reading. In their study on academic reading techniques, Yüksel and Yüksel (2012, p. 897) came to conclusions such as "discussing reading with others, critically analyzing what is read." Keshav (2007) argues that learning to read an article effectively is a critical but rarely taught skill. Miller and Merdian (2020) underline the importance of academics in the teaching of academic reading in support of Keshav (2007). In his study on the academic reading habits of international students, Kuzborska (2015) similarly concluded that this ability should be taught. When the statistics from this study and the information from the literature were considered, it could be argued that there is a gap, especially when it comes to academic reading courses and critical academic reading. Some of the academic reading issues identified in the sixth sub-finding of this study were also explained by the aforementioned weakness.

Recommendations

The following recommendations were made considering the research's findings and outcomes:

- In addition to theses and articles, graduate students should be taught additional academic text genres. In this context, students should be given tasks in which they can use different types of academic texts.
- Several seminars should be held to enhance the academic reading abilities of graduate students.
- Graduate students should receive reading strategy instruction tailored to the kinds of academic texts they would read.
- Graduate students should get academic guidance.
- Students should be given tasks and seminars on strategies for distinguishing important information in academic reading.
- Graduate students should have access to official databases like DergiPark, YÖK Academic, and TR Dizin, as well as global sources like ERIC, SCOPUS, Web of Science, and Clarivate Analytics.
- A common and compulsory "Academic Reading Techniques" course should be included in the curriculum of all graduate programs within the faculties.
- The foundations of academic reading abilities should be established at the undergraduate level through the necessary procedures.

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Genişletilmiş Türkçe ÖZet

Lisansüstü eğitim, akademik metinlerin yoğun bir biçimde anlamlandırıldığı ve üretildiği yer olması bakımından lisans düzeyinden farklıdır. Bilimsel araştırmaların yapıldığı ve yeni bilgilerin üretildiği lisansüstünde söz konusu faaliyetlerin nitelikli olması akademik okumanın verimliliğiyle olur. Bu nedenle akademik yaşantının temelinde olan lisansüstü eğitimde elde edilecek deneyim bilimsel ilerlemenin seyrini belirleyen temel ölçüttür. Bu kapsamda lisansüstü eğitim alan öğrencilerin akademik okuma deneyimlerini çeşitli yönleriyle belirlemek lisansüstü eğitim sürecinin düzenlemesi açısından oldukça önemlidir. Türkçe eğitimi lisansüstü öğrencilerinin akademik okuma deneyimlerini okuma sürecinde izledikleri yöntemler, karşılaştıkları sorunlar ve kullandıkları stratejiler üzerinden tespit etmeyi amaçlayan bu çalışma, öğrencilerinin akademik okuma deneyimlerinin tespiti ve iyileştirilmesi sürecinin ilk aşamasıdır.

Lisans eğitimini tamamlayanların bir bilim dalında bilim uzmanlığı ya da doktora öğrenimi yaparak uzmanlaşma olanağı sağlamak üzere aldığı eğitim olarak tanımlanabilecek lisansüstü eğitim, Türkiye'de genellikle yüksek lisans ve doktora olarak ikiye ayrılır. Bu eğitim düzeyinde başarı için gerekli şartların başında ise akademik dil becerileri gelmektedir. Bu düzeyde ihtiyaç duyulan akademik içerikleri anlamak, bir akademik içerik oluşturmak (Snow ve Uccelli, 2009: 112), akademik ortamlarda konuşmak ve konuşulanları etkin biçimde anlamak en temel ihtiyaçtır. Akademik gelişim, derslere ve sunumlara hazırlık, literatür taraması ve akademik metin üretme süreci başta olmak üzere lisans ve lisansüstü öğrenciler çeşitli görevlerde akademik okuma becerisine ihtiyaç duyabilir. Bazı araştırmacılar; güncel gelişmeleri takip etmek, yeni araştırma alanları belirlemek için literatürü taramak, konferans gibi etkinliklere hazırlanmak, araştırma çıktılarını yayımlamak ve mevcut bilgiyi eleştirel analiz etmek için bu okuma türüne ihtiyaç duyulabileceğini vurgulamıştır (Keshav, 2007; Padagas & Hajan, 2020).

Türkçe eğitimi lisansüstü öğrencilerinin akademik okuma deneyimlerine odaklanan bu araştırmada temel yöntembilimsel yaklaşım olarak yorumlayıcı fenomolojik analiz benimsenmiştir. Araştırmanın çalışma grubunu yirmi lisansüstü öğrenci oluşturmaktadır. Araştırmanın verileri görüşme yöntemiyle ve yarı yapılandırılmış görüşme formuyla toplanmıştır. Araştırmada elde edilen veriler içerik analizi tekniğiyle çözümlenmiştir. İçerik analizinde araştırmacılar bir dizi kategori oluşturur, sonra da bu kategorilerin her birine giren durumları sayarak kaydederler (Silverman, 2018, s. 162). Araştırmada birinci ve ikinci döngü kodlama yöntemlerinden süreç ve örüntü kodlama kullanılmıştır.

Elde edilen bulgulara bakıldığında ilgili öğrencilerin akademik kaynak olarak en çok makale ve tezleri tercih ettikleri belirlenmiştir. Dijital imkânların arttığı günümüzde tez ve makalelere genel ağ adreslerinden ulaşılması bu sonucun ortaya çıkışını doğal hâle getirmektedir. Tez ve makalenin yanı sıra bilimsel kitap/ders kitabı, araştırma özeti, tam metin bildiri, araştırma raporu ve dijital ansiklopedi daha az tercih edilmektedir. Akademik metinlere ulaşma kaynaklarının irdelendiği soruda ilgili öğrenciler tarafından akademik metinlere ulaşma aracı olarak "Google Akademik" başta olmak üzere çeşitli genel ağ adreslerinin kullanıldığı anlaşılmıştır. Ayrıca öğrenciler kütüphane alt yapısı,

öğretim elemanı ve sınıf arkadaşı gibi bilgi edinme kaynaklarına da başvurmaktadırlar. TR Dizin, YÖK Akademik ve DergiPark gibi resmî genel ağ adreslerinin az tercih edilmesi kritik bir bulgu olarak öne çıkmaktadır. Bunun da ötesinde öğrencilerin ERIC, SCOPUS, Web Of Sciense ve Clarivate Analytics gibi uluslararası dizin üzerinden bir arama yapmadıkları görülmüştür. Öğrenciler, akademik metinleri okarken altını çizmek, kenarlarına not almak, çıktı almak, pdf üzerinde açıklama balonu açmak, telefon ekranından okumak ve çeşitli dijital araçları kullanmak gibi okuma yöntemlerini tercih etmektedir. Ayrıca önemli bilgiyi ayırt etme ve yönetme stratejilerine bakıldığında, lisansüstü öğrencilerin önemli bilgileri ayırt ederken en çok anahtar sözcüklere dikkat etmektedir. Ayrıca özet, yöntem, bulgu, tartışma, sonuç ve öneri gibi çeşitli bölümlerde önemli bilgilerin bulunacağı düşünülmektedir. Türkçe eğitimi lisansüstü öğrencilerinin karşılaştığı akademik okuma zorluklara ilişkin incelemede özellikle çok sayıda kaynağın olması, önemli bilgileri ayırt edememek, çeşitli indekslere ulaşamamak, nitelikli akademik kaynakların ücretli olması, niteliksiz çeviriler, akademik dili anlayamamak, terim-kavram sorunları, gereksiz ayrıntılar, başlık-içerik uyumunun olmaması, metin içindeki alıntıların belli olmaması ve farklı kaynaklardan alınan bilgileri birleştirememek gibi nedenlere ulaşılmıştır. Öğrenciler akademik okumanın faydalarına yönelik literatürü takip etme, konuyla ilgili bilgileri karşılaştırma, akademik dili anlama, akademik terimleri öğrenme, yeni araştırma konuları belirleme, akademik yazma becerisini geliştirme, akademik yazı dili oluşturma, bireysel akademik gelişimi sağlama ve akademik derslerin niteliğini artırma gibi farklı nitelikler belirtmiştir. Araştırmanın akademik okuma önerilerini konu edinen son alt bulgusunda lisans düzeyinden itibaren akademik okuma dersinin zorunlu olması, dijital araçlarla okuma, grupla okuma tartışma ve değerlendirme, kişiye özgü okuma stratejileri belirleme, akademik okuma sürekliliğini sağlama, yabancı dilde akademik okuma, eleştirel akademik okuma ve çeşitli araştırmalarla akademik okuma sorunlarını belirleme verileri öne çıkmıştır.

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Primary School Teachers' Views on Empowering Leadership and Empowerment*

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Abstract

The aim of this study was to investigate the Primary School Teachers' views on empowerment and empowering leadership. The study adopted a phenomenological design, one of the qualitative research methods. The study was carried out with 13 volunteer Primary School Teachers working in different schools in the city center of Elâzığ in the 2020-2021 academic years. The criterion sampling technique, one of the purposive sampling methods, was used in sample selection. A semi-structured interview form consisting of open-ended questions was used in data collection. The results showed that when school principals exhibited fairness, offered opportunities for professional growth, delegated authority with corresponding responsibility, and maintained open communication channels, they positively reinforced the capabilities and morale of the teachers. School principals should know they are in a collaborative partnership with the teachers, and that organizational goals can only be achieved through joint efforts. Empowering leadership behaviors contribute to promoting managerial and organizational effectiveness. However, it was found that some principals unconsciously discriminated in terms of empowering their teaching staff. Additionally, the school principals generally held favorable attitudes towards unions. Considering these findings, it is recommended that school principals avoid holding union membership titles while performing their duties.

Keywords: Empowering leadership, empowerment, teacher empowerment.

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* This article was derived from the doctoral thesis prepared by the first author, under the supervision of the second author.

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Introduction

Empowerment is the antidote to organizational weakness but implementing it can be challenging for several reasons. Sharing power involves giving up some control and empowering others, which may be difficult for those who value power. Some may argue that it requires courage, while others regard it as an ethical obligation. However, for a Machiavellian, such behavior may seem irrational. In addition, administrators who have worked vigorously to increase organizational power and climb the corporate ladder may find it difficult to share the spotlight or praise they have earned (Burke, 1986).

Today, organizations face unpredictable opportunities, threats, and uncertainties. As a result, leadership approaches have evolved to adapt to these challenges. Rather than relying on traditional management structures, effective leaders seek to empower their followers to participate in decision-making, take risks, assume responsibility, and identify their own blind spots to continue learning and improving.

Empowerment is a managerial process that involves sharing power with employees who perform well and are trusted by their superiors (Burke, 1986). It serves as a key source of self-efficacy and aims to overcome feelings of powerlessness by breaking down barriers that impede people's power. Empowerment processes require a shift in perception, where individuals who previously felt powerless begin to envision themselves as capable of taking action and making meaningful contributions (Bellous & Pearson, 1995). Empowerment has recently attracted a great amount of attention as a tool to improve organizational effectiveness.

Empowering Leadership

A brief literature review indicates that leadership is a varied and dynamic field. An increasing number of studies have been conducted to explore a number of leadership styles. Empowerment leadership is one such style. Its theoretical foundations originate from Ohio State University leadership studies (Srivastava et al., 2006). Empowering leadership involves specific behaviors such as promoting subordinates' participation, consulting with them, empowering them, and providing support. These characteristics are regarded as essential for effective leadership, according to leadership expert Yukl (1989).

Reinforcing leadership involves a leader's behavior in delegating more autonomy and responsibility to followers, teams, or collectives, (Cheong, 2017; Cunningham et al., 1996; Gao et al., 2011; Vecchio et al., 2021). Empowering leadership, on the other hand, is based on trust, confidence, expectation, and independence (Martin A. M., 2013).

Leaders practicing empowering leadership trust their followers and delegate decision-making authority and freedom of choice to them (Lorinkova et al., 2013). Empowering leadership has a direct effect on team interaction by promoting a sense of psychological empowerment among team members (Cheong, 2017). This leadership style also enhances task efficacy and proactive behaviors (Martin et al., 2013). Subordinates who

work with empowering leaders report high levels of job satisfaction and perceive their leaders as treating them fairly, resulting in high levels of performance (Dwivedi, 1998). Empowering leadership also boosts self-efficacy in individuals, enabling them to better handle the challenges of their jobs and, consequently, perform better (Ahearne et al., 2005).

In their study, Konczak et al. (2000) investigated the dimensions of empowering leadership related to innovation performance, including empowerment, responsibility, self-determination, knowledge sharing, skill development, and coaching.

Delegation of Authority: It refers to the act of delegating power or authority to others in order to increase their intrinsic motivation by giving them greater control over task evaluations and decision-making related to self-determination and autonomy.

Accountability: It emphasizes the importance of leaders being accountable to their subordinates and teams, ensuring that they fulfill their responsibilities. It also suggests the need to restructure performance measurement systems to align with changes in authority and ensure that employees are held accountable for their performance.

Self-Directed Decision Making: This aspect of leadership involves not only making decisions related to plans, goals, and procedures but also proactively identifying problems in business processes and developing strategies to address them.

Information Sharing: It emphasizes sharing information with subordinates in order to make sure that they have the essential resources and knowledge to achieve results of high quality. This both helps the organization achieve its goals and empowers subordinates to develop their skills and abilities.

Skill Development: This aspect of leadership involves a facilitative role. It includes providing appropriate training to develop subordinates' skills and supporting efforts to empower employees.

Coaching for Innovative Performance: It covers planned risk-taking and leadership behaviors in order to promote innovative ideas, provide feedback on performance, and consider errors and obstacles as learning opportunities. To guide subordinates in identifying the source of mistakes and reducing their errors, leaders need to make certain that taking risks is not punished. In addition, leaders must provide appropriate support and resources to enable subordinates to take risks.

Teacher Empowerment

The studies in the literature indicate that the work conditions of teachers are often designed in a way that challenges their sense of competence, achievement, and self-worth, which in turn results in a feeling of powerlessness (Kahraman & Çelik, 2020; Kıral, 2015; Sprague, 1992; Terry, 2021). The literature further supports the notion that the behavior of school principals has a significant impact on the teachers' morale and motivation.

Empowerment is a dynamic process that involves interaction between leaders and followers (Avidov-Ungar et al., 2014; Honold, 1997). To create an environment that fosters empowerment, it is crucial for principals to model empowerment ideals, encourage all empowerment efforts, and support all steps toward empowerment. According to Terry (2021), successful schools are those where leaders continuously strive to enhance the creativity of teachers. Empowering teachers involves elevating their status, expanding their knowledge, and increasing their participation in decision-making processes (Maeroff, 1988). Teacher empowerment is conceptualized and measured by their ability to control critical decisions about teaching and learning conditions (Sweetland & Hoy, 2000). Factors such as providing decision-making opportunities and encouraging increased responsibilities are central to the process of empowering teachers (Flaherty, 2018).

Empowerment enables teachers to take control of their professional growth and development, which in turn enhances their intrinsic motivation, passion, and autonomy for teaching and improving students' lives (Colbert et al., 2008; Frugo et al., 2016; Keiser and Shen, 2000). Teachers feel empowered when they are given the authority to create their own growth plans, freeing them from unnecessary supervision and unfair judgments (Prawat, 1991).

Short and Rinehart (1992) identify six dimensions of teacher empowerment:

(1) involving teachers in critical decisions that directly affect their work

(2) recognizing the teacher's impact on school life

(3) elevating the teacher's status with professional respect from colleagues

(4) promoting autonomy and supporting the teacher's beliefs that they can control certain aspects of their work life

(5) providing professional development opportunities to enhance continuous learning and expand one's skills

(6) fostering self-efficacy, which is the perception of having the skills and ability to help students learn.

The empowering leader considers the demands of his followers and encourages them to participate more effectively in task activities (Kim & Beehr, 2017). Employees are likely to develop a sense of belonging when they feel heard and provide input into their work environment. With participatory goal setting and collaboration, employees can strengthen their sense of belonging, which is a fundamental component of psychological ownership, and their role in the organization. To be empowering and increase motivation, the leader should help members understand the importance of their role in the team, involve them in the decision-making process, believe that they can achieve high performance, and simplify administrative rules (Park et al., 2017). According to Goyne et al. (1999), the empowering leader creates an environment where teachers are

comfortable, suitable for team unity, and fosters an atmosphere of creativity and risk-taking.

Empowering teachers has been linked to a range of positive outcomes, including increased self-esteem, job satisfaction, organizational commitment, and professional commitment, as well as decreased dysfunctional resistance (Flaherty, 2018; Lee & Nie, 2014). Blase and Blase (1996) argue that leader behaviors such as creating a sense of trust in teachers, developing shared governance structures, being sensitive to teachers' thoughts and emotions, valuing their ideas and opinions, encouraging autonomy, innovation, creativity, and risk-taking, providing rewards and support, and exhibiting personal characteristics such as caring, enthusiasm, optimism, honesty, and friendliness contribute to teacher empowerment.

Teachers' self-efficacy beliefs are important for their job performance, but their sense of empowerment and trust in their school principal also play crucial roles in their ability to handle teaching-related challenges and responsibilities (Çelik & Kahraman, 2021). Therefore, understanding the leadership behaviors empowering school principals may have both theoretical and empirical implications for the field. By identifying effective strategies for forming an empowering environment, this study can provide valuable insights for improving teacher outcomes and school success.

The Purpose of the Study

The aim of this study was to explore Primary School Teachers' perceptions regarding teacher empowerment and empowering leadership. The study sought to address the following research questions:

1. What are the teachers' perceptions of their strengths and weaknesses in relation to their work?

2. How do the school principals' management styles impact the teachers' ability to fulfill their duties and responsibilities?

3. What management approach would be ideal for school principals to empower teachers? What strategies make teachers feel empowered?

4. To what extent do school principals exhibit positive discrimination towards certain individuals while demonstrating empowering leadership behaviors, according to teachers' views?

Method

The study adopted a phenomenology design, a qualitative research method focusing on how people experience and perceive phenomena. Phenomenology derives from the Greek word "phenomenon," which refers to appearances, and it involves exploring the lived experiences of individuals and how they make sense of their world (Holt & Sandberg, 2013). In phenomenological research, the aim is to understand the essence of a

particular phenomenon through the perspectives and experiences of individuals (Christensen et al., 2015; Creswell, 2017c; Ersoy, 2017). The primary data collection method employed in phenomenological research is in-depth interviews with open-ended questions, which allow participants to share their experiences and perspectives in their own words (Christensen et al., 2015).

The Participants

In phenomenological studies, the number of participants may vary from 5 to 25 individuals (Creswell, 2018), although some sources suggest that at least 10 participants are necessary (Ersoy, 2017). Morse (2018) recommends selecting participants until the researcher collects numerous similar examples of the phenomenon, reaching data capacity. In the study, the participants consisted of 13 Primary School Teachers who volunteered to take part in the study, and who worked in different schools in the city center of Elâzığ during the 2020-2021 academic year. The study was completed with a total of 13 participants, as it was deemed sufficient in terms of data collection and data saturation. In qualitative research, the researcher's goal is not to find a general truth but to understand the depth of a subject carefully and meticulously. For this purpose, a non-random and purposive sample is selected (Merriam, 2015). The criterion sampling technique was used to select the participants. In this purposeful sampling method, the researchers intentionally select individuals and places to learn about or understand the main phenomenon (Creswell, 2017b). In criterion sampling, the researcher works with a group of participants who have specific qualities such as persons, objects, events or situations (Büyüköztürk et al., 2010). For this study, three criteria were established for participant inclusion: (1) a minimum requirement of having worked with at least two school principals, (2) having a history of working with the same principal for at least two years in their previous institution, and (3) having experience working in various primary schools. These criteria were established to ensure that the participants had experience with different school leadership behaviors, could compare structures in different schools, and had sufficient time to express their opinions about the school principal in their last institution. Table 1 shows the numerical data of the demographic information of the participants.

Table 1.

The Characteristics of the Participants

Participant	Gender	Educational Status	Work Experience (years)	Number of Principal	Working Time at School	Years Worked with the last Principal	Location of Interview
P1	M	BA	22	7	8	5	Self-Study Center
P2	F	BA	13	7	4	4	Classroom
P3	F	MA	12	8	3	3	Classroom
P4	F	BA	13	6	5	3	Teachers' Room

P5	M	BA	20	6	7	7	Classroom
P6	F	MA	15	3	6	3	Canteen
P7	F	BA	23	9	8	5	Site Social Area
P8	F	BA	22	12	5	3	Principals' Office
P9	F	BA	12	2	7	7	Principals' Office
P10	M	BA	24	4	12	6	Canteen
P11	F	BA	22	6	7	3	House
P12	F	PhD	14	6	3	3	Canteen
P13	F	BA	16	3	10	5	Canteen

Data collection tool

A semi-structured interview form consisting of open-ended questions was developed to collect data. Semi-structured interviews are flexible in nature and focus on the questions or problems that are of interest to the data being collected (Merriam, 2015). The phenomenological interview process is a two-way communication and interaction process between the researcher and the participant (Ersoy, 2017). In order to express their opinions without being limited by the researcher's point of view or previous research findings, the participants were given open-ended questions created by the researchers (Creswell, 2017b). The use of a semi-structured interview form was deemed appropriate as it allowed for the participants' perspectives to not be limited, revealed their differences, and enabled new questions to be asked during the research process.

Validity, Reliability and Ethics

The validity, reliability, and ethics of a study are highly dependent on the researcher's adherence to ethical standards and practices (Merriam, 2015). In this study, several measures were implemented by the researcher to minimize or eliminate any factors that could potentially threaten the validity, reliability, and ethical considerations of the research. These measures are presented in Table 2.

Table 2.

Measures Regarding Validity, Reliability and Ethics

Validity	Internal Validity (Credibility)	Expert Opinion Comprehensible Field Study Participant Confirmation
	External Validity (Transferability)	Description of the data collection tool and process Explaining the data analysis process Detailed description of the participant group Description of sample selection Description of the researchers' role Justification of the research method Purposeful sampling
Reliability	Internal reliability	Audio recording of the data in order to prevent data loss

		Include direct citations
	External reliability	Appropriate discussion of the data
		Checking the consistency of the data
		Consensus among data
		Basing findings on data
		Natural generalization
Ethic		Research Approval Research Permission
		Participant consent form Utilization of codes for participants
		Research Approval Research Permission

One commonly used strategy to enhance credibility (internal validity) in qualitative research is using multiple data sources, extended engagement, member checking, and expert review (Creswell, 2017b; Ersoy, 2017). In this study, several steps were taken to minimize threats to validity and enhance credibility. These steps are shown in Table 2. To ensure adequate engagement with the participants, face-to-face interviews were conducted with them, and the time and place were arranged according to their preferences. A draft interview form was evaluated by experts for content validity. The final version of the semi-structured interview form was created after incorporating expert opinions and pilot testing with two primary school teachers to assess the clarity and feasibility of the questions. The pilot data were excluded from the analysis. The final interview questions were then directed at the main participants of the study. The interviews were conducted in appropriate settings (e.g., teacher's room, classroom, school cafeteria, local cafe) at times agreed upon by the participants. All interviews were audio recorded, transcribed, and checked for accuracy. The transcribed data were sent to the participants for member checking to ensure the accuracy and completeness of their responses. The participants confirmed that the transcripts reflected their opinions and experiences without needing any further corrections or additions.

Transferability, which refers to the extent to which the results of a study can be applicable to other contexts or situations, is also an important consideration in qualitative research (Batdı, 2019). The generalization of findings from specific situations to other similar situations is the essence of external validity (Merriam, 2015). To ensure external validity, the research report should contain comprehensive information about the participants and the context of the study (Christensen et al., 2015). However, it is up to the reader to apply the findings of the study to other situations. One way to increase external validity is to carefully select the sample using purposeful sampling methods such as criterion sampling, which was employed in this research to determine the participant group.

To ensure participant support and protect their privacy, the researcher verbally informed the participants about the study and obtained signed consent forms. One way to enhance descriptive validity is by involving multiple researchers in the data collection and interpretation process (Christensen et al., 2015). To maintain descriptive validity, the responses from participants were cross-checked against the themes developed by the researcher and field experts (n=3), ensuring that no response was overlooked. Directly including narratives is another strategy that helps ensure validity in qualitative

research (Christensen et al., 2015). In this study, the direct quotes of participants were included under each theme to provide a more comprehensive understanding of their perspectives. To maintain confidentiality, participants were coded as P1., P2., etc.

Data analysis

The data analysis involved using both content analysis and descriptive analysis methods. Content analysis is a technique used to conceptualize and organize collected data by identifying emerging concepts and determining themes that explain the data (Yıldırım & Şimşek, 2006). Descriptive analysis involves providing detailed descriptions of people and places to convey narratives (Creswell, 2017b).

Findings

Views on Strengths

The participants were asked to share their opinions about their strengths. In this sense, the question, "Can you tell us about your strengths?" was asked to the participants. The responses provided by the participants are shown in Table 3.

Table 3.

Participants' Views on Strengths

Theme	Sub-Theme	Codes	Participants	f
Strengths	Belief and Determination	Realizing goals	P3, P5, P6, P8, P12, P13	6
		Not giving up	P1, P3, P4, P10, P12, P13	6
		Perseverance	P3, P7, P8, P9	4
		Effort	P2, P7, P8	3
		Insisting on insufficient spaces	P2, P10	2
		Standing on your feet	P2	1
		Patience	P11	1
		Not needing support	P4	1
	Progress	Being open to change	P1, P9, P11	3
		Professional development	P1, P9, P10	3
		Awareness of the need for support	P2, P5, P10	3
		Being open to development	P1, P10	2
		Not relying on experience	P10	1
		Positive attitudes towards life	P11	1
Total				37

As shown in Table 3, two sub-themes, "belief and determination" and "progress" emerged within the theme of strengths. The most frequently expressed views by the participants were related to "realizing goals and not giving up", which indicated their motivation and commitment. Participants identified strengths such as "perseverance and effort" to

describe their motivational behaviors. These findings suggest that intrinsic motivation is a significant driving force for the participants. Below are some examples of the participants' opinions regarding their strengths:

P1. I usually don't give up. I develop myself professionally. This is my 22nd year in the profession, but this year, for example, I gave up on the method I used before while explaining a subject. I came across another method and started to apply this method. I realized that I got much easier results. In other words, I realized that it became much easier for the student to understand. In this sense, I consider myself open to change and continuously seeking ways to improve.

P10. My strengths are my life experience, seeking advice from experts in education and social life and reading books. It has been very beneficial for me to learn from the life experiences of others in these fields. When I face a problem on these issues, I think that my strengths are that I do not give up and look for solutions to overcome the problem and address it.

P13. Let me tell you, I do whatever I set my mind to. I can handle problems. As long as I have convinced myself to do it. I can achieve the goal I set. If I want to do it, I will. This is my strongest aspect.

Views on Weaknesses

The participants were asked to share their opinions about their weaknesses by responding to the question, "Can you tell us about your weaknesses?" The responses provided by the participants are summarized in Table 4.

Table 4.

Participants' Views on Weaknesses

Theme	Sub-Theme	Codes	Participants	*f*
Weaknesses	Excessiveness in emotions	Being too emotional	P2, P6, P8, P12, P13	5
		Experiencing intense emotions	P3, P6, P7	3
		Getting angry quickly	P1, P5	2
		Falling into despair	P11	1
		Extreme mercy	P4	1
	Weakness in actions	Poor communication	P9	1
		Difficulty getting back up	P13	1
		Unknown factors	P10	1
		Not panicking quickly	P11	1
		Inertia	P6	1
Total				17

Table 4 presents two sub-themes, "excessiveness in emotions" and "weakness in actions," within the theme of weaknesses. The participants mainly described their emotional states as their weaknesses, particularly "being too emotional, experiencing intense emotions, and getting angry quickly." Moreover, they expressed difficulties in regaining their self-efficacy and sense of competence when facing challenges, which can lead to a sense of hopelessness and difficulty in moving forward. While the participants seem to be aware of their emotional states, they struggle with managing negative emotions effectively. Several participants also reported issues with anger management. Below are a few examples of the participants' opinions regarding their weaknesses.

P4. My weakness is that I am overly compassionate. Sometimes my excessive compassion can result in negative feedback towards me.

P5. I am extremely angry. It can negatively affect me at times, frankly. Sometimes I cannot control my nerves, but I regret it later. My nerves are killing me. I wish I could be carefree like some people who don't let things bother them. But I can't. I mean, my character tends to worry, and my emotions can be overwhelming, making it difficult to sleep at times.

P6. Occasionally, I struggle with a sense of inertia and being overly emotional, sensitive, and empathetic. When my emotions become too intense, they can turn negative, leading to a lack of motivation and feelings of negativity.

P12. Sometimes I can be very emotional. When I feel bored, I sit and cry. My weakest part is being attached to my family.

The Participants' Views on How School Principals' Management Styles Influence Performance in Fulfilling Duties and Responsibilities.

The participants were asked the question "How do the management styles of school principals reflect on your performance in fulfilling your duties and responsibilities?". Their responses are presented in Table 5.

Table 5.

Participants' Views on the Relationship Between Principals' Managerial Behavior Style and Participants' Performance.

Theme	Sub-Theme	Codes	Participants	f
Behavior	Satisfaction	Increasing Motivation	P1, P2, P3, P4, P8, P9	6
		Work Commitment	P4, P8, P9, P12	4
		Confidence Building	P2, P3, P8	3
		Encouragement	P3, P6, P9	3
		Feeling competent	P3, P6	2
		Altruism	P5, P11	2
		Increase in the Performance	P2	1

		Enhancing the Benefits	P3	1
		Fulfilling Duties Effectively	P3	1
		Recognizing Abilities	P2	1
		Experiencing Autonomy	P6	1
	Complaint	Decrease in Motivation	P7, P10, P13	3
		Neglect of Duty	P7	1
Total				**29**

As shown in Table 5, the participants emphasized the importance of school principals' management styles in terms of "motivation", "work commitment", "confidence building", and "encouragement". They all agreed that the behavior of their managers has a significant impact on their job performance. Some opinions expressed by the participants on this topic are presented below:

P3. I would say the effect of the school principal's management style on the teacher's performance is 100 percent. A positive and well-managed environment created by the school principal leads teachers to feel more competent, come to school willingly, and perform their duties better.

P8. The social and emotional support provided by the leader is important and this increases my motivation at school.

P9. I believe that the support and appreciation I receive from the school principal directly impact my confidence and success at work. The support of the administrators made me more successful. Being appreciated by the school principal or friends makes you more determined. You have more courage to take new steps. They supported me in the past and helped me succeed, giving me confidence that I can succeed again in the future.

Views on Empowering Leadership

The participants were asked the question, "What should be an ideal management approach for school principals to empower teachers? What makes you stronger?" to obtain their views on the empowering leadership behaviors that the school principal should exhibit. The participants' views on the characteristics of an empowering leader are presented in Table 6.

Table 6.

The Participants' Views on Empowering Leadership

Theme	Sub-Theme	Codes	Participants	f
Features	Supportive	Fairness	P2, P3, P6, P7, P11, P12	6
		Control and assistance through follow-up	P3, P5, P6, P12, P13	5
		Sharing success and failure	P3, P4, P8, P13	4

		Appreciating the work done	P1, P2, P6, P9	4
		Empowering teachers with responsibility	P1, P3, P12	3
		Considering suggestions	P1, P6, P11	3
		Good distribution of duties and	P2, P10, P11	3
		Building team spirit	P4, P8, P9	3
		Mentoring	P4, P10	2
		Reducing parental intervention	P9, P12	2
		Coaching	P4, P13	2
		Offering developmental training	P10	1
		Providing materials	P12	1
		Being open to innovation	P13	1
		Avoiding bureaucratic obstacles	P10	1
		Having problem solving abilities	P4	1
	Interaction	Being open to communication	P3, P6, P8, P12	4
		Being open to making decisions together	P1, P3, P11, P12	4
		Speaking in a positive way	P5, P6, P8, P12	4
		Being persuasive	P3, P10, P12	3
		Being democratic	P11, P12	2
Total				59

Two sub-themes, "supportive" and "interaction" were revealed under the supreme theme of "features" based on the participants' opinions. The most commonly expressed opinion under the "supportive" theme was the importance of "fairness." Participants who held this view stated that a school principal's fair treatment would strengthen them. The second most commonly mentioned code was "control and assistance through follow-up." This suggests that participants seek guidance and support to contribute more to the school and their students. The codes listed under both sub-themes generally included the social motivation dimension, one of the extrinsic motivation factors. These codes included appreciating the work done, empowering teachers with responsibility, mentoring, reducing parental intervention, offering developmental training opportunities, being open to communication, and being persuasive. The following excerpts highlight the participants' opinions on this theme:

P1. Being appreciated and hearing positive feedback about our work strengthens our motivation to perform better in the institution we work for.

P3. An ideal management approach for school principals should be open to communication and decision-making together with teachers. The school principals should be persuasive in the exchange of ideas instead of imposing them and they should create a moderate school climate. The principal should give authority and responsibility together and share failure. Control should be for the purpose of support, not just inspection.

P6. It strengthens me when the principal follows and appreciates our work and encourages us to keep doing good work. A correct communication method and a willingness to try new things also strengthen me.

P8. Team spirit is important, that is, being willing to do the work, being more motivated as you succeed. The school principal should be able to establish warm relationships, not just a strong leader-personnel relationship. The school principal should take responsibility for both positive and negative situations. As everyone knows, all exam responsibilities and results are attributed to the teacher. Mathematicians are always guilty; the administrator does not take any responsibility for it.

Participants' Views on the Risk of Discrimination in Empowering Leadership Behaviors

The participants were asked about their opinions on whether their principals engaged in discriminatory behavior with the intention of displaying empowering leadership. The question asked was, "What are your views if school principals discriminate against certain people or make positive discrimination?" The participants' responses are presented in Table 7.

Table 7.

Participants' Views on the Risk of Discrimination in Empowering Leadership Behaviors

Theme	Sub-Theme	Codes	Participants	f
Behavior	Favoritism	Union	P3, P4, P6, P9, P10, P11, P12	7
		Political Opinion	P3, P4, P6, P10, P12	5
		Good Relations	P3, P7, P10, P12	4
		Kinship, Closeness	P4, P9, P12	3
		Benefit	P2, P11	2
		Belief	P6, P10	2
		Woman	P12	1
	Positive discrimination	High work experience	P9, P10, P12	3
		Woman	P9, P12, P13	3
	Empowerment	Fulfilling duty	P1, P5, P8	3
		Low work experience	P4	1
	Disempowerment	Not giving up	P10	1
		Neglect of Duty	P1	1
Total				36

Table 7 showed that the participants' opinions on the risk of discrimination caused by empowering leadership behaviors were categorized into four sub-themes: "favoritism," "positive discrimination," "empowerment," and "disempowerment." Under the favoritism sub-theme, the codes "union, political opinion, and good relations" were the most frequently mentioned, indicating that using unions and political views as tools of favoritism in schools may harm organizational trust. Under the positive discrimination sub-theme, the codes "higher seniority and women" were identified. While positive discrimination towards teachers with higher seniority and female teachers can be perceived as a step towards equality in the organization, it is essential to ensure that it

does not lead to further discrimination or imbalance in the workplace. Some of the participants' opinions on the discriminatory behaviors of school principals in their management style are presented below:

P3. The principal cannot constantly monitor the teacher's performance. He evaluates the teacher based on what he sees and what the teacher says. I have observed that those who have a good relationship with the manager are favored or empowered. Generally, I think that unions and political views are influential in this regard.

P9. They have noticed positive discrimination towards teachers with higher work experience. They received guidance to help them learn new technological skills during this period.

P10. Teachers with high work experience will of course feel powerful when they learn new things when they receive technological information during this period.

The principal treats people differently based on his perception of who works best for him. He behaves differently towards those who share his views, belong to the same union, or have similar political or world views. In general, male teachers have more open communication with principals about this issue. Those who work harder are given more workload.

P12. I have witnessed discrimination in many schools, which seems to be a widespread issue in Turkey. Discrimination can occur based on factors such as family connections, personal relationships, political affiliations, and union membership. Unfortunately, these biases exist. Teachers also notice specific characteristics of their principals and use them to their advantage. During the earthquake and epidemic periods, principals did not assign teachers with higher seniority, as many senior teachers lacked computer literacy, which was necessary during those times. Although some people believe that age makes them better, this is not the case unless they continue to improve themselves. Many teachers with high seniority required assistance in defining courses on the computer during the epidemic period. Additionally, female teachers were not given social responsibility duties during the same time frame, which was discriminatory. Society, in general, is not open to women's visibility in public areas such as earthquake tents and filiation works, which might explain why the principal did not assign female teachers to these tasks. I believe that this issue stems from the patriarchal structure of society.

P13. Due to the low number of female teachers in our school, difficult tasks were not assigned to us during the earthquake and pandemic periods. I did not receive any assignments, as I had gone to my hometown during the earthquake. I think this could be seen as a form of privilege given to me based on my gender.

Results and Discussion

The research period coincided with the Elazig earthquake and the global COVID-19 pandemic, which led to the extended closure of schools and the adoption of remote education. These circumstances influenced the participants' opinions and experiences, especially in relation to the psychosocial variables examined in the study.

The study focused on examining empowering leadership and teacher empowerment among primary school teachers. The findings revealed that teachers have high levels of personal and professional self-efficacy. The participants' strengths derived from their self-efficacy beliefs include persistence, diligence, openness to change, and improvement. According to Bandura (1997b), individuals with high self-efficacy are more likely to face problems and challenges head-on. The participants' views align with the existing literature on this topic. Mache et al. (2014) found that individuals with a strong sense of self-efficacy are more dedicated to their work. On the other hand, participants who identified their weaknesses reported needing a recovery period after facing setbacks. Bandura (1994) stated that individuals with low self-efficacy experience higher levels of stress and depression in challenging situations, leading to a decline in motivation.

Several studies have investigated the self-efficacy belief levels of teachers. For example, Baloğlu (2020), Elgit (2020), Kartal (2019), and Tschannen-Moran and Hoy (2007) reported high levels of self-efficacy beliefs. On the contrary Uysal and Kösemen (2013) and Derbedek (2008) found medium levels. Moore and Esselman (1992) conducted a study showing that the personal and teaching efficacy of primary school teachers was higher than that of secondary and high school teachers. Overall, the literature suggests that primary school teachers generally perceive their self-efficacy as high or moderate.

Many of the participants reported that the managerial style of their supervisors had a positive impact on their job performance. This finding is consistent with numerous studies in the literature that have found a positive correlation between the quality of the leader-employee relationship and job performance (Cerit, 2012; Conger & Kanungo, 1988; Doğru, 2016; Sun et al., 2012).

The participants reported that their manager's leadership style positively impacted their performance, specifically through trust in the leader, joint decision making, positive communication, and the leader's self-sacrifice. As a result, they became more committed to their work and felt like a part of the solution. This increased awareness of the participants is likely to positively impact their level of organizational commitment. Dağlı and Çalık (2016) found a positive relationship between teacher empowerment, job satisfaction, and this type of awareness.

One of the findings of the present study indicated that the participants perceived fairness as the most significant characteristic of empowering leadership. In this sense, fair management by the school principal plays a crucial role in establishing a trustworthy environment in the organization. McNulty et al. (2021) argued that when organizations

face challenges, employees might act selfishly, and the most vital factor in building cohesive relationships is trust, which serves as a countermeasure.

Several studies have identified various factors that contribute to the empowerment of teachers, such as strengthening autonomy and self-esteem (Bellous and Pearson, 1995), self-confidence, cognitive growth, awareness, and effort (Batuk Turan, 2018), feelings of self-efficacy (Conger and Kanungo, 1988; Kim and Beehr, 2017; Spreitzer, 1996), the development of professional qualifications (Bogler and Nir, 2012; Cerit, 2007), learning (Lorinkova et al., 2013), team interaction, and participatory decision making (Arnold et al., 2000). It was also suggested that teacher empowerment increased organizational commitment, belonging, and accountability (Ertürk and Akgün, 2021; Odek, 2018; Avey et al., 2009; Çalişici Çelik and Kiral, 2021).

The findings identified the empowering leadership characteristics as: being in control, showing appreciation, empowering with responsibility, reducing parent pressure, providing mentoring, coaching, being open to innovations, reducing parent intervention, and being fair. These characteristics are similar to those identified by Arnold et al. (2000), who suggested that empowering leadership behaviors include coaching, informing, leading by example, interacting with the team, and involving team members in decision-making. Lin et al. (2017) concluded that the psychological empowerment of organization members has a direct positive effect on the individual and an indirect positive effect on the organizational level.

The study examined the participants' perceptions of school principals' empowerment behavior, which were classified into the categories of "nepotism," "positive discrimination," "empowerment," and "disempowerment." The data collection period coincided with the COVID-19 epidemic and the earthquake in Elazig, which led participants to express their opinions influenced by these traumatic events. Some participants reported that school principals showed positive discrimination towards female teachers and favored certain teachers during social tasks, such as distributing aid and dealing with disaster victims. It can be inferred that some participants do not understand the empowering leadership style, as they perceive tasks not given as empowerment and label them as nepotism. In a similar vein, Cevahir (2004) found that employees perceive the delegation of empowering leadership behaviors as an increase in their workload. Batuk Turan (2018) argues that in order to apply and manage empowerment correctly, the concept of empowerment must first be understood correctly. Empowerment reflects the interaction between an individual's perceptions and the conditions of the work environment (Doğan & Kılıç, 2007). Studies by Gümüş (2013), Koçak (2016), and Konan and Çelik (2017) suggest that teachers' perceptions of the empowering leadership of school principals differ significantly by gender. However, Bayın (2021) and Gümüş (2013) found no significant difference by gender. Spreitzer et al. (1997) found that women feel less empowered due to their symbolic status. Konan and Çelik (2017) and Mete (2004) suggest that the reason for the difference in favor of male teachers is the male-dominated school principalship, and this situation has been interpreted as gender solidarity.

Participants reported that teachers with higher seniority were generally empowered, which was attributed to the development of computer literacy during the pandemic and the informal technopedagogical support provided by school principals in hardware and software issues, leading to psychological empowerment. As per Han et al. (2021), the increase in senior teachers' technological knowledge and experience of distance education has led to the development of their digital literacy. Turan (2020) also suggested that school principals aimed to support teachers' professional development in technology during the COVID-19 pandemic. These findings suggest that school principals tend to empower teachers with higher seniority. Bellous and Pearson (1995) noted that powerlessness could hinder people from continuing their projects, while Leach et al. (2003) emphasized that empowerment can foster cognitive growth and facilitate awareness through knowledge transfer. Kim and Beehr (2017) found a positive relationship between employees' self-efficacy and psychological ownership behavior with empowering leadership. Additionally, Rodríguez-Sánchez et al. (2021) highlighted the importance of taking into account the wishes and expectations of employees who want to receive in-service training or attend courses.

Recommendations

As a result, it is crucial for school principals to realize that they share a common purpose with their teachers and that the institution can only achieve its goals together with them. Empowering leadership behaviors have been shown to increase managerial and organizational effectiveness. Therefore, while implementing such behaviors, school principals should view leadership and power delegation as a process of sharing responsibility and power rather than losing control. They should also aim to enhance teachers' initiative and autonomy.

The school principal should assign authority and responsibility to teachers based on their individual strengths and provide them with opportunities and encouragement for professional development. This behavior can increase a teacher's performance by boosting their self-efficacy beliefs and enabling them to make a more positive contribution to the organization.

The school principal should also understand that trust, justice, and support are essential elements for strengthening teachers, and that they serve as the primary sources of extrinsic motivation that contribute to organizational resilience. Research findings indicate that rewards are an important source of teachers' extrinsic motivation. However, the current award directive may limit the school principal's ability to offer rewards, as they may be subject to rejection by higher authorities. As such, it may be suggested to amend the legislation to grant the school principal the authority to award such rewards.

According to the results, school principals generally hold a positive view towards unions. However, it is recommended that during their duty as school principals, they should not hold membership positions in unions.

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Genişletilmiş Türkçe Özet

Çalışmanın Amacı: Bu araştırmanın amacı, sınıf öğretmenlerinin, kendilerine ait güç algıları, öğretmen güçlendirme ve güçlendirici liderliğe ilişkin görüşlerini incelemektir.

Araştırma Soruları: Araştırmanın amacı doğrultusunda katılımcılara:

1. Güçlü ve zayıf yönlerinize ilişkin görüşleriniz nelerdir?

2. Okul müdürlerinin yönetim tarzlarının, görev ve sorumluluklarını gerçekleştirmedeki performanslarına yansımaları ne şekildedir?

3. Okul müdürlerinin öğretmenleri güçlendirmeleri için ideal bir yönetim anlayışı nasıl olmalıdır? Sizi ne güçlendirir?

4. Okul müdürlerinin güçlendirici liderlik davranışlarını gösterirken belirli kişilere pozitif ayrımcılık yaptığı söyleniyor. Bu konuda ne düşünüyorsunuz? soruları yöneltilmiştir.

Literatür Araştırması: Günümüzde örgütlerin karşılaşacağı fırsatlar, tehditler ve belirsizlikler öngörülemez bir hâl almıştır. Bu durumla birlikte liderlik yaklaşımları da değişmiştir. Geleneksel yönetim yapıları yerine liderin gücünü paylaşacağı, karara katılıp risk ve sorumluluk almasını sağlayacağı, kendi kör noktalarını görecek ve bunları öğrenebileceği güçlendirilmiş takipçilere ihtiyacı olduğu görülmektedir. Güçlendirme, güç sahibi tarafından işi doğru yapan işgörenle gücü paylaşmayı esas alan yönetsel bir süreçtir (Burke, 1986). Özyeterliği besleyen önemli bir kaynaktır. Güçsüzlüğün etkilerine karşı koymayı amaçlar, insanların gücüne ket vuran engelleri kaldırmaya yöneliktir. Güçlendirme süreçlerinde olması gereken, daha önce güçsüz olan bireylerin kendilerini bir şeyler söyleyebilen ve yapabilen insanlar olarak hayal etmeye başladıkları bir algı değişikliği meydana getirmesidir (Bellous ve Pearson, 1995). Son zamanlarda örgütsel etkililiği sağlamada bir araç olarak güçlendirmenin gerekliliği vurgulanmaktadır. Güçlendirici liderliğin kuramsal izleri ilk olarak Ohio State Üniversitesi liderlik çalışmalarında görülmektedir (Srivastava ve diğerleri, 2006). Güçlendirici liderlik, etkili yöneticilerin liderlik tarzı özelliklerinde astların katılımını sağlama, astlara danışma, astların yetkilendirilmesi ve astlara destek verme ayırt edici davranışlar olarak ifade edilmektedir (Yukl, 1989). Güçlendirici liderlik; belirli bir lider davranışı yoluyla liderin takipçilere, ekiplere veya kolektiflere daha fazla özerklik ve sorumluluk tahsis ettiği lider davranışı olarak tanımlanabilir (Cheong, 2017; Cunningham ve diğerleri, 1996; Gao ve diğerleri, 2011; Vecchio ve diğerleri, 2021). Güçlendirici liderlik; güven, inanç, beklenti ve bağımsızlık bileşenlerinin üzerine bina edilmiştir (Martin A. M., 2013). Güçlendirici liderlik, liderlerin yüksek seviyede takdir etme ve karar verme yetkisinin takipçilerinin eline geçmesine izin vererek onlara daha fazla güvenmelerini gerektirir (Lorinkova ve diğerleri, 2013). Güçlendirici liderliğin takım etkileşimi üzerindeki en doğrudan etkisi, bir takımda psikolojik güçlenme hissi ile kendini gösterir (Cheong, 2017). Güçlendirici liderlik, görev yeterliliğini ve proaktif davranışları artırmaktadır (Martin ve diğerleri, 2013). Araştırmalar, öğretmenlerin çalıştığı koşulların genellikle öğretmenleri yeterlik, başarı ve öz değer duygusundan yoksun bırakacak şekilde

kurgulandığını ve bunun sonucunda da öğretmenlere güçsüzlük duygusu yaşattığını öne sürmektedir (Kahraman ve Çelik, 2020; Kıral, 2015; Sprague, 1992; Terry, 2021). Alan yazında okul müdürünün sergilediği davranışların öğretmenin üzerinde etkisi olduğuna dair kanıtlar sunulmaktadır. Öğretmen güçlendirme etkileşimli bir süreçtir (Avidov-Ungar ve diğerleri, 2014; Honold, 1997). Bir müdürün güçlendirmeye elverişli bir ortam yaratması, güçlendirme ideallerini göstermesi, güçlendirmeye yönelik tüm çabaları teşvik etmesi ve tüm güçlendirme adımlarını desteklemesi esastır. Terry (2021) başarılı okulları; liderlerin öğretmenlerin yaratıcı enerjisini sürekli iyileştirmeye çalıştığı okullar olduğunu ifade etmektedir. Öğretmenlerin güçlendirilmesi, statülerini, bilgilerini ve karar verme süreçlerine erişimlerini geliştirmeyi içerir (Maeroff, 1988). Güçlendirme, öğretmenlerin öğretme ve öğrenme koşullarıyla ilgili kritik kararları kontrol etme gücü açısından tanımlanır ve ölçülür (Sweetland ve Hoy, 2000). Karar verme fırsatlarının sağlanması ve artan sorumlulukların teşvik edilmesi, öğretmenin güçlendirilmesi süreçlerinin kavramsallaştırılmasına hâkim olan faktörlerdir (Flaherty, 2018). Güçlendirilmiş öğretmen gereksiz denetimlerden, haksız yargılamalardan kurtulmuş "özgür" öğretmendir (Prawat, 1991). Öğretmenlere kendi profesyonel büyüme planlarını oluşturma yetkisi verildiğinde, içsel motivasyonunun ortaya çıktığı, öğretme ve öğrencilerinin yaşamlarını iyileştirme tutkularının ve özerkliğinin büyük ölçüde arttığı görülmektedir (Colbert ve diğerleri, 2008; Frugo ve diğerleri, 2016; Keiser ve Shen, 2000).

Yöntem: Bu araştırmada, nitel araştırma yöntemlerinden olgubilim (fenomenoloji) deseni benimsenmiştir. Araştırmanın katılımcı grubunu, 2020-2021 eğitim-öğretim yılında Elâzığ il merkezinde farklı okullarda görev yapan gönüllü 13 sınıf öğretmeni oluşturmaktadır. Katılımcı grubu belirlenirken amaçlı örnekleme yöntemlerinden ölçüt örnekleme tekniği kullanılmıştır. Bu kapsamda araştırmaya dâhil edilecek katılımcılar için üç ölçüt belirlenmiştir. Bu ölçütlerden birincisi en az iki okul müdürü ile çalışmış olması, son çalışmış olduğu kurumda müdürü ile en az iki yıl çalışmış olması ve farklı okullarda görev yapmış olmasıdır. Bu ölçütlerin belirlenmesindeki amaç, katılımcıların farklı okul müdürlerinin liderlik davranışlarına ilişkin algıya sahip olması, farklı okullardaki yapıları karşılaştırabilmesi ve son çalıştığı kurumda okul müdürü hakkında görüş bildirecek süre geçirmiş olmasıdır.

Sonuç ve Tartışma: Araştırma sonuçları, öğretmenlerin kişisel ve mesleki öz yeterliklerinin yüksek düzeyde olduğunu göstermiştir. Katılımcıların yüksek öz yeterlik inançlarından kaynaklanan güçlü yönleri pes etmeme, gayretli olma, değişime açık olma, gelişmeye açık olmadır. Bandura (1997b) öz yeterliği yüksek olan kişinin sorunlarla karşılaştığında mücadele etme olasılığının yüksek olacağını göstermektedir. Katılımcıların çoğu, müdürlerinin yönetimsel tarzının görevlerini gerçekleştirme sürecinde performanslarını olumlu yönde etkilediğini ifade etmiştir. Literatürde birçok çalışmada lider-işgören arasındaki ilişkinin niteliği ile performans arasında olumlu ilişki bulunmuştur (Cerit, 2012; Conger ve Kanungo, 1988; Doğru, 2016; Sun ve diğerleri, 2012). Katılımcılar lidere güvenin, ortak karar almanın, olumlu iletişimin ve liderin gösterdiği özverinin kendilerini daha da güçlendirdiğini, bunun sonucunda işlerine daha sıkı sarıldıklarını, çözümün bir parçası olduklarını belirtmişlerdir. Katılımcılarda oluşan bu farkındalığın

örgütsel bağlılık düzeyini pozitif yönde artıracağı ifade edilebilir. Dağlı ve Çalık (2016) bu farkındalığın öğretmen güçlendirme ve iş doyumu düzeyleri arasında pozitif ilişkisinin olduğu sonucuna ulaşmıştır. Araştırma sonuçlarından biri de okul müdürünün adil ve güvenilir olmasının güçlendirici liderliğin en önemli özelliklerinden olduğunu göstermektedir. Okulun adaletle yönetilmesinin kurumda güven ortamının oluşmasına önemli bir katkı sağlayacağı sonucuna ulaşılmıştır. Bulguların ortaya çıkardığı güçlendirici lider özellikleri; kontrol amaçlı takip etme, takdir etme, sorumlulukla beraber yetki verme, mentörlük yapma, koçluk yapma, yeniliklere açık olma, veli müdahalesini azaltma ve adil olma şeklinde ifade edilmiştir. Arnold ve diğerleri (2000) bu bulgulara benzer olarak güçlendirici liderlik davranışlarının koçluk, bilgilendirme, örnek olarak öncülük etme, ekip ile etkileşim, katılımcı karar verme olduğunu belirtmiştir. Katılımcılara okul müdürünün kimleri güçlendirdiği sorusu yöneltilmiştir. Katılımcılar okul müdürlerinin güçlendirme davranışını "Kayırmacılık", "Pozitif ayrımcılık", "Güçlendirme", "Güçsüzleştirme" kategorilerinde anlamlandırmıştır. Verilerin toplandığı dönemin COVID-19 salgına ve Elâzığ ilinde yaşanan deprem sonrasına denk gelmesi, katılımcı görüşlerinin bu travmatik dönemlerin olgusunu aksettirmesine yol açmıştır. Deprem ve COVID-19 salgını döneminde öğretmenlere verilen sosyal görevlerde (yardım dağıtma, AFAD çalışma ekiplerinde yer alma, afetzedelerle ilgilenme gibi) katılımcılardan bazıları okul müdürlerinin kadın öğretmenlere pozitif ayrımcılık; bazıları da kayırmacı tutum ve davranışlar gösterdiğini belirtmişlerdir. Katılımcılardan bazılarının verilmeyen bir görevi, güçlendirme olarak algılamasının ve bunu kayırmacılık olarak düşünmesinin güçlendirici liderliğin yönetim ve liderlik tarzının anlaşılmadığının bir kanıtı olduğu söylenebilir. Cevahir (2004) araştırmasında buna benzer olarak güçlendirici liderlik davranışlarından yetki devrini, işgörenlerin iş yükünü artırma olarak algıladıkları sonucuna ulaşmıştır. Katılımcılar genel olarak kıdemi yüksek öğretmenlerin güçlendirildiğini ifade etmişlerdir. Bu durumun salgın döneminde bilgisayar okuryazarlığının gelişmesinden, okul müdürlerinin donanım ve yazılım konularında sağladığı formal olmayan teknopedagojik destekten ve psikolojik güçlendirmeden kaynaklandığını ifade etmektedir. Kıdemli öğretmenlerin teknolojik bilgilerinin artması ve uzaktan eğitimi deneyimlemesi dijital okuryazarlıklarının gelişmesini sağlamıştır (Han ve diğerleri, 2021). Turan (2020) COVID-19 salgını döneminde okul müdürlerinin öğretmenlerin teknoloji konusunda mesleki gelişimlerini desteklemeyi amaçladıkları sonucuna ulaşmıştır. Bu sonuçlar okul müdürlerinin kıdemi yüksek öğretmenleri güçlendirdiği sonucunu ortaya koymaktadır.

Ethics Committee Approval: This research was approved by the Fırat University Social and Human Sciences Research Ethics Committee with the decision dated 07.07.2020 and numbered 13/7.

Informed Consent: Informed consent was obtained from the participants.

Peer Review: Externally peer-reviewed

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

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Behavioral Problems Observed by Preschool and Elementary School Teachers among Syrian Children and Strategies Teachers Employed for These

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Abstract

The present study aims to determine the behavioral problems, which preschool and elementary school teachers observed among Syrian children, and the strategies they used to address those problems. Sixteen teachers were involved in this study designed with a phenomenology pattern, one of the qualitative research methods. Participants were determined using the criterion sampling method, which is one of the purposeful sampling methods. Study data were collected using the semi-structured interview form developed by the researchers. The data were collected during face-to-face interviews and analyzed using content analysis. The results showed that teachers observed different behavioral problems among Syrian children but most of them put emphasis on the tendency toward violence and social isolation. Teachers stated that they have used various prevention and intervention strategies against these behavioral problems, but they generally utilized social adaptation programs and positive communication with children. Moreover, specifying various suggestions for preventing the behavioral problems among Syrian children, they emphasized the necessity of language education, family education, and adaptation programs.

Keywords: Behavioral problems, Syrian children, qualitative research, strategies, early childhood education.

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Introduction

Given the international definition, war is defined as large-scale physical violence occurring between states or non-state organizations having armed forces (Canan-Sokullu, 2019). The wars constitute an important reason for deaths and injuries deprive people of their fundamental rights and freedoms, create severe damage in many fields including emotional, sexual, economic, social, and cultural domains, and leave irreversible emotional or physical marks on people behind (Masten & Narayan, 2012; Özen & Cerit, 2018). People are forced to migrate to other regions within their country or to a neighboring country because of civil wars or uprisings. Given the report of the United Nations High Commissioner for Refugees, 82.4 million individuals have been subjected to forced migration and are struggling to survive (UNHCR, 2021). The civil war in Syria is an example of this situation. Because of the effects of the civil war in Syria, people were forced to migrate and they had to leave their homes, homeland, and refuge in neighboring countries (Taştan & Çelik, 2017). Turkey, one of these countries, faced a significant migration wave and accommodated many Syrian individuals in different cities (Biçer & Özaltun, 2020).

Refugees forced to migrate to Turkey had social and societal adaptation problems. Although it is normal for individuals, who were subjected to forced migration, to have integration problems in the host country, it loads schools with an important mission regarding ensuring social integration and achieving cultural adaptation (Şahin, 2020). Many children had traumas because of the conflicts in their countries, couldn't continue their education, and were forced to migrate from their homelands. Thus, these children had difficulties in coping with the problems. They had limited educational opportunities and those limitations caused problems during the educational process of children (Sirin & Rogers-Sirin, 2015). These limitations include the inability to adapt to the educational environment because of trauma, equivalency problems because of the inability to document previous education, studying in previous grades because of the disruption of the previous educational process, lack of motivation, and resistance (Şahin, 2020). It was started to meet the educational needs of children, who have been subjected to forced migration since 2011 when the Syrian civil war began, via Temporary Education Centers (GEM) and significant effort was made in order to integrate the foreign children into state schools (Taştan & Çelik, 2017). Undoubtedly, children experience the most severe negative effects of war and migration.

The phenomena such as forced migration that communities are forced into because of their experiences during the war such as death and injury cause deep wounds and traumas among individuals (Eroğlu, 2020). Nowadays, millions of children directly and indirectly experience the effects of war and terrorist incidents (Erden & Gürdil, 2009). The situations arising after the war do not correspond to children's age-appropriate developmental levels and care requirements (Derince, 2019). It is known that the children, who were directly or indirectly subjected to the violent atmosphere created by war and conflicts, complained about psychological problems and those children had

problems with friendship relationships because of their passive or aggressive behaviors (Erden & Gürdil, 2009). Besides the posttraumatic stress disorder, the war-weary children had hyperactivity, behavioral disorders, and an attention deficit (Özdemir, 2017).

These negative reactions to the difficulties during the period of change and development are known as behavioral problems (Sallayıcı & Yöndem, 2020). These problems are discussed under two groups as internal orientation and external orientation (Merrell, 2008). Problems such as attention deficit, anxiety, and introversion are classified as internal orientations, whereas behaviors such as hyperactivity are classified as external orientations (Campbell, 1995). These problems arising during childhood may also cause problems even during adulthood. Thus, it is very important to predetermine the behavioral problems and to take measures (Liu, 2004).

These behavioral problems may be observed in many fields and they can also have reflections in the in-class environment. Taşkın and Erdemli (2018), in their study carried out with teachers having Syrian children in their classes, reported that one of the subjects on which teachers complained the most was behavioral problems. Determining the behavioral problems observed in early childhood, which form the foundation of personality and character development, and understanding the strategies teachers employ to address these issues would be highly beneficial. Such insights can guide future studies focused on these children. In literature, it can be seen that there were studies examining the opinions of teachers about problems that Syrian refugee students in preschool education had (Mercan Uzun & Bütün, 2016), behaviors of unwanted student in school incorporating foreign students (Delen, 2018), relationship between problematic behaviors and social skills of 4-5-year-old Syrian children under temporary protection (Aydın, 2019), comparison between social skills and problematic behaviors of local preschool children and Syrian refugee children in terms of psychometric characteristics (Güllüce, 2019), problems of children migrating in Turkey with their friends in schools and solution offers for those problems (Baysal & Çimşir, 2020), and preschool teachers' opinions about problems that refugee children had about their educational process (Özoruç & Dikici Sığırtmaç, 2022). However, no study examining the behavioral problems that preschool and elementary school teachers observed among Syrian children and the strategies they used against those problematic behaviors could be found. Thus, the present study aims to determine the problematic behaviors observed among Syrian children and the strategies used against those problems by taking the opinions of preschool and elementary school teachers. In parallel with this main objective, the answers to the following questions were sought:

1. What are the behavioral problems that preschool and elementary school teachers observed among Syrian children?
2. What are the strategies that preschool and elementary school teachers used against the behavioral problems they have observed among Syrian children?

Method

Research Model

The present study was designed using the qualitative research method. Qualitative research refers to a research model, in which an event or phenomenon is examined holistically in its natural environment for a long time (Saban and Ersoy, 2019). In the present study, a phenomenology pattern among the qualitative research methods was used. Phenomenology refers to the study pattern focusing on the phenomena that we can recognize but have no in-depth knowledge of. Such phenomena can take various forms like events, experiences, perceptions, orientations, and concepts (Yıldırım and Şimşek, 2018). Phenomenology reveals the experiences of individuals concerning a concept or a phenomenon (Cresswell, 2007). In phenomenological research, data sources consist of individuals who have experienced and can express the phenomenon that the research focuses on (Yıldırım and Şimşek, 2018). This pattern was preferred since this study examines the behavioral problems observed among Syrian children.

Study Group

In this study, 16 teachers working in state schools in one of the metropolitan cities of Turkey's Black Sea Region in the educational year 2020-2021 were involved. While determining the participants, criterion sampling, which is one of purposeful sampling methods, was used. Criterion sampling refers to examining the events that meet the criteria determined before the study (Patton, 2002). The criteria used were professional experience longer than 3 years and having Syrian children in the class. The criterion of experience longer than 3 years was set since participating teachers should be capable of distinguishing the behavioral problems that they observe among Syrian children. The demographic characteristics of participating teachers are presented in Table 1.

Table 1.
Demographic Characteristics of Teachers in Study Group

Teacher		
Sex	Male	4
	Female	12
Age	20-29	1
	30-39	2
	40-49	7
	50-59	6
Professional experience	3-9 years	2
	10-16 years	3
	17-23 years	6
	24-30 years	5
Class size	10-14	2
	15-19	4
	20-24	5

	25-29	4
	30 and more	1
Number of Syrian children in class	1-3	11
	4-6	5
Branch	Elementary school teacher	10
	Preschool teacher	6

Data Collection and Analysis

The face-to-face interview method that is one of the data collection methods used in qualitative research the most, was used by making use of a semi-structured interview form. In this method, although researchers prepared the questions prior, it is also possible to re-organize and diversify the questions (Ekiz, 2020). During the interviews, voice recording was performed with the consent of participants. The participants were informed before the interviews that the interviews would be recorded. Moreover, besides the interview questions, demographic characteristics were also questioned using additional questions. During the participants' interviews, they were each asked questions such as "What are the behavioral problems you observe in Syrian children?", "How Do Behavioral Problems Affect the Education Process?", "What are your strategies to prevent behavior problems?".

Before the study, participants were clearly informed about the objective of the study. The interviews were performed with teachers volunteer to participating. The environments, where participants could feel comfortable and interviews could be performed fluently, were preferred. Participants were given time to think and attention was paid to establishing communication, in which they could clearly express themselves, and allowing them to feel relaxed.

Before the interviews, the general frame of the interview was designed in accordance with the interview form approach and the questions were prepared by reviewing the literature. Additional questions were asked in order to understand the opinions of teachers. The data collection was performed between January and February 2021. The participant interviews lasted for between 30 and 45 minutes.

A content analysis method was used in analyzing the data. In this method, the codes were obtained from frequently stated or emphasized situations. Then, these codes are gathered under specific themes and then interviewed (Tutar & Erdem, 2020). Thus, after transferring the interviews into a computer environment, they were discussed by researchers and coding was performed upon unanimous decision. Themes were determined in accordance with these codes.

Reliability and Validity

In the current study, the researchers attempted to achieve long-term interaction with each participant teacher so as to ensure credibility. First, the teachers were pre-interviewed via telephone, the purpose of the study was explained to them, and a

mutually agreeable appointment was made for a face-to-face meeting with those who accepted to participate in the study. During the teachers' interviews, they were each informed once again about the purpose of the study, and were asked whether or not there was any issues that they were deliberating in their minds.

Validity and reliability are the criteria playing important roles at any phase of a study. In qualitative research, it is important to repeat the assessment process by taking the opinions of specialists and to directly indicate the data obtained from the interviews made during the research to the reader with quotations (Merriam, 2009; Yıldırım & Şimşek, 2018). In this study, various methods were used to achieve validity and reliability. In the first step, research and interview forms were prepared and an expert opinion was asked. Then, they were reorganized in accordance with the feedback achieved. Diversification was utilized in selecting the data sources, and attention was paid to performing interviews with people having different experiences, grades, and class sizes. During the interviews, the opinions that interviewers wanted to express were gathered, and participants' confirmation was sought. Moreover, the results were also prepared using the direct statements of participants.

Findings

In this section, the interviews performed with teachers were analyzed in detail. After analyzing the results achieved, they are presented under two main themes as the problematic behaviors observed among Syrian children and the strategies used against those problems.

1. Behavioral Problems that Preschool and Elementary School Teachers Observed among Syrian Children

In this section, the results related to the behavioral problems observed among the Syrian children, the problems they had with Turkish children, and the effects of behavioral problems on the educational process are presented.

1.1. Behavioral Problems Observed among Syrian Children

The behavioral problems teachers observed in their Syrian students were gathered under the external orientation and internal orientation themes. Examining the external orientation theme, teachers put a special emphasis on the tendency to violence. They think that children had communication problems and their traumatic condition was an important factor in their tendency to violence. Teachers stated that students tried to resolve their problems through violence. Besides the tendency to violence, some teachers also stated that children did not obey the roles and exhibited negative behaviors such as crying, shouting, cursing/insulting, telling lies, and stubbornness.

Examining the internal orientation theme, teachers put a special emphasis on the social isolation, among the behaviors children exhibited. Defining children as 'recessive', 'timid', 'introvert', 'alienated', and 'alone', teachers stated that 'they didn't participate in games' and were 'distant'. Besides that, teachers also emphasized that the children had adaptation problems. They reported that children had difficulties with 'cultural adaptation' and 'school adaptation'. Moreover, a teacher stated that the children were extremely unhappy. On this subject, T.5, and T.7 made the following statements:

> They are extremely prone to violence. They try to resolve any problem by hitting, insulting, breaking, or attacking. They are full of hatred. (T.5)

> My first impression was of timidity, alienation, and intense loneliness. (T.7)

1.2. Problems Syrian Children had with Turkish Children

Teachers stated that there were communication problems, violence, alienation, and bias between Turkish and Syrian children. Teachers emphasized that, as the language barrier disappeared in the course of time, 'problems with Turkish children disappeared' and, even though there were some problems, they were normal problems between children and there was no 'hostility' between them. However, participating teachers stated that, in cases of ongoing communication problems, Syrian children had problems with Turkish children and those problems arose from 'inability of expressing themselves' and 'misunderstandings'. They said that there were some incidents arising from both cultural differences and 'familial' biases brought to the school environment and children alienated each other because of those reasons. On this subject, T.9, and T.11 made the following statements:

> When children try to say something, Syrian children misunderstand it and they immediately start behaving negatively. Then problems begin. (T.9)

Preschool children are very relentless. And they (Syrian children) do not know Turkish. They ridicule them. Children feel discriminated against and they are discriminated against too. (T.11)

1.3. Effects of Behavioral Problems on the Educational Process

Teachers specified the effects of behavioral problems observed among Syrian children on the educational process as disrupting the progression of lessons, disturbing the order in the classroom, and refusing cultural adaptation. Teachers stated that children were always exhibiting behaviors such as 'continuously crying', 'becoming aggressive' because of being unable to communicate, disrupting the 'course of lesson', and 'arguing with friends during the lesson and they (teachers) couldn't concentrate because of these reasons and the course of lesson was interrupted. They also emphasized that such behaviors disturbed the order in the classroom. They stated that children exhibited negative reactions to various achievements because of cultural differences. T.3, and T.5 made the following statements on this subject;

I cannot completely concentrate on the lesson. He couldn't exactly do it during the lesson because he was under my control. But, he was exhibiting behaviors such as keeping books dispersed, not being tidy, and arguing with friends. Hence, I couldn't concentrate. (T.3)

I guess we had a problem related to Atatürk. When I was talking about Atatürk, a student said Atatürk is horrible'. Then, other children started staring with aggression. As a teacher, I felt very bad. How can a little child say that sort of statement and how can that child look at you with such hatred? (T.5)

2. Strategies that Preschool and Elementary School Teachers Used against Behavioral Problems They Observed among Syrian Children

In this section, the teachers' strategies to prevent behavioral problems, intervention strategies implemented for behavioral problems, the efficiency of those strategies, the individuals that teachers cooperate with while resolving the behavioral problems, and the suggestions of teachers for preventing the behavioral problems of Syrian children are discussed.

2.1. Teachers' Prevention Strategies for Behavioral Problems

The responses of teachers about prevention strategies addressing behavioral problems were clustered under themes of child-oriented and environment-oriented strategies. Child-oriented prevention strategies were 'establishing positive communication', 'observing the child', 'encouraging the child', 'establishing authority', and 'positive consolidation'. The most important one among them is positive communication. Teachers stated that they 'talked', 'tried to embrace', 'conducted personal talks', 'caressed their heads', and 'made them feel their teacher were with them' in order to establish a bond with them. Teachers also emphasized that they positively consolidated the children through different 'rewarding' methods. They underlined that they 'encouraged' the children into participating in an activity that they necessitated, that they followed the children in case they felt something was going to happen, and that they showed their authority by 'punishing' when needed.

Social environment-oriented prevention strategies include social adaptation efforts, familial support, educational game activities, and social equity efforts. Teachers emphasized that they considered the problems adaptation problems and utilized social adaptation efforts to overcome these problems. Within this context, teachers emphasized that they have students sit with their favorite friends, pay importance to group work, and encourage them to establish communication with other students in the class. Moreover, some teachers stated that they informed the families and received familial support, that they conducted educational game activities such as drama plays and that they tried to establish social equity in the class by telling students that everybody was equal and every student would bear the same consequences in case of a problem. T.2 and T.6 made the following statements on this subject:

As I talked to him and he started trusting me, he stopped telling lies. If he didn't do his homework, he just told me 'I didn't do my homework'. Previously, he was hiding the homework or, as I just saw a

couple times, he left the homework below the desk and left it there. He did those things. As long as he could. He took it to another level since we didn't react or say anything when he couldn't do it. (T.2)

> I have them sit with their best friends, if any. It worked very well in my case. Some of them might be very open and easy-going. Even though they cannot understand what we say very well, they are cool with it. They try to do what the student next to them does. Thus, they can adapt to it. And we also try to ensure their adaptation by doing so. (T.6)

2.2. Teachers' Intervention Strategies Addressing the Behavioral Problems

The strategies that teachers implemented in cases of behavioral problems were gathered under the themes of opinions creating a positive image on a child and those creating a negative image. The opinions that create a positive image on a child constitute the majority and they include establishing communication, peer interaction, giving responsibility, encouraging positive behaviors, empathizing, finding the reason, making use of educational games, approaching with affection, informing the family, and encouraging the desired behavior. Teachers stated that they used the strategy of establishing communication especially when they faced negative behavior. They define their behavior during establishing communication as 'informing the child about his wrongdoing without hurting his/her feelings'. Furthermore, they expressed a preference for students to engage in face-to-face discussions with their peers when conflicts arise, encouraging positive attitudes toward the issue. Additionally, adopting an affectionate approach after negative behavior and assigning responsibilities were mentioned as strategies to enhance teacher-student relationships and offer support. Besides that, teachers stated that they also made use of educational game methods such as empathizing and drama in order to have children understand the negative behavior. T.1 made the following statement on this subject:

> You intervene right at the moment, try to tell them that it was wrong, try confronting them with the case, and motivate them into making peace. (T.1)

The opinions creating a negative image on children include having them apologize, punishing them, referring them to a school counselor, raising their voice, referring them to the principal's office, warning, monitoring the undesired behavior, threatening, and ignoring them. Teachers reported employing various strategies to address negative behavior, including having students apologize, issuing warnings either verbally or through body language, using consequences such as 'no break time,' and raising their voices when necessary. In some cases, teachers also referred students to the school counselor or principal's office, or threatened to do so. They also stated that they ignored the negative behavior and discouraged them from that behavior by trying to understand if that behavior would repeat itself. T.15 made the following statement:

> We ask for the support of school counselor, depending on the severity of violence. Then, if it continues, we try to punish without hurting the feelings of the child. We try to isolate him/her from the friends during the lesson for approx. 10 or 5 minutes depending on the incident... He/she will attend the lesson but understand the objective of and reason for the punishment…. (T.15)

2.3. Efficiency of Strategies Implemented by Teachers

Strategies implemented by teachers were found to be effective for more than half (f=9), partially effective for less than half (f=5), and ineffective for a few (f=2) by the teachers. Teachers stated that the efficiency of their strategy varied depending on the 'children' but the prevalence of negative incidents tended to decrease over time.

2.4. Parties in Cooperation with Teachers in Resolving the Behavioral Problems

Teachers emphasized that they were in close cooperation with school counselors. Moreover, they also stated that they contacted the principal's office when needed and that they also informed and cooperated with the family. Colleagues, translators, and the provincial coordination team of PIKTES are the other parties that teachers reported cooperating with. T.7, differing from the other teachers, stated that T.7 preferred cooperating with the peers of students in order to resolve the problem. T.7 made the following statement;

> First, I cooperate with children in my class. Why? OK, they are little children, 3rd-grade students. However, they are also individuals. But they all have different worlds. There are 27 worlds. We close the door of our classroom, and we are a family in that room. The classroom has its own privacy. We do not convey the inner problems outside of the class. We try to resolve them ourselves first. (T.7)

2.5. Suggestions of Teachers for Resolving the Behavioral Problems of Syrian Students

Examining the suggestions and expectations of participants, there are three sub-themes: suggestions for colleagues, suggestions for school administrations, and suggestions for state institutions. Participants recommended their colleagues establish equity and social justice in educational environment, learn Arabic, conduct family visits, make use of drama activities, and cooperate with families. Teachers suggested the school administrations keep the number of Syrian students in classrooms in balance and impose the required action in cases of negative incidents. Moreover, teachers also suggested that the state institutions offer preschool language education to Syrian children, perform school-adaptation trainings, provide education for Syrian students in separate classrooms, perform cultural adaptation activities, continue PIKTES, and provide necessary support for Syrian refugees to go back to their homeland. T.13 made the following statement.

> First, they need to learn Turkish language. Any newcomer should attenda Turkish language course and learn Turkish traditions. They should be taken to such a course and then to the school environment. There should be a course on Turkish language and Turkish culture..... (T.13)

Results and Discussion

The present study aimed to determine the behavioral problems, which preschool and elementary school teachers observed among Syrian children, and the strategies they used against those problems. Teachers stated that the behavioral problems observed among Syrian children were the tendency to violence and the social isolation arising from communication problems due to language problems. Galloway and Jenkins (2009) emphasized that the most important problem of foreign students in California and Texas was the language problem. Mercan Uzun and Bütün (2016) emphasized that Syrian children had communication and adaptation problems since they could not communicate with their teachers and peers. Sarıtaş, Şahin, and Çatalbaş (2016) discussed the tendency to violence, ganging up, aggression, and adaptation problems among the problems observed with foreign children. Nur Emin (2016) emphasized that the language problems of children had a significant effect on their adaptation to the educational environment, peer interaction, and academic achievements. Koçoğlu and Yanpar Yelken (2018) discussed the problems arising from Syrian children's level of Turkish language knowledge and the authors emphasized that the most important one among the problems observed was communication and social problems. Similarly, Boylu and Işık (2019) emphasized that the cultural difference and the negative psychological factors arising from war caused a tendency toward violence and aggressive behaviors. Based on teachers' opinions, Aydın (2019) determined that Syrian children had the problematic behaviors of tendency to violence, anxiety, and crying the most. Özoruç and Dikici Sığırtmaç (2022), in their study, reported that refugee children had communication problems and in-class behavioral problems because of language barriers during the educational process. Since they begin their educational life without sufficient knowledge of Turkish, they might have adaptation problems with their peers and go into their shell, as well as exhibiting aggressive behaviors due to their violent background and inability to express themselves.

In this research, it was concluded that Syrian children had various problems including violence, discrimination, and bias due to misunderstandings arising from the communication problems with Turkish children. The alienation of Syrian children by their peers is because of cultural differences and personal biases. One of the factors playing a role in the alienation of Syrian children by their peers might be Syrian children not obeying the rules but causing disputes in schools (Kiremit, Akpınar, & Tüfekci Akcan, 2018). Ergen and Şahin (2019) stated that older Syrian children had problems with adaptation, that they had conflicts within themselves, that there was the problem of grouping, and that there was violence in their communications with Turkish children. Baysal and Çimşir (2020) determined that the most frequent problems that elementary school students, who have migrated to Turkey, had were violence/pushing/hitting, followed by humiliation/bad behaviors, harassment, cursing/insulting, hand gestures (negative)/abuse, and alienation. These problems occurring between children generally rely on communication problems but the negative image on Syrians presented in the

media and discussed in families might affect the children and cause such incidents in schools.

Teachers reported that the effects of these behavioral problems on the educational process emerged in cases of disinterest in the course, that the progression of the course was disrupted by these behavioral problems, and that it caused teachers to lose their concentration frequently. Güder, Alabay, and Güner (2018), in their study on preschool teachers, stated that problematic behaviors observed among children negatively affected the educational process. Moreover, it became more difficult to manage the class and they felt desperate and burnt out.

It was determined that, aiming to prevent behavioral problems, teachers generally preferred establishing a bond of trust with children through positive communication with them, as well as social adaptation efforts. In cases of behavioral problems, the main strategy used was to establish communication with children and to have them apologize. In parallel with the present study, Kuzu Jafari, Tonga, & Kışla (2018) stated that teachers made use of social adaptation efforts and tried to establish communication and a bond of trust with children and they also preferred making less use of punishment and consolidation efforts. Since some teachers stated that they used negative strategies, it suggests that they were not qualified for coping with problematic behaviors.

It was concluded that the majority of teachers were in agreement that the strategies they used were effective or partially effective. Examining the results of the study carried out by Kiremit, Akpınar, and Tüfekci Akcan (2018), it can be seen that, similar to the present study, adaptation could be achieved partially and over time. Given this finding, it can be stated that Syrian children adapted to their new school and the new culture over time. For this reason, teachers should give Syrian children, whorecently came to a class, timeto adapt to the environment and the social conditions and they should be patient.

In the case of a behavior problem, teachers first prefer resolving the problem but they try cooperating with the school counselor and family when they can not find a way to resolve the behavioral problem. Given the literature, it can be stated that there were studies examining school counselor support and the importance of this service for Syrian children (Eren, 2019; Ergen & Şahin, 2019; Sarıtaş et al, 2016; Tiryaki & Oğraş, 2020; Ünal & Aladağ, 2020) and familial support, its importance, and insufficiency (Çetin, 2016; Erdem, Yılmaz and Kaya, 2017; Eren, 2019; Kara, Tiğit & Ağırman, 2020; Nur Emin, 2016). For teachers, as a part of the world of education, it is important to seek a solution for behavioral problems by receiving the support of family. Especially because the violent behaviors of children with war-weary backgrounds might be because of a negative familial atmosphere, it is thought that receiving familial support and raising awareness of family might be an effective way of resolving the behavioral problems. It can be stated that counseling services are of significant importance, especially for these children with traumatic backgrounds.

It was determined that language problems lay the foundation of behavioral problems and that the children should attend a language education program before school. Moreover, training such as family and adaptation training is recommended. In this parallel, given the results reported by Ergen and Şahin (2019), it can be seen that the authors emphasized the necessity and importance of parent training. Özoruç and Dikici Sığırtmaç (2022) recommended expanding the language education and Turkish activities conducted by preschool teachers. It can be said that the reason why children had difficulties in adapting to school and their social environment was that they started school with insufficient language knowledge.

Recommendations

Based on the results of this study, the following suggestions can be offered:

1. The problems between Turkish and Syrian children should not be waved aside and any activity or program to increase social adaptation should be supported by school administration and also by MEB (Ministry of National Education).

2. Families should be cooperation with families and families should pay the required attention to their cooperation with the school.

3. Teachers might be provided with in-service training in order to inform them about suspending the negative behaviors.

4. In order for children, who have no sufficient proficiency in Turkish to succeed in academic and social fields, supportive language courses might be provided or the extent of PIKTES might be expanded.

5. Preschool education should be promoted in order to accelerate the adaptation of Syrian children to the Turkish language and culture.

6. The present study was carried out using face-to-face interviews with teachers. Future studies might be carried out by monitoring the children and teachers in the classroom environment.

7. The study is limited to one province. The scope of this research, which has expanded to cover other provinces, regions, or Turkey as a whole, can be dealt with in a broad way.

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Genişletilmiş Türkçe Özet

Türkiye'ye göç etmek zorunda kalan mültecilerin sosyal ve toplumsal uyum sorunları yaşadığı bilinmektedir. Zorunlu göçe maruz kalan kişilerin ev sahibi ülkede entegrasyon sorunu yaşaması çok doğal olmakla beraber, bu durum okullara, sosyal entegrasyonun sağlanması ve kültürel uyumun oluşması adına önemli bir misyon yüklemektedir (Şahin, 2020). Birçok çocuk ülkelerindeki savaş sebebiyle travmalar yaşamış, eğitimlerine devam edememiş ve yaşadıkları yerden göç etmek zorunda kalmış, dolayısıyla bu çocuklar yaşanan zorluklarla baş etmekte sıkıntı yaşamışlardır. Yerleştikleri ülkelerde eğitim şartları sınırlı kalmış ve bu sınırlılıklar çocuğun eğitim sürecinde birtakım zorluklar yaşamasına sebep olmuştur (Sirin ve Rogers-Sirin, 2015). Özellikle savaş ve çatışmaların yarattığı şiddet atmosferine doğrudan ya da dolaylı maruz kalan çocukların psikolojik sorunlardan yakındıkları bilinmekte ve bu çocukların pasif ya da agresif davranışları sebebi ile arkadaş ilişkilerinin bozulduğu görülmektedir (Erden ve Gürdil, 2009). Savaş mağduru çocukların post travmatik stres bozukluğu ile beraber hiperaktivite, davranış bozuklukları ve dikkat eksikliği geliştirdikleri gözlemlenmiştir (Özdemir, 2017). Bu davranış problemleri birçok alanda meydana çıktığı gibi, problemlerin sınıf içine de yansıdığı görülmektedir. Taşkın ve Erdemli (2018), sınıfında Suriyeli çocukları olan öğretmenlerle yapmış oldukları çalışmanın sonuçlarına göre ise öğretmenlerin en çok yakındığı konulardan birisinin de davranış problemleri olduğunu belirtmişlerdir. Kişilik ve karakter gelişiminin temelini oluşturan erken çocukluk döneminde olan bu çocuklarda görülen davranış problemlerinin neler olduğunun ve bu problemler karşısında öğretmenlerin hangi stratejileri kullandıklarının belirlenmesi, bu çocuklar için yapılabilecek ileriki çalışmalara yön vereceğinden dolayı önem arz etmektedir. Bu araştırmada okul öncesi ve sınıf öğretmenlerinin Suriyeli çocuklarda gözlemledikleri davranış problemleri ve bu davranış problemlerine yönelik kullandıkları stratejilerin belirlenmesi amaçlanmıştır. Bu araştırmada, nitel araştırma yönteminden olgubilim (fenomenoloji) deseni kullanılmıştır. Bu araştırmada Türkiye'nin Karadeniz Bölgesi'ndeki büyükşehirlerinden birinde 2020-2021 eğitim öğretim yılında devlet okullarında görev yapan 16 öğretmen ile çalışılmıştır. Katılımcılar belirlenirken amaçlı örnekleme yöntemlerinden ölçüt örneklem kullanılmıştır. Bu araştırma kapsamında çalışma grubunun belirlenmesinde 3 yılın üzerinde mesleki kıdeme sahip olunması ve sınıfında Suriyeli çocuk bulunması ölçütleri kullanılmıştır. Öğretmenler ile yapılan görüşmelerde, nitel araştırmalarda en çok kullanılan veri toplama aracı olan görüşme tekniği kullanılmıştır. Veriler yarı yapılandırılmış görüşme formu ile toplanmıştır. Görüşmeler yüz yüze yapılmış ve katılımcılardan izin alınarak ses kaydı ile veriler kayıt altına alınmıştır. Araştırmada elde edilen verilerin analizi için içerik analizi yöntemi kullanılmıştır. Görüşmeler bilgisayar ortamında yazıya döküldükten sonra araştırmacılar tarafından tartışılarak ve fikir birliği sağlanarak kodlama sağlanmıştır. Bu kodlar doğrultusunda temalar belirlenmiştir. Araştırma sonuçları öğretmenlerin Suriyeli çocuklarda saldırganlık, bağırma, ağlama, küfür/hakaret, yalan söyleme, inatçılık, içe kapanıklık, çekingenlik, uyum sorunları, aşırı mutsuzluk gibi davranış problemleri gözlemlediklerini, bu çocukların Türk çocuklarla iletişim problemleri, şiddet, dışlama ve

ön yargı sorunları yaşadıklarını ortaya koymuştur. Türk çocuklar ile Suriyeli çocuklar arasında çeşitli anlaşmazlıklar yaşanmasına karşın bu durumlar ciddi sorunlar yaratmamaktadır. Öğretmenler çocuklarda görülen davranış problemlerinin sınıf düzenini ve ders akışını bozduğunu vurgulamışlardır. Öğretmenler bu davranış problemlerine yönelik çeşitli önleme ve müdahale stratejileri uyguladıklarını, ancak çoğunlukla çocukla olumlu iletişim kurma ve sosyal uyum çalışmalarına yer verdiklerini, kullandıkları stratejilerin genellikle etkili olduğunu ve çocukların davranış problemlerini söndürdüğünü, bu süreçte özellikle rehber öğretmenle işbirliği içinde olduklarını ifade etmişlerdir. Öğretmenler bu süreçte yardım alabilecekleri kişi ve kurumları aktif şekilde kullanmaktadırlar. Ayrıca Suriyeli çocuklardaki davranış problemlerini önlemeye yönelik çeşitli öneriler belirterek özellikle dil eğitimi, aile eğitimi ve uyum programları olması gerektiğine vurgu yapmışlardır.

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

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To cite this article:

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.

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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 Türkkan, 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: Reliability = Consensus / (Agreement + 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 micro-teaching. 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 Külahçı (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 & Burrel (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 arttırılabileceği 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 arttırabilmek 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 oluştuğu 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 sağlaması, derse hazırlık yapılması, planlama, sınıf yönetimi becerisini arttırması, deneyim kazanma, materyal kullanma, öğretmenlik mesleki gelişimine katkı sunması, derse katılım sağlaması, değerlendirme yapılması, ders içi etkinlikler, pekiştireç kullanmayı sağlaması ve dersin somutlaştırılması" şeklinde kodların oluştuğu 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 "tekniğin uygulanma süresinin yetersizliği, kamera ve videonun olumsuz etkisi, mesleğe yönelik korku oluşturması, 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 öğretmeninin yetersizliği, ders geçme notu almak için yapılması, empati eksikliği, plan yapma eksikliği, sunuma müdahale edilmesi, süreyi etkili kullanamama ve öğretmen adayının yetersizliği" şeklinde kodların oluştuğu görülmüştür. Öğretmen adayları tarafından mikro öğretim tekniği uygulanırken tekniğin uygulanma süresinin yetersizliğinden kaynaklanan sorunlar, kamera ve videonun

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

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Appendix 1. Referances Included in Meta-Thematic Analysis

Açıkgül, K. (2017). *Geogebra destekli mikro öğretim uygulaması ve oyunlaştırılmış teknolojik pedagojik alan bilgisi (tpab) etkinliklerinin ilköğretim matematik öğretmen adaylarının tpab düzeylerine etkisi.* [Doktora tezi]. İnönü Üniversitesi.

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Examination of Mathematics Concepts in the Third Grade Life Sciences Textbook According to Mathematics Acquirements from the 3rd Grade to the 8th Grade

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Abstract

The aim of the research is to determine the mathematical concepts in the third-grade life science textbook and to examine the relationship between these concepts and the mathematics achievements of the students from the third grade to the eighth grade. Document analysis technique, one of the qualitative research methods, was used in the research. As a document, the Pacific Publishing 3rd grade Life science textbook provided to public schools by the Ministry of National Education in 2021 was examined. In data analysis, descriptive and content analysis techniques were used according to the nature of the sub-purposes. In the study, as a result of examining the life science lesson in terms of mathematical concepts, "locating and drawing", "data analysis", "time calculations" and "basic mathematics knowledge" were determined as the themes. Categories related to these themes and related mathematical concepts forming the categories were determined in terms of unit and topic distribution. Four categories were determined in the research. These are "Direction and sketch drawing", "table and graphic interpretation", "time units" and "mathematical literacy and four operations". When the units are evaluated together, it has been determined that there are 19 concepts related to mathematics in the third-grade life science textbook. It has been observed that "data analysis" has been found to be the theme most strongly linked to mathematics achievement, and it persists as a spiral of maths success across all grade levels.

Keywords: Third grade life science textbook, math concept, math achievement, relationship between math and life science lessons.

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*** This study is an extended version of the paper presented at the III. Turkish Education Congress held on December 23-24, 2022.

Introduction

Life science can be defined as a lesson with a content aiming at helping students acquire the characteristics of intended feature of today's people and current needs at an early age. According to Tay and Yıldırım (2013), the child's spirit is taken into consideration in life science lessons and it is tried to facilitate the child's adaptation to the society she lives in. According to Bektaş (2007), on the other hand, it provides the opportunity to carry out the real-life information that children learn in the family in a formal way through schools.

Life science lesson is applied at the first, second and third grade level in primary school (MONE, 2018a). The general objectives, learning areas and achievements related to the content of the course in the life science lesson are specified in the curriculum. Life science curricula are used to prepare the child for life, reintegrate child in society and to transfer an instructive content to daily life. According to Gültekin (2015), thanks to the life science curriculum, students can learn their duties and responsibilities towards themselves, their family, environment and the state, and thus they can both improve themselves and contribute more to the society.

One of the basic disciplines that the life science lesson includes mathematics. Mathematics is a discipline that requires logical thinking, based on counting, calculating and measuring in order to solve the problems of the human mind in daily life (Altun, 2013). When the mathematics lesson is considered historically, it can be said that it is not static, it is lively and system-based, and it progresses cumulatively (Furinghetti, 2000). Comprehension of mathematical subjects can be possible with the acquisition of basic mathematical skills (Kammenui & Simons, 1999). Today, features, such as problem solving, high-level thinking, and transforming mathematical knowledge are the types of skills that are considered important in terms of mathematics lessons. An individual who can solve problems can solve many problems functionally in daily life and owes this ability to the effective use of mathematics. Therefore, being able to meet skills, such as, mathematical thinking, being mathematically literate, and problem solving at an early age facilitates students' adaptation to daily life and develops students. According to Demirel (2009), in ensuring this development, programs for teaching experiences have an important place in the activities carried out in schools. Textbooks are also used to convey the general framework drawn by the curriculum. By preparing the textbooks in accordance with the program, the general philosophy of the program and the achievements, it is possible to ensure the integrity of the program-content in a functional way. This is valid for the life science lessons as well as for all other lessons. In addition, if the preparation of the books for the next grade level is good, students can transfer their knowledge to the next level more easily. According to Aktepe, Cepheci, Irmak and Palaz (2017), concept teaching and methods are frequently used today in order to place and transfer the knowledge to the mind of the student in the classroom learning-teaching process. Because concepts have crucial place in shaping knowledge. According to Tural (2011), the ability of a student to learn a concept related to a

subject or phenomenon can help him catch the focus of that subject, support teaching help realization of permanent learning.

Today, the list of concepts is not given in advance in the textbooks, and the concepts can be reached by analyzing the content of the book. In this study, since the determination of the mathematical concepts in the third-grade life science textbook and their association with the mathematics achievements from the third to the eighth grades were examined, dealing with not only the life science concepts but also the mathematics lessons and its achievements in detail was found to be convenient.

Purpose of Study

In the study, the mathematical concepts implicitly given in the third-grade life science textbook were determined and the relationships that could be established with the achievements in the mathematics curriculum at the third to eighth grade levels were examined. Thus, it was aimed to present an interdisciplinary study that combines life science lessons, which provide the child's adaptation to school and society according to current needs, and mathematic lessons, which develop skills such as calculation, problem solving and functional thinking in daily life, in terms of concepts and achievements. Based on this aim, answers to the following questions were sought:

- What are the mathematical concepts in the life science textbook?

- In which unit and subject are the mathematical concepts included in the life science textbook?

- How can the mathematical concepts in the life science textbook be classified?

- In which achievements in the mathematics curriculum have the mathematical concepts in the life science textbook been identified?

- How do the mathematical concepts in the life science textbook show continuity in the achievements in the mathematics curriculum?

Importance

Concept teaching has been very important for all courses in recent years and it is one of the methods that can be used differently in each course in accordance with the constructivist philosophy (Tural, 2011). According to Erdoğan & Erdoğan (2009); the teaching of concepts is encountered in different acquisitions in curricula from pre-school to the last periods of primary school. Many different methods can be followed in teaching concepts. Concept-oriented teaching is frequently used today to develop high-level skills and the student's ability to know and use the concept well accelerates the knowledge construction process (Erikson & Lanning, 2014; Fannin, 2017). Therefore, it is a necessity to define, understand and know the concepts in the teaching process well.

Life science lesson is an important lesson that guides children who try to adapt to daily life in primary school. Therefore, it contributes to the development of cognitive and affective skills together with many practical information that children use in daily life (Özden, 2005; Ütkür-Güllühan & Bekiroğlu, 2022). Therefore, the taught concepts in this course play a role in children's ability to transfer knowledge to daily life and to grow up as individuals meeting the requirements of 21st century skills. Also mathematics is one of the most effective disciplines that helps to improve the way of thinking. According to Yıldızlar (1999), an individual who can realize mathematical thinking can approach the problems she encounters in life from a different perspective and can solve these problems without any difficulty. One of the main purposes of the life science program is to provide students with real life skills (MONE, 2018). Realistic mathematics education also relates mathematics to daily life through scenarios. In this way, students can be enabled to transfer knowledge based on real-life problems in mathematics education (Gravemeijer, 1994; Zulkardi, 2002). Mathematical theories that have been kept up-to-date today, such as realistic mathematics education developed in the 1970s under the leadership of Dutch mathematician Hans Freudenthal, have an important place at this point (Witmann, 2005). According to Çilingir (2015), with realistic mathematics education theory, students can solve problems related to daily life because they feel the need to solve that question, and they can find the problem interesting. While solving the problem, they can make sense of the answer to the question "What good would that do?" thanks to realistic mathematics education theory. Freudenthal (1991) and Van den Heuvel-Panhuizen (2003), on the other hand, expects mathematics to be directly related to reality, to have humanitarian values and to be appropriate for the structure of society. When viewed from this aspect, it is seen how realistic mathematics education theory can be intertwined with the life science lessons that meets the needs of society and people. Therefore, theories such as realistic mathematics education, which seem to be specific to the mathematics lesson, are actually suitable for interdisciplinary and coordinated teaching in the life science lesson and can provide a productive learning environment for the student.

This research tried to determine the concepts related to mathematics in the third-grade life science textbook and their associations with the achievements in the mathematics curriculum since the list of concepts is not given in advance as in previous years. Being able to learn the concepts of two different fields (life science and mathematics) examined in the study at an early age allows students to use their minds in a versatile way. Therefore, this study can contribute directly or indirectly to many studies in terms of addressing these two different fields in a holistic way in primary and middle schools and determine the relationship between the mathematical concepts in the third-grade life science textbook (from 3rd to 8th grades) with mathematics achievements. Identifying and using them in daily life the mathematical concepts and achievements that can be associated with the Life Science lesson, which aims to provide students with basic life skills, can help classroom teachers create meaningful learning environments. At the same time, students may need to learn mathematics with real-life problems.

Students who can grasp mathematical concepts at a young age, based on the life science lesson, can also exhibit positive attitudes towards mathematics in the following levels of education. If students who need to learn mathematics develop positive attitudes towards the lesson, it will also positively affect mathematics teachers. For all these reasons, the study is considered to be important. Another importance of the study is that when the literature is examined, there are not many studies in which life science and mathematics lessons are synthesized together (Kara, 2021; Baş, Işık-Tertemiz & Tay, 2021). So this study can contribute to the field in this respect too.

Method

In this part of the study, information about the research model, data collection tool and data analysis process will be shared. Since the research is a document review study, it was not considered within the scope of studies requiring ethics committee approval.

Model of the Research

In the research, the findings were obtained through document analysis technique, which is one of the qualitative research methods. The document analysis technique can be used to examine the educational fields, program instructions, internal and external correspondence in schools, meeting records, teacher and student textbooks and plans. Purpose of document review is to analyze written materials containing information about events and facts. In the descriptive analysis technique, a summarized version of the data is presented to reader. In content analysis, following the examinations similar concepts are transformed into themes and conveyed to the reader through themes (Yıldırım & Şimşek, 2008). The reason for using document analysis in this study is due to the fact that the third-grade life science textbook was examined in terms of various variables.

Data Collection Tool

Life science lesson is taught in the first, second and third grades of primary school. More mathematical concepts are used at the third-grade level than at other grade levels. For this reason, in the research, Pacific Publishing third grade life science textbook, which is the textbook provided by the Ministry of National Education in 2021, was examined as a document. This book, written by Ataşçi (2018), was accepted as a textbook for 5 years starting from the 2018-2019 academic year, with the decision of the Board of Education and Discipline of the Ministry of National Education, dated 28.05.2018 and numbered 78. As the other document, the learning outcomes in the Mathematics Course Curriculum of the MONE (2018b), with which the mathematical concepts identified in the life science textbook were associated, were used. The reason for examining the Mathematics Curriculum from Grade 3 to Grade 8 in the study is to reveal the continuity and integrity of the basic mathematical concepts that children have learned in the life science course.

Data Analysis Process

All pages of the book, which was assigned as a third-grade life science textbook in 2021, were examined. As a result of the examinations, concepts related to mathematics were determined by the consensus of field experts and researchers. One of these researchers is a field expert who has been working in the Department of Elementary Education for 11 years. The other researcher is a science expert who has been working as an Elementary Math teacher in the Ministry of National Education for 12 years. In cases where the two researchers could not reach a consensus, a common decision was reached by taking the opinion of a classroom teacher with a professional seniority of more than 20 years. While determining the concepts, answers were sought for questions such as: "In which unit, in which topic title, what is the page number, what is the usage area?" The obtained variables were tried to be expressed in a holistic way through Table 1.

In addition, while applying document analysis, descriptive analysis or content analysis techniques suitable for the type of sub-purposes were used.

By using the descriptive analysis technique, mathematical concepts in the 3rd grade Life science textbook was examined in terms of the unit and the subject, and the continuity of the achievements in the mathematics curriculum at the 3rd to 8th grade levels.

Content analysis technique was used in the analysis of sub-purposes, such as what the mathematical concepts in the third grade Life science textbook are, how they are classified and how they can be related in terms of the achievements in the mathematics curriculum at the third to eighth grade levels. The mathematical concepts obtained as a result of the content analysis were grouped using code headings. Then, categories (usage areas) and themes (most general titles) were obtained to reflect the general name of the codes. Finally, for the study four themes were determined based on the results of study.

The mathematical concepts obtained following the document review in the research are "right"- "left"-"front"-"back", and grouped as the first code related to "sketch drawing". As the second code, the concepts of "table"-"graph" and "plan" were determined. For the third code, the concepts of "day", "month", "year", and "hour" were determined. As the last code, the basic four operations skills and general mathematical concepts related to mathematical literacy were determined. To this section, basic concepts (codes) such as "number", "division", "surplus", "budget", "attitude", "investment", "conscious consumption" were included. The theme of this section was stated as "basic mathematics".

In the next stage of the study, categories and themes were created with the help of codes. It was determined that the mathematical concepts determined separately for all four themes can be associated with which mathematics achievements in the current curriculum for grade levels from third to eighth grade. The findings obtained as a

result of the research were expressed with 2-stage tables. At which grade level the achievements take place and continuity were other topics examined in the study.

Findings

The findings obtained in the study are presented below in accordance with the sub-purposes with the help of tables in two stages.

Mathematical concepts in the life science textbook, units and subjects of concepts and classification of these concepts:

In the research, firstly, the mathematical concepts in the Life Science textbook, the units and subjects of the concepts and the classification of the concepts into codes and categories were made. Later, the classifications were associated with mathematics achievements. The first stage of the findings of the study is expressed in Table 1:

Table 1.

Mathematical concepts, related sub-purposes and categories in the third-grade life science textbook

Unit no.	Unit	Subject Title	Page no:	Detected Mathematical Concepts- Codes	Usage Area- Categories
1	Life in Our School	I Draw a Sketch of My School and Class	20 and 22	Right, Left, Front, Back (East, West, North, South).	Direction and sketch drawing 1
2	Life in Our Home	I Know the Address of My House and I Draw a Sketch	53	Right, Left, Front, Back (E, W, N, S).	Direction and sketch drawing 1
2	Life in Our Home	Spending Table and Chart	64	Table and Graph	Table and Graph interpretation 2
2	Life in Our Home	I am a planned person.	66	Plan Hour	Time units 3
2	Life in Our Home	Event-Time Table	68	Table Plan Hour	Table and Graph interpretation 2
2	Life in Our Home	Want or Need?	69	Budget Conscious consumption	Mathematics Literacy and Four Operations 4 Mathematics Literacy and Four Operations 4
3	Healthy Life	I Eat a Balanced Diet-Turkish People Are Getting Obese	85	Excess (sorting)	Mathematics Literacy and Four Operations 4

3	Healthy Life	Specific Days and Weeks - Attitude, Investment and Turkish goods week	93	Attitude-investment	Mathematics Literacy and Four Operations 4
4	Safe Life	I take precautions against accidents	105	Day, month, year Expiration date	Time units 3
4	Safe Life	I Know What To Do In An Emergency	109	Numbers 112 Emergency number	Mathematics Literacy and Four Operations 4
5	Life in Our Country	I Do My Duties For My Country	132	Dividing	Mathematics Literacy and Four Operations 4

When the units are evaluated together, it has been determined that there are 19 concepts related to mathematics in the third-grade life science textbook. In the unit "Life in Our School", the concepts of "right"-"left"-"front"-"back" and "drawing a sketch" were included in the topic titled "I Draw a Sketch of My School and Classroom". The same concepts took place again in a spiral manner in the "Life in Our Home" as the sub-topic of the topic "I Know the Address of My Home, I Draw a Sketch" The identified concepts of "right" - "left" - "front" - "back" and "sketch" were determined as codes and stated as the theme of "locating and drawing".

In the "Life in Our House" unit, it is seen that the table and graphic concepts (codes) are included in the "Expenditure Statement and Graph" topic. In the same unit, as an activity, the "Plan" code was determined for the purpose of creating a planned table within the title of "Timetable". The second theme, which includes a total of three concepts, was named "Data Analysis". In the "Life in Our Home" unit, there are also the concepts of "plan" and "clock" within the title of "I am a planned person". In this section, one of the codes (concepts) determined in the "Time calculations" theme is the "clock" code. On the other hand, in "Wants or Needs?" unit, the concepts of "budget" and "conscious consumption" were determined. These codes are also an element of the fourth theme, "Basic Mathematics Knowledge".

The "Excess (Sorting)" code (concept) in the "I Eat a Balanced Diet-Turkish People Are Getting Obese" topic in the "Healthy Life" unit, which is the third unit, is also included in the "Basic Mathematics" section, which is the fourth theme. In the "Specific Days and Weeks" section of the same unit, the concepts of "attitude" and "investment" under the heading "Attitude, Investment and Turkish goods week" were similarly added to the fourth theme.

The use of the concepts (codes) of "day", "month", "year" while examining the expire dates of products in the "I Take Precautions Against Accidents" topic in the fourth unit "Safe Life" is also a component of the "Time Calculations" chapter in the third unit. Calling 112 under the heading "I Know What to Do in an Emergency" in the same unit

is also incorporated in the fourth theme, "Basic Mathematics", within the scope of recognizing numbers.

In the fifth unit, "Life in Our Country", students are expected to benefit from the basic division process in order to work in groups of three people under the title of "I Do My Duties for My Country". The "division" code created in this way was added to the fourth theme, "Basic Mathematics" section. As a result, the codes, themes and classification of themes (in terms of unit and topic) were determined by following the fore mentioned steps and methods.

The steps followed in the second stage and the findings obtained are shared.

Identification of Themes and Association of Concepts with Mathematics Achievements:

The codes, categories and themes created according to the mathematical concepts in the third-grade life science textbook given as a whole in Table 1 are discussed. Mathematical concepts are grouped under four themes. A detailed examination of associating the grouped themes with the achievements in the mathematics curriculum from the third to the eighth grade is made in this section.

First theme: Locating and drawing:

The information created for the concepts of "right"-"left"-"front"-"back" and "sketch" is presented in Image 1, and related achievements associated with mathematics are presented in Table 2.

Image 1.

Locating and drawing (First theme)
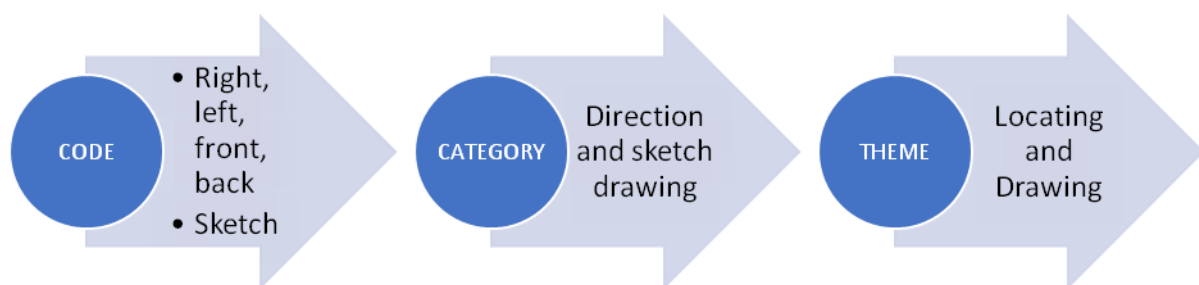
It is a mathematical association that is directly related to the subject of describing the place-direction in the fifth grade "M.5.2.1.2. It expresses the position of a point relative to another point using direction and units (MONE, 2018b) and the reflection-translation in the 8th grade. The mathematical achievements of the concepts in the subject of ground-orientation drawing are clearly used in the fifth and eighth grades.

Table 2.

Mathematics achievements examined according to different grade levels in the mathematics curriculum for the first theme

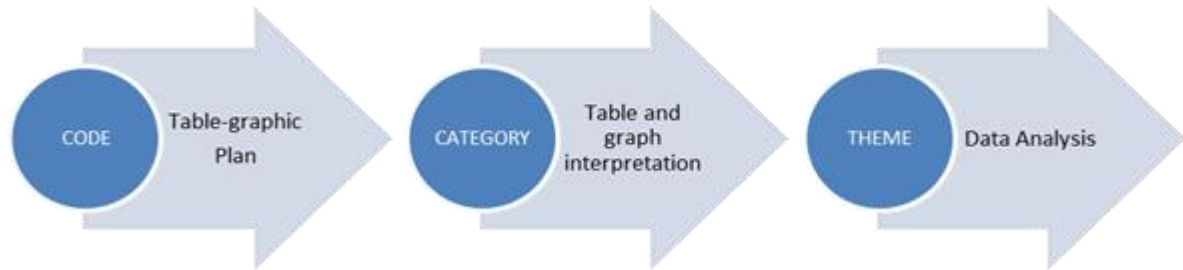| Grade Level	Mathematical achievements related to concepts (MONE, 2018b)
3	*"M.3.2.1.3. Draws square, rectangle and triangle using ruler; determines the diagonals of square and rectangle."* *"M.3.3.2. Measurement the Environment"* *"M.3.3.3. Area Measurement Gain group"*- sketch
4	*"M.4.3.2. Measurement the Environment"* *M.4.3.3. Field Measurement"*-sketch (In some types of questions related to environment and field measurement,house plans can be given in the form of sketches and various calculations can be made.)
5	Location – directions description: *"M.5.2.1.2. Expresses the position of a point relative to another point using direction and units.* *a) Checkered, dotted paper, etc. work is done on it. For example, point A is 3 units to the right/left of point B; 2 units below/above; Like 2 units up/down 4 units right/left* *b) Examples of real-life situations are also included."* Sketch: *"M.5.2.3.2. Calculates the perimeters of triangles and quadrilaterals, creates different shapes with a given perimeter. Studies on estimating the perimeter length are included."* *"M.5.2.4. Field Measurement"* acquisition group
6	*"M.6.3.2. Field Measurement"* acquisition group-sketch (In some types of questions related to field measurement, house plans can be given in the form of sketches and various calculations can be made.)
7	*"M.7.3.2.5. Solves field-related problems."*–sketch (In some types of questions related to field measurement, house plans can be given in the form of sketches and various calculations can be made.)
8	Location-direction: *"M.8.3.2.1. Draws the images of the point, line segment, and other shapes as a result of the translation.* *c) In the translation, it is noticed that every point on the figure moves in the same direction and that the figure and its image are equal.* *"M.8.3.2.2. Creates a reflection image of a point, line segment, and other shape."* *"M.8.3.2.3. It creates the image of polygons resulting from translations and reflections.* *a) A maximum of two consecutive translations or reflections are allowed."*

Second Theme: Data Analysis:

The theme related to the concepts of "table - graphics" and "plan" is given in Image 2, and the mathematical achievements related to the theme are given in Table 3.

Image 2.

Data analysis (Second theme)

Plan code can be used in terms of creating tables and planning skills.

Table 3.

Mathematics outcomes examined according to different grade levels in the mathematics curriculum for the second theme

Grade Level	Mathematical achievements related to concepts (MONE, 2018b)
3	*"M.3.4.1.1. Explains the information shown in the figure and object graphics, makes conversions from the graph to the scoreboard and frequency table and interprets it. They are asked to comment on the whole data by comparing different parts of the data."*
	"M.3.4.1.2. Solves problems that require addition and subtraction by using the information given in the graphs or by creating graphs."
	"M.3.4.1.3. It reads and interprets simple tables of up to three data groups and organizes the data obtained from the table.
	"M.4.4.1.1. Examines the column chart, makes comments and predictions on the chart."
	"M.4.4.1.2. Creates the column chart. Before the bar chart is created, the data is organized with the help of an object or shape chart. Scoreboards and frequency tables can also be used. In the first studies, checkered paper and colored unit squares can be used.."
4	*"M.4.4.1.3. Uses different notations to present its data.*
	a) Different representations such as horizontal or vertical column chart, figure chart, object chart, table, tree diagram are used.
	h) By making use of different representations of the data, a relationship is established between savings awareness and financial literacy."
	"M.4.4.1.4. Solve daily life problems using information represented by bar charts, tables, and other graphs."
5	*"M.5.3.1.2. Collects data on research questions and displays it with a frequency table and column chart."*
	"M.5.3.1.3. Solves problems for interpreting data represented by frequency tables and bar graphs. (Column charts that lead to misinterpretations are also examined)."
6	*"M.6.4.1.1. It generates research questions that require comparing two sets of data and obtains appropriate data."*
	"M.6.4.1.2. It shows the data of the two groups with a binary frequency table and a column

	chart."
	"M.6.4.2.3. It uses arithmetic mean and span to compare and interpret data belonging to two groups. Studies to interpret arithmetic mean and span in real life situations are included.
	"M.7.4.1.1. Creates and interprets line charts for data.
	a) Graphic creation studies belonging to two data groups are also included.
7	*b) Line charts that lead to misinterpretations are also examined."*
	"M.7.4.1.3. Creates and interprets the circle chart for a data group. When creating a circle graph, interactive information and communication technologies are used when necessary."
	"M.7.4.1.4. It displays the data as a column, circle, or line graph and makes the appropriate conversions between these representations."
	"M.8.4.1.1. Interprets line and column charts of up to three data groups."
	"M.8.4.1.2. It displays the data as a column, circle, or line graph and makes the appropriate conversions between these representations."
8	*"The strengths and weaknesses of different representations relative to each other are emphasized."*
	"M.8.2.2.3. Expresses how one of the two variables that have a linear relationship between them changes depending on the other, with a table and an equation.
	a) In the representations made with tables, expressions in the form of ordered pairs are also included."
	"M.8.2.2.4. Draws graphs of linear equations."
	"M.8.2.2.5. Creates and interprets equations, tables and graphs of real-life situations with linear relationships."
	"M.8.2.2.6. Explains the slope of a line with models relates linear equations and graphs to slope."

Among the mathematical concepts in the third-grade life science textbook, the theme most related to the mathematics lesson is the title of "tables and graphs". Tables and graphics are included with different achievements for each grade level in and after the 3rd grade. Although the content and level of the gains vary, there is certain spirality between the gains.

The second mathematical association of this section, "the ability to create a table by scheduling", is important in terms of creating and reading the table. Tables and graphs are tools that support each other in conveying and presenting data. These two skill types are discussed together in the section (page 64) where tables and graphs are examined in the third-grade life science textbook. Therefore, in the study, it was deemed suitable to create a theme by combining the concepts of tables and graphics, and to progress in a holistic manner in the examination of mathematics teaching programs at the levels from third to eighth grade.

Third theme: Time calculations: The theme formed by the codes "day", "month", "year"and "hour" is presented in Image 3, the section on mathematics achievements is presented in Table 4:

Image 3.

Time calculations (Third theme)

```
CODE: Month, Year, Hour

CATEGORY: time units

THEME: Time calculations
```
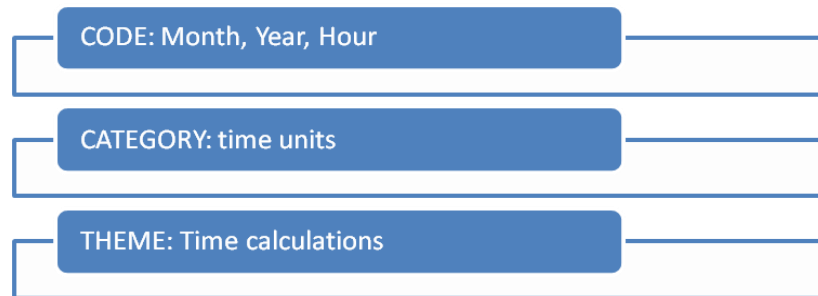
According to the data in Table 4, knowing that the day is 24 hours (dividing the day into hours and arranging what to do by dividing it into hours), students can visualize the concept of time in their minds and plan it by calculating a certain period of time. This situation is directly related to daily life. This subject, which is covered in the Life Science lesson, is included in the mathematics curriculum at the same grade level, *"M.3.3.5.1. Says, reads and writes time in minutes and hours.", "M.3.3.5.2. Explains the relationship between time measurement units"* and *"M.3.3.5.3. It compares the occurrence times of the events (MONE, 2018b)*" supports the achievements in a holistic way.

Table 4.

Mathematics achievements examined according to different grade levels in the mathematics curriculum for the third theme

Grade Level	Mathematical achievements related to concepts (MONE, 2018b)
3	*"M.3.3.5.1. Tells, reads and writes time in minutes and hours."*
	"M.3.3.5.2. Explains the relationship between time measurement units.
	a) Explains the relationship between year-week, year-day, minute-second."
	"M.3.3.5.3. Compares the occurrence times of events.
	a) The measurement and comparison of the tasks, the time between the start and the end of a particular job or action is made.
	b) Examples where different time-measuring instruments such as hourglasses are used are also included.
	"M.3.3.5.4. Solves problems in which time measuring units are used."
	"M.4.3.4.1. Explains the relationship between time measurement units.
	a) Conversions between hour-minute, minute-second are made.
	b) Conversions between year-month-week, month-week-day are made.

4	c) Leap year is also mentioned while making the conversion."
	"M.4.3.4.2. Solves the problems in which time measurement units are used.
	a) Emphasis is placed on the importance of time management in problems. Problem posing studies are also included."
5	"M.5.2.3.3. Recognizes time measurement units, converts them to each other and solves related problems.
	a) Seconds, minutes, hours, days, weeks, months and years are considered.
	b) Problems related to time management are addressed."
6	-
7	-
8	-

In addition, it can be said that the readiness for the following achievements in the 4th grade mathematics curriculum has been achieved thanks to the subject of examining the expiration date of the products taught in the third-grade life science lesson: *"M.4.3.4.1. Explains the relationship between time measurement units."* and *"M.4.3.4.2. Solves the problems in which time measurement units are used (MONE, 2018b)."* The ability to accurately read the expiry date of a product as day/month/year and interpret it according to the present is related to the concepts in the "Time calculations" theme. These concepts are also within the scope of a basic mathematical literacy skill. Time calculations and concepts are available in the mathematics curriculum up to the fifth grade; they do not show continuity for the next grade levels.

Fourth Theme: Basic Mathematic Knowledge: In this section, the general concepts related to mathematics are determined in two sections. All identified concepts and outcome associations are presented in Image 4 and Tables 5 and 6.

Image 4.

Basic mathematic knowledge (Fourth theme)
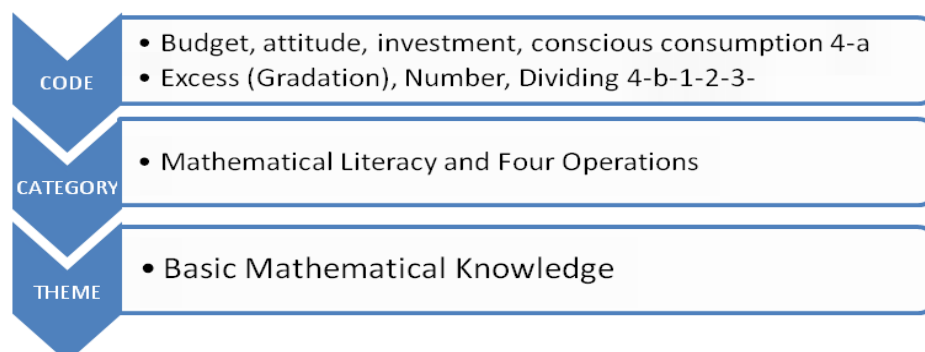
In this section, the codes consist of two parts. The code group, expressed as 4-a, includes attitude, investment, conscious consumption and budget. As the 4-b code, associations based on excess (gradation, few-many, quantity and logical reasoning), overarching based on numbers and division are called 4b-1, 4b-2, 4b-3, respectively.

A- For the code of "budget- attitude- investment, conscious consumption": Four concepts related to mathematics and associations with the achievements in the mathematics curriculum were determined. The mathematical concepts and their associations with the achievements are analyzed in Table 5.

The acquisitions directly related to the concepts of "savings" and "attitude" were determined at the 3rd and 4th grade levels in the mathematics curriculum. In addition, the emphasis on frugality is also present in the program. Also questions about the concepts of "budget- attitude"-investment - conscious consumption" can be asked to students about percentages at the seventh grade level as an indirect association. Therefore, these concepts can also be indirectly associated with the subject of percentages. The concepts in this section do not have continuity for the current achievements in the mathematics curriculum from the third to the eighth grade.

Table 5.

Examination of the mathematical concepts of attitude, investment, conscious consumption and budget calculations of the theme 4-a in terms of the achievements in the mathematics curriculum

Grade Level	Mathematical achievements related to concepts (MONE, 2018b)
3	*"M.3.3.4.1. Shows the relationship between the Turkish lira and the penny.* *a) For example, 325 pennies is expressed as 3 liras and 25 pennies.* *"M.3.3.4.2. It solves problems with our coins.* *a) Emphasis is placed on the importance of saving in problems." -attitude* *"M.3.4.1.1. Explains the information shown in the figure and object graphics, makes conversions from the graph to the scoreboard and frequency table and interprets it. They are asked to comment on the whole data by comparing different parts of the data. For example, when the graph showing the number of breads sold in a week in a grocery store is examined, it is noticed that the number of bread sold on the weekend is higher than the number of bread sold on the other days."*
4	*"M.4.4.1.3. It uses different notations to present the data it obtains.* *h) By making use of different representations of the data, a relationship is established between savings awareness and financial literacy."*
5	*"M.5.3.1.1. Creates research questions that require data collection.* *b) Environmental awareness, frugality, cooperation, avoidance of waste, etc. topics are covered when creating the research questions.*
6	-

| 7 | *M.7.1.5. For attitude, investment, conscious consumption questions with various scenarios in the percentages achievement group.* |
| 8 | - |

B- For the code of "excess", "number", "division": Three concepts related to mathematics and associations with the achievements in the mathematics curriculum were determined. The mathematical concepts and their associations with the achievements are presented in Table 6.

In order for students to comprehend the b-1, b-2 and b-3 outcomes, their basic mathematical knowledge or mathematical literacy should be at a sufficient level at each grade level. B-1 acquisition is based on few-many-(quantity-logical) reasoning skills; B-2 gain is based on the ability to recognize numbers and to be mathematically literate at a basic level in daily life; the achievement for B-3 is also based on the basic operation skill of dividing a number (whatever it is) by 3 in order to be able to group by three.

Table 6.

An investigation of 4-b theme of mathematical concepts regarding few-many, (quantity and logical) reasoning, and mathematical literacy at the basic level in terms of acquisitions in the mathematics curriculum

Grade Level	Mathematical achievements related to concepts
3	*"Compares up to five natural numbers less than 1000 and ranks them using symbols".* -Few-many quantity, b-1
4	-
5	-
6	*"M.6.4.2.1. Calculates and interprets the range of a data set."* Smallest- Largest value, quantity, b-1
7	-
8	-

The mathematical gains related to b-1 from the associations are given in Table-6. In addition, although it is not directly associated with mathematical achievement, the situation determined for the issue of calling 112 in emergency situations where numbers are used in daily life was evaluated within the scope of mathematical literacy (4-b-2). In the lesson, which was taught by a group work, the ability to be a group of three - division, division, and grouping by counting in threes rhythmically was also evaluated as mathematical literacy - ability to perform operations (4-b-3).

Results, Discussion and Recommendations

In this section, the conclusion, discussion and suggestions are shared according to the order of the sub-purposes.

For the First, Second, and Third Sub-Purposes:

In the study, the results about the mathematical concepts in the third-grade life science textbook, in which unit and subject distribution these concepts are included, and which themes can be classified are as follows:

The importance of the theme of "Locating and drawing" in terms of life science and mathematics; is helping students find their home, school or a point as a reference. Because students can make sense of directions with these concepts and visualize the location of an address in their minds. As a result, this situation can help the development of students' visual spatial and map reading skills. According to Taş (2008), asking geographical questions such as "what, where, why is it there?" contributes to the development of observations, perceptions and location determination in students. Also, according to the results obtained in Kuzey's (2016) study, students were found to be successful in "determining location and coordinates", "finding and describing directions". Students' success in this subject improves their directional literacy. The number of geolocation achievements can be increased in order to improve directional literacy in the life science lesson. Thanks to directional literacy, students' knowledge of location finding and directions can be transferred to daily life more easily. From this point of view, it can be interpreted that the role it plays in ensuring the transfer of up-to-date information learned in the school environment to daily life for the life science lesson has been realized in accordance with its purpose.

Another code in the first theme is the concept of sketch. The ability to understand and draw the sketch can be associated with the environment-area questions in the mathematics lesson. A limited number of studies have been found in the literature regarding sketching skills. In Kuzey's (2016) study, it was concluded that students were unsuccessful in drawing sketches. Based on this result, it may be difficult for students to understand the perimeter-area questions asked based on the sketch in the mathematics lesson in the future, and this may reduce the success rate in tests or exams.

In order to prevent this situation as much as possible, the sketch subject can be associated with mathematics more and the sketch questions can be made more concrete for students with the life science lesson. Therefore, this skill should be taught to students at an early age in the life science lesson by taking precautions to better understand the sketch subject, and then it should be supported more with mathematic lessons. In this way, students' success in mathematics can also increase in the future. Carrying out the sketch drawing skill in the life science lesson with reflective thinking activities or worksheets included in the mathematics curriculum (which allows

associating it with the environment-field topics) can increase the quality of the teaching of both courses.

When the importance of the concepts in the "Life in Our House" unit is examined in terms of social studies and mathematics lessons, it is seen that charts and graphics exist in all areas of life (teaching activities, economy, medicine...). Therefore, it can be predicted that the acquisition of skills such as reading, understanding and interpreting charts and graphs in the life science lesson will positively affect the students' further education life. This contribution, which starts with the life science lesson and continues with mathematics, covers not only teaching activities but also daily life skills.

The concept of "plan", on the other hand, regulates what, how and in what time period students can do from their lesson work to their daily work. In fact, students who can grasp the efficiency of studying at an early age with a good planning strategy actually lay the foundations of reflective, critical thinking and meta-cognition. Because the student who can learn to work with a planned strategy is aware of what subject she understands or does not understand, she can determine what she has learned, how much she has learned, the missing points in the learning process or which subject she needs to work more on. This may contribute to the development of meta-cognition. For this reason, the fact that the concept of "plan" is well absorbed by the student is a supportive factor that develops high-level thinking skills beyond being a contribution of the life science lesson to that student. The concept of "time", on the other hand, implicitly supports the "plan"b ecause plans can be created by calculating time and taking time as a reference. In addition, the skills of converting time measures into each other in the concept of time are directly related to mathematics. The concepts of "budget" and "conscious consumption" identified in this unit will be concepts that students will encounter again at different grade levels in mathematics lessons. The concept of "budget" enables adults to calculate their income-expenditure. Similarly, with the concept of "conscious consumption", children realize that they cannot buy something they need or everything they want. With this aspect, life science lesson prepares children for life. Basic concepts such as "making a budget", "saving", "conscious consumption", "looking at the expiration date of products" are concepts that are not forgotten once learned and experienced. This shows the functionality, currency and permanence of the basic concepts learned in the life science lesson.

Students who can grasp the "excess" code, among the concepts in the "Healthy Life" unit, can improve their skills of few-many-quantity-reasoning. The development of quantity and reasoning skills can also benefit the student in a variety of situations, from shopping in daily life to animating what is told in an abstract text. Starting from the pre-school period, students may encounter the concepts of "less-more". However, even if the student still cannot visualize these concepts in his mind, this situation can be compensated in primary school through life science and mathematics lessons. The concepts of "attitude" and "investment" are similar to the concepts of "savings" and "conscious consumption", and they are concepts that the student can always use once they learn without forgetting them.

For the themes in the "Safe Life" unit, students' knowing, understanding and associating time calculations with daily life takes place under the guidance of the life science lesson. Afterwards, the context of the subject continues in relation to the mathematics lesson in terms of converting and calculating time measures, and it shows continuity. Likewise, the ability of a primary school student to be mathematically literate to call 112 is an ability to keep up with the times, and thanks to the life science lesson, the student learns to adapt to the age. A student who understands this subject can save the life of a relative who was injured in a traffic accident or poisoned due to expired food by calling 112. Therefore, the subject of "I Know What to Do in an Emergency" is a topical issue that seems simple but is of vital importance.

The concept of "division" identified in the unit "Life in Our Country" shows that it is a necessity to be able to do basic math calculations even in a simple instruction directed to students in daily life.

Except for the sixth unit, it is seen that there is a mathematical concept in every unit. Mathematical concept continuity can be provided for Unit 6. Considering the nature of the life science lesson and its relation with other lessons, it is seen that the number of mathematical concepts identified is low. The number of concepts associated with mathematics, and hence the number of mathematical achievements, can be increased because life science and mathematics lessons can be intertwined in many subjects in daily life. The fact that the subjects and activities in the textbook reflect mathematical concepts can increase the situations in which students benefit from mathematics in their daily lives. Thus, topics and activities can be handled more efficiently in an interdisciplinary way. Students' experience of transferring knowledge can increase and the situation of associating two courses with each other can become more concrete for students. This situation can increase students' ability to establish interdisciplinary relationships and improve their ability to acquire 21st century basic life skills and high-level thinking skills.

For the Fourth Sub-Purpose: Themes and Outcome Associations:

No study has been found in the literature that deals with life science and mathematics lessons in an interdisciplinary manner in a detailed and holistic manner. However, some studies have been found on associating the subjects in social science and mathematics lessons. Aybek (2001) has a study that found that class teachers for 4th graders associate social studies-mathematics at the "occasionally" level. Besides, Şahinkaya and Aladağ (2009) have a study in which they examine the association of social science-mathematics lessons for fourth-seventh grades. In this study, it was concluded that the number of achievements associated with mathematics decreased as the grade level increased in the social science curriculum, and it was stated that the association with the mathematics lesson was not sufficient. According to Yıldız (2019), mathematics lesson and social science teaching are in the nature of making associations, and the author also has written a book chapter which examines the relationship between social science and mathematics lessons in detail. In this study,

subjects related to social studies and mathematics lessons were grouped into 5 groups. Three of these 5 groups were created specifically for certain subjects. The first of these subjects has been comprehensively determined as "the ability to use maps, scales, tables, graphs, diagrams, figures or spheres". When the relationship between these topics in terms of life science and mathematics achievements is compared, it is seen that the scope of the subject in social science-mathematics lessons is wider. The primary cause of this might be because secondary school students are generally older and more mentally mature. On the other hand, these topics, which Yıldız (2019) dealt with by combining, were separated in this study. Due to the content of the life science lesson, it is seen that there are more basic concepts such as location-direction, position determination, and sketch drawing, which are not directly related to the map and scale subjects but are preparatory to these subjects. Assuming that the subjects of location, direction, and location determination are acquired by the students, it can be interpreted that they lead to the learning of map and scale skills in the social science lesson in the future. Additionally, in this study, the table-graphic theme was kept separately. The subject of tables and graphics were associated with mathematics by showing continuity towards the content of the life science and social studies lesson both in primary school and in secondary school. This situation points to the conclusion that table-graphs have a very important place in teaching activities. It is a common point in both studies that table-graphic skills take place at an important level and that they should be studied more as literature.

In Yıldız's (2019) study, while the subjects of time and chronology skills were discussed more broadly, in this study, time calculations and time measurements in life science and mathematics lessons were examined in terms of converting them to each other. This shows that the two studies examined the same theme from different aspects. In addition, in the same study, while creating a topic for social science as "position and coordinate skills", the theme of "locating and drawing" was created in this study. In the study, these two themes are similar in general terms. The part where the two studies differ is that after the "point, location" skill, Yıldız (2019) associated with the "coordinate system" due to the content of the social science lesson (in the middle school mathematics part), while in this study, "drawing" was used due to the content of the life science lesson (due to the concept of sketch) is that it is associated with the skill of continuing.

In the study, the associations of the mathematical concepts in the third-grade life science textbook with the achievements in the mathematics curriculum (three-eighth grades) are presented in Tables 2.3.4.5 and 6 above. In this section, how the related themes and topics can support each other is discussed under separate sub-headings.

First theme: Regarding the theme of locating and drawing:

The concepts of "locating" and "drawing" can be associated with mathematics. Because the terms used by students while determining location and direction will help to explain the position of one point relative to another or to carry points in the coordinate system

in translation-reflection issues in the next grade levels. Also, the functional acquisition of the geolocation part can increase students' preparation for map teaching and scale in the social science lesson, which is the next teaching step. This result is supported by the result that Sönmez (2010) obtained in study that with the increase in the mathematics achievement scores of the students, their mapping skill levels also increase. In addition, with the increase in mathematics skills, it will be easier to comprehend the subjects directly related to life science such as "determining location and coordinates" and "finding the direction", which are other points that the two studies support each other. There are a limited number of "Location-direction and position determination" studies in the literature. In this regard, studies can be conducted to examine the effect of early directional literacy on visual-spatial intelligence. In addition, activities that can provide transportation from one point to another, such as location-direction determination, location and address description can be carried out with various approaches (game-activity-based…).

Sketch drawings can also be included in the questions of perimeter-field calculations in the geometry learning field. In the questions in which various parts of a house, room or garden are shown in the form of sketches, skills related to the ability to calculate perimeter-field are measured. Students who are familiar with the sketch at an early age can visually internalize these questions more easily and feel more comfortable at the point of solution. Because it can be seen that students approach some questions in a biased way, where visual tools are intense or there are long question tables (Kablan & Bozkuş, 2021). This may trigger negative affective features defined as math anxiety and fear.

Second theme: Data analysis:

Tables and graphs are used to impart and resent information in many different fields. Today, because information is rapidly increasing, it is critical to be able to show the information in terms of time efficiency in reading, understanding, and presenting. Tables and graphs are a common subject in many courses, as curricula are prepared by considering these current needs in education. When this situation is examined for the social studies and mathematics lesson, it can be said that the studies on table graphics are relatively more than the studies on other themes. Pala and Başıbüyük (2019) stated in their research that students' mathematical skills explain their ability to read maps by 39%, read graphics by 43%, and read tables by 40%. Also, in the same study, 54% of reading skills for these 3 subjects (map, table, and graph) can be explained holistically with mathematics skills in the social science lesson. From this point of view, it is probable that a significant improvement in mathematics skills will be achieved in the secondary school section with the good understanding of the data analysis theme obtained in this study by the students in primary school. Because "table and graph" codes are constantly included in the secondary school mathematics curriculum achievements every year (MONE, 2018b). The studies of Pala and Başıbüyük (2019) and this study support each other when considered together. Understanding tables and graphs is not just a subject area of mathematics or life

science-social science lessons. It is a subject area that is carried out in an interdisciplinary way and taught in a spiral way with details that support each other. In addition, according to another study, the effective and appropriate use of graphics is a factor that increases the success of students in geography lessons (Şahin, Gençtürk, & Budanur, 2007). In her study, Akın-Köse (2011) concluded that teaching with statistics and graphic use activities improved graphic reading skills in the social science lesson. Similarly, in Keskin's (2018) study, the students who were taught activity-based graphic preparation and reading skills in the social science lesson were more successful; their interest and desire for the lesson increased compared to the students who were taught with the current program. Taş (2008) stated that it is useful to include tables and graphics in the teaching process Bekdemir and Başıbüyük (2011) also stated that the ability to read tables and graphics can improve depending on the increase in students' mathematical skills. Therefore, social science and life science lessons (representing the younger age group of social science) can gradually support each other in a positive way at the point of learning the mathematical concepts identified in the study.

In Akgün's (2010) study, it was concluded that students were successful in reading one-dimensional graphics questions, but the success rate of general graphic reading skills was below 50% in two-dimensional (column-line) graphics. In addition, in the question types that require understanding the graph and drawing conclusions, the success of the students remained below 50%. It can be predicted that students who have problems in reading the graphic might /would also have difficulties in terms of graphic literacy. Because graphic literacy includes the skills of establishing relationships between data and interpreting and transforming data beyond reading and understanding graphics (Aoyama, 2007; Bursal, 2019; Curcio, 1987; Özmen, Güven & Kurak, 2020). Moreover, Kranda and Akpınar (2018), conducted a study with seventh grade students of social science lesson, the level of graphic literacy was found to be moderate according to the results of the students' achievement test. Because the social science lesson allows for the creation of many diagrams and concept maps based on visual elements, not only graphics but also graphic organizers can be used within the scope of the lesson. The venn diagram is yet another type of graphic organizer. (Dönmez, Yazıcı & Sabancı, 2007). With the Venn diagram, students can make classifications, and this can be beneficial in providing students with a mathematical perspective in terms of basic math skills, especially on sets.

Table-graph topic is one of the most studied mathematical topics in social studies literature. In this regard, it can be suggested that more studies should be carried out for primary school for the life science lesson. Furthermore, within the scope of life science lesson or in life science-mathematics lessons, with interdisciplinary associations, studies that will improve the graphic literacy of the students in the primary school period, which is the early age group, can be done, and more emphasis can be given to the theme of data analysis.

Third theme: Time calculations:

The concepts of "day", "month", "year" and "hour" in the third grade life science lesson book are associated with the achievements of time calculations in the mathematics curriculum. According to the mathematics curriculum, students in grade three, four and five are expected to learn these concepts and gain the ability to convert them to one another. Life science lesson is important in acquiring these skills and concepts. Students who learn these concepts well will be able to convert time measures to each other more easily in the future. When the literature on the subject is examined, there is a study by Şimşek (2006). In this study, it was concluded that the socio-economic status of the schools as well as their age-related mental development is a factor in the students' acquisition of historical time and related chronology knowledge-skills. In addition, he determined that the students were unsuccessful in the operations they did for the concepts before and after Christ. Although Şimşek's (2006) study is about time and chronology, the results obtained in this study in terms of life science-mathematics lessons, it has been discussed from a different perspective as it is for time calculations. This shows that the two studies touch on different places in terms of time. Kekeç (2018) also used the modeling technique for time and chronology skills in his study and concluded that the model-base teaching improved the time-chronology skills of the students.

Fourth theme: Basic mathematics skills:

In this theme, mathematical concepts are formed in two different sections. The concepts in the first group are "budget", "attitude", "investment" and "conscious consumption". Learning these concepts at an early age by students in the life science lesson makes it easier to solve the questions related to these issues in the mathematics lesson later on. In order to ensure that the concepts are better understood by the students, it may be beneficial to teach the third-grade mathematics lesson simultaneously with the life science lesson, and to support one another in an interdisciplinary manner with a holistic approach. For example, while the concept of "budget" is taught in the life science lesson, students can create a weekly income-expense table with their pocket money in the mathematics lesson. In this way, students can learn and reinforce the same concept in terms of two different lessons in the same week. Similarly, the concepts of "attitude", "investment" and "conscious consumption", which are taught in the life science lesson, can be supported simultaneously with the mathematics lesson. While the subject of "conscious consumption" is taught in the life science lesson, questions that mainly involve conscious consumption activities can be designed in the scenarios of the subject in the curriculum of that week in the mathematics lesson. This situation can be discussed with the students in the classroom environment, and students' ideas about the causes and effects of conscious consumption can be obtained. Thus, a concept that includes both courses can be processed in an interdisciplinary way.

"Excess (Gradation)", "number", "division" codes were determined as the second group of the fourth theme. The codes identified in this section are mainly for basic mathematics skills. The "divide" code is a code formed within the scope of four operational skills. The four basic processing skills take place in all areas of life; it is always up to date and students do not need to do any additional work to understand the four operations after a certain period of time. Before performing the four operations, the mind determines with the decision-making stages and continues to make sense in the thinking stage. So, this is a systematic process. Skills such as recognizing and reading numbers, visualizing the date indicated by the numbers, knowing the expiration date of products are also skills that are always encountered in daily life. "Excess" code is also a basic mathematical concept that students should know in determining extreme values such as few-many, minimum, maximum; contributes to the formation of quantitative-logic reasoning skills. According to Akgün (2010), students have difficulty in finding the average of the hottest and coldest months in the graphs. When this situation is considered in terms of general mathematics skills, it shows that the concept of "at most" in this section can also be associated with one of the other codes, table-graphs. In this sense, codes and themes can be associated with each other and support each other as seen. Learning a concept (code) in a life science lesson can help to learn another acquisition for the mathematics lesson at next grade levels, as well as contribute to learning another concept in the life science lesson. From this point of view, it can be concluded that there is both a vertical and a horizontal correlation between concepts and achievements. As a result, students' understanding of the "excess" code can improve their quantitative-logic reasoning skills. This contributes to both life science and mathematics lessons. Within the scope of realistic mathematics education theory, life science can serve as a leading course for all these concepts in general related to mathematics, and the use of mathematical language related to daily life can be used more in the life science lesson, and in this way, mathematical literacy can be improved by increasing the general mathematics skills of the students. The advantage of using up-to-date theories such as realistic mathematics education with other courses is very important for students, these theories should find more place in teaching activities, theoretical foundations should be included in the curriculum more clearly and not implicitly. The curricula of both courses can be restructured to deal with the subjects in coordination and can be built on experience rather than daily life.

Regarding the Fifth Sub-Purpose:

For the theme of "locating and drawing", the achievements in the mathematics curriculum from the third to the eighth grade are divided into two. While the achievements associated with the mathematics lesson for "location determination" are in the fifth and eighth grades, the environment and area questions to which the sketch drawing is associated are available from third to seventh grades. Although the two codes that are separated in themselves do not show continuity, the theme created with its combined form shows continuity in the curriculum.

The second theme, "Data analysis", shows continuity in terms of associating the achievements of the third to eighth grade mathematics curriculum and is the theme with the most achievements. When viewed interdisciplinary, it is a theme that is carried out together with other courses.

The third theme, "Time calculations", is included only in the third, fourth and fifth grades in the mathematics curriculum, and there are no acquisitions of this theme in the next grade levels.

The codes that make up the fourth theme are divided into two groups as A and B. The "budget", "attitude", "investment" and "conscious consumption" codes related to the group A are directly applied in the third, fourth and fifth grades; also in the seventh grade, it can be indirectly associated with the achievements of the mathematics curriculum within the subject of percentages. Therefore, the concepts in this theme do not show continuity in terms of mathematics curriculum. Continuity of the program can be ensured by using these concepts at the sixth and eighth grade levels.

For the group B, there are "excess", "number" and "division" codes. Since the "number" and "division" codes are general basic concepts, it was not necessary to associate them with mathematics achievements in the study. However, since the concept of "excess" includes quantity and reasoning skills, the association of achievements in the mathematics teaching program was taken into consideration. It was determined that there are third and sixth grade achievements in the mathematics curriculum related to the "excess" code. The concepts mentioned as codes above regarding basic mathematics skills can be given more space in textbooks. The study is limited in that it only examines the third-grade primary school life sciences textbook.

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Genişletilmiş Türkçe Özet

Araştırmada üçüncü sınıf hayat bilgisi ders kitabında bulunan matematiksel kavramların belirlenmesi ve bu kavramların matematik dersi (3. Sınıftan 8.sınıfa kadar olan) kazanımları açısından incelenmesi amaçlanmıştır.

Çalışmada incelenen iki farklı alanın (hayat bilgisi ve matematik) kavramlarının erken yaşlarda öğrenilebilmesi, öğrencilerin zihinlerini çok yönlü şekilde kullanmalarına olanak sağlar. Hayat bilgisi dersi ilkokulda günlük hayata güncel şekilde adapte olmaya çalışan çocuklara yol gösterici niteliğinde önemli bir derstir. Dolayısıyla çocukların günlük hayatta kullandıkları birçok pratik bilgiyle beraber, bilişsel ve duyuşsal becerilerinin gelişmesine katkı sağlar (Özden, 2005). Bu yüzden bu derste işlenen kavramlar, çocukların bilgiyi günlük hayata transfer edebilmesinde ve 21. yüzyıl becerilerine uygun bireyler olarak yetişmesinde rol oynar. Matematik dersi de düşünme biçimini geliştirmeye yarayan en etkili disiplinlerden biridir. Yıldızlar'a (1999) göre, matematiksel düşünmeyi gerçekleştirebilen bir birey hayatta karşılaştığı problemlere farklı bir bakış açısıyla yaklaşabilir, bu problemleri zorlanmadan çözebilir. Hollandalı matematikçi Hans Freudenthal'in önderliğinde 1970'li yıllarda geliştirilen gerçekçi matematik eğitimi (Witmann, 2005) gibi günümüzde güncelliğini koruyabilmiş matematiksel kuramlar bu noktada önem taşır. Çünkü Çilingir'e (2015) göre gerçekçi matematik eğitimi kuramıyla öğrenciler, günlük hayatla ilişkisi olan problemleri, o soruyu çözmeye ihtiyaç hissettiği için çözebilir, problemi ilgi çekici bulabilir. "Bu bizim ne işimize yarayacak?" sorusunun yanıtını problemi çözerken gerçekçi matematik eğitimi kuramı sayesinde anlamlandırabilir. Freudenthal (1991) ise matematiğin gerçeklikle doğrudan ilişkili olmasını, insani değerler taşımasını ve toplumun yapısına uygun olmasını beklemektedir. Bu açıdan bakıldığında gerçekçi matematik eğitimi kuramının toplum ve insanın ihtiyaçlarını karşılayan hayat bilgisi dersiyle de ne kadar iç içe olabileceği görülmektedir. Bu yüzden matematik dersine özgü gibi görünen gerçekçi matematik eğitimi gibi kuramlar aslında hayat bilgisi dersinde de disiplinler arası ve koordinasyonel olarak işlenmeye müsaittir ve öğrenci açısından verimli bir öğrenme ortamı sağlayabilir. Bu yüzden çalışma, bu iki farklı alanın ilkokul ve ortaokulda bütüncül şekilde ele alınmasıyla beraber, üçüncü sınıf hayat bilgisi ders kitabında yer alan matematiksel kavramların (3.sınıftan sekizinci sınıfa kadar olan) matematik kazanımlarıyla ilişkisini belirlemesi yönüyle birçok çalışmaya doğrudan ya da dolaylı katkı sağlayabilir. Çalışmanın bu sebeple önem taşıdığı düşünülmektedir. Çalışmanın bir diğer önemi de literatür incelendiğinde hayat bilgisi ve matematik dersinin birlikte sentezlendiği çok fazla çalışmaya rastlanılamamış olmasından dolayıdır. Çalışma, bu yönüyle de alana katkı sağlayabilir.

Araştırmada nitel araştırma yöntemlerinden doküman analizi tekniği kullanılmıştır. 2021 yılında MEB tarafından kullanılan Pasifik Yayıncılık üçüncü sınıf Hayat bilgisi ders kitabı incelenmiştir. İnceleme sonucunda öncelikle alan uzmanları ve araştırmacının üzerinde uyum sağladığı matematik ile ilgili olan kavramlar belirlenmiştir. Kavramlar tespit edilirken, "hangi ünite içerisinde, hangi konu başlığında, sayfa numarası kaç, kullanım alanı nerede?" gibi sorular düşünülerek bu değişkenler Tablo 1 aracılığıyla

bütüncül şekilde ifade edilmeye çalışılmıştır. Veri analizinde alt amaçların niteliğine göre betimsel ve içerik analizi tekniklerinden yararlanılmıştır. 2021 yılında okullarda yürütülen üçüncü sınıf Hayat bilgisi ders kitabında yer alan matematiksel kavramların, hangi ünite ile konu içerisinde yer aldığı ve üçüncü sınıftan sekizinci sınıfa kadar olan sınıf düzeylerinde matematik öğretim programında yer alan kazanımlar açısından süreklilik gösterme durumu, betimsel analiz tekniği kullanılarak incelenmiştir.

2021 yılında okullarda yürütülen üçüncü sınıf Hayat bilgisi ders kitabında yer alan matematiksel kavramların neler olduğu, nasıl sınıflandığı ve üçüncü sınıftan sekizinci sınıfa kadar olan sınıf düzeylerinde matematik öğretim programında yer alan kazanımlar açısından nasıl inceleneceği alt amaçların analizinde ise içerik analizi tekniği kullanılmıştır. Yapılan içerik analizi sonucu elde edilen matematiksel kavramlar, kod başlıkları altında gruplanmıştır. Daha sonra kodların genel adını yansıtacak kategori (kullanım alanları) ve temalar (en genel başlıklar) elde edilmiştir. Çalışmada 4 tema belirlenmiştir. Bu temalar, "konum belirleme ve çizim", "veri analizi", "zaman hesaplamaları" ve "temel matematik bilgisi" şeklinde ifade edilmiştir. Bu temalara bağlı kategoriler ve kategorileri oluşturan ilişkili matematiksel kavramlar, ünite ve konu dağılımı açısından belirlenmiştir. Üçüncü sınıf hayat bilgisi ders kitabında bulunan matematiksel kavramların üçüncü ve sekizinci sınıf arasındaki matematik kazanımları ile ilgili olanları keşfedilmeye çalışılmıştır.

"Veri analizi" temasının en çok matematik kazanımı ile ilgisi olan tema olduğu ve sarmal şekilde tüm sınıf düzeylerinde matematik kazanımı olarak süreklilik gösterdiği görülmüştür. "Konum belirleme ve çizim" teması da dolaylı şekilde süreklilik gösterirken, "zaman hesaplamaları" ve "temel matematik bilgisi" temaları süreklilik göstermemektedir. Tüm üniteler içerisinde, ilgili ders kitabında matematik ile ilgili toplam 19 kavramının mevcut olduğu ve altıncı ünite hariç, her ünitede matematiksel kavram olduğu görülmektedir. Araştırmada hayat bilgisi ders kitabında belirlenen matematiksel kavramlar ve ilişkili matematiksel kazanımlar üst düzey düşünme becerileri açısından yorumlanmıştır.

Ethics Committee Approval: Since the method of this research does not include any human element, ethic committee approval has not been required.

Peer Review: Externally peer-reviewed.

Authors' Contribution: Concept – P.Ş.H.., D.Y.; Design – P.Ş.H., D.Y.; Data Collection and Processing – D.Y.; Analysis and Interpretation – P.Ş.H., D.Y; Literature, Review – P.Ş.H.; Writing – P.Ş.H., D.Y..; Critical Review – All authors.

Conflict of Interests: The authors have no conflict of interest to disclose.

Financial Disclosure: The authors declared that this study has received no financial support

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Effective Teaching Behaviours in a Village School

Veysel Bora*

Abstract This study aims to reveal effective teaching behaviours in a village school. The study group of this research consisted of one principal, one vice principal, two students attending this school and two parents who had students in this school. Data were collected using interviews and observation. In the present study, the effective teaching behaviours of an effective village teacher in their relationships with their colleagues, parents and students were revealed. The data were analysed using the content analysis technique. Measures were taken to increase validity and reliability in data collection, processing and analysis processes. Themes were formed from the data obtained from the participants. The views of an effective village teacher on classroom management, students' academic achievement, and the behaviours they exhibit in their relationships with parents and colleagues were revealed.

Keywords: Village teacher, effective teacher, teacher behaviours.

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Introduction

In societies where social inequality is transmitted between generations as a legacy, individuals belonging to disadvantaged groups cannot fully benefit from the right to education granted to them both internationally and by the laws of their own states. In today's modern societies, education plays a crucial role in determining the position of individuals. Therefore, quality education should be provided to all students in society as a fundamental human right. Quality education is a very important element in eliminating social inequalities. To say that there is equality of opportunity in education, the difference in academic achievement between students should only be due to their individual and natural abilities and predispositions. Unfortunately, studies have concluded that the difference in students' academic achievement is mainly due to the socioeconomic characteristics of the students, the differences in the region where they live and gender-based discrimination (Dinçer & Kolaşin, 2009; Kandemir & Kaya, 2010). Education policies should be formulated and implemented in a way to minimise socioeconomic characteristics, differences in the geographical region they live in and gender-based discrimination so that each individual can benefit equally from education. Effective teachers are one of the factors that can create equal opportunities for students in the education system. It is possible to ensure the students' success in all segments of society through qualified and effective teachers (Buchanan, 2012; Darling-Hammond, 2000; Mendro, 1998; Nye et al., 2004; Wright et al., 1997). This is especially important for disadvantaged students. Kawell (2008), as a result of his study on students with a high degree of poverty and low socio-economic level, stated that these students gained academic success thanks to effective teachers. From this perspective, teacher effectiveness is one of the factors affecting student achievement (Rushton et al., 2007; Seidel & Shavelson, 2007).

Therefore, it is crucial to define the qualities of effective teachers conceptually and determine the positive or negative variables affecting teacher effectiveness. There are various definitions of the concept depending on the variables used in the process of evaluating teacher effectiveness. The most important of these variables is student achievement. In this framework, teacher effectiveness is considered making an effort for student achievement (Liston et al., 2008) and teacher qualities that shape education at the classroom level to increase student achievement (Little et al., 2008; Creemers et al., 2013). On the other hand, teacher effectiveness is also defined as teacher competencies for organising effective teaching and learning environments in the context of Bandura's (1977) concept of self-efficacy (Muijs, 2006). Based on these definitions, teacher effectiveness can be defined as a set of activities carried out by teachers who have the ability to organise effective teaching and learning environments to increase student achievement. There is an important search in the literature on what the basic elements of effective teaching are. In this context, the concept of teacher effectiveness or effective teaching has attracted the attention of social scientists and important studies have been conducted on the subject in recent years (Stronge et al., 2011; Stronge, 2013). In such studies, in addition to student achievement-oriented

measurements, teacher effectiveness is tried to be measured through various methods such as student evaluations, principal evaluations, teacher self-evaluation reports and portfolios. When the studies on teacher effectiveness in Turkey are analysed, teacher effectiveness according to teacher perceptions, teacher effectiveness according to student perceptions, and studies in which teacher effectiveness is tried to be determined by classifying the findings obtained from effectiveness studies draw attention (Karakelle, 2005). However, to our knowledge, student, class and school-level variables related to teacher effectiveness have not been analysed, and studies on the level of effectiveness of these variables have not been conducted so far, which has been under-researched. This study aimed to reveal effective teaching behaviours in a village school. In the study, answers to the following questions were sought with the participation of school stakeholders.

Research Questions:

1- How is the classroom management of an effective village teacher?

2- What does an effective village teacher do for the academic development of students?

3- What are the personal characteristics of an effective village teacher?

4- What are the relations of an effective teacher with the environment?

5- What are the relations of an effective teacher with his/her colleagues?

Methodology

Research Model

This study, which aims to reveal effective teacher behaviours in a village school, was designed with a case study design, one of the qualitative research designs. In a case study, an event, phenomenon or case that occurred at a certain time and place is analysed comprehensively. The case in question is handled within its own limited system in the context of a certain time and place (Denzin & Lincoln, 1994). This case is then examined in depth through detailed analyses (Creswell, 2002). Yin (2011) argued that all case study research begins with the desire to understand and uncover a single case or a small number of cases closely or in depth. When a researcher wants to examine what really happened or how and why it happened about a case, he/she should prefer a case study design (Yin, 2006). This study aims to examine effective teaching behaviours in a village school.

Study Group

The study group of this research was determined by the purposive sampling method which is generally used in qualitative studies (Maxwell, 2005). In this study, one principal, one vice principal, two students attending this school and two parents of students in a village school that the researcher could easily reach participated. This village school, which had both a primary school and a secondary school, was opened for education and training in 2005. The school was located 25 kilometers from the district centre. The school had 52 primary school and 45 secondary school students. There is one branch from each grade level in the school. There are four classes, one kindergarten, one mathematics, one science, one religious culture and ethics, one Turkish, one English, one social studies, one physical education and one information technology teacher. There is also one principal and two vice principals. The school has nine classrooms, one computer lab, one science lab, one library, one teacher's room and a cafeteria for transported students. The population of the village where the school is located wasless than 1000. The people of the village made their living mostly by stockbreeding and chauffeuring. The socio-economic level of the village was low. There were no students whose parents were university graduates. Information about the participant school administrators is given in Table 1.

Table 1.

Data on School Administrators

Participants	Workplace	Seniority	Length of Service at this School	Gender
Principal (PR1)	Secondary School-Primary School	16	5	Male
Assistant Principal (PR2)	Secondary School	9	3	Male

As seen in Table 1, one principal and one vice principal participated in this study. The seniority of the school principal was higher than that of the vice principal. Information about the students is shown in Table 2.

Table 2.

Data related to Students

Participating Students	Class	Gender
Student 1 (S1)	7	Female
Student 2 (S2)	8	Male

One female student and one male student participated in this study. The female student was in the 7th grade and the male student was in the 8th grade. Information about the parents is given in Table 3.

Table 3.

Data related to Parents

Participating Parents	Age	Gender	Occupation
Parent 1 (P1)	32	Female	Housewife
Parent 2 (P2)	27	Female	Housewife

Both of the parents who participated in this study were women and housewives.

Data Collection

In this study, the effective teaching behaviours of teachers working in a village school were examined in detail. Interview and observation techniques were preferred as data sources. The data were collected in May and June of the 2021-2022 academic year. Accordingly, the fieldwork of this research lasted 1.5 months. In total, the school was visited four times. During these visits, observations were made in the classrooms, teachers' room and school corridor. With these observations, the boards in the classrooms and corridors were examined. The behaviour of students and teachers at school was also observed. Interviews were also conducted on the days of the fieldwork. Interviews were conducted in the principal's office, the deputy principal's office and the school library. Interviews with students and parents were conducted after the end of the school day. For the interviews, interview forms were prepared separately for each participant group. Firstly, a literature review was conducted to create the interview forms. A question pool was created based on the literature, and the questions in the pool were categorised according to the types of participants. After these interview forms were created, they were sent to two experts who conducted research on effective teaching in the field. As a result of the feedback given by the experts, necessary corrections were made and the interview forms were finalised. The date of the interview, the place of the interview, the duration of the interview and the part where the demographic information of the participant was asked were added to the interview forms by considering each participant group. In the interview, the participants were first asked demographic questions about themselves. In the interview form, questions about information, questions reflecting ideas and thoughts, questions revealing experiences and questions about emotions were asked.

Interviews were conducted face to face. Before the interviews, all details about this research were explained to the participant's parents and students, especially the school principal and vice principal. The interviews were conducted by being present at the places where the interviews would be held at the appointment times and the interviews lasted 20-30 minutes. Voice recordings were taken during the interviews with the

consenr of the participants. It was aimed to analyse the views of the participants in more depth by audio recording the interviews.

Ethical Approval

Before the research data were collected, ethical approval was obtained from the Kırıkkale University Social and Human Sciences Research Ethics Committee. In the research, interview forms were prepared, and data were collected by observation. On the main page of the form, the participants were informed about the purpose, scope and confidentiality of the data, and it was stated that participation was voluntary, and participation in this research was ensured in line with the consent of the willing participants.

Data Analyses

In this study, which aims to reveal the effective teacher behaviours exhibited by a village teacher, descriptive analysis using qualitative data analysis techniques was used. The data collected through observation and interviews was transcribed, and findings were given and interpreted by making direct quotations. Since generalisations cannot be made in qualitative research, it is necessary to explain and convey the situation clearly. In this research, direct quotations were presented in the text, in quotation marks, in italic font and without any changes. At the beginning of each direct quotation, explanatory abbreviations showing where and with whom the quotation was made were included.

Validity and Reliability

It is necessary to ensure the credibility, transferability, consistency and confirmability of qualitative research (Lincoln & Guba, 1985; Yin, 2003). To ensure the credibility of the research, the duration of the observation and the duration of the interview were kept long and the interaction time of the researcher with the situation was increased. The participant's confirmation was requested in the notes taken as a result of the observation and interview. For the participant to be comfortable during the interview, they were given detailed information about this study and no note was taken without the participant's confirmation.

The interview data were transferred to paper and the participant was allowed to read them. The participants were asked to express their opinions about the interview and to indicate if there was anything they wanted to add or remove. In this research, it was tried to ensure transferability by including detailed descriptions. All details about the situations and actions in this research were presented for the reader's information by making descriptions. This detailed description is also included in the method section of the study. How the participants were selected, how the data were collected, and the analysis phase were described in detail. In this study, independent researcher opinion was taken to ensure consistency. An expert who conducted research on the subject in the field was consulted. To obtain the expert's opinion on this research, firstly, a

telephone call was made and then this study was sent to him electronically. After receiving the expert opinion, the necessary arrangements were made, and consistency was ensured in this way. In the last stage, it was aimed to ensure the confirmability of this research by applying the expert opinion to the codes and themes created as a result of the analysis made with the collected data. It was concluded that the codes and themes formed by the researcher as a result of the analyses were appropriate.

Findings and Interpretation

The findings obtained from the interviews related to the questions determined in the present research are presented in this section.

In this research, firstly, the question "How is the classroom management of an effective village teacher?" was sought to be answered, and interviews were conducted. The findings showed that, an effective village teacher was careful about the students' compliance with the classroom rules, communicated well with the students, used materials in the lessons, used the technological devices in the classrooms well, and was sensitive about the class entry and exit times. On the other hand, it was determined that they gave appropriate reactions to the positive and negative behaviours exhibited by the students. The statements of the participant students regarding the classroom management of an effective village teacher are as follows:

(S1) Our teacher always asks how we and our families are before starting the lesson. He checks whether we have friends who do not come to class. He usually asks questions about the previous lesson to check whether we are prepared for the lesson. This is how he ensures that we repeat the topics we have covered in the lessons. He never allows us to talk without permission during the lesson. He always warns those who speak without permission.

(S2) We have smart boards in our classes. In some lessons, we only look at the lectures related to the subject we will cover and this is not interesting after a while. Some of our teachers prepare games for us about the subjects in the lessons in a digital environment. Thanks to these games, I think I learn better and what I have learnt is permanent.

(PR1) Sometimes, even if the bell rings in the corridor in front of the classrooms, the noise does not stop. The noise continues until the teacher on duty or the teacher of that lesson comes and warns them. The students of the noisy class go to their classes at the next hour when the bell rings without making any noise. Here, the students actually act according to the teacher of the lesson. In the classrooms where teachers establish order in the classrooms and maintain order, the students enter their classrooms as soon as the bell rings and wait for their teachers to be ready for the lesson because they know the teacher well.

When the answers to the question of what the behaviors of an effective teacher to increase the academic achievement of students were examined, the teacher came to the lessons in a planned manner, assigned homework regularly, followed up on the students' homework, used different resources, made evaluations about achievements, and cooperated with other teachers, parents, and school administration. It was stated that an effective teacher frequently invited students' parents to school, made evaluations with the school administration and other teachers when there was a decrease in students' interest in the lessons, and dealt with the students one-on-one. The participants' statements regarding the behaviors of an effective village teacher to increase students' academic achievement are as follows: (PR1) Effective teachers follow up with students very well. In meetings, they give detailed information about the students' situations and discuss what they can do. When they notice a student who has decreased interest in the lesson, if they cannot find a solution themselves, they ask for help from the school administration. We invite the parents to the school and have a meeting with the teacher. Together we think about how to solve the problem, and finally, we prepare a plan. Unfortunately, not every teacher shows the same sensitivity to the same student in the same class. This is also the case with absenteeism. Since our school is located in a village, sometimes we even go to the houses with our teacher and call the absent students. However, the number of students is not very high. Under the leadership of some of our teachers, we started a student coaching system in our school. We divided our students equally among all our teachers and held monthly meetings to make evaluations. But again, not all our teachers really do these things. Effective teachers always think about their students.

(PR2) Effective teachers are especially interested in students who are not economically well-off and who are diligent. They distribute the auxiliary resource books they collect from stationery shops and acquaintances to students. If they have difficulties in obtaining reference books, we also help them. This is not only the case with reference books. They also show the same sensitivity in adding books to the library. Schools were suddenly closed during the pandemic. If I am not mistaken, it was the second week when our teacher called and said that she had prepared worksheets for the students and wanted to come to the village to distribute them if possible. We took our teacher to the village and distributed those worksheets to the students one by one with our help.

When the views of the participant school administration were analysed, it was seen that effective village teachers played a very active role in increasing the academic achievement of students. Teachers showed close interest in increasing the academic success of students. In a situation such as the pandemic process, which affects all our lives, it was seen that effective teachers strived for the academic success of students. We can interpret this situation as an indication that the low number of students in the village school where this study was conducted was turned into an opportunity. The low number of students in the village school might create the opportunity to get to know all students better. On the other hand, the low socio-economic status of the environment where the school was located caused students not to participate in distance education,

especially during the pandemic process, and this situation led teachers to apply different methods for their students.

(P2) My son is a student in the 5th grade. Since the primary school teacher was the only one, we were always in contact. When I switched to secondary school, I could not see that interest in all teachers. Now, there is a teacher who is interested in my son and is in contact with us. She calls when my son is absent. At school, there is a paper on which we sign the weekly work of the students. If he does not fulfill the tasks given there or does them incompletely, that teacher contacts me. He called us to school every week for a while. Every week, he gave seminars on different topics related to students. For example, one week he talked about the importance of regular study. One week he talked about issues related to students' adolescence. One week he explained how students should study. In short, this teacher does everything to ensure our students do well in their lessons; she is very caring.

When we look at the views of the participant parents, they stated that effective teachers were in constant communication with them. Again, based on the opinions in the statements, we can say that an effective teacher creates a student coaching system for the academic success of the students. They followed the academic studies of the students during certain periods and made evaluations. Effective teachers gave seminars to the parents for the personal development of the students, and in these seminars, they told the parents what they should do to increase the students' academic success.

(S1) When you asked this question, only one teacher came to my mind. He is very interested in us. She is interested in everything, but she especially works hard to make sure that our lessons are good. She always talks about how she grew up in the village and that we should work hard and live our lives in better conditions. She is more like a big sister than a teacher. She checks the homework one by one, and if we haven't done it, she pulls us out and talks to us. She is in constant communication with our families. She calls them to school. He never spends his lessons idle. During the pandemic period, on a day when schools were open, our teacher had a lesson, but our teacher did not come to school because he was in contact. The vice principal came to the classroom from our teacher's class and opened the smart board and connected with our teacher using Zoom. We were in the classroom, and our teacher did all his lessons at home that week in this way.

When the views of the participant students were analysed, effective teachers were active in their lessons, used time efficiently in their lessons, were not absent from school, and found alternatives to avoid missing lessons even in cases of compulsory absenteeism. Effective teachers always followed up on the assignments they gave to students and checked the results. Effective teachers' controlling the assignments and giving feedback to students minimised learning losses.

When the findings related to the personal characteristics of effective teachers were examined, it was seen that the teacher exhibited patient, tolerant, compassionate, smiling, respectful, polite and understanding behaviours. It was stated by the participants that the teacher reacted patiently to the negative behaviours of the students and exhibits friendly behaviours towards fellow teachers, parents and students. Some findings regarding the personality traits of an effective village teacher are given below.

(PR1) There are students in our school whose economic situation is not good. She brings the clothes she collects from her neighbourhood to school and distributes them to the students. We have students with broken families. She takes care of them more closely and does everything she can to help them succeed. The teacher also takes a close interest in friends. She organises visits to those who have given birth, had a wedding or a funeral. He/she gives positive energy to his/her environment.

When we looked at the views of the participant school administrator, an effective village teacher was closely interested in students and colleagues, was friendly and had a positive effect on his/her environment. It was also stated in the interviews that he/she was helpful to students who were not in a good economic situation.

(P1) My daughter did not like to have breakfast in the morning and she used to take biscuits or bagels to school. One day the teacher called me from the school and invited me to the school. We talked in the library and she said that my daughter should definitely have breakfast. We called my daughter and talked to her, too. Since that day, my daughter has not gone to school without having breakfast.

When the findings of the research on the relations of an effective village teacher with his/her environment were examined, effective teachers had warm relations with parents and village people;they mostly contacted effective teachers first on school-related issues; they usually planned their free lessons to meet with parents; these meetings were usually at the school, but sometimes at the parents' homes. It was stated by the participants that students who had graduated before often came to the school and met with the teacher. It was also found that effective teachers had good relations with their colleagues. It was stated that they were in cooperation with their colleagues. Some of the participants' views on the relationship of an effective village teacher with his/her environment and colleagues are given below.

(PR2) Effective teachers' communication with parents is continuous and does not only stop with parent-teacher meetings. During free periods, you will either see a parent at school or he/she will ask permission to go to a parent's house. This communication is not only with parents; it also includes other people in the village. If there is a funeral, wedding, etc., he definitely visits. Sometimes, we ask for help from our teacher if there is a job to be done by the parents. Every year when spring comes, we offer treats to the students in the school garden. Last time, we offered pancakes to the students. Our teacher had arranged for volunteer female parents to make pancakes. The parents came to the school immediately after our teacher called them.

(PR1) Effective teachers are in constant cooperation with their colleagues. They take the lead in solving problems related to students at school together. If a teacher has a special situation and something needs to be done as a school, he/she is always at the forefront.

When the opinions of the participant school administrators were analysed, it was seen that effective village teachers helped the school administration, gave importance to parent meetings, and were sensitive to developments, such as weddings and funerals, in the village where they worked. This findings suggest that this situation positively affects their communication with parents and increases their effectiveness with students.

(P1) He talks to us all the time. Sometimes we come across him in the bazaar or something and we chat immediately. He is very friendly. If there is a funeral in the village, you can see him at condolence houses. It is as if he is like someone from the village.

(S2) Sometimes our graduates come to school. They immediately meet with that teacher. Our teacher still takes care of them. They also visit them at home and sometimes I see their photos.

When we look at the views of the participant students, the findings suggest that an effective village teacher has good relations with the students and continues to meet with the graduated students. That is why graduate students visit their teachers and maintain their bilateral relations.

Discussion and Conclusion

The first finding of this study is related to the interview results regarding the classroom management behaviours exhibited by an effective village teacher. Accordingly, the findings include that an effective classroom teacher ensures that students comply with classroom rules, communicates effectively in the classroom, uses technological devices in teaching activities in the classroom and uses materials in lessons. Similar findings are consistent with the previous studies in the literature (Bozkuş & Taştan, 2016; Bozkuş & Marulcu, 2016; Özkan & Aslantaş, 2013; Şişman, 2020, Toraman, 2019).

Another finding of this study includes the results regarding the behaviours of an effective village teacher to increase the academic achievement of his/her students. Accordingly, the findings show that an effective village teacher comes to his/her lessons in a planned manner, follows the students well, gives homework regularly, makes use of different resources, and is in constant cooperation with other teachers, school administration and parents for the academic success of the students. It is seen that statements similar to this finding are in parallel with some studies in the literature (Dilekman, 2008; Hanselman, 2014; Özkan & Arslantaş, 2013; Raufelder et al., 2016; Sosu et al., 2010). This study finding showed that it is important for teachers working in areas with low socio-economic status to exhibit effective teaching

behaviours to ensure equal opportunities in education. The teacher knows the importance of the family in the academic success of children, but considering that the families living in the village have low levels of education, the teacher makes more effort for the students.

Another study finding includes results related to the behaviours of an effective village teacher's personality traits. Accordingly, the findings indicate that an effective village teacher exhibits patient, tolerant, compassionate, friendly, respectful, polite and understanding behaviours. Statements similar to this finding produced in the research are in parallel with some studies in the literature (Gourneau, 2005; Işıktaş, 2015; Korthagen, 2004; Lupascu et al., 2014; Özkan & Aslantaş, 2013; Strong, 2011; Telli et al., 2008). Personality traits, which are the most important factor affecting people's whole lives, are also important for the teaching profession. In this direction, it is seen that the participants offer opinions about the moral dimension of the teaching profession and care about this situation. There are some personality traits expected from those who will choose or have chosen the teaching profession. In this study, being understanding, patient, cheerful and smiling is one of the personality traits expected from a qualified teacher. The responsibility of showing moral values to children, youth and society and being a role model requires teachers to pay attention to their behaviours.

Another study finding includes results related to the behaviours of an effective village teacher regarding his/her relationship with his/her environment and colleagues. According to the findings of the research, an effective village teacher is sincere with the parents of the students, is with the people of the village on the days, such as weddings, engagements and funerals, in the village, makes home visits, and makes parent-teacher meetings in his/her free time at school. In the village, especially with female parents, the relationship goes beyond the teacher-parent relationship and is more like a friend-mate relationship. This situation causes the teacher to be valued more by the parents and more effective on the students. It is seen that statements similar to this finding produced in the research are in parallel with some studies in the literature (Ceylan & Akar, 2010; Çayak & Yaşar- Ergi, 2015; Özkan & Aslantaş, 2013; Şahin & Şahin, 2017). This effect of the teacher on parents also plays a positive role in the school's relationship with the environment. For schools to be successful, it is necessary to ensure coordination with the environment and establish close relations with it. Teachers' communication with parents is very important in reflecting the communication with the environment of the school. Again, it shows that an effective village teacher has good relations with his/her colleagues and is friendly, understanding, and reliable in the eyes of his/her colleagues. It was concluded that he/she works in cooperation with his/her colleagues and attaches importance to cooperation. It is seen that statements similar to this finding produced in the research are in parallel with some studies in the literature (Bakioğlu, 1998; Nathanaili, 2016; Nias, 1998; Sünbül, 1996; Taşkaya, 2012; Kozikoğlu & Senemoğlu, 2018). It is important for teachers to be in cooperation to carry out education and training activities effectively in schools. An effective teacher may need to establish good

relationships with colleagues, take good examples from them and apply them to help students achieve the goals of education and training. They may also need to cooperate with their colleagues to solve the problems they experience with students and overcome these problems.

Based on the findings obtained in this research, some suggestions for further research and practices are below.

- Similar studies on the characteristics of effective teachers can be conducted in environments with higher socio-economic levels.

- Quantitative studies can be performed on the behaviours of effective teachers.

Conflict of Interest and Ethical Statement

Since this research has a single author, there is no conflict of interest. I declare that the ethics committee approval required for this research was obtained from the Kırıkkale University Social and Human Sciences Research Ethics Committee and that ethical rules were followed in all processes of this research.

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Genişletilmiş Türkçe Özet

Toplumsal eşitsizliğin miras olarak nesiller arasında aktarıldığı toplumlarda dezavantajlı gruplara mensup bireyler kendilerine hem uluslararası hem de kendi devletlerinin yasalarıyla verilmiş olan eğitim hakkından tam olarak fayda sağlayamamaktadırlar. Günümüz modern toplumlarda bireylerin konumlarını belirlemede eğitim önemli bir yer edinmektedir. Bu yüzden kaliteli eğitim temel bir insan hakkı olarak toplumda bütün öğrencilere sağlanmalıdır. Kaliteli eğitim toplumsal eşitsizliklerin giderilmesi için çok önemli bir unsurdur. Eğitimde fırsat eşitliğinin olduğunu söylemek için öğrenciler arasındaki akademik başarı farkının sadece bireysel ve doğal yetenek ve yatkınlıklarından kaynaklanması gerekmektedir. Toplumun her kesiminden gelen öğrencilerde başarıyı nitelikli ve etkili öğretmenler sayesinde sağlamak mümkündür. Öğretmen etkililiği, etkili öğretme ve öğrenme ortamlarını organize edebilmeye yönelik yeteneklere sahip öğretmenlerin öğrenci başarısını artırmaya dönük yaptıkları etkinlikler bütünüdür.

Bir köy okulunda etkili öğretmen davranışlarını ortaya çıkartmayı amaçlayan bu çalışma nitel araştırma desenlerinden durum çalışması deseniyle tasarlanmıştır. Araştırmada; etkili bir köy öğretmenin sınıf yönetimi nasıldır; etkili bir köy öğretmeni öğrencilerin akademik gelişimleri için neler yapmaktadır; etkili bir köy öğretmenin kişisel özellikleri nelerdir; etkili bir öğretmenin çevreyle olan ilişkileri nasıldır ve etkili bir öğretmenin meslektaşları ile ilişkileri nasıldır sorularına cevap aranmıştır. Bu araştırmanın çalışma grubu, genellikle nitel çalışmalarında kullanılan amaçlı örnekleme yöntemiyle belirlenmiştir (Maxwell, 2005). Bu araştırmanın çalışma grubunu araştırmacının kolay bir şekilde ulaşabileceği bir köy okulunda görev yapan 1 müdür, 1 müdür yardımcısı, bu okulda eğitim öğretime devam eden 2 öğrenci ve bu okulda öğrencisi bulunan 2 veli oluşturmaktadır. Çalışmada veriler yarı yapılandırılmış görüşme formuy ve gözle yoluyla toplanmıştır. Bu çalışma da nitel veri analiz tekniklerinden betimsel analiz kullanılmıştır. Gözlem ve görüşme yapılarak toplanan veriler yazıya dökülmüş, direk alıntılar yapılarak bulgular verilmiş ve yorumlanmıştır. Nitel araştırmada genelleme yapılamayacağı için durumun net bir biçimde açıklanması ve aktarılması sağlanmıştır. Araştırmada doğrudan alıntılar, metin içinde verilirken, tırnak içerisinde, italik yazı karakterinde ve üzerinde hiçbir değişiklik yapılmadan sunulmuştur.

Araştırma da etkili bir köy öğretmenin sınıf yönetimi ile ilgili veriler elde edilmiştir. Etkili bir köy öğretmeninin öğrencilerin sınıf kurallarına uyulması konusunda dikkatli olduğu; öğrencilerle iyi bir iletişim kurduğu, derslerde materyal kullandığı ve sınıflarda bulunan teknolojik aletleri iyi kullandığı ve ders giriş çıkış süreleri konusunda da hassas davrandıkları görülmüştür. Diğer yandan öğrencilerin sergilemiş olduğu olumlu ve olumsuz davranışlara uygun tepkiler verdiği tespit edilmiştir. Araştırma da etkili bir köy öğretmenin öğrencilerinin akademik başarısını arttırmaya yönelik davranışlarına ilişkin veriler elde edilmiştir. Bu verilerle elde ettiğimiz sonuçlara göre etkili bir köy öğretmenin öğrencilerin akademik başarısını arttırmak için derslerine planlı geldiği, öğrencileri iyi bir şekilde takip ettiği, düzenli olarak ödev verdiği, farklı kaynaklardan

yararlandığı, diğer öğretmenlerle, okul idaresiyle ve velilerle öğrencilerin akademik başarısı için sürekli iş birliği içerisinde olduğu görülmektedir. Araştırma da etkili bir köy öğretmeninin sabırlı, hoşgörülü, şefkatli, güleryüzlü, saygılı, kibar ve anlayışlı davranışlar sergileyen bir kişiliğe sahip oldukları sonucuna ulaşılmıştır. Etkili bir öğretmenin hem meslektaşlarıyla hem de velilerle iyi ilişkiler kurduğu görülmüştür. Özellikle öğrenci velileriyle samimi olmuşlar, ev ziyaretleri yapmışlar ve veli görüşmelerine yer vermişlerdir.

Araştırma bulgularına dayanarak sonraki araştırmalara ve uygulamalara yönelik aşağıda bazı önerilerde bulunulmuştur.

Etkili öğretmenlerin özelliklerine ilişkin sosyo-ekonomik düzeyi yüksek olan çevrelerde de bu çalışmaya benzer nitel çalışmalar yapılabilir.

Etkili öğretmenlerin davranışlarına ilişkin nicel çalışmalar yapılabilir.

Araştırma sonuçlarının daha genellenebilir olması için, araştırma daha geniş örneklem üzerinde gerçekleştirilebilir.

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Teaching Profession Law According to the Perspective of Union Representative Teachers

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Abstract: This study, which aims to analyze the Teaching Profession Law in terms of purpose, content, and innovations, according to the opinions of teachers, was designed according to the phenomenology pattern. The study was determined by the criterion sampling method. The working group consisted of six workplace representatives of the three education unions affiliated with the Ministry of National Education and three teachers. A semi-structured interview form consisting of open-ended questions developed by the researchers was used. The content analysis method was used in the analysis of the research data. According to the results, participants find the law insufficient for reasons such as limited content, insufficient improvement of personal rights, not determining the general competencies, teachers' lack of access to professional development programs, not approaching teaching holistically, and not meeting the needs and demands of teachers. Participants stated that the law did not meet expectations regarding the selection, training, and on-the-job training of teachers and that the teaching career steps did not provide teachers with the motivation to improve themselves. It has been concluded that the issues of "supervision and guidance system" and "professional ethics" are not included in the Teaching Profession Law, which is an important deficiency.

Keywords: Teaching profession law, career steps, professional status, professional development.

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Introduction

It is only possible with a qualified education that societies protect their cultural existence and transfer it to future generations, develop economically and make scientific development continuous. Qualified education is directly related to the qualifications of teachers, which is the most important component of the education system. In this respect, it is extremely important that teachers, who are entrusted to future generations and who shape the individual and society, have the equipment required by their age and a good status in society. Considering the aims and objectives that are thought to be achieved in education, ILO/UNESCO (2016) considers that the way to reach these goals and objectives is to provide the status and dignity that teachers deserve.

Teaching is a profession that is at the centre of both the learning process and the social, cultural, and economic development of children and young people (MacBeath, 2012). Teaching includes many features that characterize pedagogical content knowledge, problem-solving strategies, adapting to diversity, decision-making, perception of classroom events, sensitivity, and respect for students (Guerriero, 2014). Teachers prepare new generations to deal with the difficulties they may encounter in the future by developing them intellectually (Hargreaves, 2009).

According to the 1st article of the Secondary Education Teachers Law dated March 13, 1924, "Teaching is a profession that takes on the duty of education and training, one of the public services of the state, and is divided into separate classes and degrees." It was accepted as a profession for the first time in accordance with the provision (Akyüz, 2007). In the National Education Basic Law No. 1739, published in 1973, teaching is a special profession that takes over the education, training, and related management duties of the state. Defined as. The idea of improving the personal and financial rights of teachers by accepting the teaching profession as a career requiring expertise was tried to be implemented in 2004. In this context, with the amendment made in Article 43 of the National Education Basic Law No. 1739, "Teaching profession; after the candidacy period, it is divided into three career steps as teacher, specialist teacher and head teacher." Then, based on this article of the law, the Regulation on Advancement in the Teaching Career Steps was published in 2005, and within the scope of the regulation, an examination was held for the first time in the same year to select head teachers and specialist teachers.

The Ministry of National Education announced that it will design graduate-level professional development programs for teachers in cooperation with universities to support the professional development of teachers under the title of "Development and Management of Human Resources" in the 2023 Education Vision, and that they will be made available to teachers by structuring their career specialization areas. Again, in the 2023 Education Vision, it was stated that the Teaching Profession Law will be prepared that will reorganize the assignments, promotions, working conditions and personal rights of teachers (MEB, 2018). President Recep Tayyip Erdoğan, in his speech at the

20th National Education Council on the subject, announced that the Law on the Teaching Profession will be enacted as soon as possible, and teaching will be accepted as a career profession and that an increase in the wages of teachers will be provided (trthaber.com, 2021). A recommendation was made to enact the Profession Law (MEB, 2021). Minister of National Education Mahmut Özer also stated to the press that teaching would be defined as a career profession in the Teaching Profession Law; those rights, duties and responsibilities would be clarified; and that teachers would be encouraged to pursue graduate education (trthaber.com, 2021). Shortly after these explanations, the Teaching Profession Law was published in the Official Gazette with the law number 7354 dated 03/02/2022 and entered into force.

When the Teaching Profession Law (MEB, 2022) is examined, the purpose of the law is "to regulate the assignment and professional development of teachers in charge of carrying out education and training services, and their advancement in career steps." Therefore, it can be said that the law aims to make arrangements in three main areas: teachers' assignments, professional development and career advancement. In the law, teaching is defined as a specialization profession, and it is seen that the teaching profession is divided into three career steps as teacher, specialist teacher and head teacher after candidate teaching: specialist teacher if they get at least 70 points from the exam. Those who have at least ten years of service as a specialist teacher can become a head teacher if they complete the 240-hour head teacher training program and get at least 70 points in the written exam. According to the relevant article, teachers who have completed their master's education will be exempted from the specialist teacher exam, and those who have completed their doctorate education will be exempted from the head teacher exam. In addition, there is a provision that teachers will be given a separate degree for specialist teaching and head teacher.

It can be said that the content of the Teaching Profession Law is largely similar to the Regulation on Promotion in Teaching Career Levels, which entered into force in 2005, and that both regulations generally regulate the promotion of teachers in career steps. In this context, the expert teacher exam, which was held for the first time in 2005, has brought with it ongoing debates in the education community. As stated by Eğitim-Bir-Sen (2010) as a result of lawsuits filed by both teachers and teachers' unions due to various reasons, the practice is the basis of the regulation with the decision of the Constitutional Court dated May 21, 2008, main number 2004/83 and numbered 2008/107. Some paragraphs of the law have been canceled (EBS, 2010). After the annulment decision of the Constitutional Court, discussions on the subject continued both in academic circles and on various platforms through educational organizations, but no arrangements were made for a solution. After the expert teacher exam held in 2006, thousands of teachers lost their rights because the regulation was not applied, the exam was not held again and the teachers who completed their postgraduate education were not given the title of expert teacher or head teacher. In addition, it can be said that nearly 100,000 teachers who have passed the expert teacher exam for

years have been paid additionally and that other teachers cannot benefit from this right, which damages the sense of justice and equality among teachers.

A lot of research has been done on the subject in the literature; Dağlı (2007), in his study in which he examined the views of primary school teachers on the system of promotion in the teaching career step, found that teachers adopted the system of promotion in the career step at a moderate level. Urfalı (2008), in his research on the promotion of teachers in the career step, revealed that while teachers look positively on seniority and other activities, they do not view exams positively. Gündoğdu and Kızıltaş (2008), on the other hand, in their study with expert teachers on the career step system and examination, stated that teachers are satisfied with the implementation of the career system, but they think that the system should be brought to more objective criteria. Özan and Kaya (2009), in their study examining the views of teachers and administrators on the system of self-renewal and career advancement, determined that they thought that the system would not positively affect the quality of education and teachers. Şirin, Erdoğdu, and Mülazımoğlu (2010) found that physical education teachers did not view the career system positively in their study, in which they examined the views of physical education teachers on promotion in the teaching career step. Demir (2011), in his research evaluating the teaching career steps, revealed that although the practice was prepared based on fairness and merit, it did not achieve its purpose due to the lack of continuity. Bakioğlu and Banoğlu (2013) examined teachers' views on the career step system through metaphors, and it was concluded that the practice was unplanned and unstable. Kaplan and Gülcan (2020) concluded that the system will contribute to the professional development and motivation of teachers in the study of examining the views on the creation of teacher career steps. The results of the research show that, apart from very few studies, teachers generally think that the career step system and examination within the system will not contribute positively to the teaching profession. As can be seen, the Regulation on Advancement in the Teaching Career Levels, which defines teaching as a career profession and provides for the professional development of teachers, while doing this, foreseeing an increase in teachers' salaries, could not meet the expectations.

In the Teaching Profession Law, it is seen that the 6th article, which regulates the teaching career steps in general, comes to the fore and many other important issues are not mentioned. However, when the international literature on the subject is examined, the legal texts related to the teaching profession in many countries are related to the selection, training, salaries, promotions and assignments of teachers, career advancement, professional development, duties and responsibilities, selection of managers and supervisors, additional payments, social rights, retirement, teacher It is understood that it covers many issues such as autonomy, reward, discipline and professional ethics (Voisin & Dumay, 2020; Matnuh, 2018). In addition, when the law on Judges and Prosecutors No. 2802 and the Turkish Armed Forces Personnel Law No. 926 are examined in Turkey, it is seen that the said laws deal with almost every issue related to the profession, starting from the selection and training of the members of the profession and their employment, until their retirement. In this context, the Law is related

to the teaching profession, such as the qualifications and selection of teachers, contracted and paid teaching, encouragement of teachers working in compulsory service regions, manager assignment system, rewarding, examination and investigation, supervision and guidance system, and professional ethics. It can be said that it does not meet expectations in terms of restructuring the teaching profession by considering many subjects with a different understanding.

Although the teaching profession is defined as a profession and a career profession in the relevant legislation, it can be stated that the teaching profession has not achieved the status it deserves and the desired standards in Turkey. In this respect, it is a matter of curiosity whether the Law on the Teaching Profession will contribute to both the social status of the teaching profession and the professional development of teachers. In this context, the research aims to evaluate the Teaching Profession Law in terms of its purpose, content and innovations. The sub-objectives of the research are the purpose of the Teaching Profession Law, the selection, training and on-the-job training of teachers, the career steps of teaching, the status of the teaching profession and the contracted and paid teaching system that is not included in the law, the encouragement of teachers working in compulsory service regions, the administrator assignment system, rewarding, examination and investigation, supervision and guidance system and teaching profession ethics. On the other hand, it is thought that the research will contribute to the field since there is no previous study on the Teaching Profession Law in the literature.

Method

Research Model

This study, which aims to analyze the Teaching Profession Law in terms of purpose, content, and innovations it tries to realize, according to the opinions of teachers, was designed according to the phenomenology pattern, which is one of the qualitative research methods. Phenomenology studies are the inquiry strategy that the researcher applies to reveal human experiences about a phenomenon defined by the participants (Creswell, 2007). In this respect, phenomenology is defined as a research method that borrows the experiences of individuals to describe and interpret their experiences (Miller, 2003).

Since all kinds of changes in the teaching profession in Turkey, where there are more than one million teachers and therefore approximately 18 million students, the subject has emerged as a phenomenon that needs to be examined in depth due to its nature and the phenomenology design has been used in this study.

Sample Group of the Research

In phenomenological studies aiming to investigate the subject in depth, the number of participants should be limited to between 6 and 12 people (Silverman, 2009). Rather

than working with large groups in qualitative studies, working with the sample that can obtain the most and qualified data for the purposes of the research will make the research more realistic (Coyne, 1997). The study group of the research was determined by the criterion sampling method, one of the purposive sampling methods. In the purposeful sampling method, the researcher determines the units to be included in the sampling with his judgment based on the purpose of the research and his previous knowledge, experience and observations. Since the researcher acts with his judgments and evaluations, he should have an idea about it. (Ural & Kılıç, 2011: 45). Criterion sampling, on the other hand, is the selection of all situations that meet certain criteria predetermined by the researcher (Patton, 2014). The participants of the study were determined according to the criteria list created by the researcher. In this context, the study group of the research was composed of 6 teachers who work in schools affiliated with the Ministry of National Education and who are the representatives of the three education unions that have the highest number of members in Turkey, and 3 teachers who are representatives of the district. The formation of the working group was based on volunteerism. The group was formed from representatives who were willing to answer questions and could spare enough time for interviews. In the study, the names of the teachers who participated in the research were coded as "P1, P2, P3... as Participant", in the findings section, paying attention to the principle of confidentiality.

Data Collection Tool

In the research, the purpose of the Teaching Profession Law is the selection, training and on-the-job training of teachers, teaching career steps, the status of the teaching profession and the contracted and paid teaching system that is not included in the law, encouraging teachers working in compulsory service regions, the manager assignment system, rewarding, A semi-structured interview form consisting of open-ended questions was used to determine teachers' views on subjects such as examination and investigation, supervision and guidance system, and teaching professional ethics. In the interview, it is aimed at systematically revealing the feelings and thoughts of the people through the questions prepared by the researcher. During the interview process, the researcher tries to make sense of and define the subjective feelings and thoughts of the target person by asking questions. (Kvale 1996). Interviewing is a method of collecting data using the participants' statements. In the interview, the researcher is not expected to get answers to the questions he asks or to test his hypotheses, but to try to understand and make sense of the experiences of the people. The researcher can thus develop an understanding of how the participants make sense of and interpret their inner world (Seidman, 2006). Although he asks the questions that he has planned and prepared in advance, he can ask different questions to the people in line with the flow of the interview and enable them to detail their answers (Bogdan & Biklen, 2007).

Draft questions, aligned with the research purpose, were presented to the opinions of an academician who is an expert in research methods and another academician who is an expert in the field of educational sciences. Afterwards, the prepared questions were

directed to two teachers who were not among the participants of the research, and a pilot application was made. The interview form was finalized with the feedback obtained from the pilot application. Research data were collected between April 15 and May 15, 2022. The participants were asked whether they would participate in the interview by presenting a directive explaining the purpose of the research, the confidentiality protocol, and the conditions of participation. The questions in the interview form were asked of the teachers who wanted to participate. The interview with each participant lasted approximately 30-35 minutes. To prevent data loss during the interviews, a voice recorder was used with the consent of the participants. After the interviews were over, the transcripts were presented to the participants and their approval was obtained that the statements belonged to them.

Analysis of Data

All the interviews with the participants during the research were recorded with a voice recorder. In this context, the 270-minute audio recording was deciphered and transferred to the computer in raw form. The transcript of the obtained data was read by the researcher and the interviews were written word for word (Merriam, 2009).

The content analysis method was used in the analysis of the research data. Qualitative content analysis consists of a series of techniques that require the systematic analysis of the data obtained (Mayring, 2004) and provide the opportunity to identify previously undetermined themes and different dimensions of the research (Çepni, 2001). In this context, first, the data obtained from the research was coded; the codes expressing similar concepts were brought together to form categories and themes were determined in this direction. Finally, the determined codes and themes were arranged and analyzed by going through the stages of defining and interpreting the findings. In addition, direct quotations were included in the study, and the findings obtained because of the content analysis were strengthened.

Validity and Reliability

In qualitative research, it is emphasized that the concept of plausibility should be used rather than the concepts of validity and reliability. Persuasiveness is expressed in four main categories: transferability, reliability, credibility, and confirmability (Guba & Lincoln, 1982; Houser, 2015). To ensure the credibility of the research, the participants were given the opportunity to refuse the interview, and interviews were conducted with the participants who were willing and only wanted to contribute to the research. To ensure the transferability of the research, detailed information was given about all stages of the study, such as the location of the study, the number and qualifications of the participants, data collection methods and duration, and data analysis methods. To avoid mistakes that could endanger the dependability of the study, a faculty member specializing in qualitative research methods was asked to evaluate the research in all its aspects. Confirmability in the study was ensured by comparing the data study after being analyzed separately by two researchers.

Results

In this section, the data obtained from the teachers regarding the Teaching Profession Law, which was accepted in the Parliament with law number 7354 and dated 03.02.2022, is structured under 8 themes, 22 categories and 189 codes.

The theme of opinions about what the teaching profession means for the participants is presented in Table 1, structured in four categories "society", "individual", "work/profession" and "the sacred one":

Table 1.
What Does the Teaching Profession Mean?

Category	Code
Society	Shaping society
	Ensuring the healthy continuation of social life
	The only profession that raises future generations
Individual	Giving personality to individuals
	Affecting life positively or negatively
Job/Profession	Career profession
	Occupation carried out by mutual agreement with the state
	Occupation for the maintenance of life
	A profession in which education and training services are performed
	Childhood dream
The Sacred One	Sacred profession
	A way of life that cannot be reduced to time and space
	A process from the cradle to the grave
	Respect, compassion, love, responsibility

In the theme of opinions about what the teaching profession means for the participants, the category of "sacred (f: 6)" comes to the fore, as do the categories of "society" and "work/profession".

According to the findings of the study, it is seen that the participants attribute sacredness to the teaching profession. While some of the participants expressed their thoughts as "Sacred profession", "A way of life that cannot be reduced to time and space", P3 considers the teaching profession as "*a profession where feelings of dignity, compassion, love and responsibility come to life*." In the "Society" category, the participants evaluated the teaching profession in terms of its effects on society. Participants expressed this as "Shaping the society" and "Ensuring the healthy continuation of social life". P6 defines the teaching profession as *"the only profession that raises future generations."* Participants also consider teaching a "job/profession".

The theme of the purpose of the Teaching Profession Law and teachers' views on whether this objective has been achieved is structured in three categories: "purpose of the law", "partially achieved" and "not achieved" and is presented in Table 2:

Table 2.

Purpose Of the Teaching Profession Law

Category	Code
Purpose of the Law	Regulating the teaching profession
	Organizing the career step
	Editing content related to their professional development
	To improve the personal rights and working conditions of teachers
	It is trying to get rid of the grievance caused years ago.
	A limited and inadequate response to teachers' demands
	It is the message of keeping the promise of the political authority
Partially Achieved Its Purpose	The desired goal was achieved in terms of career and merit.
Didn't Achieve Its Purpose	It has not achieved its purpose in terms of personal rights.
	It did not reach its purpose as it has very limited content.
	Since the general competencies of the profession have not been determined, it has not reached its goal.
	Because teachers are not given access to professional development programs suitable for them.
	Because he does not have authority in every subject in the education process.
	As general competencies in professional development are not determined.
	Because it does not handle the profession holistically.
	Because teachers' opinions are not taken enough.
	Creating a perception in the public that teachers are overpaid
	The enacted law did not satisfy anyone.
	It lacks in meeting the needs and demands of teachers.
	Incomplete and inadequate, far from embracingteachers.

In the theme of the purpose of the Teaching Profession Law and the teachers' opinions on whether this purpose has been achieved, first, the opinions on what the "purpose of the law" were compiled, then it was examined whether the purpose of the law was achieved or not, and it was seen that the category of "not achieved" came to the forefront.

According to the opinions of the teachers, the purpose of the Teaching Profession Law is expressed as "To regulate the teaching profession", "To regulate the career step" and "A limited and inadequate response to the demands of teachers", while P7 on the subject is evaluated as "*To try to eliminate the victimization caused by taking an exam once years ago and not doing it later.*"The participants expressed these ideas as follows: "It has not achieved its purpose because it has very limited content", "It has not achieved its purpose because the general competencies of the profession have not been determined", "It has not achieved its purpose because it does not consider and regulate the profession holistically" and "It is incapable of meeting the needs and demands of teachers", P8: "It is an incomplete and inadequate law, far from embracing teachers."

The theme of teachers' views on whether the issues related to the selection of teachers meet expectations as they are addressed in the Teaching Profession Law is structured under the category of "did not meet expectations" and presented in Table 3:

Table 3.
Selection of Teachers

Category	Code
Did Not Meet Expectations	Since the selection criteria are not determined.
	Just because it was left in the air on the condition of the written exam.
	As it does not measure professional competence and field skills.
	Because the pre-service internship process is insufficient.
	Because the process of entering the profession is not described.
	Because a modern and process-oriented system has not been established.
	Since the criteria for the selection of teachers were not determined.
	Because it can negatively affect candidate teachers with interview and evaluation anxiety.
	As there is no objective evaluation system.
	Because it's an interview.

It is seen that only the category of "did not meet expectations" is formed in the theme of teachers' opinions on whether the issues related to the selection of teachers meet expectations with the way they are handled in the Teaching Profession Law.

According to the findings of the research, all the participants think that the issues related to the selection of teachers in the Teaching Profession Law do not meet the expectations. Teachers state that the law does not meet the expectations for reasons such as "Selection criteria are not determined", "Since it does not measure professional competence and field skills" and "Because the process of entering the profession is not described". In addition, P4 says *"It does not meet the expectations because a modern and process-oriented system has not been established."* The issues related to teacher training and on-the-job training are presented in Table 4, structured in two categories as "partially" and "did not meet the expectations", with the theme of teacher opinions on whether it meets the expectations as it is handled in the Teaching Profession Law:

Table 4.
Training Of Teachers and On-the-job Training

Category	Code
Partially Met Expectations	Giving seminars and courses to teachers is positive.
Did Not Meet Expectations	As it does not support continuing professional development.
	It does not include teacher training and on-the-job training.
	Because it does not give the teacher an independent view.
	This issue has not been addressed.
	There is no element that will motivate the teacher to grow up.
	As the relevant topics are covered superficially.
	Because it was not made according to the requirements of the field.
	The law does not innovate in this regard.

| | Trainings are daunting, tiring and challenging for teachers. Because those concerned can improve themselves and do not appeal to the public. |

On the theme of teachers' views on whether the issues related to the training and on-the-job training of teachers meet the expectations as they are addressed in the Teaching Profession Law, the participants generally agree that "they have not met the expectations". On the other hand, few respondents think that they have "partially met".

The participants express this as "Since it does not support continuous professional development", "It does not include teacher training and on-the-job training" and "There is no element that can mobilize the teacher for training". Another participant, P6, talked about teacher training and on-the-job training: "*The trainings do not meet expectations because they are daunting, tedious and challenging for teachers.*"

The theme of teachers' opinions on the level of motivation of teachers for self-development by the teaching career steps (item 6) is presented in Table 5, structured in two categories as "provides motivation" and "does not provide motivation":

Table 5.
The Level of Motivation of Teachers For Self-development By Teaching Career Steps

Category	Code
Provides Motivation	It is a positive development that they develop/train themselves for a longer period with master's and doctorate degrees.
Does Not Provide Motivation	The exam is not a motivational tool. It does not consider the experience and development of the teacher. Since the process is long and tiring, it does not provide motivation. Because it does not allow teachers to career planning. It is not in a way that reflects professional development and success. Because the career steps are not built-in relation to duties and authorities in the education system Labor peace will be damaged. Because teachers are evaluated in terms of form rather than efficiency. Motivation may be adversely affected as it will be driven by economic concerns. Missing the exam lowers motivation. The wage difference will not provide motivation. Because it will cause discrimination among teachers. The professional motivation for the exam-oriented teacher decreases. It does not contribute to improving the quality of education and the competence of the teacher. Waiting 20 years for a doctorate teacher to become a head teacher negatively affects motivation.

It is seen that the category of "does not provide motivation" comes to the fore in the theme of teachers' opinions on the level of motivation for teachers to improve themselves and it reflects the general opinion.

According to the research findings, the participants think that the career step system, especially the career step process, exam, and professional development, will not provide teachers with self-development motivation. Teachers mostly state that "Exam is not a motivational tool", "Work peace will be damaged", "itdoes not take into account the experience and development of the teacher" and "It is not in a way that reflects professional development and success". On the other hand, P8 on the subject says, "*It does not contribute to the quality of education and the competence of the teacher.*" and *"Waiting 20 years for a doctorate teacher to become a head teacher negatively affects motivation"* expressed as an opinion.

The theme of teachers' opinions on the effects of the Teaching Profession Law on the status of the teaching profession is structured in two categories "no effect" and "positive effects" and presented in Table 6:

Table 6.
Effects Of the Teaching Profession Law on The Status of The Teaching Profession

Category	Code
Positive Effects	If the wage increases, the status is positively affected.
	It will have an impact on teachers.
No Effect	It will not have any effect because it does not bring innovation.
	As there is no structural idea in the law, there will be no change in status
	Because a similar app already exists.
	Because it is nothing more than a material difference.
	Disrespect of the teacher, lack of regulations to prevent verbal and physical violence.
.	It does not affect as teacher wages are already low.
	The adjectives that come before the title of "teachers" do not affect on the status of the profession.
	Because it will cause discrimination among teachers.
	Because the expected times to obtain titles are very high.
	The difference in wages does not affect the status.
	It has no effect because it's about the value on education.

In the theme of teachers' opinions on the effects of the Teaching Profession Law on the status of the teaching profession, it has been determined that the views of the participants as "it has no effect" come to the fore. Some participants expressed their opinions as "positive effects".

Teachers argue that the proposed law will not impact the status of the teaching profession, as they believe it lacks substantial innovation and fails to address teachers' real problems. Participants expressed concerns such as "discrediting teachers" and "lack of regulations to prevent verbal and physical violence." One participant (P4) stated, "There will be no change in the status because there is no structural idea in the law," while another (P8) mentioned, "The difference in wages does not affect the status." Conversely, those who anticipate a positive impact on the teaching profession assert, "If the salary increases, the status will be positively affected"."Contracted and paid teaching

system", "teachers working in compulsory service regions", administrator assignment system", "rewarding, examination and investigation system", "supervision and guidance system" and "professional ethics" which are not included in the Teaching Profession Law The theme of teachers' opinions on the subject is structured into six categories and presented in Table 7:

Table 7.
Teachers' views on Subjects Not Included in The Teaching Profession Law

Category	Code
Contract and paid teaching	It show that the professional code is not a problem solver. It is one of the shortcomings of the law. This should be included in the law and the rights of all teachers should be equal.
Teachers working in compulsory service areas	It is a shortcoming, to encourage teachers to stay there, it is necessary to support them economically and to improve their conditions. It is not a subject that needs to be included in the law.
Administrator assignment system	The lack of new merit-based regulation is a shortcoming of the law. The law should provide permanent solutions to fundamental problems. No arrangement has been made "especially" so that the government and the supporter union can appoint the person they want to the place they want, regardless of any merit. The subject has been ignored. It may not have been included because it provides the flexibility of the political authority to act in the direction it wants in this area.
Award, review and investigation system	The lack of a fair and rewarding award based in concrete investigation system criteria and the subject of investigation is a shortcoming. Failure to address these issues indicates the immaturity of the law. No regulation was made for political reasons. The law is far from responding to needs, demands and deficiencies.
Supervision and guidance	It is a deficiency that developer, supportive and remedial supervision and guidance are not included in the law. For the education process to continue in a healthy way and to bring about change, it must be in the law. It is a deficiency; it can be regulated by regulation. It shows the immaturity of the law. It is proof that the law is not inclusive, incomplete, insufficient and will not be permanent.
Professional Ethics	It does not have to be in the professional law. It will be arranged over time. Professional ethics should have been enshrined in the law.

	There should be ethical principles binding teachers in the law.
	It can be regulated by regulation.
	It shows the immaturity of the law.
	Occupational law has deficiencies in many titles.
	It shows that it was prepared hastily and is not inclusive.

"Contracted and paid teaching system", "teachers working in compulsory service regions", administrator assignment system", "rewarding, examination and investigation system", "supervision and guidance system" and "professional ethics" which are not included in the Teaching Profession Law When the opinions of the teachers on the subject are examined, it is seen that almost all of the participants emphasized that the law was insufficient in terms of the subjects expressed.

While the participants expressed that a regulation should be made in the law regarding the "contracted and paid teaching system", "It is one of the missing parts of the law", "This should be included in the law and the rights of all teachers should be equalized". Regarding the teachers working in the compulsory service regions, the participants stated that "it is necessary to support the teachers economically and to improve their conditions in order to encourage them to stay there." P2 said, *"It is not an issue that needs to be included in the law".* The teachers stated that the absence of the administrator assignment system in the law is a deficiency in terms of the law.

Regarding this issue, "The absence of a fair reward and examination-investigation subjects based on concrete criteria is a deficiency." While using the expression P6, *"No particular arrangement has been made for political reasons."* While emphasizing with the statements P7, "It shows the inefficiency of the law." According to the participants, another subject that should be included in the law is "professional ethics".

In this context, teachers emphasized the deficiency in the law with the statements "The law should have binding ethical principles", *"It shows that it was prepared hastily, it is not inclusive",* while P7 expressed it as "*It shows that the law is not efficient*".

The theme of suggestions for the improvement of the Teaching Profession Law is "Teacher Employment", "Professional Development", "Career Steps", "Manager Assignment", "Personnel Rights", "Rewarding, Examining, Investigation" and "Professional Ethics". It is structured into seven categories and presented in Table 8:

Table 8.
Suggestions For Improving the Law on The Teaching Profession

Category	Code
Teacher Employment	Contracted and paid teaching should be abolished.
	Teachers working in compulsory service areas should be encouraged.
	Teacher assignment, transfer and employment model should be included.
	Teacher training should be reconsidered in the law.
	Teacher qualifications should be determined.

Professional development	They should be allowed to pursue master's and doctoral studies. Professional development should be considered holistically. Starting from the university, a mechanism should be established to follow the entrance to the profession and their development in the profession. Giving the teachers who receive service training the chance to progress in the profession There should be a developer, supportive and remedial control and guidance system.
Career Steeps	Career steps are based on working hours, not exams. The time limit for teachers with master's and doctorate degrees should be reviewed. Candidate teachers should be removed from the interview. There should be no nomination commission.
Administrator assignment	There should be a merit-based manager assignment system. The opinions of school personnel should be sought in the assignment of administrators Legal and administrative arrangement should be made to prevent violence against teachers. The monthly course to be entered must be 15 hours. Education-Training allowance must be at least one salary. Teachers should be provided with a rental housing contribution.
Personal Rights	Legal and administrative arrangements should be made to prevent violenceagainst teachers. The monthly course to be entered must be 15 hours. Education-Training allowance must be at least one salary. Teachers should be provided with a rental-housing contribution. Pension compensation should be equal to the cost of a new 100 square meter flat in metropolitan cities The monthly course to be entered must be 15 hours. Education-Training allowance must be at least one salary. Sanctions should be applied to those who unnecessarily complain about the teacher. The basic rights and duties of the teacher should be specified in the law.
Award, review and investigation	Rewarding system based on fair, transparent and concrete criteria.
Professional Ethics	Professional ethics principles should be specified in the law.

It is seen that the categories of "teacher employment", "personal rights" and "professional development" come to the fore in the theme of suggestions for the improvement of the Teaching Profession Law, and the views of the participants are mostly concentrated in these areas.

According to the study findings, "teacher employment" emerged as the primary focus for the participants. Teachers emphasize that numerous issues related to teacher employment, particularly those concerning contracted and paid teaching, as well as teachers in compulsory service areas, should be addressed in the law. Statements such as "Contract and paid teaching should be abolished," "Teachers working in compulsory service areas should be encouraged," "Teacher training should be reconsidered in the

law," and the opinion of participant P6, "Teacher qualifications should be determined," highlight their perspective on the matter. One of the issues that the participants emphasized on was "personal rights (f:14)". The views of "Legal and administrative regulations should be made to prevent violence against teachers" and "Sanctions should be applied to unnecessarily complaining teachers" come to the fore. Participants also said, *"Teachers should be provided with a rental-housing contribution* (P6)", *"The fundamental rights and duties of the teacher should be specified in the law* (P7)." Another suggestion of teachers is about "professional development". Teachers demand the development of postgraduate education opportunities, the effective execution of teachers' vocational training, guidance and supervision activities. They express their suggestions with the following statements: "It should be possible for them to do master's and doctorate degrees", "A mechanism should be established starting from the university, following the entrance to the profession and their development in the profession" and "There should be a developmental, supportive and remedial control and guidance system". P3 is *"Professional development should be considered holistically,"* emphasizing his view.

Teachers also put forward suggestions such as "career steps" arrangements should be "based on working time, not exams", "Time limits for teachers with master's and doctorate degrees should be reviewed" and "interviews should be abolished for candidate teachers", while P7 says "*There should not be a nomination commission*". However, the law states that a merit-based "administrator assignment" system should be included, and P1 states, "*School staff should be consulted for administrator assignments.*" In addition, while the participants emphasized that the "rewarding system based on fair, transparent and concrete criteria", the examination and investigation system and the principles of professional ethics should be included in the law, P9 *"Professional ethics principles should be specified in the law."*

Discussion, Conclusion and Recommendations

The research aims to evaluate the Teaching Profession Law in terms of the purpose, selection, training and on-the-job training of teachers, the career steps of teaching, the status of the teaching profession and the innovations it tries to realize.

Although the Teaching Profession Law is a first in our education history, it is significantly similar in content to the Regulation on Advancement in Teaching Career Steps, which came into force in 2005. In this respect, the results of academic studies on the regulation in question are frequently included in the research. In this context, regarding the meaning of the teaching profession for the participants, it is seen that most of the teachers attribute sacredness to the teaching profession and describe the teaching profession as a respected profession that builds the society of the future.

These findings obtained from the research show that teachers generally have a positive perspective on the profession. In parallel with the findings of the research, Kolesnik (1970) emphasized that the teacher has an extremely important role in social development, directing the future of society, apart from being the leader in the classroom, providing discipline and increasing the student's desire to learn. Özden (1999) also stated that teachers, who are the architects of the future, are the foundation of the education system, and that teachers play the most important role in the development of society and transferring its cultural values to future generations.

Yurdakul, Gür, Çelik, Kurt, and Olçum (2016) stated that most teachers see the teaching profession as a respectable profession in society, but there has been a decrease in the rate of participation in the idea that teaching is a respectable profession in recent years. Contrary to these views, Keskin and Yüceer (2017) concluded in their study that people belonging to the teaching profession trivialize the profession, in parallel with this, society does not care enough about the teaching profession and the teaching profession is discredited in various ways. According to the research findings, teachers; believe that the Teaching Profession Law was enacted to regulate career steps, support the development of the teaching profession, and improve personal rights. However, all of the participants complied with the Law; it considers that it has not achieved its purpose due to reasons such as its limited content, insufficient improvement of personal rights, failure to determine the general competencies of the profession, lack of access to professional development programs suitable for teachers, lack of access to professional development programs suitable for teachers, failure to address the teaching profession holistically, failure to meet the needs and demands of teachers and insufficient teachers' opinions during the arrangement phase. Like the results reached in the research, the Union of Educators Union (2022) stated that the Teaching Profession Law is similar to Articles 43 and 45 of the Basic Law of National Education No. 1739. He thinks that the teaching profession is limited only to the candidacy process and career steps and removed from the identity of a professional law. Demir (2011), in his study on the Regulation on Promotion in Teaching Career Steps, revealed that although the practice was prepared based on fairness and merit, it did not achieve its purpose due to the lack of continuity. Urfalı (2008) concluded that teachers approached the exam practice negatively, which is a prerequisite for advancement in career steps, and that the regulation would not achieve its purpose in this context. Likewise, Bakioğlu and Banoğlu (2013) stated that the examination system is at the centre of criticism and that teachers develop negative attitudes towards advancement in the career step. On the other hand, titles such as specialist and head teacher prevent teachers' professional development, so the regulation does not reach its purpose. As it is known, the Regulation on Advancement in the Teaching Career Steps was put into effect in 2005 with the claim of making the teaching profession a career, but it caused serious injustices among teachers because its continuity could not be ensured for various reasons. In this respect, it can be said that the Law on the Teaching Profession did not bring any significant innovations in its current form, and it gave rise to the idea that the Law could not achieve its purpose in the eyes of teachers who had a negative experience with the regulation in 2005. The

Ministry of National Education should proceed on its way by considering the criticisms directed at itself in this regard, by taking into account the expectations and wishes of the teachers, and by eliminating the deficiencies that arise during the application without causing injustice.

The participants stated that the issues related to the selection, training and on-the-job training of teachers did not meet expectations with the way they were handled in the Teaching Profession Law. According to the findings obtained in the research, it was stated that the qualifications to be sought in teacher candidates and the objective criteria to be used in the selection of teachers were not determined in the Law, and it was stated that the professional competence and field skills of the candidates were not measured in the selection process, and it was emphasized that the interview should be abolished in the transition from candidate teacher to teacher. In addition, the Law does not meet the expectations of teachers because it does not make professional development continuous and does not regulate it according to the requirements of the age. In this context, the selection, training and teacher competencies of teachers in Turkey have been discussed for many years in terms of their direct impact on the quality of education and have been included in many policy documents. "Teacher Competencies" were determined by the Ministry of National Education in 2002, "General Competencies for the Teaching Profession" were published in 2006 and entered into force, and the determined competencies were updated in 2017. Teacher competencies and professional development are among the targets in the 2015-2019 MEB Strategic Plan and the "Teacher Strategy Document" dated 2017. As can be seen, it can be said that the desired goals have not been achieved in practice, although admission to the profession, professional competences and professional development issues, which are extremely important for the teaching profession, are kept on the agenda and included in policy documents. It is thought that by describing the selection, training and on-the-job training of teachers in detail in the Teaching Profession Law, an important deficiency of the Law can be eliminated, the Law can become a professional law in real terms with the regulation, and the teaching profession can be brought to certain standards.

In the research, it was concluded that teaching career steps do not provide teachers with self-development motivation. Teachers think that the exams and training to be carried out to rise in the career step will not contribute to their professional development; on the contrary, they will affect teachers negatively. The opinions of the Turkish Education-Sen (2022) and the Education and Science Employees' Union (2022) on the effects of the practice on professional development coincide with the research findings. Kocakaya (2006), on the other hand, concluded in his study that career steps will provide teachers with the motivation to improve themselves. On the other hand, the teachers stated that the teachers who have completed their postgraduate education should wait for 10 or 20 years to receive the titles stipulated in the Law, which will negatively affect the motivation of the teachers. Demir (2011) and Kaplan and Gülcan (2020) think that the regulation encourages postgraduate education, and this can have a positive impact on the quality of education. In their current form, teachers who have completed 10 years

in teaching and 10 years in specialist teaching will participate in a professional development program for a few months just to pass the exam and may not need to do any work afterwards. To prevent this problem, continuous professional development of teachers can be ensured by determining the studies that teachers should participate in and complete every year. On the other hand, it can be facilitated for teachers to receive postgraduate education by cooperating with universities. Teachers who have completed their postgraduate education can be encouraged to take postgraduate education by shortening the time they have to wait for specialist teaching and head teacher positions. In addition, it is thought that the regulation should be continuous to contribute to the professional development of teachers.

Another of the results obtained from the research is the opinion of the participants that the Teaching Profession Law will not influence the status of the teaching profession. Teachers argue that the Law will not have any impact on the status of the teaching profession because it does not bring about a radical change, does not have a serious improvement in personal rights, and there are no regulations to prevent verbal and physical violence and discrediting teachers. Supporting these views, Dolton and Marcenaro-Gutierrez (2013), Odden and Kelly (2001), stated that teachers' rights such as economic conditions and working conditions are directly related to the status of the profession; Chen and Astor (2009) stated that the verbal and physical violence that teachers are exposed to lowers the status of the teacher in society and damages the reputation of teaching. In parallel with the results of the research, Gündoğdu and Kızıltaş (2008) state that the titles to be obtained through career steps will not have any effect on the status of the teaching profession; Çelikten (2008) and Demir (2011) think that the arrangement of career steps will contribute to the transformation of the teaching profession into a career profession. In this context, it can be said that making significant regulations in the Teaching Profession Law against the economic conditions of teachers, working conditions, personal rights, and prevention of verbal and physical violence will contribute to the status of the teaching profession.

Participants stated that "contracted and paid teaching system", "teachers working in compulsory service regions", administrator assignment system, "reward, examination and investigation system", "supervision and guidance system" and "professional ethics" are in the Teaching Profession Law. They consider its absence to be an important deficiency. In addition to these issues, to make the Law better, determining the conditions of entry to the profession and teacher qualifications, abolishing the interview in candidate teaching, determining the basic rights and responsibilities of teachers, restructuring professional development, abolishing exams in career steps, social and economic rights (salary), rent assistance, retirement, additional payment, etc. should be taken into consideration with the teacher employment model and provisions that will protect teachers against physical and verbal violence. In this context, it is seen that the results of the research overlap with the studies of TEDMEM (2018), Voisin and Dumay (2020), Matnuh's (2018) and the statements of the Educators Union Union (2022). The fact that the subjects are not in professional law is considered an important deficiency,

and it is thought that the inclusion of these important issues related to the profession in the Law will strengthen the Law and the teaching profession.

It can be said that the Teaching Profession Law has serious deficiencies when compared to its counterparts in the world, it is quite inadequate as it only deals with some aspects of teaching, and it draws an image that is far from solving the problems of the teaching profession. In this context, if the teaching profession is to be brought to high standards and transformed into a career profession, it must first be reconsidered with all its dimensions: Entry requirements, qualifications to be sought in teachers and professional competencies of candidates, teacher basic rights and responsibilities, employment model, incentives for teachers working in compulsory service regions. It is a requirement that professional development, assignment and relocation, manager assignment system, reward and discipline, supervision and guidance, financial and social rights and professional ethics are included in the Law. There is a separate legal text on the subject, which from time to time leads to various difficulties and confusion. In this respect, it is thought that collecting all the legislation related to the teaching profession in the Teaching Profession Law can provide simplicity and convenience in practice.

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Genişletilmiş Türkçe Özet

Öğretmenlik Meslek Kanunu (MEB, 2022) incelendiğinde, kanunun amacı "eğitim ve öğretim hizmetlerini yürütmekle görevli öğretmenlerin atamaları ve mesleki gelişimleri ile kariyer basamaklarında ilerlemelerini düzenlemektir." şeklinde ifade edilmiştir. Ancak Öğretmenlik Meslek Kanunu'nda genel olarak öğretmenlik kariyer basamaklarını düzenleyen 6. maddenin ön plana çıktığı, diğer birçok önemli konuya değinilmediği görülmektedir. Konu ile ilgili uluslararası literatür incelendiğinde Voisin ve Dumay (2020); Matnuh (2018), birçok ülkedeki öğretmenlik mesleği ile ilgili yasal metinlerin öğretmenlerin seçimi, yetiştirilmeleri, maaşları, terfi ve tayinleri, meslekte ilerlemeleri, mesleki gelişimleri, görev ve sorumlulukları, yönetici ve denetçilerin seçimi, ek ödemeleri, sosyal hakları, emeklilikleri, öğretmen özerkliği, ödül, disiplin ve meslek etiği gibi pek çok konuyu kapsadığı anlaşılmaktadır. Ayrıca Türkiye'de 2802 sayılı Hâkimler ve Savcılar Kanunu ile 926 sayılı Türk Silâhlı Kuvvetler Personel Kanunu incelendiğinde söz konusu kanunların meslek mensuplarının seçilip yetiştirilmesi ve işe alınmasından başlayarak emekliliğine kadar meslek ile ilgili hemen her konuyu ele aldığı görülmektedir.

Bu bağlamda Kanun'un, öğretmenlerin nitelikleri ve seçimi başta olmak üzere, sözleşmeli ve ücretli öğretmenlik, zorunlu hizmet bölgelerinde görev yapan öğretmenlerin teşvik edilmesi, yönetici atama sistemi, ödüllendirme, inceleme ve soruşturma, denetim ve rehberlik sistemi ve meslek etiği gibi öğretmenlik mesleği ile ilgili birçok konuyu farklı bir anlayışla ele alınarak öğretmenlik mesleğini yeniden yapılandırması bakımından beklentileri karşılamadığı söylenebilir. İlgili mevzuatta öğretmenlik mesleği her ne kadar bir uzmanlık ve kariyer mesleği olarak tanımlansa da öğretmenlik mesleğinin Türkiye'de hak ettiği statüye ve istenilen standartlara kavuşturulamadığı ifade edilebilir. Bu bakımdan Öğretmenlik Meslek Kanunu'nun gerek öğretmenlik mesleğinin toplumsal statüsü gerekse öğretmenlerin mesleki gelişimine katkı sağlayıp sağlamayacağı merak konusudur. Bu bağlamda araştırmanın amacı, Öğretmenlik Meslek Kanunu'nu amaç, içerik ve gerçekleştirmeye çalıştığı yenilikler bakımından değerlendirmektir. Araştırmanın alt amaçlarını ise Öğretmenlik Meslek Kanunu'nun amacı, öğretmenlerin seçimi, yetiştirilmesi ve iş başında eğitimi, öğretmenlik kariyer basamakları, öğretmenlik mesleğinin statüsü ile kanunda yer almayan sözleşmeli ve ücretli öğretmenlik sistemi, zorunlu hizmet bölgelerinde görev yapan öğretmenlerin teşvik edilmesi, yönetici atama sistemi, ödüllendirme, inceleme ve soruşturma, denetim ve rehberlik sistemi ve öğretmenlik meslek etiği konuları oluşturmaktadır. Diğer taraftan alan yazında Öğretmenlik Meslek Kanunu ile ilgili daha önce yapılan bir çalışmaya rastlanmamasından dolayı araştırmanın alana katkı sunacağı düşünülmektedir.

Öğretmenlik Meslek Kanunu'nu amaç, içerik ve gerçekleştirmeye çalıştığı yenilikler bakımından öğretmen görüşlerine göre derinlemesine incelenmesini amaçlayan bu çalışma, nitel araştırma yöntemlerinden olgubilim/fenomenoloji desenine göre

tasarlanmıştır. Miller (2003)'e göre olgubilimin başlangıç noktasını, olguların kendileri oluşturduğu olgubilimde, olgu ile olguyu deneyimleyen bireylerin aralarında bir ilişki olduğu ifade edilmektedir. Bu bakımdan olgubilim kişilerin deneyimlerini tanımlamak ve yorumlamak için bireylerden deneyimlerini ödünç alan bir araştırma yöntemi olarak tanımlanmaktadır. Konunun derinlemesine araştırılmasını amaçlayan olgubilim çalışmalarında katılımcı sayısı 6 ile 12 kişi arasında sınırlandırılmalıdır (Silverman, 2009). Nitel araştırmalarda büyük gruplarla çalışmaktan ziyade, araştırmanın amaçları doğrultusunda en fazla ve nitelikli veri elde edilebilecek örneklem ile çalışılması araştırmayı daha gerçekçi kılacaktır (Coyne, 1997). Bu bağlamda çalışmanın katılımcıları araştırmacı tarafından önceden oluşturulan ölçüt listesine göre belirlenmiştir. Bu bağlamda araştırmanın çalışma grubu Milli Eğitim Bakanlığına bağlı okullarda görev yapan ve Türkiye genelinde en fazla üyeye sahip olan üç eğitim sendikasının işyeri temsilcisi 6 öğretmen ile ilçe temsilcisi 3 öğretmenden oluşturulmuştur. Çalışmada gizlilik ilkesine dikkat edilerek bulgular kısmında araştırmaya katılan öğretmenlerin isimleri "K1, K2, K3…", şeklinde kodlanmıştır.

Araştırmada, Öğretmenlik Meslek Kanunu'nun amacı, öğretmenlerin seçimi, yetiştirilmesi ve iş başında eğitimi, öğretmenlik kariyer basamakları, öğretmenlik mesleğinin statüsü ile kanunda yer almayan sözleşmeli ve ücretli öğretmenlik sistemi, zorunlu hizmet bölgelerinde görev yapan öğretmenlerin teşvik edilmesi, yönetici atama sistemi, ödüllendirme, inceleme ve soruşturma, denetim ve rehberlik sistemi ve öğretmenlik meslek etiği gibi konulara ilişkin öğretmen görüşlerini belirlemek amacıyla açık uçlu sorulardan oluşan yarı yapılandırılmış mülakat (görüşme) formu kullanılmıştır. Kvale (1996)'e göre görüşmede, araştırmacı tarafından önceden hazırlanmış sorular vasıtasıyla kişilerin duygu ve düşüncelerini sistematik bir şekilde ortaya çıkarmak amaçlanmaktadır. Araştırmacı görüşme sürecinde, hedef kişinin araştırma konusu ile ilgili öznel duygu ve düşüncelerini sorular sorarak anlamlandırmaya ve tanımlamaya çalışmaktadır.

Araştırma verilerinin analizinde içerik analizi yöntemi kullanılmıştır. Nitel içerik analizi, elde edilen verilerin sistematik olarak analizini gerektiren bir dizi teknikten oluşur (Mayring, 2004) ve araştırmanın önceden belirlenmemiş olan tema ve farklı boyutlarını tespit etme imkânı sağlar (Çepni, 2001). Bu bağlamda öncelikle araştırmadan elde edilen veriler kodlanmış, benzer kavramları ifade eden kodlar bir araya getirilerek kategoriler oluşturulmuş ve bu doğrultuda temalar belirlenmiştir. Araştırmada doğrudan alıntılarla bulgular güçlendirilmiştir.

Araştırma bulgularına göre öğretmenler; Öğretmenlik Meslek Kanunu'nun kariyer basamaklarını düzenlemek, öğretmenlik mesleğinin gelişimini desteklemek, özlük haklarını iyileştirmek amacıyla çıkarıldığını düşünmektedirler. Ancak katılımcıların tamamı Kanun'u; kısıtlı içeriği, özlük haklarının yeterince iyileştirilmemesi, mesleğin genel yeterliklerinin belirlenmemesi, öğretmenlerin kendilerine uygun mesleki gelişim programlarına erişiminin olmaması, öğretmenlik mesleğini bütüncül olarak ele

almaması, öğretmenlerin ihtiyaç ve taleplerini karşılayamaması ve düzenlemenin yapılma aşamasında öğretmen görüşlerinin yeteri kadar alınmaması gibi gerekçelerle amacına ulaşmadığını düşünmektedir.

Katılımcılar, öğretmenlerin seçimi, yetiştirilmesi ve iş başında eğitimi ile ilgili hususların Öğretmenlik Meslek Kanunu'nda ele alınış biçimiyle beklentileri karşılamadığını ifade etmişlerdir. Araştırmada elde edilen bulgulara göre Kanun'da, öğretmen adaylarında aranacak nitelikler ile öğretmenlerin seçiminde kullanılacak objektif kriterler belirlenmediği gibi öğretmenleri seçme sürecinde de adayların mesleki yeterliği ve alan becerilerinin ölçülmediği ifade edilmiş, aday öğretmenlikten öğretmenliğe geçişte ise mülakatın kaldırılması gerektiği vurgulanmıştır. Ayrıca Kanun mesleki gelişimi sürekli hale getirmediği ve çağın gereklerine göre düzenlemediği gerekçeleriyle öğretmenlerin beklentilerini karşılamamaktadır.

Araştırmada, öğretmenlik kariyer basamaklarının öğretmenlere kendilerini geliştirme motivasyonu sağlamadığı sonucuna ulaşılmıştır. Öğretmenler, kariyer basamaklarında yükselmek için yapılacak olan sınav ve eğitimlerin mesleki gelişimleri için katkı sağlamayacağı, aksine öğretmenleri olumsuz yönde etkileyeceği düşüncesindedirler. Araştırmadan elde edilen sonuçlardan bir diğeri de katılımcıların, Öğretmenlik Meslek Kanunu'nun öğretmenlik mesleğinin statüsüne etkisinin olmayacağı yönündeki düşüncesidir. Öğretmenler, Kanun'un köklü bir değişiklik getirmemesi, özlük haklarında ciddi bir iyileşme olmaması, sözlü ve fiziksel şiddet ile öğretmenlerin itibarsızlaştırılmasını önleyecek düzenlemelerin olmaması gibi gerekçelerle öğretmenlik mesleğinin statüsüne bir etkisi olmayacağını savunmaktadırlar. Ayrıca katılımcılar, "sözleşmeli ve ücretli öğretmenlik sistemi", "zorunlu hizmet bölgelerinde görev yapan öğretmenler", yönetici atama sistemi", "ödüllendirme, inceleme ve soruşturma sistemi", "denetim ve rehberlik sistemi" ve "meslek etiği" konularının Öğretmenlik Meslek Kanunu'nda yer almayışını önemli bir eksiklik olarak değerlendirmektedirler.

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Whole Language Method and Phonics Instruction as Literacy Teaching Methods:
A Systematic Review*

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Abstract:

This study aims to systematically synthesize the findings obtained in terms of reading skills, learning, and methodological features from studies dealing with the whole language and phonics instruction, which are among literacy teaching methods. In line with the purpose of the study, Web of Science, ERIC, Ulakbim (Tr-Dizin), and Google Scholar databases were searched with the keywords determined. As a result of the review, 40 articles were analyzed through the content analysis based on reading skills, learning, and methodological features with the help of a computer-aided qualitative data analysis program. According to the findings on reading skills, it was found that individuals who learned to read through the phonics instruction could not read in accordance with the stress, intonation and punctuation marks, read incorrectly, and that the whole language method was more effective than the phonics instruction in terms of reading speed and comprehension. According to the findings in the learning category, it was concluded that individuals who learned reading through the whole language method perceived the whole, while those who learned reading through the phonics instruction had problems in perceiving the whole. It was also seen that the studies reviewed in this study are mainly qualitative. However, there is a need for empirical studies on reading speed, reading comprehension, accurate reading, and prosodic reading skills based on objective evidence besides research methods based on the self-reports of the stakeholders.

Keywords: Literacy teaching, whole language method, phonics instruction, systematic review.

* This study was presented as an oral presentation at the "27th International Congress on Educational Sciences" held in Antalya between 18-22 April 2018.

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Introduction

Reading, one of the basic language skills, is defined as the process of recognising words and making sense of their individual or contextual use (Mesmer & Griffith, 2005). In other words, reading is defined as the process of matching visual symbols with sound units in order to reach meaning (Ziegler & Goswami, 2005). Reading, as a means of acquiring information, opens the door to a learning process that will last throughout life (Balcı, 2019). Reading skill is a process that starts with picture reading in pre-school and goes from the letter, which is the smallest structural unit of language after learning to read and write in primary education, to text reading, which is the last step of the reading process (Gündüz & Şimşek, 2011).

The aim of literacy teaching is to provide individuals with reading and writing skills, which are among the basic language skills that they will use throughout their lives. However, these skills should be developed not in a random way, but quickly and accurately by understanding and criticising in accordance with the conditions of contemporary life (Parlakyıldız, 2019). Reading and writing skills have an important place in almost every lesson. The proficient literacy level of an individual affects his/her success throughout his/her educational life (Akan, 2021). In fact, the main problem underlying many failures stems from the inability to acquire efficient literacy in primary education (Öz, 1999). In summary, in order to keep up with an age in which the flow of information is extremely fast, reading skills should be acquired with the most accurate teaching method. It makes important and necessary to teach literacy through the right method.

From the past to the present, various teaching methods have been applied in literacy teaching. When the literacy methods used in Türkiye until today are considered, it is seen that the letter method, the word method, the whole language method and, the currently used, phonics instruction are preferred respectively. Among these methods, the whole language method was used in Türkiye for 57 years from 1948 to 2005 and was replaced by the phonics instruction in 2005. In the whole language method, sentences are first given as a meaningful whole and then small parts such as words and syllables are given (Kutluca-Canbulat, 2013). In the phonics instruction, on the contrary to the the whole language method, the sentence, which is a whole, is reached from small parts such as letters, words and syllables in the process (Ministry of National Education [MEB], 2009). The reason why the whole language method is preferred is based on Gestalt Psychology and it is argued that the child learnsas a whole, and the most appropriate method for this is the whole language method. One of the most important reasons for preferring the phonics instruction is that it develops students' skills related to the whole, such as text formation, since the method starts with sound and follows a path towards text formation (MEB, 2005). An individual who acquires literacy effectively is expected to have good, fluent reading skills and to understand the text he/she reads.

Fluent reading consists of accurate reading, reading speed and prosodic reading skills (Hasbrouck & Tindal, 2006; Klauda & Guthrie, 2008; Samuels, 1997; Schwanenflugel et al., 2004). In order for an individual to be able to read by paying attention to prosodic features, he/she should have acquired accurate and fast reading skills respectively (Mathson et al., 2006). Therefore, it can be stated that speed reading skills act as a bridge between accurate and prosodic reading skills. In order to gain these skills in a good way, it is important that the early reading and writing instruction is carried out with the most accurate method. However, when we look at the literature, it continues to be a matter of debates on which method of teaching literacy will make this process more effective.

The issue of literacy teaching methods has been the focus of many studies with the desire to achieve effective literacy teaching (Foorman & Santi, 2009). Considering some studies in the literature, Ortabağ-Çevik (2006) concluded that the phonics instruction was not effective in reading comprehension, interpretation, perceiving the whole and dividing syllables correctly. On the contrary, as a result of some studies dealing with the phonics instruction, it was emphasised that it is a more useful method in terms of both reading mechanics and reading comprehension and reading speed (Krashen, 2002) and that reading is faster in this method compared to the whole language method (Akıncı et al., 2016; Bayat, 2014). Tok et al. (2008), in their study, stated that both methods have limitations and that listening skills develop more in individuals who learn reading with the phonics instruction, less forgetting occurs on holiday returns, and this method is more suitable for Turkish sound structure. In Gün's (2006) study, it was revealed that teachers generally had positive opinions about the phonics instruction and believed that the problems arising from the whole language method could be reduced with this method. In the national and international literature, it is seen that early literacy teaching methods are frequently discussed and especially the last two most commonly used methods are compared. It can be concluded that both methods have negative aspects as well as positive aspects.

When the aforementioned studies were examined, it was pointed out that the results obtained from the studies conducted with the whole language method and phonics instruction varied. For this reason, it is of great importance to consider the related studies together and to present the results of those studies in a holistic manner. However, there is no systematic review study in the literature that deals with both early literacy teaching methods together. Therefore, it can be stated that this study is the first to present a general evaluation of the two early literacy teaching methods within the scope of the literature. This study is thought to contribute to the literature in terms of providing an overview of the whole language method and phonics instruction, which continue to be the subject of discussion and the focus of research. From this point of view, the aim of the study is to systematically synthesise the results obtained in terms of reading skills,

learning and methodological features from the studies in which the whole language method and phonics instruction are discussed. In line with this purpose, answers to the following research questions were sought.

The whole language method and phonics instruction;

1. How was it evaluated in terms of reading skills?

2. How was it evaluated in terms of learning?

3. How was it evaluated in terms of methodological features?

Method

Research Design

This study was conducted with the systematic review method. Systematic review is defined as the process of critically and systematically identifying, evaluating and interpreting studies related to a specific research question, subject area or phenomenon (Kitchenham, 2004; Moher, et al., 2009; Mueller, et al., 2014). This method is seen as an independent research method that allows the investigation of clearly defined questions through existing studies (Denyer, 2009). In this study, the systematic review method was used since it was aimed to examine the results obtained from the studies on the whole language method and phonics instruction in terms of reading skills, learning, and methodological features.

Data Collection

In the research process, firstly, the keywords "çözümleme yöntemi (the whole language method)", "ses temelli yöntem (phonics instruction)", "sound-based method", "sound-based sentence method", "phonic-based method", "phonic instruction", "whole language instruction", "sentence method", "phonic based instruction" were determined by experts. In line with the determined keywords, a literature search was conducted in Web of Science, ERIC, Ulakbim (Tr-Dizin) and Google Scholar databases. The main reason for searching in these databases is that the majority of the studies conducted in Turkey are in these databases. As a result of the search, 56 articles containing the relevant keywords were identified, the abstracts of the studies were first reviewed, and then the method and findings sections were examined to determine whether they were appropriate. In addition, the data collection process is shown in Figure 1.

Figure 1.

Data Collection Process
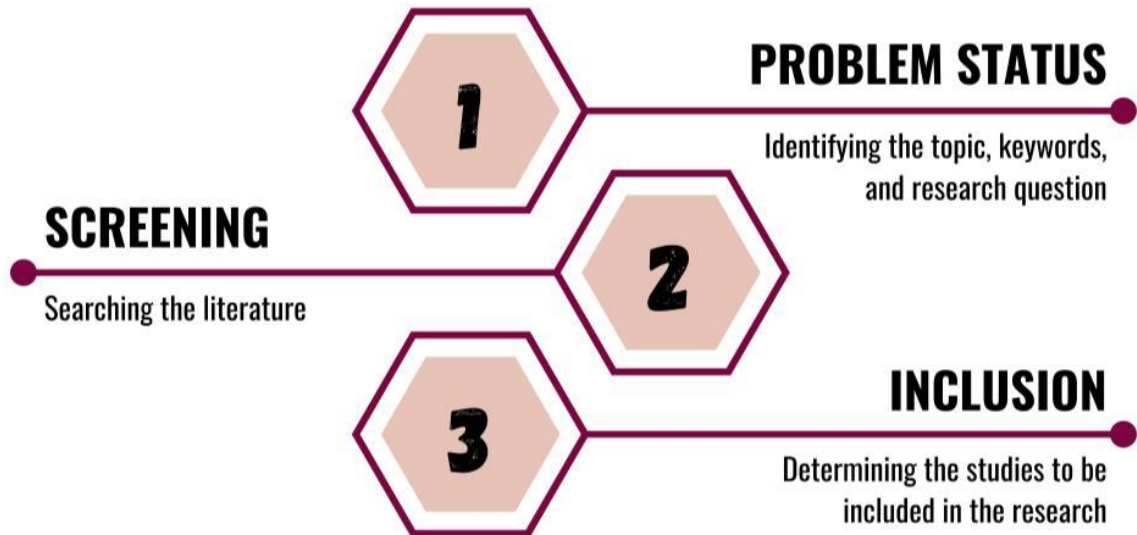
In the selection of the studies included in the study, articles that were not suitable for the scope of the research (n=13), that dealt with the document analysis method (n=2) and whose teaching method was not clear (n=1) were excluded. As a result, a total of 16 articles were excluded from the study and 40 articles were transferred to MAXQDA Analytics Pro 2022 for analysis. For the articles included in the study, the inclusion criteria listed below were taken into consideration and the flow diagram for the inclusion process of the documents is presented in Figure 2.

Figure 2.
Flow Diagram Showing the Selection of Included Studies
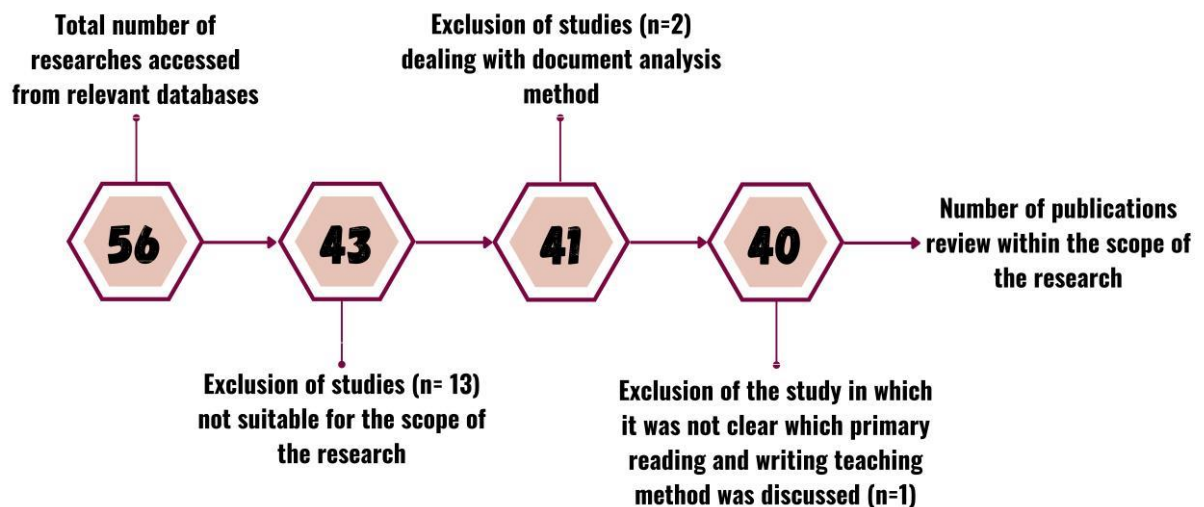
Criteria Used in the Selection of Research

Articles published in the specified years and language: It was ensured that the articles to be analysed were published in Turkish or English between 2000-2021.

- Containing keywords reflecting the main purpose and research questions of the research: It was ensured that it contained at least one of the keywords of the research.

- Identified data represent the relevant population (the literature on early literacy in Turkey): In the articles included in this systematic review study, it was ensured that the sample was selected only from Turkey.

- Being published in the selected databases: Articles in Web of Science, ERIC, Tr-Dizin and Google Scholar databases were used.

- The research is clearly and explicitly stated: It was ensured that the purpose, method, study group, data collection tools, data analysis, findings and results of the research were clearly and comprehensibly stated.

Data Analysis

In this study, content analysis was used to analyse the documents. Content analysis, which is frequently used to determine the existence of concepts in the field of social sciences, is defined as a systematic and repeatable analysis method in which a text is summarised with smaller categories as a result of certain coding (Büyüköztürk et al., 2019). The most basic step in content analysis is to make sense of the data that you get by putting together similar phrases within the context of certain ideas and themes in a way that is clear and easy to understand (Yıldırım & Şimşek, 2018).Within the scope of the research questions, content analysis was preferred in order to examine in detail the findings of the reading, teaching and learning categories of the studies dealing with the whole language method and phonics instruction.

Firstly, the articles examined for inclusion criteria were read in detail in the MAXQDA Analytics Pro 2022 programme. Thus, the findings and results of the studies were coded. The codings obtained were categorised by the researchers at different times and places. Then, the differences between the categories were determined and the categories were organised by reaching a consensus. While creating the categories and codes, it was aimed to reveal the similar and different aspects of the findings and results of the studies that addressed at least one of the literacy teaching methods. Within the scope of the determined categories, the relevant parts of the studies were carried out in three stages: open, axial and selective coding (Neuman, 2012). Within the scope of open coding, the main outputs, findings and results in the analysed studies were handled separately for each study with appropriate concepts. In the axial coding stage, the studies were re-read in depth and new codes were added to the codes obtained in the first stage and similar codes were combined. Some statements that could not be categorised in the first stage were classified as a result of re-reading the studies and included in the relevant categories. In selective coding, a re-reading was carried out to identify new codes that may be relevant to the previously created codes. Classified codes were reviewed, identical codes were deleted, and similar codes were merged or revised. The steps

followed in data analysis are presented in Figure 3. In addition, the code, category, and theme relationships are given in Appendix 1.

Figure 3.

Data Analysis and Reporting Process
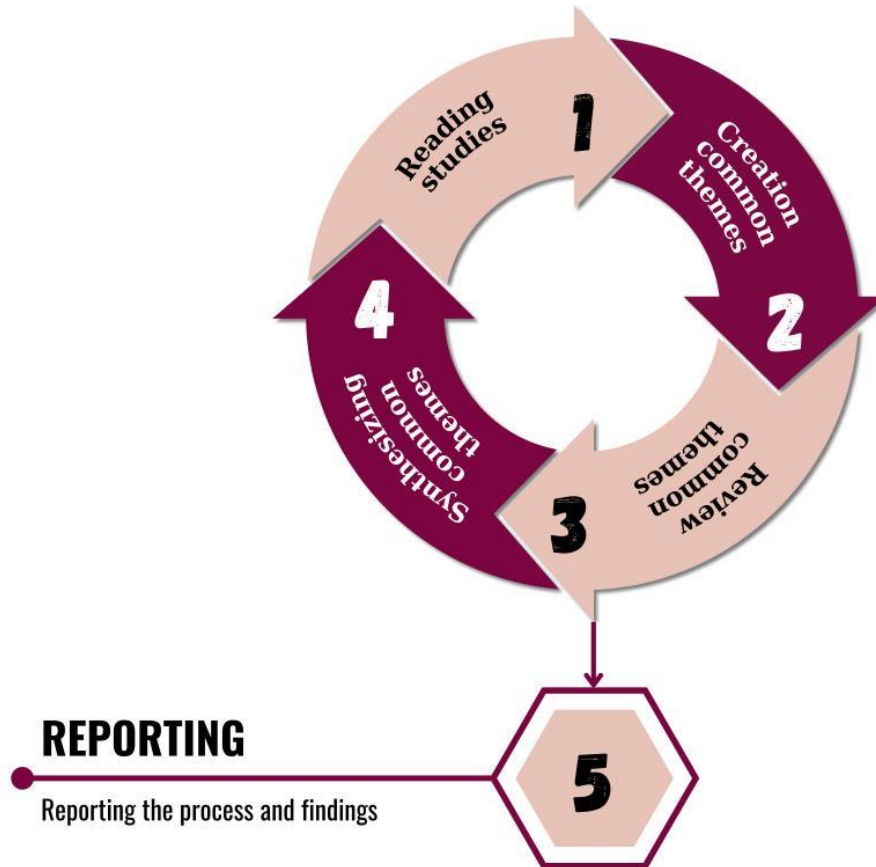
The studies analysed within the scope of the research are presented in tables in accordance with their purpose. The main reason for showing the data in tables is to provide an idea about the analysed studies at first glance and to facilitate readability by increasing visuality. In addition, the tables allow the comparison of the codes obtained as a result of the content analysis on the method axis of the research. In addition, it is considered important to clearly present from which research the findings are obtained in order to reveal whether similar results can be reached, if the study is repeated.

The results and findings of 40 studies on literacy teaching in Turkey were analysed around the axis of the research method. In addition to the research method, the codes of the articles analysed in the studies and other components used in this study are presented in Appendix 2. According to these components, the distribution of the codes in terms of method was analysed and these distributions were presented in tables. Afterwards, each publication analysed was classified according to the focus and findings of the study and a general explanation was made for the data obtained.

Credibility, Transferability, Confirmability and Consistency

In this study, the strategies listed by Yıldırım and Şimşek (2018) were utilised to ensure credibility, transferability, confirmability and consistency. The credibility, transferability, confirmability, and consistency measures taken within the scope of the study are presented in Table 1.

Table 1.

Implications on the Credibility, Transferability, Consistency and Confirmability of the Research

Strategy	Precaution	Implementation
Credibility (Internal Validity)	Expert view	Expert opinion was consulted and evaluated about the subject of the research and coding. In addition, all stages of the study were critically reviewed by four experts.
	Long-term interaction	In order to avoid any errors during coding, the studies were analysed for three months after they were downloaded from the databases. For the reliability of the coding, the analyses were reviewed again in line with the main categories for one month.
	Including direct quotations	The results were descriptively presented and direct quotations were frequently used.
Transferability (External validity)	Detailed description	The purpose and questions of the research were clearly stated. For the validity of the findings, the data collection method and inclusion criteria were clearly explained. In addition, detailed explanations were made about the number of studies included in the scope of the research and its limitations. The stages of data analysis and creating common themes were presented in detail. In addition, all findings obtained from the studies were conveyed using descriptive expressions. In addition, the articles included in the study group are given with their identities.
Consistency (Internal reliability)	Inter-coder agreement	After the coding was carried out, the codes were categorised by the researchers in different places and times. Then, the researchers analysed the categories and reached a consensus. The agreement values of the coding performed by the researcher at two different times were calculated and the agreement value was determined to be 90.48% (see Table 2).
Confirmability (External reliability)	Confirmability of the research	All data obtained, qualitative analyses of the data and all documents related to the study were kept by the researcher in order to verify the findings obtained as a result of the research. The articles that constitute the study group of the research and the coding system are shown in the Appendix. In addition, in the tables in the findings section, it is clearly presented from which studies the findings were obtained. Thus, the findings obtained from the studies given in the appendix can be confirmed by going to the relevant studies. The selection and number of studies analysed within the scope of the purpose and the reasons for the exclusion of the studies are stated.

In order to ensure the coder reliability of the study, 4 randomly selected publications (10% of the studies) were coded by the same researcher at two different times. The reliability of the codings and the level of compatibility with each other were calculated with the "interrater agreement calculation" formula proposed by Miles and Huberman (1994):

Reliability=[(Na)/(Na)+(Nd)]x100

As a result of the calculation carried out with the above-mentioned formula, the agreement between the codings made at different times is expected to be above 90% (Miles & Huberman, 1994). In this study, the agreement value of the coding performed by the same researcher at two different times was found to be 90.48%. These agreement values show that the coding system created for the research is reliable. The values obtained as a result of the calculations are shown in Table 2.

Tablo 2.

Intrarater Reliablity of the Researcher's Coding at Different Times

Data Set	Amount of Match (Na)	Amount of Mismatch (Nd)	Percentage of Match (%)
M1	8	1	88,89
M8	2	-	100
M15	3	-	100
M34	6	1	85,7
Total	19	2	90,48

All data obtained, qualitative analyses of the data and all documents related to the study were kept by the researcher in order to verify the findings of the research. The articles that constitute the data source of the research and the coding system are shown in the Appendix. In addition, the selection, number and reasons for the exclusion of the studies examined within the scope of the purpose are stated. All measures taken in the study were presented in a holistic manner (Table 1).

Findings

The findings were obtained on the basis of reading skills, learning and methodological features in the findings of the studies on the whole language method and phonics instruction in literacy teaching in Turkey. Each dimension was analysed and presented in terms of qualitative, quantitative and mixed methods.

Figure 4.

Examining the Results Obtained in Terms of Reading, Learning, and Methodological Features on the Method Axis
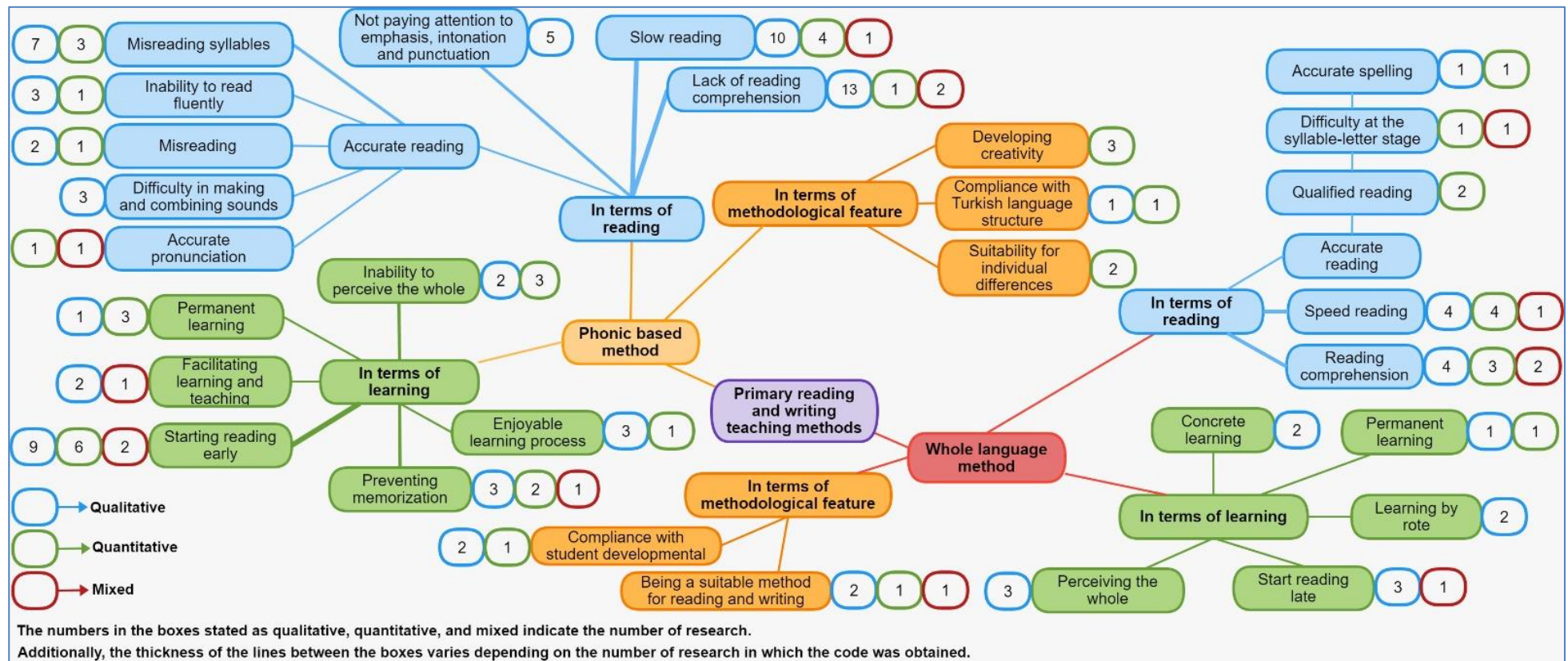
Considering the codes obtained from the study, the findings obtained from at least two studies were examined on the axis of research method. As a result of the analyses, it is seen that the findings related to reading speed are involved in qualitative studies at most and mixed method studies at least. It is seen that 10 of the studies dealing with the phonics instruction are qualitative, 4 of them are quantitative, 1 of them is mixed method; 4 of the studies dealing with the whole language method are qualitative, 4 of them are quantitative and 1 of them is mixed method. On the other hand, when the findings on prosodic reading are examined, it is seen that it is mostly the subject of qualitative studies. In addition, it was determined that sub-codes were addressed less in quantitative studies compared to qualitative studies and were not addressed in mixed-method studies. It was determined that all of the studies dealing with the phonics instruction were qualitative, while the study dealing with the whole language method was a quantitative study.

When we look at the findings of the reading comprehension category, it is seen that it is the subject of qualitative studies at most and mixed method studies at least. It was found that 13 of the studies on the phonics instruction were qualitative, 1 of them were quantitative and 2 of them were mixed; 4 of the studies on the whole language method were qualitative, 3 of them were quantitative and 2 of them were mixed-method studies. On the other hand, when the findings related to accurate reading are analysed, it is seen that it is the subject of qualitative studies at most and mixed-method studies at least. It was found that 15 of the studies on phonics instruction were qualitative, 6 of them were quantitative, 1 of them was mixed method; 1 of the studies on the whole language method was qualitative, 4 of them were quantitative, 1 of them was mixed method.

When the methodological feature category is analysed on the method axis, it is seen that the findings are the subject of quantitative studies at most and mixed method studies at least. It was also found that 1 of the studies on the phonics instruction was qualitative and 6 of them were quantitative; 2 of the studies on the whole language method were qualitative, 2 of them were quantitative and 1 of them was mixed method. On the other hand, when the findings of the learning category were analysed, it was found that it was the subject of qualitative studies at most and mixed-method studies at least. It was pointed out that 20 of the studies on the phonics instruction were qualitative, 15 of them were quantitative and 4 of them were mixed; 11 of the studies on the whole language method were qualitative, 1 of them was quantitative and 1 of them was mixed method.

1. Evaluation of the Phonics Instruction and Whole Language Method in terms of Reading Skills

The phonics instruction and whole language method in the studies on early literacy teaching in Turkey were analysed in terms of reading skills. The results obtained in terms of reading speed, prosodic reading and reading skills are presented in Table 3.

Table 3.

Findings on Reading Speed, Prosodic Reading, and Comprehension

		Phonics Instruction			Whole Language Method		
		Qualitative	Quantitative	Mixed	Qualitative	Quantitative	Mixed
Reading Speed	Slow reading	M2, M7, M9, M10, M11, M13, M16, M21, M22, M36	M3, M18, M30, M33	M37	-	-	-
	Speed reading	M8	-	-	M4, M14, M17, M24	M28, M30, M31, M32	M34
Prosodic Reading	Not reading in accordance with punctuation	M2, M10, M28	-	-	-	-	-
	Not reading in accordance with stress and intonation	M4, M9	-	-	-	-	-
	Reading in accordance with punctuation	-	-	-	-	M32	-
Comprehension	Inability to comprehending reading	M1, M2, M5, M6, M9, M10, M11, M16, M20, M21, M22, M23, M36	M29	M25, M26	-	-	-
	Comprehending reading	M4, M8	M18, M30	M40	M15, M17, M24, M36	M28, M31, M32	M26, M34

When we look at the studies in Table 3 that deal with literacy teaching methods and reading speed skills together; almost all of the studies that deal with the phonics instruction concluded that individuals who learn to read through this method read slowly. When the studies on the whole language method are examined, it is mentioned that the reading speed of individuals who learn to read through this method is at a good level in all of the studies. In the study coded M3, it was found that "Although the students were slow in the phonics instruction in speed reading, they were more successful in early reading.", in the study coded M14, it was found that "With the whole language method, the children expressed themselves better and their reading speed was high." and in the study coded M33, it was found that "The reading speed of the students is low, the students read quite slowly.". Based on these findings, it can be stated that the reading

speed of individuals who learn to read through the phonics instruction is weak and the whole language method positively affects the reading speed of individuals.

On the other hand, when the findings related to prosodic reading are examined, it is seen that the existing studies are mostly related to the prosodic reading skills of individuals who learn to read through the phonics instruction. In the study coded M10, which deals with the prosodic reading skills of individuals learning to read through the phonics instruction, it was stated that "The teachers participating in the study stated that another problem experienced in teaching with the phonics instruction was that students had difficulty in learning to use punctuation marks while reading (n=3) and writing." and in the study coded M9, it was stated that "It was determined that the method .. caused problems in reading by paying attention to stress and intonation ...". Based on these quotations and the findings obtained in other studies, it can be stated that individuals who learn to read through the phonics instruction are weak in terms of prosodic reading skills.

When the findings of the comprehension category were analysed in general, it was found that individuals who learnt to read through the phonics instruction could not comprehend what they read in 16 studies. In addition to this, it was determined that in the studies on the whole language method, it was concluded that individuals who learnt to read through this method understood what they read. When the study coded M36 is examined, the statement "When the themes emerged in the research are examined, it is concluded that classroom teachers are of the opinion that the whole language method improves reading comprehension, while the phonics instruction makes reading comprehension difficult." stands out. It can be stated that most of the studies dealing with this issue in the study group have reached similar results. Therefore, from this point of view, when we look at the studies dealing with the comprehension skills of individuals who learn reading through the whole language method and phonics instruction, it can be said that individuals who learn reading through the whole language method understand what they read, while individuals who learn reading through the other method cannot comprehend what they read.

The findings obtained from reading skills in terms of accurate reading skills were analysed. The general distribution of the data obtained as a result of the analyses is presented in Table 4.

Table 4.

Findings on Accurate Reading

	Phonics Instruction			Whole Language Method		
	Qualitative	Quantitative	Mixed	Qualitative	Quantitative	Mixed
Misspelling	M1, M9, M10, M11,	M19, M30, M38	-	-	-	-

Inability to read fluently	M22, M23, M36 M2, M5, M23	M33	-	-	-	-
Correct spelling	-	M35	-	M32	M36	-
Inaccurate reading	M5, M16	M33	-	-	-	-
Difficulty in producing and combining sounds	M5, M15, M39	-	-	-	-	-
Accurate pronunciation	-	M30	M40	M17	-	-
Difficulty in spelling and letters	-	-	-	-	M27	M12
Reading quality	-	-	-	-	M27, M28	-
Fluent reading	-	-	-	-	-	M40

When Table 4 is analysed, it is seen that in almost all of the studies that include the spelling skills of individuals who learn to read through the phonics instruction, it is concluded that individuals who learn to read through this method perform incorrect spelling. For example, in the study coded M36, it was emphasised that the phonics instruction caused incorrect spelling in reading with the statement "In line with the opinions of classroom teachers, it was determined that there was no situation regarding the incorrect division of syllables in the whole language method, while it was concluded that the syllables were divided incorrectly in the phonics instruction.". In addition, it was suggested that individuals who learnt to read through the phonics instruction could not read fluently. On the contrary, it was emphasised that individuals who learn to read through the whole language method perform a qualified reading and spell the words correctly. In addition, it was stated that individuals who learnt to read through the whole language method had difficulty at the syllable and letter stage, while individuals who learnt to read through the other method had difficulty in producing and combining sounds. In addition, only in the study coded M31 was a finding obtained from the statement, "... teachers state that students who learn reading and writing through the whole language method acquire the reading skill accurately, meaningfully and quickly." that individuals who learn reading through the whole language method perform accurate reading. However, since this finding was coded only once, it was not included in the table.

2. Evaluation of the Phonics Instruction and Whole Language Method in terms of Learning

The category of "learning" was analysed in depth within the scope of the studies on teaching literacy. The findings obtained are presented in Table 5.

Table 5.

Findings on Learning

	Phonics Instruction			Whole Language Method		
	Qualitative	Quantitative	Mixed	Qualitative	Quantitative	Mixed
Early start of reading	M1, M4, M10, M11, M14, M15, M22, M24, M36	M3, M28, M30, M32, M35, M38	M40, M34	-	-	-
Preventing memorisation	M1, M11, M24	M3, M32	M34	-	M31	-
Permanent learning	M24	M3, M32, M35	-	M17	M31	-
Inability to perceive the whole	M1, M22	M19, M30, M35	-	-	-	-
Enjoyable learning process	M1, M11, M36	M35	-	-	-	-
Meaningful learning	M22, M24	-	-	M2	-	-
Perceiving the whole	-	-	-	M4, M17, M24	-	-
Easy learning	M10, M13	-	-	M17	-	-
Late start of reading	-	-	-	M14, M17, M36	-	M40
Facilitating learning and teaching	M1, M36	-	M34	-	-	-
Active student participation in the learning process	-	M32	M34	-	-	-
Concrete learning	-	-	-	M2, M17	-	-
Rote learning	-	-	-	M1, M24	-	-
Sentence and word formation earlier	M1	-	M40	-	-	-

According to Table 5, it is noticeable that among the findings of the learning category, the most frequently coded findings are early reading, preventing memorisation and permanent learning. However, considering the focus of the study, it was determined that the findings of preventing memorisation and early reading were confirmed by three research methods. Therefore, it is seen that these findings are significant. As in many studies, in the research coded M1, as can be understood from the statements "Teachers

stated that as the most powerful aspect of the phonics instruction, students started reading earlier through this method than with the whole language method." and "... one of the biggest concerns is that students have difficulty in understanding the whole", it is stated that students who learn to read through the phonics instruction start reading early but cannot perceive the whole. In addition, in the studies, it was stated that the phonics instruction makes the learning process enjoyable, prevents memorisation, facilitates learning-teaching, and allows students to form sentences and words earlier. It was stated that students who learnt through the other method could perceive the whole as well as start reading late. In addition, it is suggested that this method leads to concrete learning and a learning process based on rote memorisation. In the studies analysed, it was concluded that the whole language method increased vocabulary and in a different study, it was concluded that fewer words were derived. However, since these statements were only seen once in 40 studies, they were not involved in the table.

3. Evaluation of the Phonics Instruction and Whole Language Method in terms of Methodological Features

Within the scope of the studies on teaching literacy, the category of "methodological features" was analysed in depth. The findings obtained are presented in Table 6.

Table 6.

Findings on Methodological Features

	Phonics Instruction			Whole Language Method		
	Qualitative	Quantitative	Mixed	Qualitative	Quantitative	Mixed
Being suitable for developmental characteristics	-	-	M34	M17, M24	M31	-
Being suitable for literacy	-	-	-	M17	M31, M32	M12
Being suitable for individual differences	-	M32, M35	-	M17	-	-
Developing creativity	-	M18, M30, M32	M40	-	-	-
Being suitable for the structure of Turkish language	M14	M32	-	-	-	-

When Table 6 is examined, it is noticeable that being suitable for developmental characteristics, being a suitable method for literacy and developing creativity were at most among the findings of the methodological features category. However, when the focus of the study is taken into consideration, it is clear that the findings of being a suitable method for literacy and being a suitable method for developmental characteristics are confirmed by 3 research methods. Therefore, it is seen that these

findings are significant. On the other hand, when the studies dealing with the whole language method are examined, it is concluded that this method is the most appropriate method in terms of reading and writing processes and the developmental characteristics of the students, as seen in the statement "Most of the teachers stated that the whole language method is more effective in teaching literacy thanks to its suitability for the developmental characteristics and individual differences of the students." in the study coded M17. In addition, in the study coded M32, teachers are of the opinion that the phonics instruction "improves the creativity of individuals…. and is suitable for the Turkish language structure…". In the studies, there are also statements that the whole language method makes the literacy teaching process difficult, that it is not suitable for individual differences, and that the saccades of individuals who learn to read through this method are fast. In addition, it was also stated that the phonics instruction improves the ability to plan and conduct literacy teaching easily and develops critical thinking skills, and that this method is not suitable for student development and is challenging. However, since these statements were coded only once in 40 studies, they were not included in the table.

Conclusion, Discussion and Suggestions

This systematic review aimed to reveal the findings obtained in terms of reading, learning and methodological features in the studies on the phonics instruction and the whole language method. Within the scope of this purpose, the studies conducted on the phonics instruction and the whole language method were analysed in depth. As a result of the analysis, it was found that the findings in the reading and learning category for the phonics instruction were mostly qualitative, while the data in the methodological features category were mostly obtained from quantitative studies. In general, when the subcomponents in the reading category are examined, it is seen that the outputs of reading speed, comprehension and accurate reading mostly come from qualitative studies. However, quantitative studies are needed to measure these skills, which are not qualitative variables, accurately. When prosodic reading skill is analysed, it is determined that there are very few studies on this skill. It was concluded that the findings of the methodological features category under this method were predominantly quantitative and the outcomes of the learning category were predominantly qualitative. In general, it is seen that the results of the study were obtained from 22 qualitative, 12 quantitative and 6 mixed method studies. Thus, it can be stated that the findings of the study were mainly obtained from qualitative data. Therefore, it is thought that studies addressing these skills in terms of literacy teaching methods should be supported by quantitative and mixed-method studies.

When the findings obtained in the reading category were analysed, it was concluded that individuals who learn to read through the phonics instruction could not read in accordance with emphasis, intonation and punctuation marks. In other words, it can be

stated that individuals who learn to read through this method are not at a sufficient level in terms of prosodic reading. Kaya and Doğan's (2016) study pointing out that the prosodic reading skills of students who learn to read through the phonics instruction are not at a sufficient level also supports this study. Similarly, Baydık and Kudret (2012) concluded in their study that individuals who learn reading through the phonics instruction have difficulty in using punctuation marks. However, in Babayiğit's (2019) study conducted with sixth-grade secondary school students, it was emphasised that students' prosodic reading skills were at an adequate level. Like this study, Yıldız et al. (2023) compared the prosodic reading skills of undergraduate students learning to read through the phonics instruction and the whole language method. In this context, it was found that undergraduate students who learnt to read through the phonics instruction were at a better level in terms of prosodic reading. Therefore, it is seen that the results of this study on prosodic reading overlap with the results of some studies, but there are also studies with contradictory findings in the literature.

When the findings regarding reading speed and comprehension are examined, it has been concluded that individuals who learn to read through the phonics instruction read slowly and have problems with comprehension, while individuals who learn to read through the whole language method read quickly and understand what they read. Therefore, it can be said that the whole language method is more effective in terms of reading speed and comprehension than the phonics instruction. When we look at the studies in the literature, most studies find that individuals who learn to read through the phonics instruction read slowly and have problems with comprehension, which also supports the findings of this study (Akman & İlkay, 2012; Erkul & Erdoğan, 2009; Korkmaz, 2006; Yaşar & Güvey- Aktay, 2015). In Gündüz's (2006) study, similar to this study, it was stated that the phonics instruction is not a suitable method for speedy and meaningful reading. In addition, he stated that the reading and writing speed of individuals who learn to read and write through this method will be low because they read and write a sentence syllable by syllable. In a different study, it was similarly revealed that the phonics intruction prevents fluent and speed reading and delays understanding the text read (Tosunoğlu, 2006). However, contrary to the findings of these studies, Bay (2010) concluded that the reading speed and reading comprehension levels of individuals who learned to read through the phonics instruction were much higher. Similarly, Bilir (2005) emphasized that individuals who learned to read through the phonics instruction acquired fast and meaningful reading skills in a shorter time. In addition to all these studies, in the document review conducted by Baştuğ and Erkuş (2016), it was concluded that the phonics instruction positively affects reading speed and negatively affects reading comprehension. Its findings on reading speed contradict this study, while its findings regarding comprehension overlap with this study. When the studies on the whole language method are considered, it is stated that individuals who learn to read through this method understand what they read and read quickly, similar to this study (Karadağ & Gültekin, 2007; Maviş et al., 2014; Sağırlı, 2019a; Tok et al., 2008; Turan & Akpınar, 2008). Studies conducted with students who learned to read

and write with different methods revealed that students' reading comprehension skills did not differ from each other (Kuşdemir-Kayıran & Karabay, 2012; Şahin, 2011). Therefore, it can be stated that some studies in the literature do not coincide with the findings of this study (Bay, 2010; Bilir, 2005; Kuşdemir-Kayıran & Karabay, 2012; Şahin, 2011).

Considering the findings on accurate reading, it was determined that individuals who learned to read through the phonics instruction read incorrectly and could not read fluently. Avcı and Şahin (2016), Akman and Aşkın (2012), Yıldız et al. (2016) and Tosunoğlu et al., (2008) also reached the same conclusion in their studies. Additionally, it was concluded that individuals who learned to read through the phonics instruction spelled words incorrectly. In most studies, similar to the findings of this study, it is stated that the phonics instruction causes incorrect spelling (Akıncı et al., 2016; Bayat, 2014; Baydık & Kudret, 2012; Bıçak & Susar-Kırmizi, 2013; Kayıkçı, 2008; Korkmaz, 2006; Kutluca-Canbulat, 2013; Şahin et al., 2006; Yaşar & Güvey-Aktay, 2015). However, unlike these studies, Yalçın and Çelik's (2018) study stated that individuals who learned to read through the phonics instruction correctly separated words into syllables.

In addition, it was also found that it is difficult to articulate and combine sounds in the phonics instruction. In Avcı and Şahin's (2016) study, it was suggested that individuals who learned to read through the phonics instruction had problems combining two sounds by reading them separately and combining the sounds. In a different study, it was stated that there were problems in combining and pronouncing some sounds with this method (Yurdakul & Kırmızı-Susar, 2013). Both studies support this study. In addition, it was concluded that there was difficulty in the syllable and letter stages of the whole language method. Similarly, in Çelenk's (2002) study, in his interviews with teachers, it was stated that during the reading process carried out with the whole language method, the problem was mostly experienced in the syllable and letter stages. The same conclusion was reached in the study conducted by Sağırlı (2019b). Therefore, it seems that this study supports the findings of both studies.

 On the other hand, according to the findings in the learning category, it was concluded that individuals who learned to read through the whole language method perceived the whole, but those who learned to read through the phonics instruction had problems in perceiving the whole. In addition, it can be said that the phonics instruction provides permanent learning, actively involves the student in the learning process and facilitates this process, and the whole language method provides concrete learning. Güneş et al. (2016) stated that the phonics instruction should actively involve the student in the lesson and increase the permanence of learning. In addition, unlike the other method, it has been determined that the phonics instruction shortens the time spent reading, prevents memorization and provides an enjoyable learning process. In Baştuğ and Erkuş (2016), it is stated that reading and writing are faster in all studies examined using this method. It is also stated in the Ministry of National Education (2009) program that this method prevents memorization.

When we look at the methodological features category, it is concluded that the whole language method is more suitable for the developmental characteristics of the students compared to the other method. In addition, based on the research examined, it has been determined that this method is more suitable for reading and writing. The opinions of 67% of the teachers in Şenel (2004) also support the findings of this study. Likewise, most of the teachers in Çelenk (2002) think that the whole language method is more effective to teach reading and writing. In addition to these results, it was also pointed out that the phonics instruction is suitable for the Turkish language structure and improves the creativity of the students. Similarly, in the primary education program of the Ministry of Education (2009), it was also stated that the phonics instruction is suitable for the Turkish sound structure and improves the creativity of students.

When the categories of reading, learning and methodological features are considered in general, it can be stated that both early literacy teaching methods have their own advantages and disadvantages. Therefore, it can be said that there is no single and perfect method (Akyol & Temur, 2014; Şenel, 2004). When the methods are examined, the prominent feature of the phonics instruction is that individuals read quickly. Therefore, it is believed to hinder individuals from reaching a proficient level in terms of reading speed, reading comprehension, accurate and prosodic reading skills. Gündüz (2006) also supports it by stating that this method enables reading faster than the whole language method, but that it is disadvantageous in terms of effective literacy.

This study is limited to 40 studies on literacy teaching methods in Turkey between 2000-2021. When the results obtained from the study are looked at from a general perspective, it can be seen that the research is mainly based on teachers' opinions. However, in order to measure reading speed and reading comprehension skills effectively, empirical studies based on objective evidence are required. Therefore, it is important to conduct more applied research in this field. It can also be concluded that people who learn to read through the whole language method are at a better level in terms of reading speed, reading comprehension and accurate reading compared to those who learn to read through the other method. In addition, it was also found that individuals who acquired literacy through the phonics instruction did not have a proficient prosodic reading level. Therefore, further research should be carried out to develop skills such as accurate reading, reading speed, reading comprehension, and prosodic reading. Longitudinal studies can also be planned to determine why individuals who learn to read through the phonics instruction are less proficient in terms of fluent reading and reading comprehension skills. Furthermore, reading processes can be examined with eye tracking systems that provide objective data. On the other hand, no conclusion can be reached since there is only one study investigating the prosodic reading skills of individuals who learn to read through the whole language method. In this regard, studies aiming to measure the prosodic reading skills of individuals who are taught literacy through the whole language method in different institutions outside the Ministry of Education (such as Public Education Centers) can be carried out.

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Genişletilmiş Türkçe Özet

İlk okuma yazma öğretiminin amacı bireye, hayatı boyunca kullanacağı temel dil becerilerinin içerisinde yer alan okuma ve yazma becerilerini kazandırmaktır. Fakat bu beceriler özensiz bir şekilde değil, çağdaş yaşamın şartlarına uygun hızlı, doğru, anlayarak ve tenkit ederek geliştirilmelidir (Parlakyıldız, 2019). Okuma yazma becerisinin hemen hemen her derste önemli bir yeri vardır. Bireyin ilk okuma ve yazma becerisinin iyi düzeyde olması öğrenim hayatı boyunca başarısını olumlu yönde etkilemektedir (Akan, 2021). Aslında birçok başarısızlığın altında yatan temel sorun ilköğretimde ilk okuma ve yazma becerisinin iyi bir şekilde kazandırılamamasından kaynaklanmaktadır (Öz, 1996). Özetle, bilgi akışının son derece hızlı olduğu bir çağa ayak uydurabilmek adına okuma kültürünün ve becerisinin en doğru öğretim yöntemiyle edinilmiş olması gerekmektedir. Bu durum, ilk okuma yazma öğretim sürecinin doğru yöntem ile gerçekleştirilmesini önemli ve gerekli kılmaktadır.

Alan yazınındaki bazı çalışmalar ele alındığında Ortabağ-Çevik'in (2006) yaptığı çalışmada, ses temelli öğretim yönteminin okuduğunu anlama, yorumlama, bütünü algılama ve heceleri doğru bölme konusunda etkili olmadığı sonucuna varılmıştır. Bunun aksine ses temelli yöntemi ele alan bazı araştırmalar sonucunda hem okuma mekaniği hem de okuduğunu anlama ile okuma hızı (Krashen, 2002) açısından daha faydalı bir yöntem olduğu ve bu yöntemde diğer yönteme nazaran daha hızlı bir şekilde okumaya geçildiği (Akıncı vd., 2016; Bayat, 2014) vurgulanmıştır. Tok vd. (2008), yaptıkları çalışmada her iki yöntemin de sınırlılıklarının olduğunu ve ses temelli yöntemle okuma öğrenen bireylerde dinleme becerisinin daha çok geliştiğini, tatil dönüşlerinde daha az unutma gerçekleştiğini ve bu yöntemin Türkçe ses yapısına daha uygun olduğuna değinmiştir. Gün'ün (2006) çalışmasında ise öğretmenlerin ses temelli yöntem hakkında genel olarak olumlu görüşler ortaya koydukları ve çözümleme yönteminden kaynaklanan sorunların bu yöntemle azaltılabileceğine inandıkları ortaya koyulmuştur. Ulusal ve uluslararası alan yazınında ilk okuma yazma öğretim yöntemlerinin sıkça tartışıldığı ve özellikle en çok kullanılan son iki yöntemin kıyaslandığı görülmektedir. Yapılan çalışmalarda her iki yöntemin de olumlu yönleriyle beraber olumsuz yönlerinin olduğu sonucuna varılabilir.

Yukarıda bahsi geçen araştırmalara bakıldığında çözümleme ve ses temelli öğretim yöntemleriyle gerçekleştirilen araştırmalardan elde edilen sonuçların çeşitlilik gösterdiği tespit edilmiştir. Bu nedenle ilgili çalışmaların birlikte ele alınması ve araştırmaların sonuçlarını bütüncül bir şekilde sunulması oldukça önemli görülmektedir. Ancak alan yazınında her iki ilk okuma ve yazma öğretim yöntemini birlikte ele alan herhangi bir sistematik inceleme çalışmasına rastlanmamıştır. Dolayısıyla bu araştırmanın ilk okuma yazma öğretim yöntemlerinin genel değerlendirmesini alan yazını kapsamında ortaya koyan ilk çalışma olduğu ifade edilebilir. Bu çalışma, tartışma konusu ve araştırmaların odak noktası olmaya devam eden çözümleme ve ses temelli ilk okuma ve yazma öğretim yöntemlerine genel bir bakış sağlaması açısından alan yazınına katkı sağlayacağı düşünülmektedir.

Bu çalışmada ilk okuma yazma öğretim yöntemlerinden çözümleme ve ses temelli yöntemi konu alan araştırmalardan elde edilen sonuçların okuma becerileri, öğrenme ve yöntemsel özellikler açısından incelenerek sistemli bir şekilde sentezlenmesi amaçlandığından sistematik inceleme yöntemi kullanılmıştır. Sistematik inceleme belirli bir araştırma sorusu, konu alanı ya da olguyla ilgili çalışmaların eleştirel ve sistematik bir şekilde belirlenmesi, değerlendirilmesi ve yorumlanması süreci olarak tanımlanmaktadır (Kitchenham, 2004; Moher, vd., 2009; Mueller, vd., 2014). Bu yöntem, açıkça belirlenmiş olan soruların mevcut çalışmalar vasıtasıyla araştırılmasına olanak tanıyan bağımsız bir araştırma yöntemi olarak görülmektedir (Denyer, 2009).

Araştırma sürecinde öncelikle "çözümleme yöntemi", "ses temelli yöntem", "sound-based method", "sound-based sentence method", "phonic based method", "phonic instruction", "whole language instruction", "sentence method", "phonic based instruction" anahtar kelimeleri uzmanlar eşliğinde belirlenmiştir. Belirlenen anahtar kelimeler doğrultusunda Web of Science, ERIC, Ulakbim (Tr-Dizin) ve Google Scholar veri tabanlarında alan yazını taraması yapılmıştır. Bu veri tabanlarında arama yapılmasının temel sebebi, Türkiye'de yapılan çalışmaların çoğunluğunun bu veri tabanlarında taranmasıdır. Tarama sonucunda ilgili anahtar kelimeleri içeren 56 makale tespit edilmiş, çalışmaların ilk önce özet bölümleri gözden geçirilmiş sonrasında yöntem ve bulgular bölümü incelenerek uygun olup olmadıkları tespit edilmiştir. Bu doğrultuda hangi öğretim yönteminin konu edinildiği belli olmayan (n=1), doküman incelemesi yöntemini ele alan (n= 2) ve araştırmanın kapsamına uygun olmayan (n=13) araştırmalar çalışmada kapsam dışı bırakılmıştır. İncelemeler sonucunda toplam 16 çalışma araştırmadan hâriç tutularak belirlenen seçim ölçütlerine uygun 40 makale analiz edilmek üzere MAXQDA programına aktarılmıştır. Nitel veri analiz programına aktarılan araştırmalar ayrıntılı bir şekilde okunarak içerik analizine tabi tutulmuştur. Okumalar sırasında araştırmaların bulguları ve sonuçları belirlenen araştırma soruları kapsamında incelenmiştir. Elde edilen veriler tablolar ve şekiller aracılığıyla okuyucuya şeffaf bir şekilde sunulmuştur.

Araştırmada gerçekleştirilen incelemeler sonucunda ses temelli yöntem ile okuma öğrenen bireylerin vurgu, tonlama ve noktalama işaretlerine uygun bir şekilde okuma gerçekleştiremedikleri sonucuna ulaşılmıştır. Alan yazınındaki araştırmalarda da ses temelli yöntemle okuma öğrenen öğrencilerin prozodik okuma becerisinin yetersiz düzeyde olduğu sonucu bu çalışmayı destekler niteliktedir (Bayat, 2014; Kaya & Doğan, 2016). Ancak Babayiğit'in (2019) ortaokul altıncı sınıf öğrencileriyle gerçekleştirdiği çalışmada öğrencilerin prozodik okuma becerilerinin yeterli düzeyde olduğu vurgulanmıştır. Dolayısıyla çalışmanın prozodik okumaya yönelik sonuçlarının bazı araştırmaların sonuçlarıyla örtüştüğü ifade edilebilir. Ancak alan yazınında farklı sonuçlara ulaşan çalışmaların da olduğu görülmektedir.

Bunun yanı sıra okuma hızına ve anlamaya ilişkin çıktılara bakıldığında, ses temelli yöntemle okuma öğrenen bireylerin yavaş okudukları ve anlama konusunda sorun yaşadıkları, çözümleme yöntemiyle okuma öğrenen bireylerin ise okumalarının hızlı

olduğu ve okuduklarını anladıkları sonucuna ulaşılmıştır. Dolayısıyla ses temelli yöntemden ziyade çözümleme yönteminin okuma hızı ve anlama açısından daha etkili bir yöntem olduğu söylenebilir. Gündüz'ün (2006) çalışmasında da bu araştırmanın sonuçlarına benzer şekilde hızlı ve anlamlı okuma hususunda ses temelli yöntemin uygun bir yöntem olmadığı dile getirilmiştir. Ek olarak bu yöntemle okuma yazma öğrenen bireylerin bir cümleyi hece hece okuyup yazdıkları için okuma yazma hızlarının da düşük olacağını ifade etmiştir. Farklı bir çalışmada ise benzer şekilde ses temelli yöntemin akıcı ve hızlı okumaya engel olduğu ve okunan metni anlamayı geciktirdiği ortaya konulmuştur (Tosunoğlu, 2006). Ancak bu çalışmaların sonuçlarının aksine Bay'ın (2010) yaptığı çalışmada, ses temelli yöntemle okuma öğrenen bireylerin okuma hızlarının ve okuduğunu anlama düzeylerinin çok üzerinde olduğu sonucuna ulaşılmıştır.

Diğer taraftan doğru okumaya yönelik çıktılar göz önünde bulundurulduğunda, ses temelli yöntemle okuma öğrenen bireylerin hatalı okudukları ve akıcı okuyamadıkları saptanmıştır. Avcı ve Şahin (2016), Akman ve İlkay (2012), Yıldız vd. (2016) ile Tosunoğlu vd. (2008) de çalışmalarında aynı sonuca ulaşmıştır. Ayrıca ses temelli yöntemle okuma öğrenen bireylerin kelimeleri yanlış heceledikleri sonucuna ulaşılmıştır. Yapılan çoğu çalışmada da bu araştırmanın sonuçlarına benzer olarak ses temelli yöntemin yanlış hecelemeye neden olduğu ifade edilmektedir (Akıncı vd., 2016; Bayat, 2014; Baydık ve Kudret, 2012; Bıçak ve Susar-Kırmızı, 2013; Kayıkçı, 2008; Korkmaz, 2006; Kutluca-Canbulat, 2013; Şahin vd., 2006; Yaşar ve Güvey-Aktay, 2015). Ancak bu çalışmaların aksine Yalçın ve Çelik'in (2018) çalışmasında ses temelli yöntemle okuma öğrenen bireylerin kelimeleri doğru bir şekilde hecelerine ayırdığı ifade edilmiştir.

Öğrenme kategorisindeki çıktılara göre çözümleme yöntemiyle okuma öğrenen bireylerin bütünü algıladıkları fakat ses temelli yöntemle öğrenenlerin bütünü algılama konusunda sorun yaşadıkları sonucuna ulaşılmıştır. Bunlara ek olarak ses temelli yöntemin kalıcı öğrenmeyi sağladığı, öğrenme sürecine öğrenciyi etkin bir şekilde kattığı ve bu süreci kolaylaştırdığı çözümleme yönteminin ise somut öğrenmeyi sağladığı söylenebilir. Güneş vd. (2016) çalışmasında ses temelli yöntemin öğrenciyi derse aktif bir şekilde katmasını ve öğrenmelerin kalıcılığını artırması gerektiğini ifade etmiştir. Ayrıca diğer yöntemin aksine ses temelli yöntemin okumaya çıkma süresini kısalttığı, ezberin önüne geçtiği ve zevkli bir öğrenme süreci sağladığı saptanmıştır. Baştuğ ve Erkuş'un (2016) araştırmasında da incelenen tüm çalışmalarda bu yöntemde okuma yazmaya hızlı geçtiği ifade edilmektedir. Ayrıca bu yöntemin ezberin önüne geçtiği MEB (2009) programında da ifade edilmektedir.

Yöntemsel özellikler kategorisine bakıldığında, çözümleme yönteminin diğer yönteme nazaran öğrencilerin gelişim özelliklerine daha uygun olduğu sonucuna varılmıştır. Ayrıca incelenen araştırmalardan hareketle bu yöntemin okuma yazma için uygun bir yöntem olduğu belirlenmiştir. Şenel'in (2004) çalışmasında öğretmenlerin %67'sinin görüşü de bu çalışmanın sonucunu destekler niteliktedir. Aynı şekilde Çelenk'in (2002) çalışmasında öğretmenlerin büyük bir kısmı okuma yazma öğretimi için çözümleme yönteminin uygun bir yöntem olduğunu düşünmektedir. Bu sonuçların yanı sıra ses

temelli yöntemin Türkçe dil yapısına uygun olduğu ve öğrencilerin yaratıcılığını geliştirdiği saptanmıştır. MEB (2009) ilköğretim programında da ses temelli yöntemin Türkçe ses yapısına uygun olduğu ve öğrencilerin yaratıcılığını geliştirdiği ifade edilmiştir. Dolayısıyla alan yazınında yapılan çalışmaların sonuçları ve "2009 İlköğretim Programının" bu hususta örtüştüğü söylenebilir.

Genel olarak okuma, öğrenme ve yöntemsel özellik kategorileri ele alındığında her iki ilk okuma ve yazma öğretim yönteminin de kendi içerisinde avantajları ve dezavantajları olduğu ifade edilebilir. Dolayısıyla tek ve mükemmel bir yöntemin varlığından söz edilemeyeceği söylenebilir (Akyol ve Temur, 2014; Şenel, 2004). Yöntemler incelendiğinde bireylerin hızlı bir şekilde okumaya çıkması, ses temelli yöntemin öne çıkan özelliğini oluşturmaktadır. Bu durumun okuma kategorisinde yer alan okuma hızı, okuduğunu anlama, doğru ve prozodik okuma becerileri açısından bireylerin yeterli düzeye erişemediklerine sebep olduğu düşünülmektedir. Gündüz'ün (2006), bu yöntemin çözümleme yöntemine nazaran daha hızlı bir şekilde okumaya çıkardığı ancak işlevsel bir okuryazarlık hususunda sakıncalı olduğunu ifade etmesi bu fikri desteklemektedir.

Bu çalışma 2000-2021 yılları arasında Türkiye'de gerçekleştirilen akıcı okuma ve okuduğunu anlama becerilerini ele alan 40 çalışma ile sınırlıdır. Çalışmadan elde edilen sonuçlara genel bir çerçeveden bakıldığında araştırmaların ağırlıklı olarak öğretmen görüşlerine dayalı olduğu görülmektedir. Ancak akıcı okuma becerileri ve okuduğunu anlama becerilerinin daha iyi bir şekilde ölçülebilmesi için görüş ve deneyimlere dayanan araştırma yöntemlerinin ötesinde objektif kanıtlara dayalı ampirik çalışmalara ihtiyaç olduğu düşünülmektedir. Dolayısıyla bu alanda daha fazla uygulamaya dönük araştırmaların yapılması önemli görülmektedir. Çözümleme temelli yöntem ile okuma öğrenen kişilerin diğer yöntemle öğrenenlere nazaran okuma hızı, okuduğunu anlama ve doğru okuma açısından daha iyi seviyede oldukları sonucuna ulaşılmıştır. Ayrıca ses temelli yöntemle ilk okuma ve yazma öğrenen bireylerin prozodik okuma açısından yeterli düzeyde olmadıkları belirlenmiştir. Ses temelli yöntemle okuma öğrenen öğrencilerin ilk okuma yazma sürecine ilişkin doğru okuma, okuma hızı, okuduğunu anlama ve prozodik okuma gibi becerilerin geliştirilmesine yönelik çalışmalar gerçekleştirilmelidir. Ayrıca ses temelli yöntemle okuma öğrenen bireylerin neden akıcı okuma ve okuduğunu anlama becerileri açısından yetersiz düzeyde olduklarını tespit etmeye yönelik boylamsal çalışmalar planlanabilir. Ayrıca gerçekleştirilmesi önerilen bu araştırmalarda okuma süreçleri, nesnel veri ortaya koyan göz izleme sistemleriyle incelenebilir. Diğer taraftan çözümleme temelli yöntemle okuma öğrenen bireylerin prozodik okuma becerilerini araştıran yalnızca bir araştırma olmasından dolayı herhangi bir sonuca ulaşılamamaktadır. Dolayısıyla MEB dışındaki farklı kurumlarda (Halk eğitim merkezleri gibi) çözümleme temelli yöntem ile okuma yazma öğretilen bireylerin prozodik okuma becerilerini ölçmeyi amaçlayan bir araştırma gerçekleştirilebilir.

Ethics Committee Approval: Since this study did not involve any living organisms, no ethical approval document was required. In addition, scientific ethical rules were complied with in this study.

Peer Review: This study was peer-reviewed.

Authors' Contribution: The authors contributed equally to this research.

Conflict of Interests: The authors have no conflict of interest to disclose.

Financial Disclosure: No financial support was received for this research.

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Appendices

Appendix 1.

Code, Category and Theme Relationships
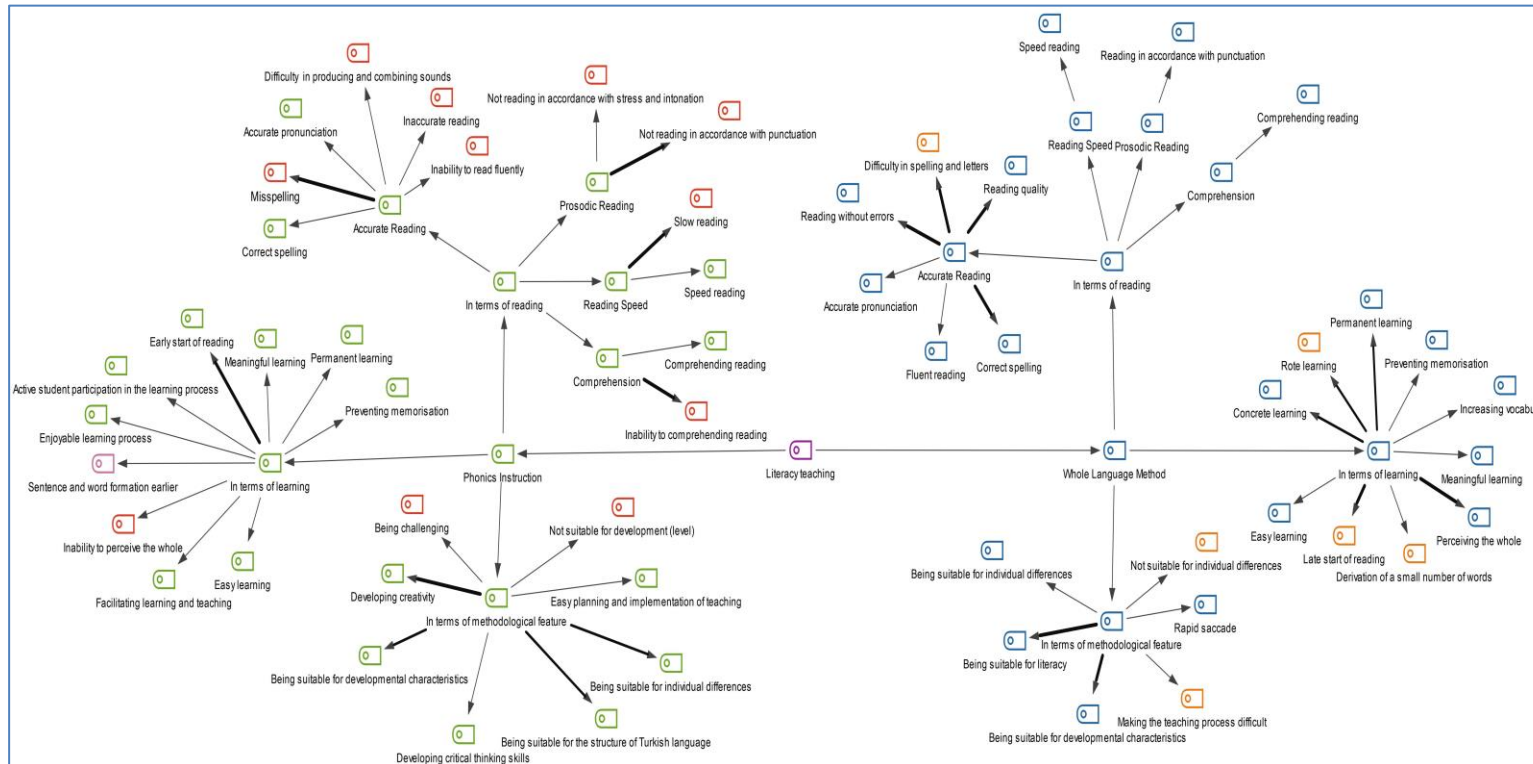
Appendix 2.

Components Related to the Studies Included in the Research

Code	Reference	Research Method	Sample	Data collection tools
M1	Akıncı, M., Bektaş, S., Gülle, T., Kurt, S. & Kurt, Y. (2016). Ses temelli cümle yöntemi ile okuma-yazma eğitimi. *Boğaziçi Üniversitesi Eğitim Dergisi, 33*(2), 97-115.	Qualitative	Student/Teacher	Observation/ Interview
M2	Akman, E. & Aşkın, İ. (2012). Ses temelli cümle yöntemine eleştirel bir bakış. *Gazi Üniversitesi Gazi Eğitim Fakültesi Dergisi, 3*(1), 1-18.	Qualitative	Teacher	Interview
M3	Aktürk, Y. & Mentiş Taş, A. (2011). İlk okuma-yazma öğretiminde "ses temelli cümle yöntemi"nin uygulanmasına ilişkin öğretmen görüşleri (Şanlıurfa/Viranşehir örneği). *Adnan Menderes Üniversitesi Eğitim Fakültesi Eğitim Bilimleri Dergisi, 2*(1), 27-37.	Quantitative	Teacher	Questionnaire
M4	Arslantaş, H. İ. & Cinoğlu, M. (2010). İlkokuma yazma öğretiminde ses temelli cümle yöntemiyle çözümleme yönteminin karşılaştırılması. *İnönü Üniversitesi Eğitim Fakültesi Dergisi, 11*(1), 81-92.	Qualitative	Teacher	Interview
M5	Avcı, Y. E. & Şahin, M. (2016). Ses temelli okuma-yazma öğretiminde sınıf öğretmenlerinin karşılaştığı sorunların incelenmesi. *Sosyal Bilimler Enstitüsü Dergisi, (6-7)*, 59-79.	Qualitative	Teacher	Observation /Interview / Document review
M6	Aybek, B. & Aslan, S. (2014). Birleştirilmiş sınıflarda görev yapan öğretmenlerin ses temelli cümle yönteminin uygulanmasında yaşamış oldukları sorunlara ve çözüm önerilerine yönelik görüşlerinin incelenmesi (Nitel bir araştırma). *Turkish Studies, 9*(5), 251-263.	Qualitative	Teacher	Questionnaire /Interview
M7	Babayiğit, Ö. & Erkuş, B. (2017). İlk okuma yazma öğretimi sürecinde sorunlar ve çözüm önerileri. *Erzincan Üniversitesi Eğitim Fakültesi Dergisi, 19* (2), 271-284.	Qualitative	Teacher	Observation/ Interview
M8	Bay, Y. (2010). Ses temelli cümle yöntemiyle ilk okuma yazma öğrenen ilköğretim birinci sınıf öğrencilerinin okuma yazma hızları ve okuduğunu anlama düzeyleri. *Ahi Evran Üniversitesi Eğitim Fakültesi Dergisi, 11* (1), 257-277.	Qualitative	Student	Observation / Document review
M9	Bayat, S. (2014). Sınıf öğretmenlerinin ilkokuma yazma programının uygulanmasında karşılaştıkları güçlüklere ilişkin görüşleri. *İlköğretim Online, 13*(3), 759-775.	Qualitative	Teacher	Interview

M10	Baydık, B. & Kudret, Z. (2012). Öğretmenlerin ses temelli cümle yönteminin etkilerine ve öğretim uygulamalarına ilişkin görüşleri. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi, 45*(1), 1-22.	Qualitative	Teacher	Interview
M11	Bıçak, E. & Susar Kırmızı, F. (2013). Öğretmen görüşlerine göre ses temelli cümle yöntemine ilişkin uygulamalarda öğrenci ve velilerin değerlendirilmesi. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi, 13*(1), 193-210.	Qualitative	Teacher	Interview
M12	Çelenk, S. (2002). İlkokuma-yazma öğretiminde karşılaşılan sorunlara ilişkin öğretmen görüşleri. *İlköğretim Online, 1* (2), 40-47.	Mixed	Teacher	Questionnaire / Interview
M13	Çelik Şen, Y. & Şahin Taşkın, Ç. (2010). Yeni ilköğretim programının getirdiği değişiklikler: Sınıf öğretmenlerinin düşünceleri. Yüzüncü Yıl Üniversitesi, *Eğitim Fakültesi Dergisi, 7*(2), 26-51.	Qualitative	Teacher	Interview
M14	Develi, K. (2021). Application of Sentence-Based Sound Teaching Method for First Reading and Writing in Education. *Participatory Educational Research, 8* (2), 330-356.	Qualitative	Student	Interview
M15	Duran, E. & Çoban, O. (2016). Ses temelli cümle yöntemine yönelik öğretmen görüşleri. *Pegem Eğitim ve Öğretim Dergisi, 1* (3), 17-22.	Qualitative	Teacher	Interview
M16	Erkul, Ö. & Erdoğan, T. (2009). The problems and suggestions encountered during the implementation of the sound based sentence method. *Procedia Social and Behavioral Sciences, 1,* 2294-2300.	Qualitative	Teacher	Interview
M17	Karadağ, R. & Gültekin, M. (2007). İlkokuma yazma öğretiminde çözümleme ve bireşim yöntemlerinin etkililiğine ilişkin öğretmen görüşleri. *Eğitimde Kuram ve Uygulama, 3*(1), 102-121.	Qualitative	Teacher	Interview
M18	Karaman, M. K. & Yurduseven, S. (2008). İlk okuma yazma programına ilişkin öğretmen görüşleri. *Uşak Üniversitesi Sosyal Bilimler Dergisi 1*(1), 115-129.	Quantitative	Teacher	Questionnaire
M19	Kayıkçı, K. (2008). İlköğretim müfettişleri ve öğretmenlerin ses temelli cümle öğretim yönteminin uygulamasına ilişkin görüşleri. *Kuram ve Uygulamada Eğitim Yönetimi, 55* (55), 423-457.	Quantitative	Inspector/Teacher	Scale
M20	Kırmızı Susar, F., Bıçak, E., Duran, A. & Batmaz, G. (2012). Teacher views on initial literacy instruction with the sound based sentence method. *Procedia - Social and Behavioral Sciences, 46,* 3642-3648.	Qualitative	Teacher	Form

M21	Koç, R. (2012). Okuma yazma öğretimi yöntemleri ve "ses temelli cümle yöntemi" uygulaması. *Turkish Studies, 7*(4), 2259-2268.	Qualitative	Teacher	Interview
M22	Korkmaz, İ. (2006). Yeni ilköğretim birinci sınıf programının öğretmenler tarafından değerlendirilmesi. *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi,* (16), 419-431.	Qualitative	Teacher	Form
M23	Kutluca-Canbulat, A. N. (2013). Ses temelli cümle yöntemi ile ilk okuma yazma öğretiminde anlamlı okumayı etkileyen unsurlar. *Mediterranean Journal of Humanities, 3*(2), 173-173.	Qualitative	Student/ Parent/ Document	Observation /Interview / Document review
M24	Maviş, F. Ö., Özel, Ö. & Arslan, M. (2014). İlk okuma yazma öğretiminde cümle çözümleme ve ses temelli cümle yönteminin öğretmen görüşleri doğrultusunda karşılaştırılması (Tokat İli örneklemi). *The Journal of Academic Social Science Studies, 8*(28), 481-481.	Qualitative	Teacher	Form
M25	Sagirli, M. & Kadioğlu Ateş, H. (2016). A research on reading comprehension levels of fifth-grade students who learned to read and write for the first time with sound-based sentence method. *Journal of Education and Training Studies, 4* (3), 63-71.	Mixed	Student	Achievement test
M26	Sagirli, M. (2020) Comparison of reading comprehension levels of literate learners with different methods, *Education 3-13, 48*(1), 100-117.	Mixed	Student	Achievement test
M27	Sağırlı, M. (2019). Cümle yönteminin ilk okuma-yazma öğretimi üzerindeki başarısının öğretmen açısından değerlendirilmesi. *Ekev Akademi Dergisi,* (78), 351-370.	Quantitative	Teacher	Questionnaire
M28	Sağırlı, M. (2019). Cümle ve ses temelli cümle yöntemi ile ilk okuma-yazma öğretiminin mukayeseli değerlendirilmesi. *Turkish Studies - Educational Sciences, 14*(5), 2601 - 2621.	Quantitative	Teacher	Questionnaire
M29	Şahin, A. (2010). Kırsal kesimde görev yapan öğretmenlerin ilk okuma ve yazma öğretiminde karşılaştıkları problemler. *Education Sciences, 5* (4), 1738-1750.	Quantitative	Teacher	Questionnaire
M30	Şahin, İ., İnci, S., Turan, H. & Apak, Ö. (2006). İlk okuma öğreitiminde ses temelli cümle yöntemiyle çözümleme yönteminin karşılaştırılması. *Milli Eğitim Dergisi* (171), 109-129.	Quantitative	Teacher	Questionnaire
M31	Tok, Ş. (2001). İlkokuma yazma öğretiminde kullanılan yöntemlerin değerlendirilmesi. *Kuram ve Uygulamada Eğitim Yönetimi, 7*(26), 257-275.	Quantitative	Teacher	Questionnaire

M32	Tok, Ş., Tok, T. N. & Mazı, A. (2008). İlkokuma yazma öğretiminde çözümleme ve ses temelli cümle yöntemlerinin değerlendirilmesi. *Kuram ve Uygulamada Eğitim Yönetimi,* (53), 123-144.	Quantitative	Teacher	Questionnaire
M33	Tosunoğlu, M., Tosunoğlu, N. & Arslan, F. (2008). 2005 İlköğretim Türkçe dersi öğretim programı'na göre yapılan ilk okuma ve yazma öğretiminin okuma becerisi açısından değerlendirilmesi. *Ticaret ve Turizm Eğitim Fakültesi Dergisi,* (2), 117-133.	Quantitative	Student	Document review
M34	Turan, M. & Akpınar, H. (2008). İlköğretim Türkçe dersi ilkokuma-yazma öğretiminde kullanılan ses temelli cümle ve bitişik-eğik yazı yöntemlerinin değerlendirilmesi. *Fırat Üniversitesi Sosyal Bilimler Dergisi, 18*(1), 121-138.	Mixed	Teacher	Questionnaire / Interview
M35	Akyol, H. & Temur, T. (2014). Ses temelli cümle yöntemi ve cümle yöntemi ile okuma yazma öğrenen öğrencilerin okuma becerilerinin öğretmen görüşlerine göre değerlendirilmesi. *Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 5* (9), 79-95.	Quantitative	Teacher	Scale
M36	Yaşar, Ş. & Güvey-Aktay, E. (2015). Okuma becerisi açısından cümle yöntemi ve ses temelli cümle yöntemi. *Turkish Studies, 10*(7), 1-18.	Qualitative	Teacher	Interview
M37	Yıldırım, K. (2007). "Yazılı program" ve "uygulanan program" kavramları açısından "ses temelli cümle yöntemi"nin değerlendirilmesi. *Milli Eğitim Dergisi,* 175, 25-45.	Mixed	Teacher	Questionnaire / Interview
M38	Yıldız, B., Üredi, L. & Akbaşlı, S. (2016). Ses temelli cümle yönteminin öğretmen görüşlerine göre değerlendirilmesi. *Route Educational and Social Science Journal, 3*(1), 255-269.	Quantitative	Teacher	Questionnaire
M39	Yurdakul, İ.H. & Susar Kirmizi, F. (2013). Views and insights of elemantary teacher candidates on sound-based sentence method (case of Pamukkale University). *Procedia - Social and Behavioral Sciences,* 106, 3303 – 3311.	Qualitative	Student	Questionnaire
M40	Sahin, I. (2006). Changing Emphasis: Rethinking Turkey's Early Literacy Instruction. *Online Submission.*	Mixed	Teacher /Student	Interview/ Test

Gateway to Europe in Education: eTwinning Projects

Sema Acar[*], Bilge Peker[**]

Abstract

This research was conducted in a basic qualitative research design to examine the advantages, disadvantages and limiting factors of eTwinning projects. The study group of the research consisted of 15 volunteer teachers from different branches working in public schools in Konya province in the 2019-2020 academic year, who had experience in eTwinning projects. The data were obtained through a semi-structured interview form prepared by the researchers. A descriptive analysis technique was used for data analysis. The findings obtained in this study showed that eTwinning projects had advantages, such as improving learning/teaching, cultural interaction, self-confidence and language development. It was also concluded that the projects positively affected teachers' professional and personal development. Regarding the disadvantages of the projects, half of the participant teachers stated that there were no disadvantages, while half of them stated that the projects had disadvantages, such as taking too much time and requiring sacrifice. When the factors limiting the development of eTwinning projects were examined, the negative attitudes of the school administration, time problems and students' lack of technical infrastructure drew attention. According to these results, it can be suggested that school administrators should support eTwinning project applications and project activities should be disseminated in schools.

Keywords: eTwinning, project, information and communication technologies, cooperation, teacher.

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Note: A part of this study was presented as an oral presentation at the VIIth International Eurasian Educational Research (EJER) Congress ONLINE congress held on 10-13 September 2020.

Introduction

As Albert Einstein stated the "Future of a country depends on the education of the people of that country"; education is the most important element of society. The quality of education that the people of a society have is the measure that determines the level of development of that society (Aydın, 2003). Çolak (2010) states that education is an important element that determines the level of development of society as an investment in human beings. Countries aim to raise a qualified workforce and ensure social development through education systems (Yılmaz Özelçi, 2020). Thus, education has been one of the most discussed, criticized and constantly renewed fields from the past to the present. However, due to the rapid technological transformation, schools need strategies to balance the education of students with the trends of society (Crişan & Albulescu, 2018). Because in a rapidly developing and changing world, it is not possible to consider the concepts of education and technology separately from each other (Çalışkan & Çoklar, 2019). With the development of technology, learning environments have become more dynamic and the roles of teachers and students have changed. Today, the educational requirements of the age, the differentiated needs of students and new approaches to personal education impose new professional responsibilities on the teacher. This situation requires teachers to be experts in their subject area, to plan education effectively, to create positive learning environments, to be open to innovations and technology, to have strong communication skills, to work toward the development of analytical and creative thinking in students and to be individuals who are open to continuous development (Ministry of National Education [MONE], 2017). In this context, eTwinning offers a very effective platform for teachers to acquire these skills.

Launched in 2005 as a core activity of the European Commission's e-learning program, eTwinning is a platform that provides support tools and services for schools through the use of "Information and Communication Technologies (ICT)", leading to collaboration between schools in Europe and offering continuous online Professional Development opportunities for educators free of charge. The Central Support Service is managed by "European Schoolnet", an international collaboration of 34 European Ministries of Education. The portal includes news from eTwinning countries, professional development opportunities, various learning activities, online seminars, professional development workshops and examples of successful projects (eTwinning, 2020). Therefore, eTwinning offers unique opportunities for the continuous development of teachers. The eTwinning platform offers a wide range of opportunities for teachers and students (YEĞİTEK, 2019):

- Teachers have "the opportunity to communicate and share professional experiences with colleagues working in different settings,

- Producing projects with different education and training practices,

- Integrating the use of technology into the education and training process,

- Provides opportunities to actively benefit from the technical and technological support provided by the ongoing FATİH (Movement for Increasing Opportunities and Improving Technology) project launched in Turkey.

- Students will be able to work with their peers in Europe without the obligation of mobility and improve their foreign language skills,

- It offers the opportunity to use information and communication technology tools purposefully and effectively and to experience learning in a more fun and motivating environment."

eTwinning is an innovative European project that promotes lifelong learning and whose main objective is to network schools with the help of new technologies (Galvin et al., 2007). Manfredini (2007) sees eTwinning as a tangible chance for teachers to improve their language skills, to learn new things about Europe, and to interact cross-culturally with colleagues from other countries. By participating in eTwinning projects, students have the opportunity to share experiences and decide together what steps to take toward a common goal. They gain experience in international cooperation in authentic learning environments (Αλεξίου, 2019). Furthermore, by participating in eTwinning projects, students become members of a digital online learning community (Cachia & Punie, 2012; Song, Petrushyna, Cao, & Klamma, 2011). Papadakis (2016) stated that eTwinning is an open, secure, cost-free educational network that brings together the entire European educational community (teachers, students, schools) under one roof, enabling innovation in learning and teaching practices. Gajek and Poszytek (2009) stated that the eTwinning platform aims to improve the language and intercultural skills of teachers and students. Erzurum, Demir, Yıldız and Gezer (2023) described eTwinning as a platform with great potential for educators to collaborate internationally, support their professional development, and provide students with a global learning experience.

In short, the eTwinning activity aims to create an online environment for teachers, students and administrators working in participating schools in European countries to share experiences, collaborate and exchange ideas. For this purpose, the most important activities of the eTwinning platform are eTwinning projects. Projects strengthen learning through the use of new technologies. Students and teachers experience innovative teaching methods and innovative teaching practices (Vlada, Jugureanu, & Istrate, 2009). In addition, through projects, learning goes beyond the classroom environment and becomes independent of time and space. Projects are activities where students and teachers from different schools and different countries generate project ideas together, work in cooperation, use technology effectively, develop language skills and learn to respect differences. Therefore, eTwinning projects offer project-based learning opportunities to teachers and students. Erdem (2002) states that project-based learning is a powerful approach that can transform an individual into a person who can think analytically and critically, research, be determined, responsible and work in cooperation. In addition, teachers who organize very good quality eTwinning projects are rewarded with a quality label. Quality labels consist of the "National Quality Label (NQL)" and the

"European Quality Label (EQL). Crişan (2013) stated that the National and European Quality Label Awards for eTwinning projects are a source of motivation for teachers. It can be said that quality labels are a document that shows that a project has the specified qualifications and that the teacher has carried out a quality project process.

Turkey joined the eTwinning platform in 2009. The use of the eTwinning platform is becoming widespread through introductory seminars, regional and national conferences organized by the Ministry of National Education, and the number of participants from Turkey is increasing day by day. The eTwinning Portal attracts the most interest from Turkey in the world (See Table 1).

Table 1.

Number of eTwinning Platform Users by Country between January 1, 2017 and October 30, 2019 (YEĞİTEK, 2019)

Country	Number of Users	Country	Number of Users
1. Turkey	14.696.747	11. Czech Republic	279.138
2. Italy	1.983.772	12. Lithuania	228.251
3. Spain	1.700.217	13. Serbia	216.706
4. France	1.275.009	14. Bulgaria	214.484
5. Poland	973.221	15. Belgium	200.216
6. Greece	708.494	16. Albania	198.729
7. Germany	582.149	17. Ukraine	189.173
8. Romania	569.458	18. Azerbaijan	188.392
9. Portugal	559.102	19. England	171.032
10. Croatia	321.305	20. Slovakia	170.076

A study on the benefits of eTwinning was conducted by the Turkish National Support Service in 2013, in which 770 teachers participated. The study found that eTwinning has a wide range of benefits for teachers and students. Teachers reported that eTwinning projects increased their ability to use technology, encouraged them to use different teaching methods, improved their foreign language skills, increased their computer skills, collaboration skills and motivation, and encouraged them to produce new and creative projects. In addition, teachers stated that eTwinning enabled their students to be more active in the lessons, increased cooperation among students, developed students socially, improved their foreign language skills, their ability to use technology and their critical thinking skills (eTwinning Turkey, 2020). Acar and Peker (2021) examined the impact of the eTwinning platform on teachers and concluded that the eTwinning platform is very useful for teachers, contributes to their professional and personal development and changes their perspectives on the profession. Akdemir (2017) investigated the advantages and disadvantages of eTwinning from the perspective of teachers. The results showed that eTwinning projects offer valuable opportunities for both teachers and students in terms of improving the teaching process, enabling cross-cultural exchange, increasing student engagement and developing language skills. On the other hand, it

was concluded that teachers and students experienced some challenges when conducting eTwinning projects, such as the technical shortcomings of schools, a lack of ICT skills, and inconsistencies between eTwinning practices and the curriculum. Crişan (2013) examined the impact of teachers' participation in eTwinning on their teaching practices. Although the teachers who participated in the study acknowledged that eTwinning had challenges, such as lack of support from the school, difficulty in establishing collaborations at school, and lack of time for participation, they stated that the use of eTwinning was motivating and encouraging for both themselves and their students, and also contributed to their professional development.

As a result of the literature review, it is obvious that eTwinning projects are very beneficial for teachers and students. However, there are also some disadvantages and factors that limit the development of the projects. In this context, this study aims to examine teachers' views on the advantages, disadvantages and limiting factors of eTwinning projects. Examining the advantages as well as the disadvantages and limiting factors of the projects in the research reveals both the difference and importance of the research compared to other studies in the literature. Knowing the disadvantages that teachers will face in projects and the obstacles in front of their projects will both make an important contribution to the relevant literature and guide what needs to be done to eliminate these obstacles. In line with the determined purpose, the problem statement of the research is stated as "What are the opinions of teachers about the advantages and disadvantages of eTwinning projects and the factors limiting the projects?". Within the scope of this main problem, the sub-problems of the research are as follows.

1. What are teachers' views on the advantages of eTwinning projects?

2. What are teachers' views on the disadvantages of eTwinning projects?

3. What are teachers' views on the factors limiting eTwinning projects?

Method

Research Design

In this study, a basic qualitative research approach was adopted to examine the advantages, disadvantages and limitations of eTwinning projects. Merriam (2009) defined basic qualitative research design as a type of research that focuses on how experiences are interpreted by individuals, what meanings are attributed to them and how they construct them in their inner world. In qualitative research, it is essential to examine human events and perceptions in depth in their natural environment. Therefore, qualitative research has a holistic perspective that combines different disciplines (Merriam & Grenier, 2019). In light of this information, it was decided that it would be appropriate to use the basic qualitative research design since it was aimed to examine

the participant teachers' perceptions of the advantages, disadvantages and limiting factors of eTwinning projects.

Study Group

In accordance with the purpose of this study, the study group was selected by the criterion sampling method, which is one of the purposeful sampling methods. The purposive sampling method is a method in which information-rich situations are selected in accordance with the purpose of the research to make a detailed examination (Patton, 2014). The basic understanding of the criterion sampling method is to study all situations that meet a set of predetermined criteria. These criteria can be created by the researcher or a ready-made list of criteria can be used (Yıldırım & Şimşek, 2016). In this context, care was taken to select teachers who volunteered to participate in the study and had experience in eTwinning projects. The study group of the research consists of 15 volunteer teachers working in public primary, secondary and high schools in Konya province in the 2019-2020 academic year. For ethical reasons, pseudonyms were used instead of teachers' full names. The demographic characteristics of the study group and the codes given to the teachers are presented in Table 2.

Table 2.

The Demographic Characteristics of the Study Group and the Codes Given to the Teachers

Codes	Professional seniority	Branch	Types of schools	Number of quality labels
Ayşe	11-15 years	Preschool	Primary schools	1
Emre	16 years or more	Classroom	Primary schools	29
Esin	11-15 years	Classroom	Primary schools	20
Ravza	16 years or more	Turkish	Secondary schools	9
İbrahim	11-15 years	Mathematics,	Secondary schools	2
Sena	6-10 years	Social Sciences	Secondary schools	7
Seher	6-10 years	Science	Secondary schools	3
Mehmet	0-5 years	English	Secondary schools	20
Efe	6-10 years	Visual Arts	Secondary schools	2
Aylin	0-5 years	Turkish Language and Literature	High schools	5
Hakan	6-10 years	Mathematics	High schools	2
Bayram	11-15 years	History	High schools	1
Rıdvan	6-10 years	Chemistry	High schools	6
Fatma	16 years or more	English	High schools	3
Dilek	0-5 years	Biology	High schools	4

As seen in Table 2, eight (53%) of the participant teachers were female and seven (47%) were male. When the professional seniority of the teachers is analyzed, three (20%) of them have 0-5 years, five (33%) of them have 6-10 years, four (27%) of them have 11-

15 years and three (20%) of them have 16 years or more. When analyzed based on branches, this study was conducted with teachers from Preschool, Classroom, Turkish, Mathematics, Social Sciences, Science, English, Visual Arts, Turkish Language and Literature, History, Chemistry, and Biology branches, thus trying to provide diversity. When the types of schools where the teachers work are examined, three (20%) of them work in primary schools, six (40%) in secondary schools and six (40%) in high schools. In addition, the number of teachers' quality labels varied between one and 29.

Data Collection Tool and Process

In this study, a semi-structured interview form was used to examine teachers' views on eTwinning projects. A semi-structured interview is a data collection tool in which the questions are flexible, specific information can be obtained from each participant and there is an interview guide with interview questions (Merriam, 2013). In this study, a semi-structured interview form was used to examine teachers' views on eTwinning projects. The purpose of semi-structured interview forms, which are frequently used in qualitative research, is to understand the feelings of the interviewees, to help them make sense of events and concepts, and to obtain information about all dimensions of the subject (Yıldırım & Şimşek, 2016).

The study's data were obtained using a semi-structured interview form developed by the researchers and consisting of two parts. The first part consisted of five questions to determine teachers' personal characteristics and the second part consisted of three open-ended questions to determine teachers' views on eTwinning projects. Open-ended questions were prepared based on a literature review and expert opinion. While preparing the interview form, the focus was on the advantages and disadvantages of eTwinning projects and the factors limiting the projects. To ensure the validity of the research form, the expert opinion of two academicians from the faculty of education of a state university in Turkey was consulted for the questions in the form. The research questions were found appropriate by the experts. In addition, the appropriateness of the language used in the interview form was arranged in line with the opinions of a Turkish Education expert. Accordingly, the question is, "Are there any advantages of eTwinning projects? If any, please specify." was changed to "Are there any advantages of conducting an eTwinning project? If any, please specify." Moreover, another question "Are there any disadvantages of eTwinning projects? If any, please specify." was changed to "Are there any disadvantages of conducting an eTwinning project? If any, please specify.". Afterward, the questions were asked to two teachers from different branches to test whether there was a problem in understanding the questions, and the teachers stated that there was no additional or missing situation. Utilizing all these opinions, the interview form was finalized.

In the 2019-2020 academic year, teachers working in primary, secondary and high schools and conducting eTwinning projects were reached and interviews were conducted in line with the interview form. The teachers in the study group were selected on a voluntary basis, and the teachers were informed about the study before they started

filling out the interview form. Since this research was conducted during the pandemic period, the interview form was first created on Google Forms and the link was sent to the teachers. It was emphasized in writing at the beginning of the form to achieve the purpose of the research that the interview form should be filled in sincerely since the researcher could not be face-to-face during the first answering phase of the questions. After receiving written opinions from the teachers, interviews were planned with each teacher using Zoom, as there was a need to examine what was written in detail. The duration of the interviews with the teachers varied between 30-45 minutes. In these interviews, the written opinions previously received from the teachers were elaborated with the Zoom interview.

Credibility and Ethics

The first condition for ensuring validity and reliability in qualitative research is to conduct the study ethically (Merriam, 2013). To conduct the study in an ethical manner, care was taken to ensure that the participating teachers volunteered and were informed about this research. The teachers were informed that their names and the institutions where they worked would not be disclosed, that the data to be obtained would be used for scientific purposes, and their consent was obtained to record the interviews. Pseudonyms were used instead of the teachers' full names, and the steps followed in this study were reported in a detailed and clear manner. To ensure the validity and reliability of this study, Lincoln and Guba's (1985) strategies of credibility, transferability, consistency and confirmability in qualitative research were utilized.

To ensure credibility in this study, detailed information about the research process and the characteristics of the participating teachers was provided. In addition, this study was organized in line with the opinions of an expert experienced in qualitative research. To ensure transferability, as stated by Lincoln and Guba (1985), each stage and finding of the study were explained in detail and a comprehensible language was used in the research. To ensure consistency in the research, the opinions of two independent and experienced experts in qualitative research were utilized. The coding created by the experts was compared with the coding created by the researchers and necessary arrangements were made. The consistency ratio between the coders was calculated according to Miles and Huberman (1994) formula and found to be .85. Finally, all stages of the research were computerized and filed for the confirmability of the research. In addition, approval was obtained from the "Necmettin Erbakan University Social and Human Sciences Scientific Research Ethics Committee" for this research (Decision dated November 13, 2020 and numbered 2020/83).

Data Analysis

The data collected in this study were analyzed with the descriptive analysis technique, one of the qualitative data analysis techniques. According to the descriptive analysis technique, the data are summarized and interpreted according to predetermined themes (Yıldırım & Şimşek, 2016). Before starting this study, the themes were determined as

advantages of eTwinning projects, disadvantages of eTwinning projects, and factors limiting the development of eTwinning projects. Necessary adjustments were made by comparing the coding created by two independent experts with experience in qualitative research with the coding created by the researchers. For example, while examining the advantages of eTwinning projects, the advantages stated by the participants within the scope of foreign language were coded as foreign language by the researchers and then edited as language development in line with the expert opinions. The consistency ratio between coders was found to be .85 according to Miles and Huberman (1994) formula. In the first stage of the analysis, teachers were given a pseudonym. Afterwards, direct quotations were presented from time to time to convey the views of the teachers in accordance with the characteristics of descriptive analysis. In the presentation of the data, the criteria of appropriateness to the theme, clarity and strikingness were considered for selecting direct quotations (Ünver, Bümen, & Başbay, 2010). In the findings section, pseudonyms were used to indicate which teacher the interview belonged to and the interview notes were given in quotation marks. Finally, the data were interpreted by considering the data in the literature.

Researchers Role

After a literature review, a semi-structured interview form was prepared by the researchers. The questions were finalized by taking expert opinions and making the necessary changes and corrections by the researchers. During the interviews, the researcher controlled variables, such as environment and sound to ensure a healthy interview. After the interviews were completed, the first researcher made the research data ready for analysis and the analysis was started independently by both researchers. At the end of the analysis, both researchers discussed the findings in line with the relevant literature.

Findings

In this section, the codes obtained from the descriptive analysis and the teacher to whomthese codes belong are presented together. Each of the open-ended questions prepared as a Google document is presented as a subheading in the findings section. One-to-one quotations were made from the written forms filled out by the teachers and the teachers' opinions were detailed as a result of the Zoom interview. These quotations were indicated in quotation marks, and the pseudonym given to the teacher before the quotation was indicated.

Advantages of eTwinning Projects

The first question the research seeks to answer is to explore the advantages of eTwinning projects. The findings obtained from the interviews conducted with teachers for this purpose are presented in Table 3.

Table 3.

Views on the Advantages of eTwinning Projects

Theme	Codes	Number of Participants
Advantages of eTwinning projects	Improve learning/teaching	5
	Professional-Personal development	5
	Self-confidence-Motivation	5
	Cultural interaction	3
	Language development	3
	Cooperation-Communication	2
	Planned work	2
	Technology knowledge	2

When the teachers' views on the advantages of eTwinning projects were analyzed; all of the teachers stated that there were advantages of doing eTwinning projects. It was seen that the projects *"improve learning/teaching"*, contribute to teachers' *"professional-personal development"* and improve their *"self-confidence-motivation."*

> Sena: "It contributes to many Areas, such as professional development and personal development and saves you from mediocrity and monotony. It makes even the students you don't teach say "do a project for us too."
>
> Seher: "Of course, it has professional and personal advantages in every way. My English has also improved. I call it lifelong learning. I feel privileged at school, I feel proud, I feel happy and useful because I have improved myself."
>
> Rıdvan: "I feel that I have developed professionally. My motivation increased with the awards I received. I got to know different cultures and prepared the ground for Erasmus thanks to the good partners I met in the projects."

Teachers stated that they developed professionally through eTwinning projects. For projects to receive a quality label, they need to be integrated into the curriculum. The interviewed teachers stated that they developed professionally by integrating the projects into the curriculum and that this contributed to their professional development by ensuring technology cooperation in the curriculum. In addition, it is seen that they support their personal development thanks to situations, such as collaborating with colleagues, working with foreign partners, and using technology effectively.

It was concluded that the projects contributed to *"cultural interaction"* and positively affected teachers' *"language development."*

> Ravza: "The biggest advantage is that students' interest in the lesson increases and each partner learns something from each other. In addition, our foreign language improves with international projects."
>
> Efe: "It is very advantageous in getting to know different cultures."

As stated in the teacher opinions above, teachers stated that their foreign language skills improved thanks to the foreign partners they worked with on the projects. Teacher Ravza, who stated that her English improved, stated that her foreign language level was zero at the beginning, but thanks to the projects, her speaking and writing skills reached an intermediate level. It was also stated that different cultures were recognized within the country and through cooperation with foreign countries.

In addition to these, there were teacher opinions stating that the projects provided *"cooperation-communication"* between teachers and students, improved *"planned work"* and increased *"technology knowledge."*

> Ayşe: "It contributed to my planned work."
>
> Esin: "It strengthens planned and collaborative work and communication."
>
> Hakan: "So to speak, you can be the teacher who is pointed out in the neighborhood of your school."
>
> Fatma: "I had the opportunity to learn web 2.0 tools and new technologies and to collaborate on international platforms.."

The teachers expressed that working with partners strengthened cooperation and communication. In addition, the fact that eTwinning projects are carried out within a specific plan contributes to teachers' ability to work in a planned manner. In addition, for eTwinning projects to receive a quality label, they need to be carried out with technology. In this context, teachers stated that their technology knowledge increased. Teacher Fatma stated that she was not familiar with web 2.0 tools before starting the projects and thanks to the projects she was able to use many web 2.0 tools.

Disadvantages of eTwinning Projects

Araştırmanın cevap aradığı ikinci soru, eTwinning projelerinin dezavantajlarını keşfetmektir. Bu amaç doğrultusunda öğretmenlerle yapılan görüşmelerden ulaşılan bulgular Tablo 4'te sunulmuştur.

Tablo 4.

Views on the Disadvantages of eTwinning Projects

Theme	Codes	Number of Participants
Disadvantages of eTwinning projects	None	8
	Time	4
	Sacrifice	2
	Low motivation	2

Teachers' views on the disadvantages of eTwinning projects were analyzed around the codes *"none," "time," "sacrifice"* and *"low motivation."*

> Ravza: "There are no disadvantages."
>
> Aylin: "No, there are not."
>
> Ayşe: "Being on the phone and computer too much.."
>
> Bayram: "Yes, there is. It takes a lot of time, there is not enough time, you have to take students from other courses. In the busyness of life, sometimes the work you have to do on the project can be a burden."

Eight teachers stated that there were no disadvantages to the projects. Four teachers stated that projects took too much time and that they spent too much time in front of computers and phones. The teachers who mentioned the time issue stated that they spent a lot of time in front of the computer to document each activity in the projects, which was a disadvantage for the projects, and that a more appropriate solution should be found for this situation.

There were two teachers who stated that they sacrificed themselves, their families and their social lives for the projects.

> Seher: "I spend more time than anyone else; some nights are spent at the computer. I sacrifice myself.
>
> Rıdvan: "You sacrifice your social and family life.."

In addition, two teachers complained that their projects were not appreciated and that their motivation decreased because their projects were seen as unnecessary efforts

> Sena: "When your work is not appreciated by teachers who are not open to innovation, and when it is portrayed as unnecessary effort, it leads to low motivation."
>
> Dilek: "The necessary importance may not be given. Sometimes it is sad not to get the support you want."

As a result of the interviews with teachers named Sena and Dilek, these teachers stated that the fact that teachers and administrators who do not know about eTwinning and are not open to innovation look at the projects as unnecessary effort and labor decreases their motivation, and which has a negative impact on the projects.

Factors Limiting the Development of eTwinning Projects

The third question the research seeks to answer is to examine the factors limiting the development of eTwinning projects. The findings obtained from the interviews conducted with teachers for this purpose are presented in Table 5.

Table 5.

Views on the Factors Limiting the Development of eTwinning projects

Theme	Codes	Number of Participants
Factors limiting the development of eTwinning projects	Administration	9
	Parents	6
	Time	5
	Teacher	3
	Curriculum	3
	Lack of technical infrastructure	4
	None	1

Teachers' views on the factors limiting the development of eTwinning projects were examined under the codes *"administration," "parents," "time," "teacher," "curriculum," "lack of technical infrastructure"* and *"none."* Teachers' opinions are given below.

> Emre: "Attitudes of school administrators. Computer and internet usage at home. Family and educational structures closed to development negatively affect our projects."

> Esin: "Negative perspective of the administration and parents. Parents do not see the benefits we do for students and always look at us negatively."

> Sena: "Negative and unsupportive administrative attitudes are the biggest problem."

The majority of teachers cited the negative attitudes of the school administration as a factor limiting their projects. In addition, six teachers mentioned negative parental attitudes. It is seen that these attitudes negatively affect their desire to do projects.

Five teachers mentioned time constraints and stated that projects also took up their extracurricular time. Three teachers mentioned negative teacher attitudes. These teachers stated that their projects were seen as unnecessary by their colleagues and that they could not get support from their colleagues in the work that should be done jointly on behalf of the school and that their enthusiasm was broken.

> Mehmet: "It can sometimes be demoralizing when teachers see it as an empty job. Of course, the lack of technology also limits it. In addition, when not all students participate in the projects, they have to arrange time outside the classroom, which is not effective. Also, when we do not receive support from other teachers, especially in the process of getting a label, our enthusiasm can be broken because we do not get the eTwinning school label."

> Dilek: "It takes a lot of time. I think it should be allowed to open exercises for those who write eTwinning projects. We find it difficult to find time to train the children. We also have a lot of difficulty due to the lack of technological infrastructure in our school. There is not enough equipment in our school. For example, a smart board."

The teacher Dilek, who mentioned time constraints, suggested opening exercises for those who write eTwinning projects as a solution to this problem.

While three teachers stated that the curriculum limited their projects, four teachers saw the lack of technical infrastructure as a negative factor.

> İbrahim: "These projects have an extra workload and are carried out voluntarily. The support and attitude of the administration are very important in their work. Weak internet and lack of technological equipment (e.g., phones, tablets, and smart boards)."

> Efe: "Curriculum and time are serious problems; you can only find the time to do projects in the gaps between classes, so there are problems."

> Bayram: "The biggest problem is time, keeping up with the curriculum and the teachers from whose classes you take students."

Although it is a necessity to integrate eTwinning projects into the curriculum, there are teacher opinions stating that there are some activities outside the curriculum and that these activities are difficult to do due to the concern of completing the curriculum.

A teacher working at Science and Art Centers (SAC) stated that she had no problems.

> Ravza: "I work at Science and Art Centers (SAC). I did not encounter any problems."

Results and Discussion

This study aims to examine teachers' views on the advantages and disadvantages of eTwinning projects and the factors limiting the projects. In line with the purpose of the study, three themes were identified at the beginning of the research. First, the advantages of eTwinning projects were analyzed. As a result of the data analysis obtained for this purpose, all of the teachers stated that doing eTwinning projects had advantages. Teachers stated that the projects had advantages, such as improving learning/teaching, cultural interaction and language development. This result is in line with Manfredini's (2007) views on eTwinning. In projects, teachers and students from different cities and countries come together and work together. The findings that eTwinning projects provide cultural interaction are also found in the literature (Akdemir, 2017; Camilleri, 2016; Manfredini, 2007; Yılmaz & Altun Yılmaz, 2012). Thanks to international projects, teachers can also improve their language skills. The aim of eTwinning is to improve the language and intercultural skills of teachers and students (Gajek & Poszytek, 2009). In addition, the findings that eTwinning improves teachers' language skills are in line with the literature (Akdemir, 2017; Gülnar & Yatağan, 2014; Manfredini, 2007). Through eTwinning projects, teachers not only learn new things but also share their knowledge with both students and colleagues. These projects, being planned activities carried out in cooperation, have been highlighted by teachers for enhancing collaboration and communication skills, making valuable contributions to their organized work.A similar finding was found in the study conducted by Cachia, Ferrari, Ala-Mutka and Punie (2010). At the same time, Erzurum, Demir, Yıldız and Gezer (2023) stated that eTwinning projects improved teachers' communication skills and increased their collaboration and planning skills. In his study, Alireisoğlu (2023) showed that eTwinning projects positively

affected teachers' ability to work together. Gündüz Çetin and Gündoğdu (2022) also stated that projects improve communication and collaboration. In this context, the findings are in line with the literature. In addition, teachers stated that the projects positively affected their professional development. Similarly, teachers participating in Crişan's (2013) study also stated that the use of eTwinning contributed to their professional development. Akıncı (2018) concluded that the eTwinning project contributed greatly to the professional development of teachers by integrating the teaching process with technology. Çavuş, Balçın and Yılmaz (2021) also concluded in their study that teachers participate in eTwinning projects to increase their professional competencies. Therefore, the findings of different studies overlap. Every new information learned through projects contributes to teachers' professional development. Teachers can contribute to their professional development by using the new methods and practices they learn from their peers in the classroom. Teachers also stated that eTwinning projects contribute to their personal development. This result coincides with the findings of Vuorikari, Gilleran and Scimeca's (2011) study. A similar result was found in Kızılaslan and Ersin Başkan's (2023) study conducted with English teachers. Teachers stated that the personal development courses on the platform contributed to them. Teachers who felt that they developed professionally and personally also increased their self-confidence and motivation with the quality labels they received from the projects. This is among the advantages to the projects. There are teacher opinions stating that they increased their knowledge of technology thanks to the projects. The result that projects increased teachers' knowledge of technology was also stated by teachers in Uslu Kaplan and Alkan's (2023) study. Indeed, the fact that the projects are presented in a virtual environment requires teachers to use technology effectively. Online meetings are organized for project partners to meet with each other, banners, posters, slogans, promotional videos prepared for the projects are prepared with various web 2.0 tools and technological tools are used to share them on the platform. Therefore, eTwinning projects enable teachers to increase their technological knowledge. All findings regarding the advantages of eTwinning projects are in line with the results of the study conducted by the Turkish National Support Service in 2013 (eTwinning Turkey, 2020).

Secondly, the disadvantages of eTwinning projects were analyzed. Half of the participating teachers stated that eTwinning projects did not have any disadvantages. This is a very pleasing situation. Because it was stated by the teachers that eTwinning projects provide various contributions to teachers in many areas, such as improving learning/teaching, professional-personal development, self-confidence development, motivation increase, cultural interaction, language development, cooperation, communication, planned work and the development of technology knowledge. Therefore, it is thought that teachers who think that projects do not have disadvantages will be more interested in them. In addition, there were teacher opinions that projects took too much time and that they spent too much time in front of computers and phones. Presenting project activities in a virtual environment and documenting each activity takes teachers' time. In addition, teachers doing projects have to allocate time outside of school hours for their activities. Therefore, teachers stated that they sacrificed themselves,

their families and their social lives. Some teachers complained that their projects were not appreciated by their colleagues and the administration and that their motivation decreased because the projects were seen as unnecessary efforts. In parallel with these findings, Crişan (2013) stated that eTwinning had difficulties, such as a lack of support from the school, difficulty in establishing collaborations at school, and a lack of time for participation. Similarly, in Avcı's (2021) study, participant teachers expressed that they wanted the projects they created on the eTwinning platform to be registered in the "Ministry of National Education Information System" and to be supported by both school management and parents. Unlike this study, the teachers participating in Kızılaslan and Ersin Başkan's (2023) study mentioned the time difference between partner countries and the difficulties in finding project partners. Among the disadvantages found in the literature are the limited duration of the projects, the lack of cooperation and communication between participating teachers, and the small number of activities (Çavuş, Balçın, & Yılmaz, 2021).

Finally, the factors limiting the development of eTwinning projects were analyzed. The majority of the teachers mentioned the negative attitudes of the school administration as a factor limiting their projects. Considering the benefits of eTwinning projects for teachers and students, it is clear that teachers' voluntary work should be appreciated and supported by the administration. Therefore, it is thought that school administrations should be informed about this issue and the importance of the projects should be emphasized by the District and Provincial Directorates of National Education. In addition to this, there are teacher opinions stating that some teacher attitudes negatively affect their projects. These teachers stated that their projects were seen as unnecessary by their colleagues and that they could not get support from their colleagues in the work that should be done jointly on behalf of the school and that their enthusiasm was broken. It is thought that doing projects should be popularized among teachers. For example, the Konya Provincial Directorate of National Education has started "My eTwinning Project in Every School." With this application, it encouraged schools and teachers to start projects by saying that every school should have a project. In this way, dissemination activities can be carried out. However, it is thought that it would be more useful to use incentives, such as certificates of achievement, economic gain, and extra service points, rather than forcing teachers to do projects. One third of the participating teachers mentioned time constraints and stated that projects also take up their time outside of class. Similarly, Αλεξίου (2019) mentioned the problems encountered in the implementation of a project due to a lack of time. One of the teachers who talked about time constraints stated that there could be an exercise for eTwinning project authors so that the projects could be given the time they need. It is thought that time constraints can be overcome in this way. At the same time, since the exercises also provide teachers with financial gain, they can be an incentive for teachers to do projects. There are teacher opinions stating that their projects are negatively affected by the lack of technical infrastructure. Thanks to the ongoing FATIH project initiated in our country, the technical infrastructure problem in schools has been solved to a great extent. In parallel to this, only one teacher stated that there was no interactive board in his/her school. The other teachers who mentioned the

problem of technical infrastructure mentioned the technological inadequacies of the students outside the school or the lack of technological knowledge of the students. This obstacle encountered in the implementation of the projects coincides with the findings of previous studies (Akdemir, 2017; Camilleri, 2016; Kampylis et al., 2013). It was also observed that the curriculum limited the projects. The inconsistencies between eTwinning projects and the curriculum have also been emphasized in the literature (Akdemir, 2017; Αλεξίου, 2019; Crişan, 2013). Consistent with the findings obtained in this study, Camilleri (2016) stated that teachers avoid participating in eTwinning projects because they are not part of the curriculum.

Recommendations

According to the results of the study, the following suggestions were made:

- Among the factors limiting eTwinning projects, the negative attitudes of school administrators were mentioned by many teachers. In this context, school administrators can be encouraged to support eTwinning project implementations.
- Among the factors limiting eTwinning projects, teachers stated that the projects were seen as unnecessary by their colleagues and that they could not get support from their colleagues in collaborative work. In this context, importance can be given to popularizing the projects among teachers. For this purpose, the eTwinning Club, which has recently started to be established in schools, can be established in all schools and the advisor teacher of this club can be changed every year so that all teachers can be informed about eTwinning. In addition, in-service and distance trainings can be organized to overcome the lack of knowledge of teachers on this subject and these trainings can be attended as much as possible.
- Among the disadvantages of eTwinning projects, some teachers complained that their motivation decreased because their projects were not appreciated by their colleagues and the administration. In this context, teachers who carried out successful projects can be presented with a certificate of achievement, and plaque, to show that their work was-- appreciated.
- Among the disadvantages of eTwinning projects, there were teacher opinions that they had time problems. To prevent this, an exercise can be opened for teachers who write eTwinning projects and in this way, it can be ensured that the necessary time is given to the projects.
- Negative parent attitudes were also seen among the factors that limit eTwinning projects. To prevent these negative attitudes, parents can be informed about the projects and their contributions to students.

The limitations of this study are that the study group consisted of 15 teachers and the findings were limited to the answers given by the participant teachers to the questions in the semi-structured interview form. It is accepted that out-of-control factors that may

occur due to the researcher, participants and implementation environments may have an effect on the participants' responses, even at a low level.

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Genişletilmiş Türkçe Özet

Günümüzde, çağın eğitim gerekleri, öğrencilerin farklılaşan ihtiyaçları ve bireyin eğitimi konusunda ele alınan yeni yaklaşımlar, öğretmene mesleki anlamda yeni sorumluluklar yüklemektedir. Bu anlayış, öğretmenin konu alanında uzman olmasını, eğitim öğretimi etkin bir şekilde planlayabilmesini, olumlu öğrenme ortamları oluşturmasını, yeniliklere ve teknolojiye açık olmasını, güçlü bir iletişim becerisine sahip olmasını ve sürekli gelişime açık bireyler olmasını zorunlu kılmaktadır (Milli Eğitim Bakanlığı, 2017). Bu kapsamda eTwinning, öğretmenlerin bu becerileri kazanabilmeleri için oldukça etkili bir platform sunmaktadır.

2005 yılında Avrupa Komisyonu e-öğrenme programının temel etkinliği olarak başlatılan eTwinning, Bilgi ve İletişim Teknolojileri kullanımıyla okullar için destek, araç ve hizmetler sağlayarak Avrupa'daki okullar arası iş birliğini teşvik eden ve eğitimciler için ücretsiz olarak sürekli çevrimiçi Mesleki Gelişim fırsatları sunan bir platformdur. Portalda eTwinning ülkelerinden haberler, mesleki gelişim fırsatları, çeşitli öğrenme etkinlikleri, çevrimiçi seminerler, mesleki gelişim çalıştayları ve başarılı projelerden örnekler bulunmaktadır (eTwinning, 2020). Dolayısıyla eTwinning, öğretmenlerin sürekli gelişimi için eşsiz fırsatlar sunmaktadır.

eTwinning faaliyeti Avrupa ülkelerinin katılımcı okullarında çalışan öğretmen, öğrenci ve idarecilere yönelik deneyimlerinin paylaşılması, iş birliği ve fikir alışverişinde bulunulabilmesi için çevrim içi bir ortam oluşturmayı amaçlamaktadır. Bu amaçla eTwinning platformunun en önemli aktiviteleri eTwinning projeleridir. Projeler farklı okullar ve farklı ülkelerden öğrencilerin ve öğretmenlerin bir araya gelip proje fikri ürettiği, iş birliği içinde çalıştığı, teknolojiyi etkin kullandığı ve dil becerilerini geliştirdiği aktivitelerdir.

Yapılan literatür taraması sonucunda eTwinning projelerinin öğretmenler ve öğrenciler için oldukça faydalı olduğu olduğu aşikardır. Bunun yanı sıra projelerin bazı dezavantajları ve projelerin gelişimini sınırlayan etmenler olduğu görülmektedir. Bu kapsamda araştırmanın amacı eTwinning projelerinin avantajları, dezavantajları ve projeleri sınırlayan etmenlere yönelik öğretmen görüşlerini incelemektir. Araştırmada projelerin avantajlarının yanı sıra dezavantajlarının ve projeleri sınırlayan etmenlerin incelenmesi hem araştırmanın literatürdeki diğer araştırmalardan farkını hem de önemini ortaya koymaktadır. Böylece projelerde öğretmenlerin karşılacağı dezavantajların ve projelerinin önündeki engellerin bilinmesi hem ilgili alanyazına önemli bir katkı sunacak hem de bu engellerin ortadan kaldırılması için yapılması gerekenlere yol gösterecektir. Belirlenen amaç doğrultusunda araştırmanın problem cümlesi "eTwinning projelerinin avantajları, dezavantajları ve projeleri sınırlayan etmenlere ilişkin öğretmen görüşleri nelerdir?" şeklinde ifade edilmiştir.

Bu araştırmada temel nitel araştırma yaklaşımı benimsenmiştir. Merriam (2009), temel nitel araştırma desenini, deneyimlerin bireyler tarafından nasıl yorumlandığı, ne anlamlar yüklendiği ve bunu iç dünyalarında nasıl yapılandırdıklarına odaklanan araştırma türü olarak tanımlamıştır. Nitel araştırmalarda insana ilişkin olay ve algıların, doğal ortamında derinlemesine incelenmesi esastır (Merriam ve Grenier, 2019). Bu

bilgiler ışığında araştırmada katılımcı öğretmenlerin eTwinning projelerine yönelik algılarını incelemek amaçlandığından temel nitel araştırma deseninin kullanılmasının uygun olacağına karar verilmiştir.

Çalışmaya gönüllü olarak katılmak isteyen, eTwinning projeleri konusunda deneyimi olan öğretmenlerin seçilmesine dikkat edilmiştir. Araştırmanın çalışma grubunu 2019-2020 eğitim öğretim yılında Konya ilindeki devlet ilkokul, ortaokul ve liselerinde görev yapan 15 gönüllü öğretmen oluşturmaktadır. Araştırmada yarı yapılandırılmış görüşme formu kullanılmıştır. Görüşme soruları literatür taraması yapılarak ve uzman görüşüne başvurularak hazırlanmıştır. Görüşme formu hazırlanırken özellikle eTwinning projelerinin avantajlarına, dezavantajlarına ve projeleri sınırlayan etmenlere odaklanılmıştır. Çalışma neticesinde toplanan veriler betimsel analiz tekniği ile analiz edilmiştir.

eTwinning projelerine yönelik öğretmenlerin görüşleri; "eTwinning Projelerinin Avantajları", "eTwinning Projelerinin Dezavantajları" ve "eTwinning Projelerinin Gelişimini Sınırlayan Etmenler" olmak üzere üç tema etrafında toplanmıştır. Araştırmaya katılan öğretmenlerin tamamı eTwinning projesi yapmanın avantajları olduğunu belirtmişlerdir. Öğretmenler projelerin öğrenmeyi / öğretmeyi geliştirme, kültürel etkileşim ve dil gelişimi gibi avantajları olduğunu belirtmişlerdir. Bu sonuç Manfredini'n (2007) eTwinning konusundaki görüşlerini desteklemektedir. Projelerde farklı şehir ve ülkelerden öğretmenler ve öğrenciler bir araya gelmekte ve beraber çalışmaktadırlar. Bu ise kültürel etkileşime imkân sağlamaktadır. eTwinning projelerinin kültürel etkileşimi sağladığına dair bulgular literatürde de karşımıza çıkmaktadır (Akdemir, 2017; Camilleri, 2016; Manfredini, 2007; Yılmaz ve Altun Yılmaz, 2012). Uluslararası projeler sayesinde öğretmenler dil becerilerini de geliştirebilmektedirler. eTwinning projelerinin öğretmenlerin dil becerilerini geliştirdiğine dair bulgular literatür ile paralellik göstermektedir (Akdemir, 2017; Gülnar ve Yatağan, 2014; Manfredini, 2007). Katılımcı öğretmenler projelerin iş birliği ve iletişim becerilerini artırdığını, planlı çalışmalarına katkıda bulunduğunu belirtmişlerdir. Benzer bir bulguya Cachia, Ferrari, Ala-Mutka ve Punie (2010) tarafından yapılan çalışma sonucunda ulaşılmıştır. Ayrıca öğretmenler projelerin mesleki gelişimlerini olumlu etkilediğini ifade etmişlerdir. Benzer şekilde Crişan'ın (2013) çalışmasına katılan öğretmenler de eTwinning kullanımının mesleki gelişimlerine katkıda bulunduğunu belirtmişlerdir. Akıncı (2018) ise eTwinning projesinin öğretim sürecini teknolojiyle bütünleştirerek öğretmenin mesleki gelişimine büyük katkılarının olduğu sonucuna ulaşmıştır. Dolayısıyla üç çalışmanın bulguları örtüşmektedir. Ayrıca öğretmenler eTwinning projeleri ile kişisel gelişimlerine katkıda bulunduklarını belirtmişlerdir. Bu sonuç Vuorikari, Gilleran ve Scimeca'nın (2011) çalışma bulguları ile örtüşmektedir. İkinci olarak eTwinning projelerinin dezavantajları incelenmiştir. Katılımcıların yarısı eTwinning projelerinin herhangi bir dezavantajı olmadığını belirtmiştir. Bunun yanı sıra projelerin çok vakit aldığını, bilgisayar ve telefon başında çok fazla zaman geçirdiklerini ifade eden öğretmen görüşleri mevcuttur. Ayrıca proje yapan öğretmenler, yapacağı etkinlikler için okul saatleri dışında zaman ayırmak zorunda kalmaktadır. Dolayısıyla öğretmenler kendisinden, aile ve sosyal hayatlarından fedakârlık yaptıklarını belirtmişlerdir. Bazı öğretmenler ise ortaya çıkardıkları projelerinin

meslektaşları ve idare tarafından takdir edilmemesinden ve projelere gereksiz çaba olarak bakılmasından dolayı motivasyonlarının düşmesinden yakınmaktadırlar. Bu bulgulara paralel olarak Crişan (2013) eTwinning'in okuldan destek eksikliği, okulda iş birlikleri kurma zorluğu, katılım için zaman eksikliği gibi zorlukları olduğunu belirtmiştir. Son olarak eTwinning projelerinin gelişimini sınırlayan etmenler incelenmiştir. Öğretmenlerin çoğunluğu okul idaresinin olumsuz tutumlarını projelerini sınırlayan bir etmen olarak belirtmişlerdir. Bunun yanı sıra bazı öğretmen tutumlarının projelerini olumsuz etkilediğini belirten öğretmen görüşleri mevcuttur. Bu öğretmenler yaptıkları projelerin meslektaşları tarafından gereksiz görüldüğünü ve okul adına ortak yapılması gereken işlerde meslektaşlarından destek alamadıklarını belirterek şevklerinin kırıldığını ifade etmişlerdir. Katılımcı öğretmenlerin üçte biri zaman sıkıntısından bahsetmiş ve projelerin ders dışı zamanlarını da aldığını ifade etmişlerdir. Benzer şekilde Αλεξίου (2019) zaman eksikliğinden dolayı bir projenin uygulanmasında karşılaşılan sorunlardan bahsetmiştir. Teknik alt yapı eksikliğinden dolayı projelerinin olumsuz etkilediğini belirten öğretmen görüşleri mevcuttur. Bu öğretmenler öğrencilerin okul dışındaki teknolojik yetersizliklerinden ya da öğrencilerin teknolojik bilgi eksikliğinden bahsetmiştir. Projelerin uygulanmasında karşılaşılan bu engel daha önce yapılmış çalışma bulguları ile örtüşmektedir (Akdemir, 2017; Camilleri, 2016; Kampylis ve diğerleri, 2013). Ayrıca müfredatın projeleri sınırlandırdığı söylenebilir. Literatürde de yapılan araştırmalarda eTwinning projeleri ile müfredat arasındaki tutarsızlıklar vurgulanmıştır (Akdemir, 2017; Αλεξίου, 2019; Camilleri, 2016; Crişan, 2013). Araştırma sonuçlarına göre okul yöneticilerinin eTwinning proje uygulamalarını desteklemeleri, proje çalışmalarının okullarda yaygınlaştırılması, velilerin projelerin yararları konusunda bilgilendirilmesi, öğretmenlerin bu konudaki çalışmalarının takdir edilmesi ve eTwinning projesi yazan öğretmenler için egzersiz açılıp bu şekilde projelere gereken zamanın sağlanması önerilebilir.

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