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Experiences and Expectations of Health Sciences Students towards Licensing Examination: A Collective Case Study

Abdusamed Mohammed*

Furo Beshir**

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Abstract: This qualitative collective case study aimed to explore the perceptions and expectations towards relatively low performances in licensure exams among Health Sciences students at Harar Health Sciences College, from multiple perspectives. The study involved 15 participants, who were selected using purposive sampling, and data was collected through face-to-face one-on-one interviews using open-ended questionnaires and analyzed thematically. The study found that language barriers, poor reading habits, a lack of guidance and advisory services, a lack of study time, poor communication, and the absence of up-to-date learning materials were the major reasons for low performance in licensure examinations. The study recommends providing up-to-date materials, challenging assignments, focusing on professional courses from entry to the profession, and creating strong guidance, advisory, monitoring, and evaluation services to improve students' academic success. The study's findings highlight a knowledge gap and may serve as a basis for stakeholders to improve students' academic success. However, the study has limitations, such as its inability to generalize the findings to the source population, the absence of related published data, and the exclusion of other stakeholders such as parents and employers. The study recommends a mixed-method or follow-up study incorporating other stakeholders to yield better findings.

Keywords: Health sciences students, licensure examination, students' performance, collective case study

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Introduction

A health professional license is an occupational license that permits a person to legally practice medicine and other health care fields of study. Licensure tests are typically offered by governmental organizations for the purpose of regulating a specific profession or occupation and thereby protecting the health, safety, and welfare of the public, not the profession (Kane & Kane, 1986). Most nations require such a license, bestowed either by a specified government-approved professional association or a government agency (Department of the Treasury Office of Economic Policy et al., 2015; Kane, Michael T., 1968).

The primary goal of pre-service medical and health sciences education is to produce healthcare forces who will meet the needs and expectations of patients and society. Thus, education qualifications, good training, and on-going professional development are fundamental for high-quality health care services. Hence, different countries apply for licensure exams before the graduates are going to start service to identify individuals who possess the minimum knowledge and experience necessary to perform tasks on the job safely and competently (Buja, 2019; World Health Organization, 2013).

According to the World Health Organization, transformation and expansion of health professionals' education require health professionals who have the necessary competencies (Wheeler et al., 2014). Hence, the World Health Organization suggested changes in regulation, including certification and licensing of graduates. It is also known that many countries around the world verify the competence and fitness to practice of health professionals by administering standard qualification, exit, or licensure examinations (L. M. & Borgermans, 2015; Wheeler et al., 2014; World Health Organization, 2013).

Literature (Chandelkar et al., 2015; D. & H., 2018; Lertwilaiwittaya et al., 2019; R. M., 2019; Mard & Ghafouri, 2020; Narkhede et al., 2019) reveal that in previous studies, empirical material was collected on the competency of students regarding in-school performance such as objective structured clinical examination (OSCE) and/or objective structured practical examination (OSPE), and most of those researches were quantitative in nature. In essence, the aim of this study was to observe a real-life scenario where multiple actors were involved in students' achievement which created a value cocreation. There is no such - research conducted in higher educational institutions. Thus, the stance of relativist ontology was taken, and an interpretive paradigm was assumed.

Besides, the Ethiopian government has designed national licensure exams for new first-degree graduates of medicinal and health sciences professionals. After dissipating a huge resource, the graduate students need job opportunities. However, with a maximum of five attempts to pass the test, the government offers job opportunities only to those who pass the exam on any of the five possible chances.

Nonetheless, within the last three years, the number of students at the college who scored the pass mark in the licensure exam has been very low. Currently, the graduating class students are worried about this exam result due to their previous low performance. Even though a strong student support system is available, the teachers and administrations of higher educational institutions are deeply concerned about the previous performances and poor job opportunities among their graduates.

The possible reasons for this low performance of students in licensure exams remain unknown and need further investigation. Unless the possible reasons are identified clearly and solutions are set for them, the students cannot achieve better in the future, fulfilling the country's as well as professional minimum competence requirements. Once more, there are few published data related to experiences and expectations of licensing exams, and thus, the current study focuses on addressing that gap by highlighting the case of Harar Health Sciences College. Therefore, the study may contribute to the knowledge base of information related to perceptions of relatively low performance in licensure exams and expectations for improving performance in the future from multiple perspectives.

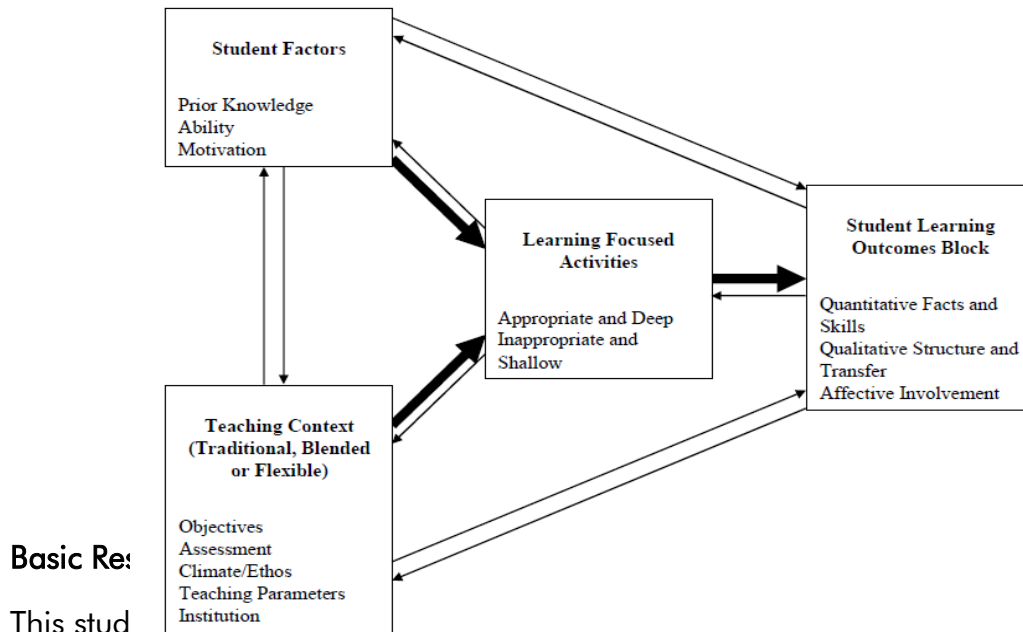
Conceptual Framework

In discussing the idea of a student's approach to learning, Biggs et al. use the 3P-model (presage, process, and product) to describe the factors that influence whether a student will take a deep or a surface approach to learning (De la Fuente et al., 2016; Hamilton & Tee, 2009).

According to this model of learning, the principles of alignment entail the existence of consistency and logic among all the elements and mutual support between the elements: the curriculum that we teach, the teaching methods that we use, the assessment procedures that we use, and the methods of reporting results (Fig. 1).

Figure 1:

A Biggs 3P-Model of teaching and learning adapted from (De la Fuente et al., 2016; Hamilton & Tee, 2009)



1. Why was the students' licensure exam performance - low?
2. How did the participants describe their experience with the licensure examination?
3. What are the challenges faced by students throughout the course of preparation for the licensure exam?
4. What are the challenges faced by teachers while preparing students for licensing exam domains?
5. What measures should be taken to improve students' performances in licensure examinations?

Methods and Materials

Study Area and Period

The study was conducted at Harar Health Sciences College, Harar, eastern Ethiopia, from February 3–10, 2022. Harar Health Sciences College is founded in Harar, the capital city of Harari Regional State and East Hararghe Zone of Oromiya. From Addis Ababa, Harar is located at 513.7 km in the far east of Ethiopia. The College is a public higher educational institution offering a range of health sciences training and education in Level IV, Level V and bachelorette degrees for a period of almost half a century. Accordingly, the college offers bachelorette degree training and education in the fields of Comprehensive Nursing, Midwifery, Pharmacy, Medical Laboratory Science, Public

Health, Pediatrics' Nursing, Emergency and critical care, Anesthesia and Health informatics (Scrolls, 2022).

Study Design

The study approach was a collective case study because the current study tried to explore performance in licensing examinations from multiple perspectives (students', teachers', and administrative perspectives), a case study design is appropriate for this study. A collective case study involves more than one case, which may or may not be physically colocated with other cases. A collective case study may be conducted at one site (e.g., a school, hospital, or university) by examining a number of different departments or other units at that site (Gregory, 2017; Luck et al., 2007; Mills et al., 2010).

This type of study helps researchers explore individual cases and provide details and explanations regarding a situation, phenomenon, or experience where individual studies provide information into the "why" or "how," and provide elaborative data through comparing cases cross-wise that allows for a more expansive understanding of the issue (Crowe et al., 2011; Léger & Martin, 2020).

Population, Sample and Sampling Technique

The proposed tool and interview were restricted to Harar Health Sciences College. Students are important consumers of academic experience with very fundamental expectations towards teaching and learning processes. Besides knowledge, attitude, and skill acquaintances, the students want to achieve their academic journey and hence score a success after completion of a specific program.

Moreover, a teacher is very concerned about a student's academic success. Whenever, negative situations such as stress, poor performance and/or academic failures and challenges are encountered, as well as positive circumstances, the teachers might show a deep concern towards their students. In a teaching institution, the teachers are very close to the students and they are the ones who can easily understand the teaching-learning process. The case of medical and health sciences graduates is one of such cases. In addition to that, teachers have great roles in capacitating the students and hence, can face so many challenges in their actions.

Lastly, the overall activity of an institution is acknowledged by its administrators. An administrator can influence the activities of students as well as the teachers' roles either directly or indirectly in one way or another. A little bit of support or discouragement from a higher official of a teaching institution has its own impact on the overall teaching-learning process. Therefore, for the current study, the bachelor's degree graduates who have sat for licensing exam at least once, the teachers as well as the college administrators were the sources of data.

In qualitative research, rather than numbers, it is the impressions, opinions and views that have a fundamental concern. And hence, in a qualitative case study, as many as

fifty participants, but as few as five can be studied (Alase, 2017; Moser & Korstjens, 2018). Therefore, a total of six graduated students were included in the study based on the preset criteria. The participants were selected by using criterion sampling, which is one type of purposive sampling technique (Palinkas et al., 2015). Criterion sampling involves the identification of particular criteria of importance, the articulation of these criteria, and the systematic review and study of cases that meet the criteria. The reason for undertaking criterion sampling is to identify major system weaknesses for improvement (Benoot et al., 2016; Elmusharaf, 2016). Therefore, criterion sampling was employed with the following criteria of selection:

- The participants should be the graduated students;
- He/she should be a graduate of a regular generic degree program; and
- He/she should have sat for the licensure examination at least once.

Therefore, based on the above criteria, four graduates who scored the pass-mark on the first spot of the examination and the remaining three who did not score the pass-mark on the first spot were included in the study. Additionally, a total of six teachers (one from each department that has licensing examinations, that is, Midwifery, Medical Laboratory Sciences, Pharmacy, Nursing, and Public Health, and one from the common course department) were included in the study. The College has three higher officials (a dean and two vice Deans), and two administrators were included in the study.

The cases were purposefully selected with an assumption of rich information. Accordingly, a total of seven (7) students, six (6) teachers and two (2) administrators were included in this study, totaling fifteen (15) cases.

Among the students who took part in the study, one of them was among the students who took the exam in 2018/19 when the exam was given for the first time ever, and another one took the exam in 2019/20. The remaining five (5) students were those who sat for the exam in the 2021/22 academic year. Regarding the exam result status, four of them successfully passed the first entry of the exam whereas the other three were those who took the exam for the most recent time, in 2021, and they didn't pass the exam. Regarding the teachers who participated in the current study, only one of them was from the common course department and the rest five were from the department for which a licensing exam has been implemented.

For the sake of ethical considerations, codes were used to differentiate participants. For instance, 'S' stands for students whereas 'T' and 'A' designate teachers and administrators respectively. In order to differentiate a student from others, numbers were used as S1, S2, S3, ..., S7. Similarly, codes T1, T2, ..., T6 as well as A1, A2 represent teachers and administrators respectively. Among the students who took part in the study, two were males whereas the rest were females. Four of them were 23 years old and the rest were 22. From the Pharmacy and Public Health departments, two students were selected from each department while others were from midwifery, medical laboratory sciences, and the nursing department.

Instruments

A semi-structured data collection tool that was reviewed by qualitative research experts (one Ph.D. and two Ph.D. candidates) was used for data collection from multiple sources as stated above. The interview protocol includes questions concerning academic learning experiences, licensing exam expectations, performances, and difficulties from students', teachers' and administrative perspectives. Then, the individual students were interviewed privately and all interviews were audio-taped for accuracy.

The data was collected by a senior researcher who has experience in qualitative research data collection and has training in qualitative research methodology to assure the accuracy of the data. Additionally, an open-ended survey method was used to collect data from teachers and administrators after the purpose of the study was clearly explained.

Method of Data Analysis

As a qualitative researcher, it is the role and responsibility of the researcher to investigate and interpret the impact of the research subject-matter on the cases of the research participants (Alase, 2017). Thus, the thematic analysis was done.

Trustworthiness

The researcher ensured the accuracy of the data by checking interview and group transcripts for errors, and by continuously cross-checking codes during data analysis to maintain consistency in interpretation. Credibility was ensured by making sure the perceptual data collected were accurate through peer debriefing, member checking, and triangulation of data from multiple sources.

Results and Discussions

Intentionally narrowing the focus of the findings of the study occurred through the identification of departments for which licensure exams have been offered. Then, for analysis, grouping of participants is done based on demographic information, such as being a student, teacher, or administrator. Interview transcripts and field notes were then descriptively coded to reduce the overall number of codes to a manageable number.

Theme Development

Themes were developed from repetitive examination and interpretation of the collected data. Then, a total of 31 tentative codes were developed by grouping texts into categories. Then, the codes were refined into four themes, as follows.

Theme One: Students' background

The first research question addressed "why was students' performance in the licensure exam low?" in the last few years since the examination started. All students voiced that

their understanding of the English language during the exam played a great role in their achievement. Student S3 stated: *My father is a teacher. He did a lot to help me understand the English language, starting when I was in fifth grade of the time, I use an English-to-English dictionary to understand vocabulary, and that improved my ability to understand the language.*

In contrast to the above student, student S5 said: *I need assistance from others to understand the message of the subject matter. I prefer to be taught by teachers who can speak my mother tongue.*

Student S1 said: *Most of the teachers who taught me professional courses could not speak my mother tongue. Whenever I want to ask for clarification, they say that they use the national language only for translation.*

A student's background indicates from where he/she comes including the kind of education the student went through. This includes their language, culture, values, family, and home environment. Studies showed that differences in student's socio-economic, demographic, and educational background explain 15% of the variation in low performance across students, on average (OECD, 2016). However, a study conducted in Türkiye found that English as a medium of instruction was not harmful to the students (Civan & Coşkun, 2016). Another study done at Isabel State University, Philippines, indicated that there is no difference in academic achievement among students who learn in English-only and multi-lingual classes (Maramag-Manalastas & Batang, 2018).

In countries like Ethiopia, where the medium of instruction is a second language, understanding the students' mother tongue to help them understand the subject matter is crucial for their performance (R. Nishanti, 2020). It is much harder, however, to teach abstract skills such as critical thinking and literacy skills directly through a second language. All students who failed the exam responded that their performance might be better if they learned from a teacher who could speak their mother tongue.

Learning style is a student's preference for how he/she likes to learn. This is termed as learning style and includes auditory, visual, or kinesthetic styles. It indicates how he/she comprehends and retains information best. Similarly, teachers like to teach and structure their classrooms in different ways, known as the teaching styles (Ahmed, 2020; Brien, 2007; Mupa & Isaac, 2015).

The authority style is primarily used in a lecture or auditorium setting, whereby the teacher will give a lengthy, one-way discussion on a pre-assigned topic while students take notes and memorize key pieces of information. For subjects that necessitate group work, peer feedback or lab-based learning, a delegator or group style of tutoring is often adopted. As a delegator, the teacher may take on an observer role to promote collaboration and encourage peer-to-peer learning. Teachers who adopt a facilitator or activity-based style encourage self-learning in the classroom through increased peer-to-teacher learning. The demonstrator retains authority in the classroom. However,

instead of relying solely on a verbal lecture, the demonstrator style combines lectures with other teaching forms, including multimedia presentations, demonstrations and class activities (B. Thornton, 2013). One of the participants, student S4 said:

It would have been better if my teachers used pictures and videos in the classroom. And also, I wonder if they taught me how to access those learning videos. In addition to that, it's important that my teachers who taught me the theory class facilitate the skill demonstration sessions at least once because most of the skill demonstration sessions were caught by the skill lab assistance. Also, I want to say that if my teachers provided me with the checklists and guidelines for skill-related topics, I would understand better, and my current exam status would be better".

All teachers responded to the question that addressed the reasons why students' performance in the national licensure exam is low. They voiced that students' poor backgrounds, language barriers, and poor readings habit could be the reasons for their low performance in this exam. Teachers T6 and T3 responded:

I feel that the students' performance might be low if they fail to understand the message of a specific question which solely depends on their knowledge background -. And also, the students' English language understanding ability is the key to their activities such as reading. If a student is able to understand the subject matter, he/she will be motivated to study hard and perform better.

Studies show that there is a significant relationship between knowledge of the subject matter and academic achievement. For instance, a study conducted in Singapore found that knowledge and context have a positive relationship with students' performance in examinations (Liem, 2019). Another study conducted among university students in Germany concluded that the theoretical as well as practical knowledge of students could lead to effective achievement in their courses (Binder et al., 2019).

Another teacher (T4), stated:

The student who had an interest in studying his/her profession would perform better. And also, having pre-requisite knowledge and skills such as upgrading, helps them achieve their academic goal.

Studies indicated that they underline the importance of interest for academic choices and for self-regulated learning when the instructional setting is less structured. Accordingly, a study conducted in Malaysia pinpointed that interest in a subject and/or profession is important for academic success (Wong & Wong, 2019). A study conducted in China found that academic interest had a significant positive impact on academic performance (Wu et al., 2019). Another study done at Agogo State College, Ghana showed that a strong positive relationship exists between students' interest in studying and academic performance (Arhin & Gideon, 2020).

Another teacher, T5, added:

According to the information we have, the exam items are case-based questions. Most of the time, case-based scenario items are long by nature. So, if the exam questions are too long, it will be difficult for the students to understand their ideas. In addition to that, if the departments did not create the opportunity for students to get prepared for the exam, their performance could be low.

Changes in pattern of question papers near examinations affect student's performance. Traditionally, classroom tests are short in nature and their ideas are shallow (Arhin & Yanney, 2020). A study done at the United Arab Emirates University in Dubai concluded that exit exam questions are long and require more time to complete. According to this study, if the students couldn't finish their exam on time, they might leave part/s of the exam undone which could result in low performance (Arhin & Yanney, 2020). Another study showed that nonstandard test items are more difficult for students to answer correctly than standard test items, and result in poorer student performance (Caldwell & Pate, 2013). Another study also found that students' performance in tests showed a significant improvement when frequent quizzes were used as it improved students' reading habits (Mwapea, 2015).

Experience

The experience of students, specifically in licensure exams is another basic question for the current study. This experience can be narrated and shared with other students to help them perform better in this exam. Accordingly, "How did the participants describe their experience in the licensure examination?" was one basic question in this research. Regarding this, all of the students stated that their prior learning experiences were vital for their performance, even though they did not pass the exam. A student, S7, stated:

The classroom materials such as teacher's handouts and books were important. However, most classroom activities were not problem-based which can facilitate students practice and understanding. The classroom tests were not similar to the licensure exam questions. The classroom tests and assignments were not challenging enough to make me read much material. They could easily be accessible from the teachers' handouts. Even, most of my teachers did not give me assignments.

Previous studies concluded that promoting students' interest can contribute to a more engaged, motivated, learning experience (Pakula, 2019). This can be achieved by enriching the students with challenging assignments, quizzes, and test, as these encourage them to search more from time to time. According to a framework for improving school performances, balancing external assessments and teacher-based assessments in the assessment of learning and integrating student formative assessment is essential to making students perform better in national or external exams (Paulo Santiago, Claire Shewbridge, Deborah Nusche, 2013).

Another student said:

There was a little bit of difference between licensure exam questions and classroom tests. Licensure exam questions were clear and understandable, but they required more in-depth understanding than model exams and classroom tests. My biggest feeling is that for more than two months after graduation, I studied hard focusing on the major courses.

Student S1 stated:

A classroom test requires simple memorization in contrast to licensure exam. Licensure exam questions require solid knowledge addressing the basis for a specific profession. Students, S5, also shared the same idea concerning the differences between classroom tests and licensure exam questions. Another student, S4, spoke:

There is a big difference between licensure exams and classroom tests. For example, the licensure exam was more related to concepts. In classroom tests, some teachers intentionally use ambiguous words to confuse students. But what helped us was that the departments reduced some loads and gave us time to study.

Theme Two: Contents

In this section, the following research questions were partially discussed:

1. What are the challenges faced by students throughout the course of licensure exam preparation?
2. What are the challenges faced by teachers while preparing students for licensing exam domains?

The term 'content' describes two points: curricular content and exam item content. The curricular content was described by both teachers and students whereas the exam content was expressed only by the students. For instance, the students stated that the national exam requires the basic knowledge skills and attitude related to a specific profession starting from the first year up to graduation, and therefore, the preparation should start from entry into the profession. If not, it is difficult to cover the entire professional curriculum within a short period of time. One of the students, S3, said:

I failed to pass the exam because I did not start studying on time. Then, I could not cover the whole professional curriculum. I did not get enough time to even cover the exam domain. And finally, I understood that effort was not enough to pass the exam because the exam questions require a long-term, deep understanding of the course contents.

A study from Stanford Psychology Scholars found that college students employing a strategic approach to the use of study resources improved their exam scores by an average of one-third of a letter grade (Martinovich, 2017). Two of the students stated:

Among the 200 questions, 140 were case-based items. Those case-scenario items were too long and thus, I couldn't catch the message of the question. While I was trying to understand a single question, four to six, sometimes, eight minutes were gone. Then, I developed tension and stress, and I lost my attention. This student added: You should

make sure that you study hard and take your education very seriously. When you study hard you will receive a lot of benefits and if you do not study hard and don't take your education seriously you may live to regret it. You should make sure that you realize what type of benefits your education will give you because once you do this you will be motivated to study hard since you will know how much it will help you.

Another student, S5, said:

Just after graduation, I got a job and started working at a health facility. After then, I learned a lot from working in the area because the health professionals have more up-to-date knowledge and skills than my teachers. Most of the time, I used to ask questions related to my profession and so I learned a lot even after graduation. Another important thing was that rather than theory classes, what I learned during my clinical practicum helped me a lot to pass the exam.

Regarding the course content, all teachers stated that it's difficult to cover the course contents while clarifying each point. One of the teachers, T2, stated:

After I complete a session, I would like to give a question that is similar to a licensing exam question. However, lack of time challenged me to manage it and I ended up only displaying the question. After a while, I left such practice and focused only on lecturing. This teacher again added that, mostly, the time allocated for a specific subject is not enough even to cover the contents because most of the students need translation to their mother tongue language to understand the subject matter. So, while I was translating the major points, the time allocated might be up. Then, I would leave the class without summarizing the session because another teacher might wait for me for his turn, or I might have another class, or the students might want to go home, and the like".

A study done at Arleton State University, Texas, showed there is no relationship between class attendance and students' academic success (Schultz & Sharp, 2007). But, another study found that there is no significant relationship between the length of the class schedule and exam performance (Trout, 2018). Another study done at the University of Uyo, Nigeria, concluded that students should set a study timetable long enough for effective academic exercises which might be at least two to three hours daily for their private study and stick to it (Ukpong & George, 2013).

A teacher, T4, mentioned:

I preferred to teach theoretical description with a projector and computer because I could not cover the bulky course content within the curricular schedule. Rather, I used to provide some probing questions at the end of the classes to summarize the portion I taught.

Studies showed that probing questions are important for academic success and improve students' performance. Accordingly, a study conducted at Edvantia, West Virginia, found that probing questions after an interactive session is an effective instructional technique, being sure to address teacher training, fidelity of implementation, and

assessment of student achievement issues (Craig & Ill, 2015). Another study concluded that asking questions has the potential to facilitate or influence the learning process, but it may also have the capacity to turn a child's learning off if not handled tactfully (Naz et al., 2013). Another study found that probing questions are strongly influenced by support for student autonomy (Kosko, 2016; Sahin, 2015).

Theme Three: Responsibility

Under this theme, besides the points raised under theme two, the following research questions were discussed:

1. What are the challenges faced by students throughout the course of licensure exam preparation?
2. What are the challenges faced by teachers while preparing students for licensing exam domains?

Additionally, this theme pointed out the course of activities that should be done by the students, the teachers, the departments, administrators and/or the college in general. For instance, teaching and learning processes are challenging by nature, especially if there is no commitment from both sides. The majority of teachers responded that classroom management skills are very basic for successful academic activities. Most importantly, a class might include 35 or more students and hence managing this large number of students while keeping their diverse backgrounds is very tough. Then, we preferred direct lecturing omitting interactive sessions as they might not be effective.

One of the teachers, T6, said:

I omitted facilitating discussion while I was teaching because I thought it wasn't effective since the class was made up of a large number of students. In such a case, I just stopped in front of the class and waited for the students to either ask or respond to a question.

Studies showed that classroom management strategies are useful to increase students' capacities in their subject matter which can positively influence their performance during examinations (George et al., 2017; Nisar et al., 2019).

Reading habit

The students' effort or hard working is key to academic success. All students stated that reading patterns are crucial for their performance in academia including this licensure exam. Relating to this, student S7 said *I had no information about the exam. I was thinking the information I got from the department about the exam domain was not exactly true. But those students who just focused on reading the professional courses a little bit more than me were successful.*

Student S4 stated: *I was hearing the information about the exam domain. The teachers used to talk about it during class and clinical practicum. But there was a problem with teachers and departments in general. The problem was that they told us about the exam,*

but I did not see any activities done to help us prepare for the exam. Once upon a time, the department informed us we do have a model exam. We took that exam. Then, we did not get feedback on it. We could not know even how many questions we answered correctly”.

Regular reading increases one's vocabulary and ability to think, improves one's verbal and writing abilities, and broadens one's horizons. Thus, it is important for students to adopt a reading culture for improved academic performance. Studies found that students reading habits have a significant influence on academic performance. And also the studies confirmed that there is a strong positive relationship between reading habit and performance examination (Oriogu et al., 2017; Owusu-Acheaw, 2014; Taha, 2021).

Teaching and coaching habits

Besides teaching styles, teaching habits play a great role in classroom management. And also, coaching is a basic skill a teacher should develop specifically during skill demonstration or clinical practice. The student participants stated that they have no experience with skill demonstration in college because most of the teachers use videos to teach the skill part of the subjects. And most of the students focus only on completing the class. Then, there was no one to ask about skill practice. The students believed that it was the students who made the teachers omit the skill demonstration part and focus only on the theoretical part of the curriculum. They added that during clinical practice, most of the teachers came for attendance checks. They just enter the ward, look here and there, and leave the ward without saying anything about the cases. Therefore, the students concluded that it would be better if the teachers would be with them and help them practice better because there were a lot of points from clinical practice that helped us on the licensing exam. Student S6 voiced:

My father is a high school teacher. Often, he talks about the importance of skill practice for health professionals. One day, I remembered his idea and asked my teacher if he was ready to take us to the skill demonstration lab. Then, he answered me that he was assigned only for the theory part and the demonstration would be covered by the skill-lab assistants. After that day I informed my dad and he brought me a lot of videos and checklists. He helped me understand the concepts while reading with me. Even for this exam, my father helped me a lot to improve my study habits.

Studies show that student outcomes are predicted by teaching practices. Factors such as parental background, school factors, and teachers' factors have a serious influence on students' academic performance (Blazar & Kraft, 2017; Ouyang et al., 2019; Tokunbo Olufemi et al., 2018).

Guidance and advisory services

The students voiced:

Just like research projects, what if other subjects do have advisors! The way I was studying might not be effective. r the material I used to study could not be credentialed or be out of date. In this and similar cases, I would need help from my teachers. However, there is no active academic guidance service in our college except for research and community-based and team training programs (CBTP / TTP). Even, guidance for research as well as CBTP and TTP was not effective.

Student activities, communication and feedback

During the study year, students perform a lot of academic activities for which they might be rewarded directly or indirectly. These student activities include assignments, projects, tests, homework, etc. And these activities should challenge students and make them read so many references. But the appropriate source should be listed by the teachers in order to keep students from wasting their time reading fake and outdated materials. One of the students, S3, said:

Most of my teachers did not give assignments. Their handout also has no list of references, and then it's difficult for me to find books even at the college library. Even if the assignments are given, they are solely from that teacher's handout. The same is true for the tests. I read only the handouts and answered them easily. For tests, some of my teachers used to tell us the slides that were included and not included in the exam, and thus I limited myself to my teachers' handouts only.

Regarding feedback from the students who took the exam, all teachers said 'No', however, they could ask about the exam sheet if they could take a copy of it. The majority of teachers stated that they did not interact and communicate with students to get feedback. Often, they responded to their concerns, and they did not even imagine taking feedback from them.

Theme Four: Willingness

This theme, focuses on the last research question: "What activities should be done to improve students' performances in licensure examinations?" One of the teachers, T4, said:

The students perform better if they have an interest in studying their profession. Students' belief in their own efforts is also very fundamental to perform better. I faced some students who lacked self-confidence while they were performing fine.

Accommodation for students whether with families or living separately has its own socio-economic effect on academic success. The students also believed that the families' residence is far from their university area. They stated that living separately from the family is not good. Activities such as cooking food, washing clothes or searching for water take hours. Most importantly, financially they could face challenges. So, they believed that the performance would be better if there were dormitory and café services that were identical to those at universities. They also added that it would be good if the teachers were more familiar with licensure exam items just like entrance exams, etc.

Because it helps the teachers know what the questions look like and their major area of focus. The most up-to-date credential reading materials should be prepared by the departments and be accessible to help students study hard. Another teacher, T6, said:

We, the teachers should take initiative and focus more on professional courses starting from entry. Whenever teachers are assigned to teach those courses, it should be based on competence, and feedback from students should be considered.

Providing feedback means giving students an explanation of what they are doing correctly and/or incorrectly, with the focus of the feedback on what the student is doing right. It has a compelling influence on student achievement. When teachers seek or at least are open to what learners know, what they understand, where they make errors, and when they have misconceptions when they are not engaged, then teaching and learning can be synchronized and powerful. Feedback from teachers makes learning visible. It is most productive for a student's learning when they are provided with an explanation as to what is accurate and inaccurate about their work. Reducing stress around exam time is conducive to student's mental wellbeing and this is achieved through feedback from students and responding to them accordingly (Ambrose et al., 2009).

A study done at the University of Dhaka, Bangladesh, concluded that the teachers used a form of feedback that was often ineffective in satisfying the students and improving their learning experience (Mamoon et al., 2016). From the administrative side, it's believed that activities should be tracked at different levels using objective performance measures. Administrative activity and teaching-learning processes are inseparable, and hence it should be a collaborative effort to act more even including the parents. Working through the standards starting from the first day of students' entry up to their graduation as part of academic quality assurance is important.

Conclusions and Recommendations

The findings from this study show that language barriers, poor reading habits, a lack of guidance and advisory services, a lack of time, poor communication, and poor learning material were the major reasons for low performance in licensure examinations. And also, in relation to building the capacity of students, poor measurements were taken by the departments and the college as a whole. Additionally, the college teachers were poorly involved in the students' exam preparation. Activities such as clinical practicum have a crucial role in enriching students with up-to-date information and guidelines.

Throughout the journey to graduation, insufficient preparation time, lack of early preparation for the exam, such that the students could start preparing themselves as soon as they joined the profession on the second year, poor initiation from the department and absence of information about the exam items were the challenges faced by the students whereas bulky contents of the curriculum with inadequate session time, lack of information about the exam item, and lack of commitment among the

students, the teachers, departments, and the college are the challenges that have been faced by the teachers while teaching their students.

Therefore, providing up-to-date materials, giving assignments that can challenge students, focusing on professional courses from the start, and creating strong guidance, advisory, monitoring, and evaluation services are recommended.

Limitations of the study

As this study followed a qualitative approach, generalization of the research findings to the source population is impossible. Furthermore, there is no related published data to compare the research findings. Moreover, the study population was comprised of students, teachers and administrators only. However, the case of students' performance can also be explored from parents' and other stakeholders such as employers' perspectives. Therefore, conducting mixed methods or follow-up study over a relatively long period of time incorporating parents and other stakeholders can yield better findings.

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Genişletilmiş Türkçe Özet

Bu nitel durum çalışmasının amacı, Harar Sağlık Bilimleri Yüksekokulu'ndaki Sağlık Bilimleri öğrencilerinin lisans sınavlarındaki nispeten düşük performanslarına yönelik algı ve beklentilerini çoklu perspektiflerden araştırmaktır. Bu çalışmaya, on beş katılımcı dahil edilmiş ve katılımcıları seçmek için amaçlı örnekleme tekniği kullanılmıştır. Veriler yüz yüze görüşme ve açık uçlu soru formları kullanılarak toplanmış ve tematik olarak analiz edilmiştir. Çalışma, dil engelleri, zayıf okuma alışkanlıkları, rehberlik ve danışmanlık hizmetlerinin eksikliği, çalışma zamanının yetersizliği, zayıf iletişim ve güncel öğrenme materyallerinin yokluğu, lisans sınavlarındaki düşük performansın başlıca nedenleri olduğunu ortaya koymuştur. Bu nedenle, güncel materyaller sağlama, öğrencilere zorlayıcı görevler verme, mesleğe girişten itibaren mesleki derslere odaklanma ve öğrencilerin akademik başarısını artırmak için güçlü rehberlik, danışmanlık, izleme ve değerlendirme hizmetleri önerilmektedir. Çalışma bulguları, öğrencilerin lisans sınavlarındaki düşük performanslarına ilişkin deneyimler, algılar ve nedenler konusundaki bilgi boşluğuna dikkat çekerek tıp ve sağlık bilimleri öğrencileri, öğretmenler, yöneticiler ve araştırmacılar için temel oluşturabilir. Bu nedenle, bu çalışma çeşitli paydaşlar için öğrencilerin akademik başarılarını artırmaya yönelik bir kanıt olabilir. Bu çalışma nitel bir yaklaşım izlediği için, araştırma bulgularının kaynak popülasyona genelleştirilmesi mümkün değildir. Ayrıca, araştırma bulgularını karşılaştırmak için ilgili hususta yayınlanmış veri bulunmamaktadır. Dahası, çalışma popülasyonu sadece öğrenciler, öğretmenler ve yöneticilerden oluşmaktadır. Ayrıca, öğrencilerin performansı, ebeveynlerin ve işverenlerin perspektiflerinden de incelenebilir. Bu nedenle, daha derinlemesine bulgular elde etmek için ebeveynleri ve diğer paydaşları da içeren karma yöntem veya boylamsal yöntem ile çalışmaların yapılması önerilmektedir.

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Informed Consent: Informed consent was obtained from all 15 participants.

Peer Review: This research was peer-reviewed.

Authors' Contribution:

1. Abdusamed Mohammed: Conceptualizing, Developing Proposal, Formulation of instrument, Data Collection, Analysis and Thesis write-up.
2. Furo Beshir: Translation of data collection tool in to two local languages (i.e. Afan Oromo, and Amharic), Supervision of data collection process.

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A Study into Learning Losses of Preschool Children in Covid-19 Pandemic

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Abstract: The purpose of the current study was to determine the learning losses at preschool children in Covid-19 pandemic period. For that reason, a case study, a qualitative research method, comprised the model of the study. The working group of the study was made up of 19 preschool teachers determined by means of a face-to-face interview or telephone talk. The interviews were realized with the teachers using an interview form with semi-structured questions either face-to-face or by telephone. As a result of the content analysis of the findings obtained, it was found that children mostly experienced psycho-motor, social-emotional and linguistic losses. The children having learning losses the most were determined as the ones whose developments were not followed by their parents, experiencing insufficiencies in reaching technological devices, foreign students and those with a special need. It was found that teachers firstly benefited from such activities as game, mathematics and art in order to stop learning losses. To prevent learning losses, it is recommended that low-income households receive support in terms of providing tablets, internet access, etc. They should also be trained in using platforms such as Zoom, EBA, etc., and a curriculum for distance education should be developed.

Keywords: Preschool education, Covid-19 pandemic, online education, learning loss.

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Introduction

It is of necessity that educational activities are carried out in a program in order to reach the desired target in education. However, it is likely to suspend education under some compulsory conditions. One of them is the Covid-19 pandemic. The Covid-19 pandemic led to significant problems in education systems all over the world. This case brought about some problems in terms of education.

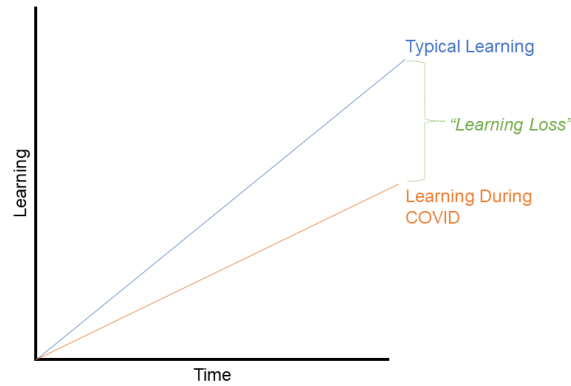
With the announcement of the Covid-19 outbreak by the World Health Organization (WHO) as a pandemic on March 11, 2020 (Ministry of Health, 2021), the educational lives of students around the globe were affected by the pandemic (United Nations Educational Scientific and Cultural Organization [UNESCO], 2021). Every country tried to find a solution for this case within the bounds of its own possibilities. As the primary precaution in Turkey, school closure was applied for two weeks from March 16 onwards (Ministry of National Education, [MoNE], 2020a) and following that, distance education was initiated at every stage of education (MoNE, 2020b). By making some amendments in the regulations of MoNE preschool education and primary education institutions, necessary precautions were taken regarding the fact that education could be stopped temporarily because of such reasons as diseases / pandemics (Article 7), distance education could be made in cases of school closures and some makeup studies could be carried out regarding the subjects of teaching programs that cannot be taught through face-to-face education and the attainment of outcomes regarding them (Article 2) (MoNE, 2020c). In this period of being away from school, some learning losses appeared in children and face-to-face makeup education was initiated to prevent them (MoNE, 2020d). In the new academic year of 2020-2021, face-to-face education started with non-contact games at schools (MoNE, 2020e, MoNE, 2020f). Live courses started on EBA which is an internet portal and mobile application to support the education of preschool children. Besides that, television broadcasting was made at certain times on certain days on the TRT EBA Kindergarten channel by the Turkish Radio and Television Agency (TRT) (Anatolian Agency [AA], 2020). At certain periods of this new academic year, face-to-face education was halted, and distance education was initiated (MoNE, 2020g; MoNE, 2021a; AA, 2021) and hybrid (blended) education was applied for a certain time (MoNE, 2021b). In this process where education was carried on at intervals, it is believed that some learning losses appeared in preschool children who were just encountered with school in all other children.

Learning Loss

Pier et al., (2021) defined "learning loss" by linking it to time as a dramatic drop in the information and skills of students (Figure 1.). Depending on this definition, it is likely to enlarge it to include the suspension of the learning process, the recession of information, outcomes and skills learned because of such reasons as changes in the motivation and psychological conditions of children and not being able to learn what would be learned within the scope of the curriculum.

Figure 1.

Relationship Between Covid 19 Period and Learning Loss (Pier et al., 2021)



There are some studies in the related literature indicating that the Covid-19 period led to learning losses for students. It was pointed out in their study by Çelik and Kardaş İşler (2020) depending on teacher views that children with special needs having a language and speaking problem became introverted during the pandemic and Colvin, Reesman and Glen, (2021), on the other hand, saw a decrease in the learning outcomes of children with special needs. Pier et al., (2021) investigated how the learning rates of almost 100.000 students in 7 groups between 4th and 10th grades in California, the United States of America differed between the period starting from 2019 autumn to 2020-21 winter and the one before Covid-19 period in the courses of mathematics and English by using their mid-term scores and they determined learning losses in all groups. Engzell et al., (2021) investigated the effect of an eight-week suspension of education, although relatively short, in the quarantine period on the school performance of 350.000 primary school students and found a learning loss of almost 3% or 0.08 standard deviation compared to the last three years. In addition, they pointed out that the learning losses of the students with the parents of a low-level education were higher and that they made very little or no progress through distance education. Kaffenberger (2021) indicated that as the suspension in education expanded longer and the rates of remaining behind the curriculum or program increased, so did learning losses and complementary education became essential for the compensation of learning losses. In this process, it was found that the children of the parents allocating time to the child with high and digital literacy had less learning losses (Burgess & Sievertsen, 2020; Sezgin et al., 2020). Baz (2021) explained that the suspension period has a negative effect on children in social and cognitive terms and leads to learning losses. Upon the evaluation of these studies and their conclusions, it is likely to be seen that having certain intervals in educational activities in Covid-19 pandemic process played a determinant role in learning losses.

Education was suspended at all stages at certain intervals during the pandemic. Distance education was initiated in Turkey in nursery schools first and then in kindergartens at certain periods in the academic year of 2020-2021. In this process, educators and parents felt anxious about the possibility that learning losses would be permanent for children who were deprived of peer learning and face-to-face education.

In the literature; it was found that the breaks of semester and summer times led to learning losses (Cooper, 2003; Elihami, 2021; Kuhfeld, 2019; McEachin & Atteberry, 2017; Menard & Wilson, 2014; Sezgin et al., 2020; Shinwell & Defeyter, 2017; Turner, Hughes & Presland, 2020; Wilson, 2014), most of the studies regarding the relation between Covid-19 period and learning loss were in foreign literature (Barnett & Jung, 2021; Burgess & Sievertsen, 2020; Colvin et al., 2021; Dorn et al., 2020; Engzell et al., 2021; Gonzales et al., 2022; Kaffenberger, 2021; Pier et al., 2021; Pisano et al., 2020; Tout, 2021) there is a very limited number of studies in the domestic literature (Çelik & Kardaş İşler, 2020; Sezgin et al., 2020) and into distance education with preschool children (Yıldırım, 2021) and that there is no study directly into learning loss. It is believed that knowing the effect of Covid-19 pandemic process on the learning losses of preschool education will make a significant contribution to the related literature.

Based on all of these; The question of "What are the learning losses of preschool children during the Covid-19 pandemic period?" was determined as the problem of the research.

In line with the general problem of the research, answers were sought for the following subproblems:

- What are the development fields, concepts, and skills where learning losses are encountered the most?
- What are the types of activities you do to overcome learning losses?
- Who are the children experiencing learning losses the most?
- What are the ways/strategies you do to use to keep learning losses to a minimum?
- What are your recommendations to to keep learning losses to a minimum?

Depending on the results, the methods, and techniques to be used to decrease learning losses at preschool-aged children to a minimum level and the views of the participants about the response and makeup education programs with alternative strategies likely to be developed were given places.

Method

Research Model

The current study was planned with a preference for case studies, which is one of the qualitative research methods. A Case study is a methodological approach that allows one to investigate and define one or more limited case with the benefit of qualitative

data collection tools (observation, interview, document etc.) (Creswell, 2013; Merria, 2013).

Working group

In determining the participants of the research, snowball sampling, a sampling technique of purposeful sampling in nonprobability sampling strategies, was used. Snowball sampling starts by reaching the first individual among the others with whom the study will be carried out. After the interview with the first participant, other individuals, and individuals who were recommended by the first one, are interviewed and the research is carried out with the individuals recommended by them (Şahin, 2014). When the data obtained from the participants reaches the saturation point, the data collection stage is over (Kerlinger & Lee, 1999). In the current study, the persons who were thought to have the most information were focused on the case investigated with the selection of snowball sampling to reach the richest data (Creswell, 2013; Flick, 2014).

The working group for the research was made up of preschool teachers working actively at a kindergarten in the academic year 2020-2021. The data was collected through face-to-face and telephone interviews using semi-structured interview questions developed by the researchers. The demographic information regarding the participants is given in the table below.

Table 1.

Demographic Features of the Teachers

Codes	Gender	City	Age	Occupational Seniority	Age Group Worked	Number of Children in Class
T1	F	İzmir	34	8	5-6	12
T2	F	Ankara	33	8	5-6	11
T3	F	Ankara	29	6	5-6	9
T4	F	Rize	29	7	5	13
T5	F	Kütahya	34	12	5-6	14
T6	F	Mersin	35	12	5-6	15
T7	F	Antalya	32	12	5-6	12
T8	F	Mersin	35	12	5-6	10
T9	F	Van	29	7	4-5	5
T10	F	Bitlis	29	4	4-5	17

T11	F	Diyarbakır	29	5	5-6	15
T12	F	Adıyaman	27	4	5-6	17
T13	M	Mardin	29	3	5-6	27
T14	F	Mersin	37	13	5-6	14
T15	M	Eskişehir	31	6	4-5	11
T16	F	Ankara	34	9	5-6	11
T17	F	Ankara	30	5	5-6	9
T18	F	Ankara	49	24	5-6	10
T19	F	Hatay	29	6	5	4

As is given in Table 1, 89.5% of the preschool teachers participating in the study werewomen with an average age of 32.3 and an average professional seniority of 8.5. It was also found that 84.2% of the preschool teachers worked with the children in the 5-6 age group, the average child in the class was 12.4 and the preschool teachers participated in the study from 13 different cities.

Data Collection Tool

In order to determine the views of preschool teachers over the learning losses of preschool children in the Covid-19 pandemic, a "Form for Determining Learning Losses of Preschool Children" was prepared. In the preparation of interview questions, national and international literature was reviewed and questions regarding learning losses in the Covid-19 pandemic were prepared. The form prepared by the researchers was made up of two parts. The First part comprised the gender of preschool teachers, the city in which they worked, their professional experience, and the age and number of children in their classes. The items in the second part comprised the observed learning losses of the preschool children of the teachers, the activity types they applied to eliminate the learning losses, the development fields where learning losses were encountered the most, concepts and skills, children having learning losses the most, the ways/strategies mostly applied to reduce learning losses to a minimum level and the recommendations given to reduce learning losses to a minimum level.

Data Collection

In order to determine the learning losses of preschool-aged children, a semi-structured "Form of Determining the Learning Losses of Preschool Children" with five questions was developed by the researchers. The developed form was examined by three experts in preschool education and finalized. By means of this form, data was collected from 19 preschool teachers. The interviews were conducted by telephone. Firstly, teachers were informed about the content of the study, then their consents were taken verbally, and

the semi-structured interview questions were asked. With the permission of the teachers, the interviews were recorded, and the interview lasted almost 30 minutes.

Data Analysis

Content analysis was made with the data obtained through interviews. Content analysis comprises the formation of themes by giving codes to the data obtained and the evaluation of the data in this sense (Yıldırım & Şimşek, 2016). The data obtained was read by two researchers three times and the codes were written across the expressions by marking the meaningful parts. Following that, the repeating codes were examined with an inductive approach and the themes were formed. In this way, the reliability of the data obtained was studied with the reliability calculation formula by Miles and Huberman (1994) (Reliability = consensus /consensus+disagreement). Miles and Huberman (1994) regard reliability values of 70% and over as reliable. The reliability value in this study was found to be 94%.

Ethics

In this study, all the rules specified to be followed within the scope of the "Higher Education Institutions Scientific Research and Publication Ethics Directive" were complied with. None of the actions specified under the title "Actions Contrary to Scientific Research and Publication Ethics", which is the second part of the directive, have been taken.

Before starting the study, necessary consent was obtained from Kütahya Dumlupınar University (Meeting Date: 16.06.2021, Meeting No: 2021/04).

Findings

1. The fields of development where learning losses were encountered the most in the process of distance education, concepts, and skills

Regarding psycho-motor development, teachers pointed out that children remained inactive in this process, accordingly, putting on weight and they were not able to develop their big muscle motor movements (T1, T3, T4, T5, T6, T7, T8, T9, T10, T11, T14, T15, T16, T17, T18, T19).

"I did not observe anything regarding gross and fine motors. I always assigned homework. We then tried to develop small muscle motor skills through materials and experiments. Big muscle motor skills remained uncompleted. Parents told us that their children put on weight but did not act too much at home." (T18)

"Children staying away from the materials used to make big muscles active in the playground of the school were not normally able to develop their big muscle motor skills since they always stayed at home. Even though we used small muscle motor skills in our art studies, unfortunately, they fell behind as we had less weekly time compared to that of face-to-face periods" (T19).

Regarding the social-emotional development field, teachers pointed out that children stayed away from their friends for the sake of the rule of distance (T3, T5, T7, T8, T9, T10, T11, T12, T13, T14, T15, T16, T17, T18, T19).

“They were not able to make friends, one was not able to know another. If two children had known each other, they played together and did not play with others” (T5).

“Even when they came together in face-to-face education, we warned them not to play with the same toys. We were telling them to help each other and share. Children could not break some ties for the sake of keeping a safe distance. It is likely to say the pandemic led to a social disconnection in this sense” (T18).

With regard to the field of language development, teachers indicated that children had difficulties expressing themselves so they abstained. They also pointed out that they couldn't give more space for Turkish language activities because of the limited time of the lessons (T1, T3, T4, T8, T9, T10, T11, T12, T13, T16, T17, T18, T19).

“It was difficult to carry out and maintain Turkish language activities on screen. If I taught more tongue twisters, say 60, in a normal period, I would be able to teach only 20-25 tongue twisters and finger games this year. When children spoke at the same time, they could miss something” (T18).

“Turkish language activities remained limited due to time. In particular, I believe that they fell behind in terms of learning new vocabulary, using it in a sentence, and early literacy skills” (T19).

With regard to self-care skills, teachers expressed children exhibited suitable behaviours for only hygiene rules but they fell behind in self-care skills (T4, T6, T7, T8, T9, T11, T12, T13, T14, T15, T16, T17, T19).

“They were deprived of peer education, finishing the dish, waiting for friends, and following them in terms of nutrition” (T4).

“When they arrived in the class, they just wanted to use disinfectant because of the pandemic. Besides that, I did not observe that they exhibited such behaviours as dressing, tying their shoelaces etc.” (T14).

Concerning preparation skills for primary education, teachers pointed out that children attained such behaviours as sitting on their desks, waiting in the queue, holding pencils etc. a little late or did not attain them (T1, T3, T5, T6, T7, T8, T11, T12, T13, T15, T16, T19).

“Even though we made our education a distance education, they were not able to learn how to behave at school, how to sit on a desk or how to leave it” (T3).

“Although they had learned how to hold a pencil at the end of the 1st semester last year, they just learned to do it at the end of this year” (T16).

Regarding the cognitive development field, teachers mentioned that they encountered lack of attention and experiencing forgetfulness at such concepts as colour, shapes, numbers etc. in this period (T2, T4, T6, T9, T10, T11, T12, T13, T15, T16, T18).

"I believe that distance education brought about a lack of attention among children. It is because children are puzzled about what to focus on the computer screen" (T10).

"Forgetting geometric shapes, numbers etc. is frequently experienced in distance education..." (T15).

Regarding peer relations, teachers indicated that children were not able to socialize with their peers since the time they came together was limited (T3, T4, T6, T7, T8, T9, T10, T11, T12, T16, T19).

"I reminded children to say hello when they saw each other on the screen. It was always me setting the games. Children exhibited very timid and shy behaviours in distance education" (T3).

"They socialized less. Their screen interactions were rather limited since they saw their friends for limited times" (T16).

With regard to self-regulation skills, teachers pointed out that children had losses depending on the decrease in the number of stimulants they met as they were not at school (T5, T7, T9, T12, T13, T14, T15, T19).

"Stability should be obtained through self-regulation skills. I could just observe adaptation in those attending classes" (T12).

"Lack of school environment decreased the number of stimulants and naturally experience at child. For that reason, there must have been different developments or losses among children concerning self-regulation skills at home" (T19).

Teachers pointed out that the concepts where learning losses were encountered the most were numbers, colours, right and left directions, and the processes of addition and subtraction in mathematics (T2, T10, T11, T13, T16, T18).

"1 or 2 children had difficulties recognizing numbers. We revised them more, but I do not know how successful it was. Addition and subtraction were also like this" (T2).

"We would have difficulties with the concepts of right and left every year but it was more difficult this year" (T10).

"They forgot counting skills, geometrical shapes, colours and all the vocabulary had taught" (T11).

There were teachers explaining that they did not have enough impressions about which fields or concepts and skills learning losses were experienced the most (T6, T7).

“Children go out to drink water but do not come back. Later, their sister comes back, and they prevent classes. Clearly, I do not know completely what and to what extent they learned since we did not spend the year touching them and seeing what they did” (T6).

“We couldn’t make a complete evaluation as the parents involved in the classes. You ask a question to the child, but the parent answers it behind. Therefore, I cannot answer it clearly” (T7).

There were teachers who thought that there was no learning loss (T8).

“Children had already known the concepts. We studied for hours. We did not have much learning loss ...” (T8).

2. Children having learning losses the most

Children having the greatest learning losses are the children whose development is not followed by their parents, who are not given enough stimulants, who do not fulfill the assignments given by the teacher and the children of families where the regular course book is not followed (T2, T5, T6, T7, T10, T13, T18, T19).

“A child of mine whose parent worked at a hospital never participated in the classes, I could not have any feedback. I think learning losses were totally because of parent indifference” (T5).

“I observed success at children at average level or below average level when parents were interested, but when they were not interested, I had problems with the children of the families who did not make them do what I sent” (T18).

Teachers indicated that children having the most learning losses in the second place were the children of families with low-economic status, the families having a limited number of TVs, tablets, telephones etc., or the ones who could not participate in the classes at all or at irregular intervals because of a lack of internet infrastructure in their region (T3, T9, T10, T11, T12, T15, T19).

“There was no internet infrastructure. Even though we tried to arrange the time of the classes to be suitable for everybody, we did not have full participation. The internet supplied by the state was not enough for the parents” (T15).

“Most of the ones having learning losses felt behind since they had financial impossibilities” (T19).

It was found that one of the children having the most learning losses was the student of mainstreaming (T3, T4, T8, T16, T19).

“One of my students with a special need had a language and speaking retard at the minimum level. As he had an internet access problem, he couldn’t join the courses. I wanted his father to carry on daily education flows” (T3).

“My mainstreaming student had some difficulties in expressing himself, remembering what he had learned and internalising on the screen” (T16).

Refugee children were another group with the greatest learning losses. (T1, T8, T14, T17, T19).

“These insufficiencies were encountered most often in Syrian and other foreign children. Language education, Turkish, and understanding were not enough so they had difficulties in other fields as well” (T1).

“Even though I told the mother of the Syrian child how to use zoom program in detail, he could only join the course once and did not do it again” (T14).

When the courses of the elderly children of the parents and those of the preschool-aged children were taken at the same time, it was found that they allowed their elderly children to use a limited number of technological devices (T12, T13, T15).

“If a child has both an elder brother and an elder sister, parents care for them more. They wouldn’t join the courses saying that you send us activities and we do them at home” (T12).

“If parents have children at a primary or secondary school, they would rather these children use mobile phones” (T13).

It is believed that the only child and younger children suffered learning losses in the process of distance education as well. (T11, T17, T18).

“I do not think that the children in the age group of 4 learned anything. If we were in face-to-face education, children would normally allow younger children to join in their games but younger children stayed alone in distance education” (T11).

“Only children experienced this process through such devices as TV, tablet etc. Since there were no children around, they were not able to interact” (T17).

3. The activity types used to eliminate learning losses

The activity types that teachers used most to eliminate learning losses were made up of various game activities such as individual, group, dynamic and virtual ones (T2, T3, T6, T8, T12, T14, T16, T17, T18).

“Normally I applied for the program as an online one. I tried to include games where children could ask questions to each other and interact with each other” (3).

“We mostly benefited from game activities. We mostly played games in order to increase the interaction of children with each other. We also included the interactive game on the computer” (T16).

It was found that teachers applied mathematical activities in the second place (T5, T6, T8, T10, T15, T17, T18).

"We made a great many mathematical activities, addition, subtraction, whatever you think." (T5).

"I would tell students to bring tangerines from the kitchen into our mathematic activity. I would ask them how many parts there were inside it and they would count one by one. Besides that, we did coding activities. I handed out photocopies. We studied the directions of bottom, top, left, and right. I would ask them to bring cloth pegs. I made them listen to music and dance while counting the cloth pegs. We studied hours with rhythm bars." (T9).

It was also found in this process that teachers benefited from art and drama activities but that some teachers sent homework to parents over the WhatsApp program since the time was limited (T2, T6, T7, T9, T11, T17, T18).

"We tried to do activities regarding all fields in the courses. I sent drama and art studies through the WhatsApp program and was interested in their feedback one by one" (T9).

"Since they are in front of the screen, even the good students can be distracted cognitively. For that reason, they were interested in drama and game activities. So, we did a great many drama activities" (T18).

It was found that teachers used Web 2.0 tools and kept up with digitalization through such applications as coding, interactive games, and virtual applications in order to eliminate learning losses (T1, T4, T8, T13, T16, T19).

In order to eliminate learning losses during the pandemic, I used activities dealing with cognitive development. I also benefited from virtual applications, robotic coding. I made the students do paintings on the screen with their fingers by giving them digital painting activities (T1).

"I tried to include all activities. In addition, I sent videos and science experiments to the parents. I made them do activities such as wheel games and puzzle, benefiting from the devices like Web 2.0 on their computer. I realized such studies as counting numbers by using these devices" (T4).

It was found that teachers used Turkish language activities in order to prevent learning losses (T5, T6, T11, T12, T14).

"We mostly used Turkish and mathematical activities academically. We made puppets and told them stories. We did not do more in the field of psycho-motor" (T10).

"We gave to much place to language activities, stories and music. I had access to games, stories etc. that are likely to be used online by means of a Telegram group. A great many

stories were shared in the Telegram group. We shared them with the children in the group. They always asked when to take courses. We spent enjoyable time” (T14).

It was also found that teachers were inclined to music activities besides other activities (T2, T6, T8, T14, T18).

“We are inclined to group games, drama and music activities where they can express themselves” (T2).

“We gave places to songs, music and puppets” (T18).

It was determined that teachers benefited from science activities as well (T4, T7, T13, T15).

“Science activities attracted children. So, we mostly used science experiments” (T7).

“We would watch science experiments in the courses. I would show them. It was just me doing them because of a material shortage” (T13).

4. The methods applied to minimize learning losses

In order to prevent all learning losses, teachers indicated that they did some activities to communicate and collaborate with parents (T1, T2, T3, T4, T5, T6, T7, T8, T9, T10, T11, T12, T13, T14, T15, T16, T17, T18, T19).

“We made use of EBA. I sent the study pages. We took courses on WhatsApp and Zoom. Communication with parents was good but I believe that I was not able to pay full attention since the number of children per household was high” (T11).

“I forced children to be involved in the course. Once I did my course at 11 p.m. when the father arrived home by calling him. I always sent a text message to my parents” (T13).

The majority of the teachers pointed out that they sent parents study pages for their children or left photocopies of the study pages at school for them to collect (T2, T3, T5, T6, T7, T8, T9, T10, T11, T12, T13, T14, T15, T17, T18, T19).

“We sent study pages to parents. I sent the WhatsApp group a great many studies, writings and pictures varying from how to hold a pencil to preparation for primary school” (T16).

“We photocopied documents and left them at school for parents. We did the courses on Zoom. We set up a WhatsApp group and shared something” (T19).

Most of the teachers expressed that they made use of EBA in their courses or led parents to EBA (T2, T3, T6, T7, T8, T9, T11, T12, T15, T16, T17, T18, T19).

“We did a full course for 40 minutes. We did 3 activities every day. We made use of EBA. I would send them activities every day and they would send their assignments back. We

made artificial snow, puppets, and a winter corner together. They took pictures and sent them to me, and I uploaded them to EBA” (T8).

“There was in-service training and I made use of EBA. In general, we did video chats on WhatsApp. We used Zoom. I gave them study pages. I had a set of activities and I sent photocopies of them” (T12).

There were teachers who couldn’t use EBA because it was too busy (T4, T5, T10, T13).

“EBA was too busy, and the system would generally drop us out” (T4).

“I was not able to use EBA in online courses and the children couldn’t have access to it as it was too busy” (T5).

Teachers expressed that they shared articles with parents to read, and videos, activities etc. with children (T1, T3, T6, T7, T8, T9, T12, T16, T17, T18, T19).

“In order to reduce learning losses, I insisted that children should carry on their education at home. I tried to eliminate learning losses by sending some activities which were used in face-to-face or online courses and were interesting to children to their parents” (T1).

“Parents used the program ‘MinikTema’ (Mini Theme) at home as well” (T15).

Some of the teachers pointed out that they assigned homework to children (T3, T6, T8, T10, T12, T15, T17).

“I assigned homework from our course book. I handed out photocopies. I enclosed some activities through EBA. I sent them art activities over WhatsApp” (T6).

“I assigned homework for children. I asked parents to send me videos” (T17).

Besides that, some teachers indicated that they worked in coordination with the guidance service and that they also guided children to TRT Anaokulu (Kindergarten) (T2) and held meetings with parents (T3).

“We were always in cooperation with the parents, we telephoned each other. We multiplied the study pages in our plan every fifteen days and sent them to the parents. We worked in coordination with children and parents and with the guidance service 3 or 4 days a week. We guided children to EBA and TRT Anaokulu” (T2).

“I shared the daily education flow with the parents over WhatsApp. I assigned homework over EBA. I sent them videos and activities. I also assigned homework in our course books. I held an online meeting with the parents twice (T3).

5. Recommendations to minimize learning losses

Teachers pointed out that children needed technological support to eliminate economic insufficiencies, have digital material support and have improved internet infrastructure in this period (T2, T3, T6, T9, T10, T11, T12, T13, T15, T17, T19).

“Low-income parents should be given the necessary support” (T3).

“Parents have economic income but there is no internet connection or infrastructure, or parents have low income but there is internet. Technological problems should be solved” (T15).

Teachers expressed that they needed education for parents on how to support their children in distance education process and how to use online tools such as computers, tablets, EBA, Zoom, etc. (T1, T3, T5, T6, T7, T17).

“Parents should be given education on how to use informatics tools and applications so that the distance education of children will be complete and continuous” (T1).

“Presentations can be prepared for parents in order that they are aware of the fact that the Zoom program is a classroom environment and education can be given to them” (T17).

Teachers are recommended to develop a new curriculum to use in the distance education process or to form a new education system for this purpose (T1, T9, T15).

“A separate curriculum can be determined for distance education. The program to be developed should be based on the sense of maximum product in distance education (T1).

“I want our preschool education to turn into a systematic model” (T9).

Teachers indicated that all preschool-aged children should have face-to-face education regardless of nursery or kindergarten in preschool education (T6, T11, T16).

“It is hard when you are at home. Children, meals, and housework are handicaps for the courses at home. Let preschool education be face-to-face” (T6).

“I do not believe in distance education in the preschool period. I am for face-to-face education” (T11).

Teachers pointed out that the number of applications like TV, tablets, and telephones for preschool children should be increased to eliminate learning losses and that web-based sources should be increased (T12, T15, T18).

“The number of web-based sources should be increased” (T15).

“The number of videos for children should be increased. It is because I will go on sending videos to parents to make their children watch even though there is no distance education” (T18).

Teachers expressed that children who will start primary education should be given makeup education (T4, T5).

“Makeup education should be given.

“Makeup program will be good” (T5).

Teachers drew attention to the continuation of the pandemic process with a hybrid (blended) education model (T2, T18).

“The hybrid model should be carried on and the infrastructure should be improved. I believe that children should be involved in distance education at least on Wednesdays” (T2).

“A model of 4 days of school and 1 day of distance education could be applied as a hybrid model” (T18).

Teachers focus on the need for increasing the number of digital contents for teachers and having education regarding distance education progress (T14, T17).

“The groups of teachers on WhatsApp and Telegram were quite useful. As I followed them and used what was shared there in my courses, it was so enjoyable. Children never wanted to turn the screen off. Such kinds of networks could be expanded” (T14).

“Some presentations for teachers could be prepared to explain that the Zoom program is not just for chatting” (T17).

One of the teachers recommended that preschool education be compulsory (T12) and another recommended that computer-assisted education be introduced to places that do not have adequate possibilities (T19).

“Preschool education should be compulsory. In this way, parents might pay attention to what they give to their elderly children” (T12).

“The towns with inadequate possibilities could be determined and thenecessary support could be given. Children in towns could be given education through a mobile kindergarten” (T19).

Discussion & Conclusion

According to May 2020 data from the United Nations, almost 40 million children were deprived of childhood education and care services in the pandemic process (Gromada et al., 2020). In this process, there were some troubles in the daily education and care routines of children (Barlett et al., 2020; OECD, 2020). With the closure of the schools

in the Covid-19 period, distance education strategies were applied in order that children would not retard in education and that they would get rid of this process in a healthy way at home (Baily, 2020). However, the study by Stites Sonneschein and Galczyk, (2021) carried out with parents of children in preschool, indicated that distance education had almost no benefit for children and that social interaction was rather low. Studies carried out with parents in Hong Kong (Lau & Lee, 2020) and China (Dong et al., 2020) revealed similar results. As a matter of fact, it is likely to be said that distance education in the Covid-19 period led to some learning losses among children (Barnett & Jung, 2021; Tout 2021). The findings obtained at the end of the study showed that children experienced learning losses mostly in the fields of psychomotor, social emotional, self-care and language development. It is likely to say that the results obtained are consistent with the literature (Barnett & Jung, 2020; Gonzales et al., 2022; Stites et al., 2021). The study by Yıldırım (2021) carried out with preschool teachers also showed that the pandemic process had a negative effect on the social, emotional and mental development of children, and on their preparation for primary school. In addition, parent views in the study supported this case, and it was pointed out that their academic skills decreased.

In the current study, it was found that teachers assigned art activities as homework because of the limited course time. The fact that the questions asked of children were answered by the parents was mostly a question mark about whether children did their homework on their own. Teachers thought that since distance education duration was at a rate of 1/12 compared to that of normal education, children who would start primary education would not have enough fine motor development at an adequate level. In addition, teachers indicated that children had losses not only in fine muscle motor development but also in gross muscle motor skills. A study by Dunton et al., (2020) showed that children's inactivity for a long time has a negative effect on their physical development. Teachers observed that as they were always inactive at home, the energies of the children were low, and they were reluctant to move during the period when they were at school. Parents shared the idea that their children put on weight during this period, they were inactive, and they spent all their time in front of computer with the teachers. A study by Gencer and Diker (2021) pointed out that such negative effects as staying at home for a long time, being away from social fields increased the exposure of children to that digital setting. A study by Sonnenschein et al., (2021) indicated that children in the USA spent more time with digital activities from the beginning of Covid-19 onwards, and children at the ages of 2-5 allocated 2-3 hours to digital tools. Meoded Karabanov et al., (2021) pointed out in their studies that Arab and Jewish children at the ages of 2-8 spent 2-3 hours with digital tools.

Children had to experience such behaviours as making friends, chatting, and adapting in terms of social emotions in distance education not face-to-face but from one screen to another. Not having experience with distance education before resulted in having to adapt to screens just before not adapting to school for children (Çaykuş & Çaykuş, 2020). Teachers indicated that doing the courses on the screen brought about such difficulties for children as the mixing of voices when they talked at the same time, with

some children remaining silent, and becoming puzzled about where to look and what to do. A study by Kim (2020) revealed that preschool teachers had problems with the late coming sound during the activities in the distance education process. Findings showed that children preferred remaining silent since they were afraid of making mistakes, they exhibited introverted, shy and timid behaviours, were not confident. It is thought that what lies under these behaviours of children is that they were deprived of their regular interaction with the peer groups supporting their social and emotional development for one year or more (Jalongo, 2021). What's more, there were some teachers who thought that distance education led to a lack of interest and attention among children resulting from not knowing where to focus. In a study carried out by Sunshine and Stites (2021) with parents, it was pointed out that given the limited attention spans of children, they had some anxieties as to whether distance education is suitable for this age group.

Many of the teachers pointed out that they couldn't directly deal with self-care skills in their courses and besides that they couldn't have the chance to make an observation. It is likely to be seen that children were left under the initiative of their parents with regard to self-care. Yoshikawa et al., (2020) indicated that the pandemic period has some serious risks for preschool children such as urgent health services, nutrition, care, and education. Teachers indicated that even though children attained awareness about hygiene, cleanliness, disinfectant, mask, and distance, they did not have enough idea regarding what the children learned and what they did not learn about nutrition, dressing, hand washing, and tooth brushing. Arslan et al., (2021) pointed out in a study carried out with parents of children in preschool that children washed their hands more compared to pre-pandemic periods. In another study carried out by Duran (2021a) with 58 preschool children at the ages of 3-5, it was found that children paid attention to such issues as healthy nutrition and hand washing in order to protect themselves from viruses.

Findings showed that children used mostly the same words in communication in the field of language development in pandemic period. Similarly, it was indicated in a study by Pisano et al., (2020) that the vocabulary capacity of the children at the age of 4-10 decreased. In addition, other studies pointed out that Syrian and Kurdish children were retarded in Turkish learning. A study by Çelik and Kardaş İşler (2020) pointed out that distance education was initiated without solving the language problem of immigration-victim children well enough and it brought about some problems. Such reasons as the economic insufficiencies of the families, the fact that they do not know the language, the great number of households, and children's taking role in housework brought about little learning experience for children and a decrease in their efficiency. Studies showed that distance education started before the language problems of immigrant victim children were solved in face-to-face education, which caused bigger problems. Such reasons as the economic situation of the parents, not knowing the language, the large household members, and assigning housework to children led to having less experience or low efficiency. Additionally, teachers pointed out that children with special needs who had problems in the field of language and speaking became more introverted and

forgot what they had known. In another study by Colvin et al., (2021), it was pointed out that the outcomes of children with special needs who are at risk in terms of educational inequality in the process of Covid-19 weakened.

Teachers pointed out that there was not a suitable environment in the distance education process to attain such skills as waiting for their turn, being in the queue, and sitting on their desk, and that such skills as holding a pencil were attained later compared to those in face-to-face education. They also expressed that many children were insufficiently prepared for primary education and that they needed makeup education. Given the fact that primary school readiness has decreased in recent years (Duncan et al., 2007, 2020), it is assumed that the current situation will affect the school readiness of children in the preschool period in a negative way (Gonzales et al., 2022). The results of a study by Ogelman et al., (2021) carried out with preschool teachers showed that preschool teachers predicted that a great many children would have problems in terms of adaptation to school.

Teachers expressed that peer relations in distance education were rather limited compared to those in face-to-face education and that particularly, children with no siblings were more affected in this situation. As a matter of fact, the lack of social signal experienced by children who cannot talk face-to-face with their relatives, friends and teachers led to losses in social and emotional development (Araújo vd., 2020 ; Shorer & Leibovich, 2020). More loneliness was observed in children whose parents had to work and stayed at home during quarantine (Brown et al., 2020). They observed that children experienced problems expressing themselves and setting games when they came together with their peers because they would generally be in contact with adults in this process. It is thought that children felt anxious to come together because of the pandemic (Loades et al., 2020) and this is reflected in their game-setting skills.

Regarding self-regulation skills, teachers expressed that the behaviours exhibited by children varied from one family to another and that they were not able to observe unattended children. Teachers made an inference about the fact that there could be differences among children regarding adaptation with a decrease in stimulants coming from the school. With respect to self-regulation, some teachers pointed out that children had some problems with their skills such as paying attention and focusing. With regard to emotion regulation, one of the sub-dimensions of self-regulation, there are some views concerning the fact that children have difficulties expressing their emotions. In a study by Alonso-Martínez et al., (2021) parents of preschool-aged children in Spain pointed out that there was an increase in antisocial, depressive, and anxious behaviours. Similar findings were obtained in a study by Di Giorgio et al., (2020), and parents in Italy indicated that their children became more undisciplined, exhibited hyperactive behaviours and their self-regulation skills worsened because of such reasons as the fact that they could not attend school, their daily routines were broken and their ties with their peers were cut. In a study by Chaabane et al., (2021), it was found that increasing stress, sadness, disappointment, hyperactivity and undiscipline were encountered in children.

According to the teachers the perceptions of parents related to the preschool period, and the fact that children do not pay the necessary attention to their courses are the main reasons for learning losses. As a matter of fact, it was observed that parents would rather deliver their telephones to their elderly children in the case of overlapping courses than to their preschool children. Such a case is an indication that economic insufficiencies could also lead to learning losses. It is likely to be said that economic possibilities are of a determining role in the education of children in this process. It is also likely to be said that the children of families with economic insufficiencies are the ones who had the least efficiency in the distance education process and the most learning losses. The studies by Morgan (2020) and Carrillo and Flores (2020) also support the idea that children with no access to computers are retarded in education in this Covid-19 process Bennett et al., (2020) asserted that this case created an inequality of opportunity. There are some studies in the literature expressing that technological insufficiencies decrease efficiency in education (Abuhammad, 2020; Bakioğlu & Çevik, 2020; Bayburtlu, 2020; Çakın & Külekçi Akyavuz, 2020; Demir & Kale 2020; Foti, 2020). In addition, teachers believe that another reason for learning loss is that children develop an addiction to such digital devices as TV, tablets, and telephones to a great extent. Studies support this case and mention that the pandemic duration of using virtual games, the internet and social media increased (King et al., 2020; Mart & Kesicioğlu, 2020; Yersel et al., 2021; Witt et al., 2020).

Other children with whom learning losses are observed the most were determined to be the mainstreaming students, foreign students, only children and young children. The United Nations Report (2020) indicates learning gaps for children with special needs during this period. Neece et al., (2020) pointed out in the study that parents expressed their anxiety because of the disruption in the educational services of their children with special needs at the ages of 3-5. Mengi and Alpdoğan (2020) indicated in their study carried out with special education teachers that with the start of distance education, children became deprived of special education methods and techniques realized in face-to-face education.

It was found that teachers mostly used (educational game activities in the pandemic process. The study by Duran (2021b) is similar to the results of the current study and it was found in the study that preschool teachers benefited from the game activities the most. In the second place, they benefited from mathematics activities, followed by art activities and web-based activities assigned as homework. In second place come mathematics activities followed by art activities and web-based activities assigned as homework. It is likely that teachers will keep up with the technology on the way to be digitalized to eliminate learning losses. In this process, it was found that teachers benefited from web 2.0 tools, web-based contents such as Minik Tema (Mini Theme), Babanın Okulu (Father's School), platforms and virtual applications such as WhatsApp, Telegram, Instagram, Zoom. According to the data obtained from five different national questionnaires in March-July 2020 (FCC/F. Lemann/FR Marinho/I. Península/Itaú Social), it was indicated that 82% of teachers used WhatsApp to communicate with

children and parents, 34% used social networks, 21% used telephone talks, 11% used e-mail and 5% used YouTube (Malta Campos & Vieira, 2021).

It was found that teachers could not find enough time for the studies regarding developing early literacy skills in Turkish language activities. Most of the teachers expressed that the course duration ended when they completed reading the story and that they did not have any time to talk about the story. Wheeler and Hill (2021) pointed out that parents in the USA read books to their children at the ages of 2-4 more frequently compared to the pre-pandemic period but they allocated less time to ask questions regarding the book.

Findings show that teachers shaped their courses in line with their own initiatives in the process of distance education and focused on different kinds of activities. This is mostly dependent on cognitive development and academics. Nevertheless, the concepts where learning loss was experienced the most were numbers, geometric shapes, colours, right and left and addition and subtraction processes in mathematics. In the study of Stites et al., (2021), parents who have children in the preschool period stated that their children need additional support in all academic fields, especially in mathematics. Teachers believe that this is because children do not learn by touching, doing, and experiencing. As an example, teachers indicated that learning losses happened for such reasons as children not touching them while teaching thin and thick or not touching their hands while they were holding the pencil. Since children in the early childhood period need more interaction and experience by doing to learn, distance education naturally does not offer enough and suitable opportunities for them (Kim 2020). It is thought that given that the time preschool students spend 4.000 hours in learning centers (Bullard, 2017), the fact that children are exposed to limited home opportunities in terms of learning centres, game areas, equipment, content etc. (Barbour, 2020) is effective in reducing learning losses.

All of the teachers communicated with the parents through WhatsApp groups or mobile phones. In their study, Novianti and Garzia (2020) indicated that teachers communicated with parents mostly by means of WhatsApp. The expressions of teachers indicate that as long as parents take care of their children, they improve in their courses. In the process of distance education, the support of parents for the education of their children was felt more. According to teachers, the children supported by their parents were less affected by this process. In their study, Burgess and Sievertsen (2020) and Sezgin et al., (2020) pointed out that the children of parents who spent enough time with their child, had a high education level with technological literacy experienced less learning loss.

Most of the teachers expressed that they used EBA in their courses or that they guided parents to EBA. As for the children who did not have access to EBA, not knowing how to use it, having various technical problems, they dropped out of the system, and those living in towns where there was no internet infrastructure were deprived of EBA infrastructure. In their studies, Demir and Özdaş (2020) emphasized that there is a need

to improve EBA infrastructure, solve the problems on the platform, offer an easier possibility for their participants to use it and that there should be free and unlimited internet access to log in. For that reason, teachers tried to make the distance education process active with the photocopies they left at school, the activities they sent to parents, study pages, daily education flows, videos, articles, and assignments. A research group from Bahia State University indicated that teachers handed out materials to reach parents with children between the ages of 0-5 and they sent audio and visual materials (Malta Campos & Vieira, 2021). In a study by Akkaş Baysal vd., (2020), it was found that teachers sent visual and easy-to-reach materials to parents using various internet sharing sites and teaching settings. Besides that, some teachers indicated that they guided the parents to TRT Anaokulu (Kindergarten) and held meetings with them.

The recommendations that teachers made to eliminate learning losses were mostly about overcoming the economic impossibilities of the parents. In their study Kalil et al., (2020) indicated that parents' loss of income and jobs in the period of the pandemic affected their relations with their children. The limited access of parents to technology is a negative predictor of children's participation in distance education (Sunshine & Stites, 2021). Teachers pointed out that parents need education regarding the use of technology and how to support their children in this process. They expressed that developing a new curriculum or education system aiming at distance education in the preschool period would be a handicap in terms of the appearance of new learning losses. In a study by Alan (2021) carried out with preschool teachers, it was pointed out that since teachers must improve their technological competences in order to increase the quality of distance education, they need trainings, and they must have some services for user-friendly programs and services of this program. Teachers recommended having a face-to-face education in preschool education in the next academic year or a hybrid model as one day distance education. Lee et al., (2021) indicated that the suspension of schools was a significant loss for children. Teachers emphasized that web-based contents and the number of applications should be increased even though distance education is carried on. Teachers believe a 2–3-week makeup program for the children who will start primary education will be useful. In addition, there is a demand for training and seminars regarding digital content for teachers. Kırmızıgül (2020) pointed out in a study carried out in this case that teachers need in-service education for distance education. In addition, it is believed that in-service education is necessary in order to make distance education successful (König et al., 2020). As a matter of fact, it is thought that the education to be given for the purpose of in-service education will be useful to support the course not only for this period but also throughout the following academic years (Balaman & Hanbay Tiryaki, 2021; Paydar & Doğan, 2019; Yılmaz et al., 2020). The necessity that preschool education must be compulsory, and computer assisted mobile kindergartens for the children having no possibilities are among other recommendations.

Recommendations

In order to improve the basic movement skills of children and prevent diseases such as obesity, more open-air activities, field trips and active games should be included in preschool and primary education.

An education program should be prepared for Turkish learning for the children whose skills in understanding and speaking Turkish are not developed before they start primary education.

Makeup programs should be prepared for the children who will start primary education to eliminate their learning losses.

When it comes to the fact that one of those who is affected by this process the most is individuals with a special need, mainstreaming students who will start primary school should be supported more.

The towns without internet infrastructure should be determined and the necessary infrastructure should be provided.

The internet quota provided for families free of charge should be increased and a resource should be allocated to offer the necessary technological possibilities.

It is believed that the seminars and in-service educations to be given to both parents and teachers regarding the use of technology will be useful in order to direct children towards the individuals producing, not towards those consuming.

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Genişletilmiş Türkçe Özet

Örgün eğitim faaliyetlerine eğitim yılı programı dâhilinde ara verilen ara tatil ya da yaz tatili dönemlerinde (Cooper, 2003; Elihami, 2021; Kuhfeld, 2019; McEachin ve Atteberry, 2017; Menard ve Wilson, 2014; Sezgin vd., 2020; Shinwell ve Defeyter, 2017; Turner vd., 2020) ve zorunlu hallerde (deprem, sel, yangın, salgın hastalık, kar tatili vb.) verilen aralar çocuklarda öğrenme kayıplarına yol açabilmektedir.

Pier vd., (2021), "öğrenme kaybı" nı, öğrencilerin bilgi ve becerilerindeki belirgin düşüş olarak tanımlamıştır. Bu tanımdan hareketle öğrenme kaybını; öğrenim sürecine ara verilmesi, çocukların motivasyon ve psikolojik durumlarındaki değişim vb. nedenlerle öğrenilen bilgi, kazanım ve becerilerin gerilemesi, müfredat dahilinde öğreneceklerini öğrenememeleri olarak genişletebiliriz.

Dünya Sağlık Örgütü'nün (DSÖ) Covid-19 sebebiyle pandemi kararını duyurmasıyla (Sağlık Bakanlığı, 2021) dünya genelinde çocukların eğitim hayatı salgından olumsuz etkilenmiştir (United Nations Educational Scientific and Cultural Organization [UNESCO], 2021). Her ülke bu duruma kendi imkânları çerçevesinde çözüm bulmaya çalışmıştır. Türkiye'de ilk tedbir olarak, 16 Mart tarihinden itibaren iki hafta süreyle okullar tatil edilerek eğitime ara verilmiş (Milli Eğitim Bakanlığı [MEB], 2020a) ardından tüm eğitim kademelerinde uzaktan eğitime geçilmiştir (MEB, 2020b). 2020-2021 eğitim-öğretim yılında belli dönemlerde önce anasınıfları ardından anaokullarında uzaktan eğitime geçilmesiyle birlikte akran öğreniminden ve yüz yüze eğitimden yoksun kalan çocukların öğrenme kayıplarının kalıcı hale gelmesi gündeme gelmiştir.

Ulusal ve uluslararası literatürde öğrenme kayıplarıyla ilgili yapılan çalışmalar incelendiğinde ulaşılan sonuçlar Covid 19 pandemi sürecinde yüz yüze ve uzaktan eğitim faaliyetlerine erişim sorunlarının öğrenme kayıplarında belirleyici rol üstlendiğini göstermektedir. Bu bilgiler ışığında araştırma okul öncesi öğretmenlere yöneltilecek yarı yapılandırılmış görüşme soruları ile çocukların gelişim alanlarındaki öğrenme kayıplarını ortaya koymayı amaçlamaktadır. Bu bakımdan Covid-19/pandemi sürecinin okul öncesi dönem çocuklarının öğrenme kayıplarına olan etkisinin bilinmesinin literatüre önemli katkılar sağlayacağı düşünülmektedir.

Çalışma nitel araştırma yöntemlerinden biri olan durum çalışması deseni tercih edilerek planlanmıştır. Araştırmanın katılımcılarının belirlenmesinde olasılıksız örnekleme stratejilerinden amaçlı örnekleme tekniklerinden olan kartopu örnekleme kullanılmıştır. Araştırmanın çalışma grubunu, 2020-2021 eğitim-öğretim yılında aktif olarak anasınıfında görev alan 19 okul öncesi öğretmeni oluşturmuştur. Araştırmada veriler araştırmacılar tarafından hazırlanan "Okul Öncesi Dönem Çocuklarının Öğrenme Kayıplarını Belirleme Formu" aracılığı ile okul öncesi öğretmenlerinden yüz yüze veya telefon görüşmeleri aracılığıyla toplanmıştır. Görüşme soruları okul öncesi dönem çocuklarının uzaktan eğitimde gözlemlenen öğrenme kayıplarını, öğretmenlerin öğrenme kayıplarını gidermek için başvurduğu etkinlik türlerini, öğrenme kayıplarının en çok görüldüğü gelişim alanlarını, kavramları ve becerileri, öğrenme kaybının en çok

rastlandığı çocukları, öğrenme kayıplarını en aza indirmek için başvurulan yolları/stratejileri ve öğrenme kayıplarını en aza indirmek için tavsiyelerini kapsamaktadır. Araştırmacılar tarafından geliştirilmiş olan yarı yapılandırılmış görüşme formu için üç alan uzmanından görüş alınarak forma son şekli verilmiştir.

Yapılan görüşmeler sonucunda elde edilen veriler içerik analizine tabii tutulmuştur. Elde edilen veriler iki araştırmacı tarafından üçer defa okunarak anlamlı bölümler işaretlenerek ifadelerin karşısına kodlar yazılmıştır. Ardından tekrar eden kodlar tümevarımcı yaklaşımla incelenerek temalar oluşturulmuştur. Bu şekilde ulaşılan verilerin güvenilirliğine Miles ve Huberman'ın (1994) güvenilirlik hesaplama formülü ile bakılmıştır (Güvenirlik=Görüş Birliği/(Görüş Birliği+Görüş Ayrılığı)). Miles ve Huberman (1994), %70 ve üzeri güvenilirlik değerleri güvenilir kabul etmektedir. Bu araştırmada güvenilirlik değeri %94 bulunmuştur.

Verilerin yorumlanmasında okul öncesi öğretmenlerinin görüşlerinden doğrudan alıntılar yapılarak betimsel analiz tekniğinden yararlanılmıştır. Alıntı seçimlerinde çarpıcılık öne çıkmıştır. Görüşme yapılan okul öncesi öğretmenlerine Ö1, Ö2, Ö3.... şeklinde kodlar verilerek görüşleri paylaşılmıştır.

Elde edilen bulgular çocuklarda en çok psikomotor, sosyal duygusal, özbakım ve dil gelişim alanlarında öğrenme kayıpları olduğunu göstermektedir. Bunun yanı sıra ilkökula hazırlık becerilerinde, bilişsel gelişimlerinde, akran ilişkilerinde ve öz düzenleme becerilerinde de kayıplar göze çarpmaktadır.

Öğretmenler ekran üzerinde ders işlemenin çocuklar açısından aynı anda konuşarak seslerin karışması, kimisinin hiç ses çıkarmaması, nereye bakacaklarını ne yapacaklarını şaşkınlıkları gibi zorluklara yol açtığını belirtmektedir. Bulgular çocukların yanlış yapmaktan korktukları için genelde sessiz kalmayı tercih ettikleri, içine kapanık, utangaç ve çekingen davranışlar sergiledikleri, özgüvensiz oldukları yönündedir. Hatta uzaktan eğitimin çocuklarda neye odaklanacağını bilmemekten kaynaklı ilgi ve dikkat eksikliğine yol açtığını düşünenler öğretmenler de vardır.

Öğretmenlere göre ebeveynlerin okul öncesi döneme ilişkin algıları ve çocuklarının derslerine gereken önemi vermeyişleri öğrenme kayıplarının en başta gelen nedenidir. Nitekim öğretmenler ilkökula ya da ortaokula giden çocukları ile okul öncesi dönemde eğitim alan çocuklarının derslerinin çakışması durumunda ebeveynlerin telefonlarını büyük yaş grubu çocuklarına vermeyi tercih ettiklerini belirtmişlerdir. Bu durum aynı zamanda maddi yetersizliklerinde öğrenme kaybına yol açtığının göstergesidir. Bu süreçte maddi olanakların çocukların eğitiminde belirleyici bir rol üstlendiğini söyleyebiliriz. Maddi olarak yetersiz olan ailelerin çocukları uzaktan eğitim sürecinden en az verim alan en çok öğrenme kaybına uğrayan çocuklar olmuştur diyebiliriz. Öğrenme kaybının gözlemlendiği diğer çocuklar ise kaynaştırma öğrencileri, yabancı uyruklu öğrenciler, tek çocuklar ve küçük yaş grupları olarak belirlenmiştir. Birleşmiş Millet Raporu (2020) da bu dönemde özel gereksinimli çocuklardaki öğrenme boşluklarına işaret etmektedir.

Öğretmenlerin öğrenme kayıplarını gidermek için dijitalleşme yolunda çağa ayak uydurdukları görülmektedir. Bu süreçte öğretmenlerin web 2.0 araçlarından, Minik Tema, Babanın Okulu gibi web tabanlı içeriklerden, whatsapp, telegram, instagram, zoom gibi platformlardan ve sanal uygulamalardan yararlandıklarına ulaşılmıştır. Öğretmenlerin hepsi whatsapp grupları üzerinden ya da telefonla arayarak velilerle iletişime geçtiklerini belirtmişlerdir. Öğretmenlerin pek çoğu derslerinde EBA'ya yer verdiği ya da ebeveynleri EBA'ya yönlendirdiğini söylemiştir. Öğretmenler okula bıraktıkları fotokopiler, ebeveynlere gönderdikleri etkinlikler, çalışma sayfaları, günlük eğitim akışları, videolar, makaleler, ödevler ile uzaktan eğitim sürecini aktif kılmaya çalışmışlardır. Bunların dışında bazı öğretmenler ebeveynlerini TRT Anaokuluna yönlendirdiklerini ve veli toplantıları yaptıklarını da eklemiştir.

Öğretmenlerin öğrenme kayıplarını gidermek için önerdikleri tavsiyeleri ailelerin madde imkânsızlıklarının giderilmesi yönündedir. Öğretmenler, uzaktan eğitim süresince ebeveynlerin teknoloji kullanımı ve bu süreçte çocuğuna nasıl destek olacağına ilişkin de eğitimlere ihtiyaç duyduklarını belirtmişlerdir. Öğretmenler okul öncesi dönem için uzaktan eğitime yönelik yeni bir müfredat tasarımı ya da eğitim sisteminin geliştirilmesinin de yeni öğrenme kayıplarının oluşmasının önünde engel teşkil edeceğini ifade etmişlerdir. Öğretmenler gelecek dönem okul öncesi eğitimde yüz yüze ya da bir gün uzaktan olacak şekilde hibrit model eğitime geçilmesini tavsiye etmişlerdir. Uzaktan eğitim devam etmese bile web tabanlı içeriklerin ve uygulamaların sayısının artırılması gerekliliğine vurgu yapmışlardır. Öğretmenler tarafından birinci sınıfa başlayacak olan çocuklar için 2-3 haftalık bir telafi programının yararlı olacağı düşünülmektedir. Ayrıca öğretmenlere yönelik de dijital içerikler hakkında bilgi verilmesine ilişkin eğitimler ve seminerlere yönelik talep bulunmaktadır. Okul öncesinin zorunlu olması gerektiği ve imkânı olmayan çocuklara yönelik bilgisayar destekli mobil anaokulları da diğer öneriler arasında yer almaktadır.

Ethical Permission: Before starting the study, necessary consent was taken from Kütahya Dumlupınar University (Meeting Date: 16.06.2021, Meeting No: 2021/04).

Informed Consent: Informed consent was obtained from the participants.

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A Project Proposal Preparation Experience: Perceptions of Preservice Primary School Teachers

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Abstract: This study aims to have an in-depth understanding of the perceptions of preservice primary school teachers who have experienced preparing a project proposal about these experiences. The sample of the research, which was conducted by the descriptive phenomenology design, one of the qualitative research methods, consists of four preservice primary school teachers selected according to the criterion sampling method. The researchers used a semi-structured interview form as the data collection tool. During the data collection process, focus group interviews and semi-structured individual interviews were conducted. The data obtained at the end of the interviews was transcribed and subjected to content analysis. As a result of the study, it was concluded that although there were various difficulties in the process of preparing a project proposal, this experience improved the higher-order thinking, scientific research and digital media competencies of the preservice primary school teachers. In addition, the experience of preparing a project proposal supported the personal development of the preservice primary school teachers and contributed to their self-knowledge. It is among the suggestions of the research to conduct workshops in which preservice teachers and lecturers will cooperate to prepare undergraduate projects.

Keywords: Descriptive phenomenology, undergraduate level project, qualitative research, teacher training.

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Introduction

Projects are the products of a complex and long questioning process that individuals perform in their minds after observing and examining their environment. Individuals who develop a research question and conduct their research under the consultancy of a project manager convene within the framework of the project with other individuals who desire to work in similar fields in their environment and perform joint work. They also have the opportunity to develop many skills, such as creative and critical thinking, cooperation and communication. In this context, it can be said that projects support achieving many multifaceted gains, both explicit and implicit,.

The concept of the project, which refers to teamwork by individuals in researching a targeted subject, the process of solving a problem, the teaching of a concept or the acquisition of a skill, can also be defined as thinking, questioning, imagining, planning and designing in the face of problems encountered in daily life. Projects, which accelerate learning transfer, unlike individual learning, play a key role in relational learning carried out in line with a specific goal (Çalışır, 2015; Erdem, 2002; Erdem & Akkoyunlu, 2002; Goldman, 2000; Katz & Chard, 1989; Walker & Leary, 2009). The problem-solving skill has an important place among the 21st-century skills. In this context, projects are important interdisciplinary structures that help gain problem-solving skills. Project learners can produce creative solutions to the problems they encounter in their lives and become active learners (Barak & Dori, 2005; Bell, 2010; Schneider et al., 2002; Zohar & Nemet, 2002). Projects that do not only support the learning process but are the process itself increase the motivation for deep learning, reading and learning at a high level, and help the subjects to be better understood (Bell, 2010). In this respect, projects within the scope of other education programs, especially basic education, which marks the beginning of the development of learning skills, can be a complementary component of the related program.

Beginning with the primary school years, raising qualified individuals who possess problem-solving skills and a project culture is an important issue in terms of the development of a country and the analysis and resolution of existing/possible problems. Teachers, who constitute one of the basic and strategic components of the education system, have a critical role in developing a country by raising sophisticated and qualified manpower who can think, question and generate solutions to existing problems (Özden, 1999). The complex learning skills of individuals are reinforced, and their lifelong learning habits are supported with projects, which begin to be conducted especially at the primary school level and which strengthen student-project manager and student-student communication in line with the social cognitive approach (Eggers, 2007; Ravanis & Bagakis, 1998). It is important for teachers, like the individuals they are going to raise, to be individuals who exhibit the necessary sensitivity for solving problems in life and have qualifications to solve these problems (Güven, 2013). One of the most important and critical points that can enable teachers to have these qualifications is the process of becoming a teacher, in which they receive their undergraduate education. The fact that preservice teachers can solve problems related to their field by receiving a qualified

education during their undergraduate education process is closely associated with their being good project developers. As a matter of fact, the development and execution of projects by preservice teachers can enable them to be better problem solvers (Mettas & Constantinou, 2007) and thus raise their students' consciousness about how to learn better (Ljung Djärf et al., 2014 as cited in Kokotsaki et al., 2016). There are studies in the relevant literature on project development and project preparation processes in various fields of study for teachers working in different branches and for preservice teachers continuing their undergraduate education (Metin-Peten et al., 2019; Mirici et al., 2019; Sağdıç et al., 2017; Timur and Imer Cetin, 2017). In addition to these studies, Kadioğlu (2020), describing the experiences of preservice teachers from different disciplines regarding the TÜBİTAK projects they completed, emphasized the anxiety of the preservice teachers due to their inexperience, inability to complete the project proposal and lack of adequate support for the project. Moreover, the research also revealed that preservice teachers had gains in acquiring researcher and prospective educator identities and communication skills. This study is functional in terms of revealing the gains made through the project experiences of the preservice primary school teachers in their undergraduate years. Revealing these experiences is important for preservice teachers who will prepare a new project. Although there are studies in the literature dealing with project experiences in different teaching branches, the presence of preservice primary school teachers as subjects constitutes the originality of this study.

This study, which was conducted in this framework, aims to try to understand the perceptions of the preservice primary school teachers who have experienced a project proposal preparation process concerning these experiences. For this purpose, answers were sought to the following research questions:

1. What does the project mean for preservice primary school teachers?
2. What are the experiences of preservice primary school teachers regarding preparing a project proposal?
3. How do preservice primary school teachers make sense of preparing a project proposal?

Method

The flow chart of the research, in which the qualitative research approach was adopted, is as in Figure 1:

Figure 1.
Flow chart of the study



Research Design

This study was designed by the phenomenological design, which is one of the qualitative research designs. Phenomenology reveals the experiences of individuals concerning a concept or a phenomenon (Cresswell, 2007). The phenomenological design focuses on phenomena that can be encountered in various forms such as events, experiences, perceptions, orientations, concepts and situations that the individual is aware of but at the same time lacks a deep understanding of (Yıldırım & Şimşek, 2018). The phenomenological design aims to reveal individual experiences and how these experiences occur (Moustakas, 1994 as cited in Cresswell, 2007). Phenomenology focuses on how experience transforms into consciousness. The main focus of phenomenology is how individuals perceive the phenomenon, how they describe it, how they feel about the phenomenon, how they judge the phenomenon, how they remember it, how they make sense of it, and how they talk to others about the phenomenon (Patton, 2018). Phenomenological studies are handled in two different ways. These are descriptive phenomenology and interpretive phenomenology. Reiners (2012) states that descriptive phenomenology has an epistemological perspective and is concerned with what individuals know (as cited in Ersoy, 2019).

This study, too, aims to have an in-depth understanding of the perceptions of the preservice primary school teachers about their project proposal preparation experiences. Hence, the research was conducted using a descriptive-phenomenological design. The phenomenon of this research is project proposal preparation. The phenomenological design was adopted in this study because it aimed to reveal, through focus group interviews and semi-structured interviews, the perceptions of the preservice primary school teachers who experienced preparing a project proposal.

Participants

The participants in the study were determined by criterion sampling. The basic understanding of criterion sampling is to work with all situations that meet various predetermined criteria (Yıldırım & Şimşek, 2018). The criteria determined in this research are: the participants should be studying in a primary school teaching program at a state university, they must have taken part in the project team in the preparation of a project proposal within the scope of TÜBA, TÜBİTAK, etc. at least once during their undergraduate education and the process of project proposal evaluation must not have been concluded yet. In the process of determining the participants, information was collected through a Google survey. This survey was sent to all students studying in the primary school teaching program at the relevant university. In the survey, in which 102 students participated, it was seen that five students had previously taken part in the process of preparing a project proposal. One of these students stated that s/he did not want to participate in the research. Therefore, four preservice teachers, three from the fourth grade and one from the third grade, who volunteered to participate in the research in line with the determined criteria, were included in the study. Since it was stated that 3-10 participants would be sufficient in a phenomenological study (as cited in Langdrige, 2007, Hasanah & Supardi, 2020), the number of participants was deemed sufficient. Information is given below about the participants whose names are coded.

Demographic Features of the Participants

There are two male and two female participants in the study. The participants attend a primary school teaching program. The participants did not have any project experience prior to the process of preparing this project proposal. In addition, they did not receive any training related to the project. Aslı, who worked as a coordinator on her project, is a graduate of the vocational high school of health. In regard to preparing a project proposal, the participant described herself to be at a high level in terms of critical thinking, creative thinking, communication, digital competence, responsibility and respect skills and values and at a medium level in terms of cooperation and patience skills and values. Ahmet, who took part in his project as a project partner, is a graduate of an open high school. The participant described himself to be at a high level in terms of the skills and values of cooperation, creative thinking, communication, responsibility, patience and respect in preparing a project proposal, at a medium level in terms of digital competency, and at a low level in terms of critical thinking skills. Ayşe, who worked as a project partner in her project, is a graduate of Anatolian High School. In preparing a project proposal, the participant described herself as having a high level of cooperation, communication, responsibility, patience, and respect, and a medium level of critical thinking, creative thinking, and digital competence skills. Ali, who took part in his project as a project partner, is a graduate of Anatolian High School. The participant described himself to be at a high level in terms of the skills and values of cooperation, critical thinking, creative thinking, communication, responsibility, patience and respect in preparing a project proposal and at a medium level in terms of digital competence skills. Aslı is in the third year of the primary school teaching program, while Ahmet, Ayşe,

and Ali are in the fourth year. The participants in the sample prepared a project proposal within the scope of TUBITAK 2209-A.

Data Collection

The main tool for data collection in phenomenological studies is the interview. With the interviews, it is aimed to reveal the experiences of individuals regarding a phenomenon and the meanings they attribute to these experiences (Yıldırım & Şimşek, 2018). Interviews enable learning about behaviors and emotions that cannot be directly observed (Merriam, 2018). Therefore, the data in this study were also collected through interviews.

First, a focus group meeting was held on April 29, 2021, joined by all the participants. This interview lasted 2 hours and 24 minutes. The purpose of this meeting was to reveal the experiences of the participants in preparing a project proposal and the meaning they attributed to their experiences in preparing a project proposal. After the focus group interviews were completed, semi-structured interviews were held separately with the participants on May 1, 2021, and May 2, 2021, lasting 38 to 62 minutes. These interviews aimed to go deeper into the areas that could not be expressed in detail in the focus group meeting. The focus group interviews were subjected to macro analysis to be able to predict which participant could answer which questions in more detail in semi-structured interviews. When no new category or theme emerged from the participants' views during the implementation of the semi-structured interviews, the interviews were brought to an end on the assumption that data saturation had been reached. Therefore, it was decided that there was no need for a new interview with the participants.

Creswell (2019) states that in cases where face-to-face interviews are not possible, interviews can be done via the internet. Due to the epidemic conditions experienced at the time of the research, the interviews were conducted online and recorded. Since it was thought that the participants' taking their courses online for two semesters while preparing their project proposals must have improved their ability to make presentations and communicate in a virtual environment, no need was felt for adaptation work.

A semi-structured interview form developed by the researchers was used during the data collection process. While developing this form, opinions were taken from two experts, one of whom is a faculty member, is an expert in the field of primary school education, has worked with preservice primary school teachers, conducted qualitative studies and taken part in projects, and an expert in the field of preschool education, who has undertaken national-international projects, and carried out many qualitative researches mainly on preservice teachers. The form was finalized in accordance with the expert opinions. The form consists of eight basic questions prepared in accordance with the three research questions. Moreover, various questions were asked as required by the context during the interviews to add depth. The basic semi-structured interview questions distributed according to the research questions are as follows:

1. What does the project mean for preservice primary school teachers?

- a. What was your opinion of the concept of “project” before preparing a project proposal?
- b. What was your opinion of the concept of “project” after preparing a project proposal?
2. What are the experiences of preservice primary school teachers regarding project proposal preparation?
 - a. Could you briefly explain how the idea of the project and the idea of transforming this idea into a project proposal developed?
 - b. Could you explain your experience with the project proposal preparation process?
 - c. What kind of feedback did you receive from your environment (friends, family, etc.) during the process of project proposal preparation?
3. How do preservice primary school teachers make sense of preparing a project proposal?
 - a. What was your opinion about “preparing a project proposal” after the experience of preparing a project proposal?
 - b. Do you think that having prepared a project proposal has contributed to you?
 - c. What impact do you think the development of a project proposal will have on your teaching-learning process in your teaching career, how will this experience affect the overall teaching- learning process and your practices related to the course?

Data Analysis

The data obtained within the scope of the research from the focus group interviews and semi-structured interviews with preservice teachers were subjected to content analysis. The process of content analysis is carried out by coding the data, finding the themes, organizing the codes and themes, and defining and interpreting the findings (Yıldırım & Şimşek, 2018). Since it was also aimed in this study to reveal the perceptions of the preservice primary school teachers about their experiences of preparing a project proposal, certain themes were reached by coding the data obtained.

During the analysis of the data, first, the data obtained from the focus group interview was subjected to macro analysis. This analysis provided a basis for semi-structured interviews. Thus, it was aim at determining what topics each participant could express in more depth in semi-structured interviews. In the semi-structured interviews, on the other hand, the issues that could not be fully detailed in the focus group interview were detailed.

The process of data analysis began with the transfer of all the data to paper. Then the data were read several times until the researchers fully understood them. During these readings, various notes were taken next to the text in order to be able to do the coding. The expressions that were thought to provide meaningful content in line with these notes

were determined as the analysis units. Codes were created, and themes were reached based on these codes. Examples of the work done during the coding process are given in Appendix 1. The codes and themes were revised. The same procedures were performed by a researcher who was an expert in the field of primary school teaching. The codes made together with this researcher were compared. According to the Reliability = Agreement/ (Agreement + Disagreement) formula stated by Miles and Huberman (2019), the codes and themes were adjusted until the intercoder consistency reached 90 %. In the final state, the intercoder consistency was determined as 93 %, thus ensuring intercoder consistency.

Credibility and Ethics

A number of strategies, such as long-term interaction, depth-based data collection, diversification, expert review and member check, can be used to ensure credibility in research (Lincoln and Guba, 1985 as cited in Yıldırım and Şimşek, 2018). Various measures were taken to ensure the credibility of this research. In collecting the data, semi-structured interviews were held with each participant following the focus group meeting, thereby ensuring data diversity. After the data were analyzed by the researchers in order to determine the intercoder consistency, an expert who was not part of the research also analyzed 20 % of the data. The process of analysis continued until consistency was achieved. Yıldırım and Şimşek (2018) stated that one of the methods used to ensure credibility in qualitative research is member check and summarized member check under three headings. In this context, immediately after data collection, the data can be summarized, and the participants can be asked for their opinions; a report can be sent to the participants after the analysis, and a written opinion can be requested, or an individual/group meeting can be held instead of a written opinion for member check. In this study, a validation meeting was held with the participants.

After the data were analyzed and the findings were reached, the findings were shared with the participants for member check. The participants reviewed the findings within 2 weeks. Then, a focus group discussion was held, which lasted approximately 20 minutes. A category change was made after the participants reviewed the findings. The participants also validated findings outside this category. In addition, the findings were supported by direct quotations from the statements of the participants during the presentation of the findings. Since one of the ways to ensure credibility in qualitative research is to explain the research process in detail, the whole process was transparently shared in detail.

The study was conducted following ethical principles. The research was conducted with the permission of the Ethics Committee of Sakarya University Rectory, approved by the decision numbered "59" taken at the meeting no: 31 dated 03.02.2021. Following this permission, the participants were determined and written consent was obtained from the participants in the virtual environment stating that they volunteered to participate in the study (Appendix 2). In addition, the participants verbally confirmed that they volunteered to participate in this research at the beginning of the online interviews and that they agreed to have the interviews recorded. In addition, the names of the participants were

not shared directly; instead, they were given code names to obtain information about their year at university, gender, study program, the type of project for which they prepared the proposal, and his/her role in the project.

Findings

This section presents the findings in line with the research questions. Direct quotations were made from the statements of the participants during the presentation of the findings about what the project meant to the preservice primary school teachers who experienced a project proposal preparation process, their experiences of preparing a project proposal, and how they made sense of preparing the project proposal.

Project for Preservice Primary School Teachers

The findings related to the first research question, i.e. "What does the project mean for preservice primary school teachers?" are presented in two tables in line with the interview questions. Table 1 presents the findings regarding the meaning that the preservice primary school teachers attributed to the project before they prepared the project proposal.

Table 1.

The "Project" Before Preparing the Project Proposal

Theme	Category	Code
Meeting the Project	How	Through TÜBİTAK projects
	When	At High School At Middle School
The Tendency towards the Project	Enthusiasm	Wishing to have met the project earlier Aspiring to do a project Wanting to do a project
	Avoidance	Prejudice caused by past experiences Feeling incompetent in developing projects in certain disciplines Alienation from the project due to being graded
Generating Project Ideas	Inhibitory factors	Lack of knowledge leading to anxiety Indecision Low self-efficacy belief Lack of guidance The difficulty of conducting a project Heavy workload involved in a project Being convinced of the project Feeling competent in developing a project
	Supportive factors	Prior project experiences Seeking a project opportunity The belief that the project should be carried out with a team Awareness that projects can also be conducted in social studies

Conceptualization	Misconceptions	Identifying the concept of the project only with science disciplines
		Preliminary experiences The obligation of the project to yield a concrete product

When Table 1 is examined, it is seen that the preservice primary school teachers' opinions about the project before preparing a project proposal are gathered under the themes of meeting with the project, the tendency towards the project, generating project ideas and conceptualization. It is seen that the preservice teachers met the project through TÜBİTAK projects during their middle and high school years, and they had tendencies of enthusiasm and avoidance towards the project. It is seen that the source of the avoidance tendency is prejudice from past experiences, feeling incompetent in developing projects in certain disciplines, and the grading of projects. Ahmet expressed his opinion concerning his alienation from the project due to the grading involved in it: "Like Ali and Ayşe, I first encountered the concept of a project in middle school. In exchange for grades. At the time, it was very difficult for us to do the project assignments because we did them alone."

It is noteworthy that the previous experiences of the preservice teachers created a misconception in the conceptualization of the project. These experiences caused the preservice teachers to associate the project only with science disciplines and to develop the idea that it required creating a concrete product. Ali, who identified the project only with science disciplines, expressed this idea in the following terms: "The concept of the project for me was associated with engineering and science disciplines. I also stayed away from the project because I did not see myself as talented and knowledgeable in these fields. That is, I was saying to myself, 'I can't do it', that's why." In addition, Ali's views show that this misconception lowered his self-efficacy beliefs. In the same vein, the following words of Ahmet are a remarkable statement explaining the idea that the project required the creation of a concrete object, "You need to make something more like 3D, you know, a product. And others need to see it, too. You know, it's like you have made a product, and when I thought about it, it would always loom large, of course, because I didn't know its true content." The findings regarding the meaning attributed to the project by the preservice primary school teachers after preparing the project proposal are given in Table 2.

Table 2.

The "Project" After the Preparation of the Project Proposal

Theme	Category	Code
Change	Belief	Feeling more confident about project preparation
	Source of Project Idea	Moving away from the idea of identifying the project only with science disciplines Seeing one's whole life as a source/inspiration for the project Focusing on more specific topics Clarifying the project idea The idea being a prerequisite for the project

		The fact that science is cumulative has an effect on project idea
Requirement	Team Spirit	Eligible team Cooperation Individual responsibility Positive commitment Peer teaching
	Individual	Readiness Perseverance Entrepreneurship Risk-taking Risk management
Process of Project Proposal Preparation	Positive thoughts	An enjoyable process that requires effort
	Negative thoughts	The difficulty of doing a project The heavy workload involved in doing a project

When Table 2 is examined, it is observed that after preparing the project proposal, the preservice primary school teachers' thoughts on the project are gathered under the themes of change, requirements and the process of project proposal preparation. The experience of preservice teachers in preparing a project proposal made them see themselves as more competent in preparing a project proposal. Ali expressed this situation: "I said, 'I can do it' for the first time when the project was over.' It was the first time that I had succeeded in a project."

The experience of the preservice teachers also distanced them from the idea of identifying the project only with science disciplines. Ali expressed this change in the following terms, "I have seen that everyone can have projects that they can do in any field, related to their field. I have seen that there are projects in all different categories, in all different fields and departments, but not in certain categories. ... I have formed the idea that it is not just about education, not just about science, or just about a field we can call engineering."

Although it was stated that generating a project idea was very difficult before preparing a project proposal, after the experience of preparing a project proposal, they came to the conclusion that it was not that difficult to generate ideas. While Ahmet expressed this view as "That's why that part got a little different after I did the project. I mean, it's not that hard to come up with an idea...", Ayşe expressed it as follows, "After coming up with an idea and following it decisively; you know I said before that only senior people or teachers could do it. However, after I wrote this project proposal, I realized that anyone with an idea can do a project. As long as one pursues this idea resolutely."

The preservice primary school teachers hold the view that the project process has some requirements as a team and individually. The elements that make up the team spirit are eligible to team, cooperation, individual responsibility, positive commitment and peer teaching. Individual responsibility, in particular, is seen as a remarkable code. This code

includes both the fact that a team is required for the project and that this team fulfills its individual responsibilities to create a team spirit. Ahmet expressed this view in the following terms: “You know, all of my teammates are like each of them thinks it is their own project. They own it as if it were their own project but at the same time we do group work.” On the other hand, the preservice teachers' views on the project's individual requirements formed the codes of readiness, perseverance, entrepreneurship, risk taking and risk management. Especially Ayşe’s views on risk management are as follows: “An entrepreneur needs to be able to take risks. A person who writes a project should also be able to take risks. That's why you always have to have a plan 'B' against the risks.”

Preservice Primary School Teachers’ Experiences of Preparing a Project Proposal

Findings for the second research question, i.e. “What are the experiences of the preservice primary school teachers regarding the preparation of a project proposal?” are presented in three tables in line with the interview questions. Table 3 shows the findings on how the preservice primary school teachers developed the idea of the project and the idea of transforming this idea into a project proposal.

Table 3.

The Process of Transforming the Idea into a Project Proposal

Theme	Category	Code
Identification of the Project Idea	The process of limiting the research topic	Starting with the idea of a broad topic
		Recognizing the need to limit the scope
		Widening of perspective, narrowing of scope
		Reflection of previous project experiences
	Supporters in limiting the topic	Literature review
		The guidance offered by an advisor
Prejudices in limiting the topic	The need to limit the subject with the support of the advisor	
	Emergence of new project ideas from completed projects	
	Inspiration from the studies in the relevant literature	
Transformation of the Project Idea into a Project Proposal	Project team	Frustration due to narrowing of scope
		The idea that the project should include a wide range of topics
		Search for a project team
		Creating the project team
	Team spirit	Determining a project coordinator
		Happiness arising from being part of a team
Team spirit	Individual responsibility	
	Respect for different ideas	
	Making decisions together	
	Working together	
		Positive commitment

	Creation of a collaborative product Ownership of a collaborative product Distribution of tasks
Challenges	Identifying a title Writing the method Uploading files to the system Preparation within a limited time Preparing proposals online Heavy workload caused by being a senior-year student
Supporters	Academic staff
Self-Improvement	Literature review Risk management Leadership
	Using online media Using a word processor Using Web 2.0 tools

When Table 3 is examined, it is observed that the opinions of the preservice primary school teachers on the process of transforming project ideas into proposals are gathered under the themes of identification of the project idea, transforming the project idea into a project proposal, and self-improvement. While it is seen that various factors are effective in limiting the subject, it is observed that there are some prejudices as well as supporters in this process. While Ahmet expressed the fact that initially they began with a broad idea as: "Our first idea was so broad and comprehensive that we were quite proud after we came up with that idea, so we created such a comprehensive thing, our teachers will like it or something. We had thought too broadly.", the disappointment experienced due to the narrowing of the scope and the realization that the scope should be limited afterwards were reflected in Ali's statements as "... we thought quite broadly on the project idea, we had rather crazy ideas. We wanted to achieve greater things. But then, when we narrowed down our project idea, we hadn't expected what we found. But still, we accomplished a lot even in that state. When we came to the end of the project, we really said, yes, we did it. If we had had difficulty doing even that, how could we have accomplished what we had in mind?". Asli, on the other hand, summarized this situation as, "Actually, our perspective has broadened, but our scope has shrunk."

In the process of transforming the project idea into a proposal, emphasis was placed on the project team and team spirit, and it is seen that various supporters also played a role besides various difficulties. Ahmet, from whom the project idea came, emphasized the importance of the project team, saying, "... the first thing that came to my mind was, with which friends can we do this? With whom can we carry out this project smoothly? You know, choosing friends who can own and see that project as their own. Indeed, I first thought about choosing those friends...". Ali, on the other hand, expressed the positive commitment of the team: "We all worked in our separate ways, with great

devotion, as much as we could, with team spirit, without any problems. We became a team that got along very well without any fights or noise". Individual responsibility, which is one of the elements that constitute the team spirit, was expressed in Ayşe's views as "... while we were doing this job, we all undertook duties and took responsibility for this...". Regarding the ownership of the product that was created as a team, Ayşe said, "Well... I think we did a really good job and ..." whereas Ali expressed his opinion as, "... our common opinion with our group friends was... if these projects have been accepted, ours will be, too. We did it well; ours turned out very nice.". These statements can be interpreted as preservice teachers' adopting team spirit during the process of project proposal preparation. The findings regarding the experiences of the preservice primary school teachers regarding the project proposal preparation process are given in Table 4.

Table 4.

The Project Proposal Preparation Experience

Theme	Category	Code
Process	Identification of the topic	Beginning as a novice researcher
		Difficulty in clarifying the idea
	Requirement	Literature review
		Expert support
		Distribution of tasks
Digital Media	Work	
	Mental activity	
Acquirements	Team Spirit	Opportunities they offer
		Their limitations
		Tolerance in work sharing
	21st Century Skills	Peer learning
		Completion of the task as a group
Personal	Shared leadership	
	Collaborative work	
	Critical thinking	
21st Century Skills	Creative thinking	
	Research	
Personal	Self-evaluation	
	Task responsibility	
	Self-knowledge	
Personal	Self-confidence	

When Table 4 is examined, it is seen that the preservice teachers' opinions about their experiences concerning the project proposal preparation process are gathered under the themes of process and acquirements. It is seen that the process is gathered in the categories of identification of the topic, requirement, digital media and team spirit. The acquirements involve the 21st century skills and personal acquirements categories.

The fact that they were novice researchers at the beginning is reflected in the following terms in Ayşe’s statements, “... we thought very broadly at first, as we were novice researchers. We included parents in work; we said that we would reflect on a platform where teachers, parents and students would all be together ...”. On the other hand, the difficulty experienced in clarifying the idea is expressed by Ayşe as, “... the most difficult part was determining the scope. I think it was to identify our project precisely ...”. Aslı, on the other hand, stated the fact that the process required mental activity, saying “...I think it was, I am speaking about that period, covering the entire pandemic process, the period when my mind worked most actively.’

Regarding the project proposal they prepared by holding meetings in the digital environment, the preservice teachers stated that this environment offered them both opportunities and some limitations. Ahmet made comments on the opportunities offered by the digital environment as, "... if it was face to face, maybe we could get bored very quickly... we were able to share and present the screen in a comfortable way. ... we were more comfortable ... everyone was connecting from their home and I think we managed the process more adequately.", whereas he expressed the limitations of the digital environment as "... If it were for example face-to-face, it could be more interactive and better research."

Ahmet expressed the acquirements of the experience of preparing a project proposal in terms of 21st-century skills such as critical thinking and creative thinking as, "... I think it substantially supports critical thinking and this in turn improves us, too ... an idea is put forward. Then everyone pulls at different ends of that idea, creating different directions with arrows. From that idea, different ideas open up in different directions. ... In this context, I think that it also develops creativity a lot. Because each arrow is a different idea and maybe a different project scope ...". Its developing self-confidence in terms of personal gains is reflected in Ahmet's views as "... during the project process ... when everyone contributes like this ... I really think that self-confidence increases immensely", while its contribution to self-knowledge is reflected in the form of "... doing a project in terms of getting to know ourselves, yes I think it really seems to help a lot.". The findings regarding the feedback received by the preservice primary school teachers from their environment during the process of preparing the project proposal are given in Table 5.

Table 5.

Feedbacks during the Project Proposal Preparation Process

Theme	Category	Code
Environmental impact on the project proposal preparation process	Supportive role	Support from friends
		Support from the family
	Family's meeting with the project	Family's questioning what benefit the project will yield
		Family's questioning how long the project will last

Family's desire to learn about the project process

When Table 5 is examined, it is seen that the findings regarding the feedback received by the preservice teachers from their environment are gathered under the theme of environmental impact on the project proposal preparation process. The categories that constitute this theme are the supportive role the and family's meeting with the project. While it is seen that both families and friends play a supportive role, it can be said that families met the project via various inquiries and a desire to obtain information.

Aslı expressed her family's support in the following terms: "They supported me; they were excited for me. They saw that I was happy to be able to achieve something, and they were happy for me, too." Ayşe, on the other hand, expressed the support of her friends as, "... when I shared it with my friends, they said 'what a beautiful thing', and they congratulated me."

Ali expressed the family's question of what the project would yield for them: "Okay, you are doing this, but why are you doing it? It has taken so long, what good will it do to you? What good is it ". The questioning about how long it would take was reflected in Ayşe's statements as, "When will your work be finished, when will you get up from the computer?".

Preparation of a Project Proposal for Preservice Primary School Teachers

Findings regarding the third research question, i.e. "How do preservice primary school teachers make sense of preparing a project proposal?" are presented in three tables in line with the interview questions. The findings regarding the opinions of the preservice primary school teachers about the preparation of a project proposal after preparing a project proposal are given in Table 6.

Table 6.

"Project Proposal Preparation" After the Preparation of the Project Proposal

Theme	Category	Code
Project Preparation Tool	Drawing a framework	Determining a form
		Creating a plan
		Literature review
	Clarifying the process	Concretizing the project
		Brainstorming
		Reflection of ideas
		Reflection of skills
	Risk management	Anticipating risks
		Taking precautions against risks
	Requirement	Labor

Project Preparation Process	Proposal	Time
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When Table 6 is examined, it is seen that the preservice primary school teachers' ideas on preparing a project proposal after they prepared the project proposal are gathered under the themes of project proposal preparation tool and project proposal preparation process. The preservice teachers mostly expressed their opinions by considering the project proposal preparation form. Aslı, who saw the project proposal preparation form as a tool to reflect her ideas, expressed this opinion of hers as, "I think preparing the project form was the project team's self-expression." Ahmet, on the other hand, who saw it as a tool to reflect the skills, expressed his thoughts as "Preparing a project proposal is actually a platform for a student to develop and reflect his/her skills...". Table 7 presents the findings regarding the opinions of preservice primary school teachers regarding the contributions that preparing a project proposal made to them..

Table 7.

Contributions of Preparing a Project Proposal

Theme	Category	Code
Feelings	Team Spirit	Taking individual responsibility Creating positive commitment Motivation Indirect motivation Creating a group identity Respect
	Personal	Perseverance Creating a work discipline
Skills	Scientific Research	Planning Literature review Using academic language Establishing academic communication Adherence to academic ethics Using the scientific method Citation Developing a data collection tool Risk management
	Higher order thinking	Collaborative work in digital media Creative thinking Making contacts Media literacy Problem-solving Critical thinking Digital literacy Analysis Synthesis

Persuasion
 Self-expression
 Self-knowledge

When Table 7 is examined, it is seen that the findings regarding the preservice teachers' opinions about the contributions of having prepared a project proposal are gathered under the themes of feelings and skills. The theme of feelings involves categories of team spirit and personal feelings. On the other hand, the categories that make up the skills theme include scientific research skills, higher-order thinking skills, and technology use.

It was found that the preservice primary school teachers developed team spirit in the process of preparing the project proposal. The preservice teachers stated that they exhibited positive commitment as a team, motivated each other, experienced indirect motivation, formed a group identity and respected each other. The preservice teachers held the view that while this team spirit was being formed, they also took on their own responsibilities and contributed to the team spirit with their sense of individual responsibility. Ahmet expresses these views on the code of individual responsibility in his following statements: "A common aspect of all of us is that we hold on to the job as if it were our own. On the other hand, a different aspect of us is that we all have different dreams and ideas. Making that idea something different with them, together as a group."

The preservice teachers stated that preparing a project proposal also enabled them to better know themselves. Ahmet's views in this regard can be seen in his remarks: "It allows one to discover one's hidden or undiscovered features..." and "Well, yes, doing a project really seems to contribute a lot in terms of getting to know ourselves." These quite noteworthy remarks show how preparing a project proposal may contribute to individuals.

The preservice teachers stated that the project proposal preparation process contributed to themselves, especially in predicting and managing risks. Ayşe stated this: "An entrepreneur needs to be able to take risks. A person who writes a project also needs to be able to take risks. That's why there should always be a plan B against risks."

The findings regarding the opinions of the preservice primary school teachers about the reflections of having prepared a project proposal on the learning-teaching processes in their teaching careers are given in Table 8.

Table 8.

Reflections of Preparing a Project Proposal on Teaching Career

Theme	Category	Code
Reflections on career	Guidance	Aimed at curriculum acquisitions
		Aimed at early acquaintance with the project
		Aimed at solving problems with the project
		Aimed at developing a project culture

	Aimed at the authentic context
	Aimed at all courses
	Aimed at interdisciplinary projects
Personal-development	Developing a self-efficacy belief regarding the project
	Project planning
	Managing the project risks
	Conducting the project with a team
	Innovative thinking

When Table 8 is examined, it is seen that the findings regarding the reflections of preservice teachers' having prepared a project proposal on the learning-teaching processes in their teaching careers are gathered in the categories of guidance and personal development in the theme of reflections on the career. Ayşe, who was of the opinion that projects could be used as a tool in the incorporation of authentic context into the learning-teaching process in the guidance she will make to her students, said, "... by using the project method, we can actually add real life to our lessons. Actually, I think we can establish an authentic context in our lessons.". Ayşe also expressed the fact that projects could be developed in all school subjects, not limited to a single course, saying, "... I think a project can be created for each course. ... when we think about daily life in all lessons." Findings show that having prepared a project proposal has important implications for preservice primary school teachers in guiding their students throughout their careers.

Preparing a project proposal also contributed to the personal development of preservice primary school teachers in their careers. Ahmet, one of the preservice teachers who stated that their self-efficacy beliefs, especially for preparing projects had improved, expressed this idea of his in the following terms: "... in the future, in my teaching life, will my student ... create a new idea?, ... I can now think about how we can turn it into a project. I can say that it encouraged me as an idea and opened my horizons ...".

Conclusion, Discussion and Suggestions

Projects are important learning tools for acquiring higher-order thinking skills (Bell, 2010). In order to be ready for the present and the future, individuals of all ages need to be involved in project processes. It is seen in the relevant literature that learning through projects is adopted in the pre-school, primary, secondary and higher education processes (Ayaz & Söylemez, 2015; Chen & Yang, 2019; Kaşarcı, 2013; Kokotsaki et al., 2016). In this study, an attempt was made to understand the perceptions of the preservice primary school teachers who had experienced the process of preparing a project proposal about these experiences. The results obtained in the research are presented in line with the research questions.

The results regarding the meaning of the project for preservice primary school teachers indicate that the experience of preparing a project proposal leads to a significant change in the meaning that preservice teachers attribute to the concept of project. The preservice teachers who, prior to this experience, associated the concept of project only with science disciplines and thought that the project required the yielding of a concrete product, changed this view of theirs as a result of their experience in preparing a project proposal. The experience of the preservice teachers in preparing a project proposal has given them various ideas about the requirements of the project. The preservice teachers think that the project requires team spirit and some personal characteristics. The ideas that a good team is indispensable for the project, that the project requires collaborative work, that peer teaching is necessary in the process, and that individual responsibilities should be taken along with positive commitment are among the pre-service teachers' opinions. On the other hand, the participants think that entrepreneurship, taking risks, managing risks and perseverance are personal requirements of the project. In projects that require collaborative learning by their nature, individual characteristics can contribute to the success of the team, provide motivation, contribute to the management of resources, and develop collaborative problem-solving skills (Susilawati et al., 2018). Therefore, it can be said that these views of the preservice teachers reflect the nature of the project, based on their experiences.

Regarding their experience of preparing a project proposal, the preservice primary school teachers stated that they had various difficulties. The most difficult of these was the process of limiting the subject. The preservice teachers who stated that they were novice researchers stated that they started the process with a topic that was too broad to be dealt with in their project, and that the guidance of the advisors and lecturers in the departments and the studies in the literature served as their guides in limiting the subject. In a study conducted by Zorlu and Zorlu (2020) on master's students, it was concluded that the experience of preparing a project proposal contributed to students' identifying feasible project topics. Kadioğlu (2020), on the other hand, concluded that one of the factors affecting the preservice primary school teachers' process of identifying a research topic was a review of the literature. Metin-Peten et al. (2019) stated that the training they gave improved the project preparation skills of the preservice science teachers, and thus, the preservice teachers were able to identify more original project topics. It can be said that the results of the studies in the literature are similar to the results of the current research in revealing the importance of the literature, expert support and experience in determining the topic.

The participants also stated that they experienced difficulties in determining the title, writing the method and uploading the files to the system. In addition, the senior-year participants stated that the busy study schedule required in preparing for the university examination was one of the factors that made the process difficult. In the studies where the opinions of students, preservice teachers, teachers and administrators were taken, it was concluded that the common concerns in the project writing phase were subsumed under the titles of lack of experience, failure to write the proposals in due time, the possibility of not receiving support for the project, financial opportunities and difficulties

and entering the projects into the system (Kadioğlu, 2020; Özel & Akyol, 2016). It can be said that the results reached in this study such as lack of experience, failure to write the proposal in due time and entering the projects into the system are similar to the results of related studies (Kadioğlu, 2020; Özel & Akyol, 2016). The project team's positive team commitment, ownership of the common product they created, and strong belief that the project proposals they prepared would be accepted may have caused them not to have negative feelings and thoughts about financial difficulties and not receiving support for the project.

The preservice teachers who stated that the workload was heavy in preparing a project proposal also thought the process was enjoyable. Their views can be summarized with the phrase "an enjoyable process that requires effort". As a matter of fact, the preservice teachers stated that while transforming the project idea into a proposal, they distributed tasks, took decisions together, and embraced the common product they created. The participants started to feel more confident in being able to identify a project idea with their experience, thought that projects focusing on more specific topics could also be created, and began to view their surroundings as a possible source for a project. In addition, the participants started to see themselves as more competent in taking part in and conducting a project. In a study by Koç et al. (2020), the university students who prepared projects made the following suggestions to students who would do new projects: doing research, not giving up, and managing the process by working within a plan and program. These suggestions support the pre-service teachers' views in the current study, which are defined as "an enjoyable process that requires effort".

When the way the preservice primary school teachers make sense of preparing a project proposal is examined, it is seen that they often emphasize the importance of preparing a project proposal. They state that preparing a written project proposal with a project team plays a critical role in the project process. They further state that the project proposal draws the framework of the project as a means of planning and shaping the project, makes the project process clear by reflecting the ideas and skills like a mirror, and contributes to risk management by doing the planning that will ensure the elimination of risks by anticipating them. The participants argue that preparing a project proposal is critical for the management of the project, and it also makes significant contributions to them.

The experience of preparing a project proposal made the preservice primary school teachers feel more competent in preparing a project proposal and made them competent in finding sources for project ideas. They stated that 21st-century skills such as critical thinking, creative thinking, problem-solving, and communication; scientific research skills such as planning, literature review, academic ethics, academic communication, referencing, data collection tool development, risk management, and digital competencies such as online meeting organization, use of word processors, use of web 2.0 tools and collaboration with cloud storage have improved. In addition, this experience helped them to adopt a team spirit and to get to know themselves better by contributing to their personal development through perseverance, task responsibility and self-confidence. The university students stated that the projects contributed to them in

terms of doing research, gaining self-confidence, experience and knowledge on a certain subject and raising awareness (Koç et al., 2020). Similarly, Odabaşı et al. (2011) stated that the scientific research planning experiences of the preservice teachers gave them scientific research skills ranging from identifying research topics to reporting and writing a bibliography. Kadioğlu (2020) also concluded in his research that being involved in the project process contributed to the preservice teachers' researcher identity, communication skills, self-confidence development and prospective educator identity. It can be said that preparing a project proposal significantly contributes to preservice primary school teachers in terms of 21st-century skills, since similar gains have been achieved in the current research.

The experience of preparing a project proposal has significantly contributed to developing the belief in preservice teachers that they could guide their students in planning and conducting projects with their students in their future professional careers. Baki and Tümer (2009) concluded that teachers do not consider themselves efficient in guiding their students during the project process. For this reason, it is important that preservice teachers, who feel more confident in producing projects in all disciplines and interdisciplinary fields, form the idea that they can develop a project culture among their students in their professional lives. Kadioğlu (2020) also concluded that the project experience will have positive effects on the preservice teachers' future educator identities. It can be said that the research results in the literature related to this aspect are similar to the present research results. It can be thought that the pre-service teachers' preparation of a project proposal in their pre-service training will positively affect their beliefs about encouraging their students to prepare projects in the future and guiding this process, regardless of whether the project is accepted or not.

The preservice teachers received positive responses from their environment during the process of preparing the project proposal. The participants stated that the families were able to follow the process and they made an effort to understand what was being done, since they had prepared the project proposal with the meetings they held with their teammates in the online environment. In this process, they stated that their families and friends supported and facilitated the process. Koç et al.'s (2020) study with preservice teachers, which found that family and friends supported the process, supports this result. This situation shows that the friends and families of the preservice primary school teachers provide supportive environments for developing project proposals.

Significant results were obtained individually and professionally in this study. The perceptions of the preservice primary school teachers who prepared a project proposal regarding this experience tried to be understood in depth. The following suggestions have been made for the discipline and researchers based on the results of this study, which reveals what kind of effect was created on four preservice primary school teachers when they prepared a project proposal within the scope of TÜBİTAK 2209-A while they were still preservice teachers during their undergraduate education, and its possible effects on their professional lives:

Suggestions for the discipline:

- After the pre-service teachers set out with a project idea that was too broad to be handled in one project, their academic advisors and the instructors of the department played an important role in the process of limiting the topic. In order to guide undergraduate students in the project development process, members of the education faculty should be encouraged to gain project proposal/project preparation experience and to transfer all kinds of experiences they have gained in this process to their colleagues working in different institutions as well as in their institutions. In this framework, seminars/workshops can be organized where all positive and negative experiences in the process can be shared face-to-face or online.
- A project culture should be popularized among preservice teachers through peer learning. In this regard, activities such as seminars or workshops can be organized. Preservice teachers can share their experiences with other preservice teachers on appropriate platforms, face-to-face and online.
- Preparing a project proposal will contribute to the preservice teachers individually and professionally in many ways. Moreover, the fact that projects to be conducted can be counted in place of courses with appropriate content in their programs and the offering of project incentives for these projects, too, will encourage preservice primary school teachers to prepare more project proposals.

Suggestions for researchers:

- Longitudinal studies can be conducted that comparatively examine the experiences of preservice teachers who prepared project proposals in their undergraduate education and who later prepared projects with their own students during their teaching careers.
- Studies can be conducted to investigate which stakeholders can provide support to the projects, apart from supportive elements such as peers, academic advisors, and family in the process of preparing a project proposal.
- While pre-service teachers' perceptions towards preparing a project proposal have been revealed in this study, studies can also be conducted to investigate how this process is reflected in the preservice teachers' skills such as decision-making, problem-solving, communication, and cooperation.
- It can be suggested that researchers with experience in this type of project construct their designs on interpretive phenomenology with similar studies.
- Depending on the increase in the number of such qualitative studies in the field, studies of meta-thematic analysis can be conducted.

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Genişletilmiş Türkçe Özet

Proje yoluyla öğrenenler yaşamlarında karşılaştıkları problemlere yaratıcı çözümler üretebilir ve aktif öğrenen bireyler olurlar (Barak ve Dori, 2005; Bell, 2010; Schneider vd., 2002; Zohar ve Nemet, 2002). Projeler motivasyonu üst düzeyde tutarak daha etkili öğrenmeye yardımcı olur (Bell, 2010). İlkokul yıllarından başlayarak proje kültürüne sahip nitelikli bireylerin yetiştirilmesi, bir ülkenin kalkınabilmesi bakımından önemli bir husustur (Özden, 1999). Öğretmenlerin, yetiştirecekleri bireylerle benzer şekilde yaşamda bulunan problemlerin çözümü için gerekli duyarlılığı gösteren ve bu problemin çözümü için gerekli donanıma sahip bireyler olması önemlidir (Güven, 2013). Öğretmen adaylarının lisans eğitimi sürecinde nitelikli bir eğitim alarak alanıyla ilgili problem çözebilmeleri onların iyi birer proje geliştiricisi olmalarıyla ilişkilidir. Alanyazında farklı branşlarda görev yapan öğretmenler ve öğretmen adaylarının çeşitli konu alanlarında proje geliştirme ve proje hazırlama süreçlerine yönelik çalışmalar yer almakla birlikte (Metin-Peten vd., 2019; Mirici vd., 2019; Sağdıç vd., 2017; Timur ve İmer Çetin, 2017) sınıf öğretmeni adaylarının yer aldığı bir çalışmaya gereksinin duyulmuştur. Bu araştırmanın amacı proje önerisi hazırlamayı deneyimleyen sınıf öğretmeni adaylarının bu deneyimleri hakkındaki algılarını derinlemesine anlamaya çalışmaktır.

Araştırma nitel araştırma desenlerinden fenomenolojik desene uygun olarak tasarlanmıştır. Fenomenoloji, bireylerin bir kavram veya fenomene yönelik deneyimlerini ortaya çıkarır (Cresswell, 2007). Bireylerin fenomeni nasıl algıladıkları, nasıl betimledikleri, fenomen hakkında ne hissettikleri, fenomeni nasıl yargıladıkları, nasıl anımsadıkları, nasıl anlamlandırdıkları ve diğerleriyle fenomen hakkında nasıl konuştukları fenomenolojinin temel odak noktasını oluşturmaktadır (Patton, 2018). Bu araştırmada fenomen proje önerisi hazırlamadır. Fenomenolojik araştırmalar betimleyici ve yorumlayıcı fenomenoloji olmak üzere iki farklı şekilde ele alınabilmektedir. Reiners (2012) betimleyici fenomenolojinin epistemolojik bir bakış açısına sahip olduğunu ve bireylerin bildikleri şeyin ne olduğu ile ilgilendiğini belirtmektedir (Aktaran Ersoy, 2019). Sınıf öğretmeni adaylarının proje önerisi hazırlama deneyimleri hakkındaki algılarının derinlemesine anlaşılmasını amaçlayan bu araştırma betimleyici fenomenoloji desenine uygun olarak gerçekleştirilmiştir.

Çalışma grubunu; bir devlet üniversitesinde sınıf öğretmenliği programında öğrenim görüyor olma, lisans öğrenimi boyunca en az bir kez proje önerisi hazırlanması aşamasında proje ekibinde yer alma ve proje önerisi değerlendirme sürecinin sonuçlanmamış olması ölçütlerine uygun olarak belirlenen dört sınıf öğretmeni adayı oluşturmaktadır. Katılımcıların belirlenmesi sürecinde Google anket aracılığıyla oluşturulan anket ilgili üniversitede sınıf öğretmenliği programında öğrenim gören tüm öğrencilere iletilmiştir. 102 öğrencinin katılım gösterdiği ankette belirlenen ölçütler doğrultusunda araştırmaya katılmak için gönüllü olan dördüncü sınıftan üç ve üçüncü sınıftan bir olmak üzere dört öğretmen adayı araştırmaya dahil edilmiştir.

Araştırmada veriler görüşmeler aracılığıyla toplanmıştır. Öncelikle tüm katılımcıların yer aldığı bir odak grup görüşmesi yapılmış, ardından katılımcılarla bireysel olarak yarı-yapılandırılmış görüşmeler gerçekleştirilmiştir. Verilerin toplanması sürecinde

araştırmacılar tarafından geliştirilen yarı yapılandırılmış görüşme formu kullanılmıştır. Elde edilen veriler içerik analizine tabi tutulmuştur. İçerik analizi süreci verilerin kodlanması, temaların bulunması, kodların ve temaların düzenlenmesi ve bulguların tanımlanması ve yorumlanması şeklinde gerçekleştirilmektedir (Yıldırım ve Şimşek, 2018). Bu araştırmada da elde edilen veriler kodlanarak belli temalara ulaşılmıştır. Verilerin yazıya aktarılmasıyla başlayan analiz süreci araştırmacılar tarafından tam olarak anlaşılincaya kadar birkaç kez okunmasıyla devam etmiştir. Bu okumalar yapılırken kodlama yapılabilmesi amacıyla metnin yanına çeşitli notlar alınmıştır. Bu notlar doğrultusunda anlamlı içerik oluşturduğu düşünülen ifadeler analiz birimi olarak belirlenmiştir. Aynı işlemler sınıf öğretmenliği alanında uzman olan bir araştırmacıya da yaptırılmıştır. Bu araştırmacıyla bir araya gelinerek yapılan kodlamalar karşılaştırılmıştır. Miles ve Huberman (2019) tarafından belirtilen Güvenirlik= Görüş Birliği/ (Görüş Birliği + Görüş Ayrılığı) formülüne göre kodlayıcılar arası tutarlık %90'a ulaşincaya kadar kod ve temalarda düzenleme yapılmıştır. Son durumda kodlayıcılar arası tutarlılık %93 olarak belirlenmiş ve böylece kodlayıcılar arası tutarlık sağlanmıştır.

Araştırma Sakarya Üniversitesi Rektörlüğü Etik Kurulunun 03.02.2021 tarih ve 31 sayılı toplantısında alınan 59 no.lu karar ile onaylanarak verilen izni ile gerçekleştirilmiştir. Bu iznin ardından katılımcılar belirlenmiş ve katılımcılardan sanal ortamda çalışmaya katılmak için gönüllü olduklarına dair yazılı onam alınmıştır. Ayrıca katılımcılar yapılan çevrimiçi görüşmelerin başlangıcında bu araştırmaya katılmaya gönüllü olduklarını ve görüşmelerin kayıt altına alınmasını kabul ettiklerini sözlü olarak teyit etmişlerdir.

Elde edilen sonuçlar sınıf öğretmeni adaylarının, proje hazırlama deneyimi öncesinde projeyi sadece fen bilimleriyle özdeşleştirdiği ve projenin somut bir nesne ortaya konulmasını gerektirdiği düşüncesine sahipken deneyimleriyle bu düşüncelerinin değiştiğini göstermektedir. Katılımcılar iyi bir ekibin proje için olmazsa olmaz olduğu, projenin işbirlikli çalışmayı gerektirdiği, süreçte akran öğretiminin gerekli olduğu ve olumlu bağlılıkla birlikte bireysel sorumlulukların da alınması gerektiğini ifade etmektedir. Katılımcılar bireysel olarak ise girişimci olma, risk alma, riskleri yönetebilme ve sebat etmenin projenin gerekliliklerinden olduğunu düşünmektedir.

Sınıf öğretmeni adayları proje önerisi hazırlarken en çok konuyu sınırlandırma sürecinde zorlandıklarını ifade etmiştir. Zorlu ve Zorlu (2020) yüksek lisans öğrencileriyle yaptığı çalışmada proje önerisi hazırlama deneyiminin öğrencilerin gerçekleştirilebilir proje konuları belirlemeye katkı sağladığı sonucuna ulaşmıştır. Kadioğlu (2020) ise öğretmen adaylarının konu belirleme sürecinde etkili olan faktörlerden birinin alanyazın taraması olduğu sonucuna ulaşmıştır. Metin-Peten vd. (2019) vermiş oldukları eğitimin fen bilgisi öğretmen adaylarının proje hazırlama becerilerini geliştirdiğini ve böylece öğretmen adaylarının daha özgün proje konuları belirleyebildiklerini ifade etmişlerdir. Konuyu belirleme sürecinde acemi araştırmacıların zorluk yaşadığı ve desteklenmesi gerektiğine yönelik sonuçlar alanyazında yer alan sonuçlarla benzerlik taşımaktadır. Ayrıca son sınıfta olan katılımcılar merkezi sınava hazırlanmanın verdiği yoğunluğun süreci zorlaştıran etmenlerden olduğunu ifade etmişlerdir. Proje önerisi hazırlama sürecinde iş yükünün fazla olduğunu ifade eden öğretmen adayları sürecin aynı zamanda keyifli

olduğunu da düşünmektedir. Onların bu görüşleri “emek gerektiren keyifli bir süreç” tanımlamasıyla özetlenebilir.

Sınıf öğretmeni adayları proje önerisi hazırlamanın proje süreci için kritik bir rol oynadığını ifade etmişlerdir. Proje önerisinin projeyi planlama ve şekillendirme aracı olarak projenin çerçevesini çizdiğini, bir ayna gibi fikirlerin ve becerilerin yansımaları sağlayarak proje sürecini belirginleştirdiğini ve riskleri öngörerek giderilmesini sağlayacak planlamayı yapıp risk yönetimine katkı sağladığını ifade etmişlerdir. Proje önerisi hazırlama deneyimleri sınıf öğretmeni adaylarının proje önerisi hazırlamaya yönelik kendilerini daha yeterli görmelerini sağlamış ve onları proje fikri kaynağı bulmada daha yetkin hale getirmiştir. Katılımcılar eleştirel düşünme, yaratıcı düşünme, problem çözme, iletişim gibi 21. yüzyıl becerilerinin; planlama, alanyazın taraması, akademik etik, akademik iletişim, kaynak gösterimi, veri toplama aracı geliştirme, risk yönetimi gibi bilimsel araştırma becerilerinin ve çevrimiçi toplantı düzenleme, kelime işlemci kullanımı, web 2.0 araçlarının kullanımı ve bulut depolama ile ortak çalışma gibi dijital yetkinliklerinin geliştiğini ifade etmişlerdir. Proje önerisi hazırlama deneyiminin öğretmen adaylarının mesleki kariyerlerinde kendi öğrencileriyle proje üretme sürecinde öğrencilerine rehberlik yapabilmeleri konusunda inançlarının gelişmesine önemli yansımaları olmuştur. Akran öğrenimi aracılığıyla öğretmen adayları arasında proje kültürü yaygınlaştırılması araştırmanın önerileri arasındadır.

Ethics Committee Approval: The research was conducted with the permission of the Ethics Committee of Sakarya University Rectory, approved by the decision numbered "59" taken at the meeting no: 31 dated 03.02.2021.

Informed Consent: Informed consent was obtained from the participants.

Authors' Contribution: 1st author: %33,33; 2nd: %33,33 ; 3rd: %33,33

Peer-review: This study was peer-reviewed.

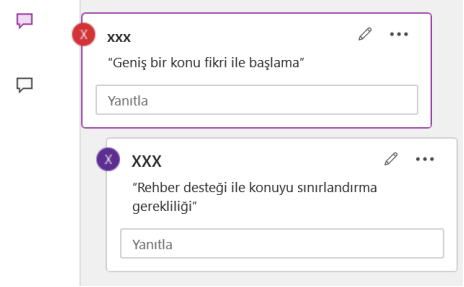
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Appendix 1.

Hatta ilk fikrimiz o kadar geniş ve o kadar kapsamlıydı ki biz o fikri oluşturduktan sonra bayağı da böyle biraz gururlanmıştık yani böyle kapsamlı bir şey oluşturduk, hocalarımız beğenecek falan böyle. Acayip de kapsamlı düşünmüştük ama ertesi gün tekrar bir proje fikrini daha da daraltmamız gerektiğini, daha özel indirgememiz gerektiğini anlamıştık hani ...



Appendix 2.

	A	B	C	D	E	F	G	H	I	J
	Sakarya Üniversitesi Eğitim Fakültesi Temel Eğitim Bölümü Sınıf Öğretmenliği Programında m	Kaçıncı sınıf düzeyinde öğrenim görüyorsunuz?	Lisans eğitiminiz boyunca proje ekibinde yer alarak proje önerisi hazırlayıp başvuru yaptınız mı?	Proje hangi kapsamda bir projeydi?	Bu süreçte rotünüz neydi?	... tarafından yapılması planlanan "Sınıf Öğretmeni Adaylarının Proje Önerisi Hazırlamaya Yönelik Akademi" çalışması kapsamında gönüllü olarak projede katılımcı olarak yer almak ister misiniz? Çalışmada elde edilen bilgiler tamamen bilimsel araştırma kapsamında kullanılacak olup kişisel bilgileriniz gizli tutulacaktır. Çalışma boyunca herhangi bir aşamada çalışmadan ayrılabiliyorsunuz. Çalışmaya ilgili daha detaylı bilgi almak isterseniz ... adresine e-posta gönderebilirsiniz.	Proje önerisini yaklaşık olarak hangi tarihte sundunuz?	Ad-Soyad	Cep Telefonu Numarası	E-posta adresi
1	Evet	4. Sınıf	Evet	TÜBİTAK 2209-A	Proje ortağı	Evet, gönüllü olarak bu çalışmaya katılmak istiyorum.	25.01.2021	...	...	...
2	Evet	4. Sınıf	Evet	TÜBİTAK 2209-A	Proje ortağı	Evet, gönüllü olarak bu çalışmaya katılmak istiyorum.	25.01.2021	...	...	...
3	Evet	4. Sınıf	Evet	TÜBİTAK 2209-A	Proje yürütücüsü	Evet, gönüllü olarak bu çalışmaya katılmak istiyorum.	25.01.2021	...	...	...
4	Evet	3. Sınıf	Evet	TÜBİTAK 2209-A	Proje yürütücüsü	Evet, gönüllü olarak bu çalışmaya katılmak istiyorum.	25.01.2021	...	...	...
5	Evet	4. Sınıf	Evet	TÜBİTAK 2209-A	Proje Üyesi	Evet, gönüllü olarak bu çalışmaya katılmak istiyorum.	25.01.2021	...	...	...
6	Evet	1. Sınıf	Evet	bulduğum il genelinde okullar arası panel ve mulakat çalışması	Proje yürütücüsü	Hayır, çalışmaya katılmak istemiyorum.	2018-2019	...	...	...

Parenting Perceptions and Experiences of Healthcare Professionals Employed in Contact Tracing Teams

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Abstract: The pandemic has mandated some healthcare workers to provide contact tracing services. The present study aimed to discuss the parenting perceptions and experiences of healthcare professionals assigned to contact tracing teams. We carried out this phenomenological study with 29 mothers and 26 fathers selected using purposive sampling techniques. We collected the data using a demographic information form and a parent interview form and analyzed them using the content analysis method. The results revealed that the parents attempted to balance the risks of their tasks with their parenting roles. Also, their perception of protecting their families was the basis of their efforts to protect themselves. Moreover, the social distance to family members revealed longing and intimacy expectations among the participants. The pandemic has significantly impacted families, which is exponentially dramatic for contact tracing teams as health workers. Therefore, it seems significant to carry out counseling work with such families.

Keywords: Pandemic, contact tracing, family dynamics, family roles, parenting perception.

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Introduction

The novel coronavirus disease (COVID-19) is caused by a virus that first appeared in Wuhan Province of China in late December 2019 and was identified on January 13, 2020 (T.C. Sağlık Bakanlığı, 2020; Zhou & Chen, 2020). COVID-19, which spread rapidly to all countries due to human-to-human transmission and was declared a global pandemic by the World Health Organization (WHO), appeared in Turkey on March 11, 2020, for the first time (Park, 2020; T.C. Sağlık Bakanlığı, 2020). It has introduced dramatic changes to existing practices of social and economic life, which has urged governments to take measures to bring it under control and protect public health. Shutting down schools, imposing travel restrictions, and providing flexible or remote working opportunities for the sake of social isolation are among such measures (Keshavan, 2020; Spinelli et al., 2020). Whereas aiming to reduce transmission rates, such measures have led to limitations on living spaces among people, an increase in the time spent at home, restrictions to daily routines and activities, and an elevation of burnout, anger, violence, and aggression (Brooks et al., 2020a; Liu et al., 2020; Neyişçi et al., 2021; Vigouroux et al., 2021; Yıldırım, 2020).

The biological impacts of the virus were prominent at the beginning; however, the never-ending pandemic and consequent changes to living conditions have highlighted its psychosocial effects. The pandemic has unfortunately caused anxiety, worry, fear, and depression among individuals (Fardin, 2020; Grover et al., 2020; Ho, Chee, & Ho, 2020; Kang et al., 2020; Li et al., 2020; Odriozola-González et al., 2020; Özdin & Bayrak Özdin, 2020; Rossi et al., 2020; Wang et al., 2021). A China-based study to examine the psychosocial impacts of the disease found that the young, women, and those with responsibilities to others are more vulnerable to post-traumatic stress (Jiang et al., 2020). Some other studies also reported high rates of depression, anxiety, insomnia, and distress among healthcare workers serving in the pandemic (Allegranzi et al., 2011; Kang et al., 2020; Lai et al., 2020). Similarly, a study explored mental health among healthcare workers in Italy during the pandemic and concluded that especially young female and frontline healthcare workers suffered some mental health problems (Rossi et al., 2020). Besides, previous research suggested that the work stress and excessive workload of healthcare professionals may have adverse effects on their families and children by reducing their overall quality of life (Koinis et al., 2015). It was also reported that the emotional burden of parents during the pandemic makes them confront a dilemma between their personal and professional lives (González-Calvo & Arias-Carballal, 2021). Maunder et al. (2003) found that healthcare staff had a fear of transmitting SARS to their relatives during the epidemic and, therefore, felt depressed. More than half of the healthcare workers participating in research carried out in Egypt and Saudi Arabia confronted depression, stress, and anxiety (Arafa et al., 2021). Another study on Turkish healthcare professionals employed in contact tracing teams (CTTs) during the COVID-19 pandemic concluded that the participants had disrupted sleep quality and several mental health problems (Aktan Kibar et al., 2022). These mid-pandemic studies revealed that healthcare professionals have a proportionally high risk

of both contracting the virus and developing mental disorders (Kontoangelos, Economou, & Papageorgiou, 2020). Among the reasons contributing to such risks were reported to be the frequent changes in the working place and shifts of CTTs and having to serve in areas where safety cannot be fully ensured (Parıldar, 2021). Therefore, the pandemic has had unexpected influences on families (Leonhardt & Serkez, 2020; Millett et al., 2020) and seems to have brought more striking consequences for healthcare worker parents.

During the pandemic, Turkey has become among the countries introducing fundamental public health measures, such as restrictions on international travel and public transportation, the “Stay Home” practice, shutting down workplaces and schools, the PCR policy, and contact tracing (Varol & Tokuç, 2020). Among these measures, the most striking one is that healthcare workers carry out contact tracing work, reach out to sick people and close contacts, trace them with appropriate measures, and ensure their isolation. Hence, it is not prudent to propose that CTTs have a key role in controlling the spread of the virus. Although the pandemic has affected all families, we believe that healthcare workers and their families are the most adversely affected. For this reason, we aimed to explore the parenting perceptions and experiences of healthcare workers employed in CTTs during the pandemic. Unpredictable changes in working shifts and places, a belief that the places to be deployed carry a risk of contamination and being stuck on what to do to manage the pandemic with family members may have unprecedented impacts on healthcare professionals’ parenting experiences and perceptions. Thus, the present study aimed to explore the parenting perceptions and experiences of healthcare professionals employed in CTTs during the pandemic. The findings may enlighten the way to make specific recommendations to bring social and psychological contributions to their parenting perceptions.

Method

Research Design

The present research, aiming to explore the parenting perceptions and experiences of healthcare workers assigned to CTTs in the pandemic, employed phenomenology design - a qualitative research method. Phenomenology helps to reveal experiences and meanings by focusing on a phenomenon that is known but lacks a deeper, broader, and more detailed understanding (Starks & Brown Trinidad, 2007). The phenomenology design investigates how individuals experiencing the target phenomenon make sense of their experiences based on their perspectives and attempts to discover and put forward a holistic description for the common inference of these experiences (Creswell, 2021). In the study, we undertook to provide a holistic description of the perceptions and experiences of parents taking part in CTTs during the pandemic and present the participants’ inferences from their experiences. In line with this purpose, we collected the data from those experiencing this process entirely.

Study Group

We selected participants purposefully. In qualitative research, one of the selected participants can be used simultaneously while deciding on the sample to contribute to the explanation of phenomena and cases (Creswell et al., 2007). Accordingly, we utilized snowball sampling (adding new people to the sample list based on the suggestions of those reached before) (Emerson, 2015), convenience sampling (selecting easy-to-access cases) (Suri, 2011), and criterion sampling (selecting the cases satisfying the predetermined criteria) (Etikan & Bala, 2017). Overall, we carried out the study on a total of 55 participants, 29 mothers and 26 fathers, who met the criteria of volunteering to participate in the study, being a healthcare worker employed in CTTs, and having a child/children aged 0-18. Table 1 presents a descriptive list of the participating parents.

Table 1.

Demographic characteristics of the participants

Categories	Mother (N)	Father (N)	Categories	Mother (N)	Father (N)
Age	20-30 years	4	Professional experience	1-10 years	10
	31-40 years	13		11-20 years	12
	41-50 years	12		21-30 years	6
	51-60 years	-		31-40 years	-
Family structure	Nuclear family	19	Occupation	Medical doctor	2
	Extended family	1		Dentist	7
	Single parent	9		Nurse	8
Number of children	1	18	Midwife	3	
	2	6	Child development specialist	6	
	3	3	Psychologist	-	
	4	2	Healthcare clerk	-	
Educational attainment	High school	-	Healthcare technician	3	
	Associate degree	6	Emergency medical technician	-	
	Undergraduate degree	14			
	Postgraduate degree	9			

While 11 mothers and 3 fathers recovered from COVID-19, 21 mothers and 18 fathers had acquaintances who had been infected before.

Data Collection Tools

We used a demographic information form and a parent interview form to collect the participants parenting perceptions and experiences.

Demographic Information Form: In the study, we created a demographic information form to obtain the participants' demographics (age, educational attainment, family structure, occupation, professional experience, number of children, undergoing coronavirus, etc.).

Parent Interview Form: We also generated a parent interview form to identify the feelings, thoughts, and experiences of the healthcare workers employed in CTTs during the pandemic and collect information about their tasks. First, we reviewed the literature according to the purpose and scope of the research and generated a question pool based on relevant subject headings. In this stage, we prepared separate forms for mothers and fathers and made linguistic edits to the questions to improve their comprehensibility and clearance for the participants. Then, we submitted the draft form for the opinions of five field experts. Finally, we finalized the form following necessary improvements based on expert opinions and a pilot implementation. In the form, there are closed-ended questions inquiring about the tasks in CTTs and open-ended questions to obtain the feelings, thoughts, and experiences of the participants.

Data Collection Procedure and Ethical

Prior to initiating the data collection process, we obtained relevant permission from the Ministry of Health, Scientific Research Platform (2021-03-20T16_32_28) and ethical approval from the Ethics Committee of Ankara Training and Research Hospital (No: E-93-471371.514.10, dated 07.29.2021). Then, we explained the purpose of the study to the potential participants and reminded them that participating in the research was entirely voluntary, that their responses to the questions would only be processed within the scope of a scientific study upon following the necessary confidentiality principles, and that they could withdraw from the research at any stage. Accordingly, the participants who voluntarily accepted to participate in the study provided their written consent. Finally, we delivered the above-mentioned forms to the participants online via e-mail and asked them to fill out the forms in a quiet environment and send them back. Whereas we planned to collect the data face-to-face through semi-structured interviews, the ongoing pandemic, and the parents' concerns about transmitting the virus mandated us to collect the data through the forms only. In addition, participants did not prefer to have a call via media because they could not arrange their time because of their hard-working hours and their preference for not defining their identity.

Data Analysis

We utilized the content analysis method to explore the parenting perceptions and experiences of the healthcare professionals deployed in CTTs. In content analysis, data are classified under specific themes and codes and organized, interpreted, and evaluated at the convenience of the reader (Creswell et al., 2007; Drisko & Maschi, 2016). In this context, we transferred the data directly to the MAXQDA program without any modifications. MAXQDA is a program that enables one to analyze data more systematically and use visual analysis tools (Kuckartz, 2014; Kuckartz & Rädiker, 2019). For confidentiality concerns, while transferring the data to the program, we assigned code numbers A1-A29 to the mothers and B1-B26 to the fathers. Then, we subjected the participants' responses to content analysis and identified codes and sub-codes. We engaged in two-stage coding to increase the reliability of the analyses. For this, three researchers (NA, DÇ, and MY) came together, discussed their codes, and decided on common codes. While doing so, they first made independent coding decisions and then compared their coding to ensure coding consistency (Miles & Huberman, 1994). In the second stage, three researchers (NE, SÖ, and FS) other than coders reviewed the coding to ensure its compatibility. To progress simultaneously in each coding phase, the researchers held online meetings for two hours once a week for three weeks, reviewed the coding in these meetings, and reached a consensus on the final coding. While presenting the findings, we included participant statements and exemplified the coding. After the statements were given, the code of participants was given in parenthesis at the end of the related sentences, and the "A" refers to mothers while the "B" refers to fathers. Additionally, the order of the participant's number was given.

Findings

The present study aimed to explore the perceptions and experiences of healthcare worker parents employed in CTTs during the pandemic. We analyzed the data within three main themes: the healthcare professionals' feelings and thoughts regarding being assigned to CTTs, their parenting experiences, and their experiences regarding the changes in family life.

Feelings and Thoughts Regarding Being Assigned to CTTs

The first theme is about how the healthcare workers perceived their assignment to CTTs. Their perceptions and interpretations regarding their assignment differed by stage of the pandemic. Those employed in CTTs in the early stages of the pandemic had substantial fears of the impacts of the disease and death since the pandemic-related information was rather limited. Yet, we realized that those assigned to CTTs during the stage when the impacts of the pandemic were more predictable were able to manage their anxiety and fears.

"I felt extreme fear and stress. It was a process that had just begun, and I did not know about the disease. I knew nothing except that it was super contagious and had fatal consequences." (A13)

"It didn't sound scary; it would have scared me more if I had gone on a mission like this early in the pandemic." (A16)

Additionally, we determined that the participating healthcare workers who perceived their assignment to CTTs positively exhibited altruistic attitudes and adopted a community-oriented approach.

"In these difficult days for our nation, I, as a healthcare worker, gladly accepted the duty." (B21)

"I was needed, so I was willing to serve people. I took risks but served people." (A3)

Parenting Experiences

The second theme covers the participants' parenting experiences. The participants reported that they were afraid of being caught by the disease and infecting their families and that they could not physically contact their children and spend time together to protect them from the disease. The weakened parent-child relations and the anxiety of being sick/contagious adversely affected their affective state.

"I can define it as being a father who must fight, work under all conditions, and survive for his children. I think it may be because of illness and death anxiety, helplessness, and hopelessness." (B2)

Some participants stated that their children had a fear of losing their parents. Some others expressed that their children preferred to stay away from them since they were afraid of getting infected. They often expressed the adverse emotional impacts of these situations.

"What influenced me most was that my children were afraid to hug me from time to time; they said it to my face." (B14)

"My 5-year-old sometimes warned me to wear my mask while eating. When I reminded him/her "We're just eating!", he opposed me, saying, "What if I get infected?" (B13)

"My 13-year-old son was upset and cried, particularly when he learned that I would be working with COVID-19 patients. He was very afraid of losing me." (B7)

The participants sometimes felt inadequate as parents due to the decrease in the time they spent with their children, isolation, health problems, changes in daily life, and the fear of transmitting the disease.

"I couldn't show my affection to my children for fear of infecting them and I thought I was inadequate for them." (B14)

"I felt inadequate for having restricted playtime with my child." (A1)

"I felt inadequate, particularly when my child cried and insisted I not go for contact tracing." (A4)

Some participants could not respond to their children's expectations of care and affection as much as before and, thus, console their children. Their children often showed excessive reactions to this situation, and the participants experienced inadequacy in managing their children's emotions.

"I sometimes wanted to hug my children, but I couldn't. They cried, and I could not wipe their tears. I felt so strict and inadequate." (B13)

"When I started working in a CTT, they became more emotional and anxious and constantly asked me questions." (A8)

"It was the first time I had been apart from my daughter for a night. The first night I went on duty, she vomited at dinner and cried and told her babysitter that she wanted me. She was pretty scared when vomiting, and I wasn't with her." (A10)

While the mothers felt inadequate when they could not support their children in distance education, the fathers stated that they were confronting financial difficulties. The very first adoption of distance education and the increase in family costs due to changing living/working patterns seemed to lead to a feeling of inadequateness.

"There were times when I couldn't satisfy my son's academic needs during distance education. I came home exhausted, and my daughter wanted to play, so I felt inadequate when I couldn't find the energy to play with her." (B11)

"The decline in my income exacerbated the impacts of financial difficulties in the country more on my family, making me feel inadequate." (B23)

Nevertheless, some of the parents did not feel inadequate while serving in CTTs. They reported that they explained the process to their children in an appropriate way and maintained and even increased parent-child and sibling-sibling interactions. Interestingly, some were able to spend more time with their families during the process, unlike doing so in their routine work schedules. How they applied domestic precautions and family characteristics affected their parenting experiences.

"My child was young. I explained the situation to him/her, and s/he understood it without needing further explanations." (B12)

"Never... The schedule on the team is different than my regular schedule in the clinic. For example, I work a day and then stay at home for two days, like a shift system. So, I have a chance to have a better time with my daughter." (A14)

"Disruption of face-to-face education led children to rally together at home." (B11)

"Such an undesirable time reinforced my children's fellowship. It taught us how to spend quality time and value each other." (A17)

Changes in Family Life

The participants reported that they could not behave as freely at home as before. Some stated that they rearranged their routines at home. For example, while some took off their clothes and took a shower as soon as they arrived home, others wore masks at

home as well or stayed in a separate room. They stated that such changes caused them to not fully rest and relax at home.

"I find myself in the discomfort of being dirty. I never feel the peace of coming home. I have to deal with my hygiene before chatting with my family and hugging them." (A4)

"Anxiety and stress adversely affected our relationships as they were inevitably projected in our family relations." (A18)

"My spouse's constant suggestions made me feel rather uneasy. I was already experiencing anxiety and hesitating to sneeze. S/he was always asking, 'What happened? Do you have pain?' It was bothering me." (A26)

"We (I and my spouse) separated the beds. I used a separate toilet and bathroom. Unfortunately, I didn't hug anyone in the family for about 2-3 months." (A12)

Being assigned to CTTs adversely affected the participants' family routines. Families had certain habits and routines before the pandemic, which allowed the participants to relax and interact with family members. However, their order was utterly disrupted after the pandemic.

"The restriction to family times by the contact tracing duty caused me to be worried and demoralized." (B3)

"I can't remember the last time I spent a weekend with my family because of the irregular working hours." (B17)

"Having to work on weekends... missing having breakfast with the whole family..." (A7)

We determined that working hours were one of the most challenging issues for the parents. Accordingly, varying and long working hours were the factors challenging family relationships the most.

"Coming home late challenged both family members and me." (B25)

"My long working hours and being exhausted affected my family life." (A20)

The participating healthcare workers needed support to organize their family lives during the pandemic. The participants frequently mentioned receiving childcare support, academic support, and psychological support.

"I needed support in caring for my child(ren)." (A5)

"We badly needed academic support." (B23)

Those seeking help caring for their children and satisfying their academic gaps received support from their spouses, other family members, or professionals. Some participants also sought psychological support for themselves.

"I could not receive professional support. I just tried to support my children on my own." (B23)

"Since the schools were shut down, I hired a paid tutor for my child." (A3)

"I am receiving psychological support from a psychiatrist." (A23)

"My child was literally hung out to dry; our babysitter stopped visiting us because of my job. I could not invite my parents because they are old and have chronic diseases. My husband had to take him/her to our shop." (A26)

We assessed the positive and negative emotional impacts of what they would want to say to their parents (if the parents were their children). Considering the mothers' negative emotional responses, we observed that they had intense feelings of reproach and worry, generally reacted to the difficulties of being a healthcare professional, felt reproached for not being together with their families, and had a common fear of transmitting the disease to someone else.

"I would say, 'I wish you weren't a healthcare worker, mom.'" (A20)

On the other hand, pride, inculcation, and sharing love were among their positive emotional reactions.

"I know what a tough time we're going through. Don't worry about me, I love you, and I'm proud of you.' These are my daughter's own words. I would have uttered the same." (A29)

When it comes to the fathers' negative emotions, they reacted to the difficulties of healthcare workers, had worries about infecting others, and made wishes for the end of the pandemic, similar to the mothers.

"I would say, 'Please, take care of yourself first and then of us, dad. The breadwinner should survive.'" (B12)

Finally, we noticed that pride, inculcation, trust, and empathy became prominent among fathers' positive emotions.

"I would be proud of my parents for fighting the pandemic on the frontline every single day when no one could even put their head out." (B11)

Some participants expressed that some of their children's behaviors highly affected them. They stated that their children noticed the changes to their jobs (masks, clothes, etc.) and reflected these in their plays. Some others reported that their children started to help them at home or tried to relax them upon noticing their exhaustion.

"S/he played me a game called 'Mask Control.'" (A2)

"I came home at the end of the first day on the team and remained with my mask for a while. Then, my daughter glanced at me and asked, 'Mom, will you remain with that forever.'" She stayed away from me as if I were covered with germs." (A22)

"They used to brew and prepare my favorite tea at the time of my arrival. My children were longing and caring for me more than ever before." (A17)

"My children tidied the kitchen and prepared tea for me when I came home tired and late." (A20)

"Once, my daughter arrived home early on the day I would come home, decorated the walls, and wrote some lovely things for me." (B19)

"When I was going to be vaccinated, my eldest daughter was worried about the side effects of the vaccine and tried to dissuade me." (B23)

Results and Discussion

Since becoming the most remarkable pandemic affecting the lives of billions in the recent past, the COVID-19 pandemic has forced healthcare workers, as well as all people, to fight it globally for the first time. Healthcare professionals employed in CTTs differ from other occupational groups in that they work directly with patients and their close contacts, take significant precautions against contracting or transmitting the disease (e.g., isolating themselves at home and changing their daily routines), are sometimes considered sources of contamination by their family members, and undertake uncertain/increasing workloads. Although it is known that all segments of society make efforts to manage the effects of the pandemic, the contributions of healthcare professionals have been decisive in making such efforts successful and alleviating its devastating impacts. The present study explored the parenting perceptions and experiences of the parents taking part in CTTs during the pandemic. The findings revealed that the participating healthcare professionals attempted to ensure a balance between their duties, parenting responsibilities, and changing family life.

The participating parents expressed various feelings and thoughts about their deployment to CTTs. Knowing what worries, experiences, fears, and expectations people have in the case of a health crisis is considered essential to helping them overcome the difficulty of adapting to a new life (González-Calvo & Arias-Carballal, 2021). We discovered that the parents assigned to CTTs in the early stages of the pandemic expressed feelings such as fear and stress more, while those employed in CTTs in the later periods reported feeling more relaxed, which may be associated with enhancements in pandemic-related knowledge and the decrease in the uncertainty of expectations about the future in the later stages of the pandemic. However, some parents expressed positive feelings when performing contact tracing, some even volunteered for the mission. In a study by Coşkun Şimşek and Gülay (2021), although experiencing difficulties, nurses felt good and happy because they took part and practiced the nursing profession in fighting the pandemic.

We realized that the participating healthcare workers tried to carry out their parenting duties and responsibilities, as well. In their study, Gassman-Pines et al. (2020) hypothesized that COVID-19 affects the psychological state of both parents and children through at least four mechanisms: job loss, loss of income, caregiving burden, and illness. Although our participants did not experience job loss, we determined that they had difficulties in this process due to the last three mechanisms above. The increased burden of caregiving during illness may lead to anxiety and post-traumatic stress in caregivers (Russell et al., 2020). Considering that CTTs engage in the follow-up and treatment processes of patients or their close contacts, it seems possible to expect that they may experience some difficulties. We found that the participants experienced emotional difficulties addition to difficulty in maintaining their daily routines. Fear of

infecting family members or others, longing to be with family, and feelings of inadequacy can be shown among such difficulties. In this context, a study concluded fear, longing, helplessness, and worry among nurses (Coşkun Şimşek & Günay, 2021). The nurses expressed such feelings as guilt and helplessness while meeting the care needs of patients and their children. Our participants also experienced similar situations, which may have led them to face emotional difficulties.

Psychological risk factors are associated with the mental well-being of both adults and children (Gassman-Pines et al., 2020). Previously, it was reported that physician parents had to make tough decisions during the fight against COVID-19 (Varner, 2020). In a study with healthcare workers and administrative personnel during the SARS epidemic, 15% of the participants stopped going home after work because they were afraid of infecting their family members (Bai et al., 2004). The participants in that study also reported being afraid of going to work because of the possibility of testing positive, being hesitant to stay at home with their children, and being afraid of infecting their parents. Similarly, in our study, the participants were afraid of infecting their family members. Accordingly, how we call the disease may change; however, healthcare workers may always have similar feelings and thoughts during pandemics.

The relevant literature extensively focuses on the adverse effects of the pandemic (Amakiri et al., 2020; Brooks et al., 2020b; Jiao et al., 2020; Liu et al., 2020; Miho & Thévenon, 2020; Orgilés et al., 2020; Russell et al., 2020). Yet, some of our participants perceived that the pandemic also had positive impacts, although it is among the key stressors. In this context, considering both desirable and undesirable aspects of the pandemic may mean more while addressing one's psychological state. In this research, some parents showed improved coping skills in the process, among the positive impacts of the pandemic. Indeed, it would be useful to appreciate cultural differences and consider different numbers of COVID-19 cases among countries while evaluating the results of the present study and the literature. A study evaluating parent-child relationships among Turkish and Chinese parents during quarantine revealed that the majority of parents spent more time at home and interacted more with their children. In the same study, the parents reported more positive relationships with their children (Toran et al., 2021). In this context, we concluded similar results in the present research, which may be because working conditions in CTTs, social isolation, or quarantine may have allowed some parents to spend more time at home. All in all, it seems noteworthy to understand the effects of such an unexpected and long-lasting pandemic on family life.

The findings also revealed that the participants had to make changes in their family lives during the pandemic. The fear of infecting others adversely affected the participants' relationships with their parents and children, which may have contributed to their negative thoughts and feelings. They reported that they took some measures to reduce the possibility of infecting their family members, such as changing clothes and taking a shower as soon as they arrived home, wearing a mask at home, not contacting family

members, and staying in a separate room. Accordingly, we can assert that these measures are mainly concentrated on providing hygiene. In a study by Varner (2020), the participants adopted various rituals to decontaminate themselves when arriving home (e.g., they washed their hands and took a shower before allowing their children to approach them physically), as well as highlighting the importance of changing clothes after work. In addition, due to the effects of the pandemic on children, some participants sought psychological support for their children. In the literature, Almis et al. (2021) found that children with healthcare worker parents are psychologically riskier than their peers. Another study exploring the link between parents' work-family conflict (WFC) and their children's problem behaviors concluded that both mothers' and fathers' WFC is associated with greater emotional and behavioral problems in their children (Yucel & Latshaw, 2021).

In the pandemic, it was reported that parents had to reschedule their work routines and children's care and education to overcome difficulties they had not faced before (Russell et al., 2020). In our study, the parents reported needing support in childcare and compensating for their children's academic gaps during the pandemic. In addition, the mothers needed psychological help. Given the traditional understanding of Turkish family life, while fulfilling childcare is attributed to mothers, fathers are responsible for satisfying the economic needs of the family. Therefore, while the mothers stated feeling stressed about increased caregiver burden, financial difficulties led the fathers to be worried. Although the literature hosts more studies concluding that females are affected more adversely by factors such as caregiving burden and stress (Çakmak & Öztürk, 2021; Nishida et al., 2021), some other studies propose the opposite (Philpott et al., 2017; Russell et al., 2020), which suggests that the association between stress and gender is still controversial but is more apparent in females. In a study by Nishida et al. (2021), increased domestic responsibilities, having care-dependent children, and treating COVID-19 patients were associated with being a woman.

The literature often highlights that inflexible working hours generate additional stress for healthcare worker parents (Randell, Patel, & Talib, 2021). In our study, there were participants who were having difficulties due to their irregular working hours. Interestingly, some other participants reported that changes to their working hours in the pandemic resulted in better outcomes for their families, which may be because they may have undertaken intense duties in their workplaces before the assignment to CTTs. Therefore, it can be asserted that the working patterns and conditions of the parents are significant in their children's development and family dynamics.

The research has some limitations, such as the limited size of the sample - despite being recruited using purposive sampling techniques -, and our inability to perform the interviews face-to-face due to the parents' working conditions, infection risk, and pandemic restrictions. Yet, it became the pioneering study in the literature that scrutinizes healthcare worker parents' parenting perceptions and experiences in tough times.

Recommendations

The parents attempted to ensure a balance between their existing roles as healthcare professionals and their responsibilities in CTTs. Changing working conditions seem to have mandated them to adjust their routines in this process. They have also needed support for their children. While some parents could not reach support due to their duties, some have been able to get both academic support for their children and psychological support for themselves. In this process, they have been worried about infecting their children and relatives, and, therefore, they have had to stay away from them. It should be noted that being a part of CTTs has brought some benefits to the parents as well as some adverse aspects; they have readily welcomed serving society in tough times, which is a source of professional satisfaction for them. Healthcare workers have become the primary agents in the fight against the pandemic. Moreover, in any possible pandemic, they are more likely to be on the front lines of protecting human health and fighting the disease. Understanding how the COVID-19 pandemic affects healthcare professionals off-site and the meanings they attach to their experiences is considered significant for planning social and psychological support for them.

Overall, the findings imply the importance of providing relevant support to those recruited to CTTs by authorized units. Hence, they can protect both their well-being and family dynamics. Besides, not only parents employed in CTTs, but also other families have experienced inevitable changes to family roles and dynamics. Therefore, further studies are needed to uncover the comprehensive impacts of the pandemic on families. Moreover, counseling services for families to relieve the impacts of the pandemic are considered critical; thus, we recommend prospective researchers carry out experimental studies on this subject. Such research will contribute to family counseling services for healthcare workers who are fighting not only the pandemic but also all diseases.

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Genişletilmiş Türkçe Özet

Covid-19 Salgını Türkiye’de ilk defa 11 Mart 2020 tarihinde görülmüş ve bu tarihten itibaren Sağlık Bakanlığı tarafından salgının yönetilmesi için pek çok uygulama hayata geçirilmiştir. Bu uygulamalardan bir tanesi Covid-19 temaslıları ya da hastalarının izlemine yapmakla görevlendirilen filyasyon ekipleri tarafından yürütülmüştür. Ülkemizde ve Dünyada yapılan çalışmalarda Covid-19 salgınıyla mücadele etme sürecinde sağlık çalışanlarının iş yükü ve iş stresindeki değişikliklerin sağlık çalışanlarının genel yaşam kalitelerini ve sosyal yaşamlarını olumsuz etkilediği aktarılmıştır.

Bu çalışma, filyasyon ekibinde görev yapan sağlık çalışanlarının ebeveynlik algılarını ve deneyimlerini keşfetmeyi amaçlamıştır. Araştırma nitel araştırma yöntemlerinden fenomenolojik desende gerçekleştirilmiştir. Amaçlı örnekleme yöntemi kullanılarak ulaşılan 29 anne ve 26 baba ile gerçekleştirilmiştir. Veriler, demografik bilgi formu ve ebeveyn görüşme formu kullanılarak toplanmış ve içerik analizi yöntemiyle analiz edilmiştir. Araştırmamıza katılan sağlık çalışanlarının ağırlıklı çekirdek aile ve tek ebeveynli aile yapısında oldukları, çocuk sayılarının ise bir ve dört arasında değiştiği, 11 annenin ve 3 babanın COVID-19’a yakalanıp iyileştiği, 21 anne ve 18 babanın ise salgına yakalanan bir tanıdığı olduğu tespit edilmiştir.

Elde edilen veriler doğrultusunda sağlık çalışanlarının filyasyon ekibinde görevlendirilmeye ilişkin duygu ve düşünceleri, ebeveynlik deneyimleri ve aile hayatındaki değişimlere ilişkin deneyimleri olmak üzere üç ana tema oluşmuştur. Filyasyon ekibinde görevlendirilmeye ilişkin duygu ve düşünceleri incelendiğinde, sağlık çalışanlarının hastalığa karşı toplumu koruma sorumluluğu ile hareket ettikleri; hastalık hakkında bilgisi olan sağlık çalışanlarının görevlendirmeye daha olumlu yaklaştıkları, diğer taraftan salgının ilk dönemlerinde görevlendirilen sağlık çalışanlarının ise kaygılı hissettikleri saptanmıştır. Ebeveynlik deneyimleri incelendiğinde filyasyon ekibinde görevlendirilen sağlık çalışanlarının salgına yakalanmaktan ve hastalığı ailelerine ya da çocuklarına taşımaktan korktukları, bu kaygı ile ev içindeki yaşantılarını ve aile üyeleri olan yakınlıklarını sınırladıkları; aileyle geçirilen zamanın azalması, sağlık çalışanlarının odalarını ayırmaları, çocuklarının kucaklanma, sarılma gibi duygusal beklentilerine yanıt verememelerinin kendilerini maddi ve manevi anlamda yetersiz hissetmelerine neden olduğunu sıklıkla ifade edilmiştir. Sağlık çalışanları özellikle çocuklarının bakımı ve eğitimi konusunda desteğe ihtiyaç duyduklarını dile getirmişlerdir. Aile hayatına meydana gelen değişiklikler incelendiğinde sağlık çalışanlarının özellikle temizlik rutinlerini değiştirdikleri evde maske takmaya devam ettikleri, eve gelir gelmez duş aldıkları ya da odalarını ayırdıkları tespit edilmiştir. Aile üyelerinin bir arada olmalarına imkân veren aktiviteleri (birlikte kahvaltı etme, akşam saatlerinde birlikte olamama gibi) yapamadıkları ve değişen mesai saatlerinin aile ilişkilerini olumsuz etkilediği bildirilmiştir. Bu etkilere karşı sağlık çalışanlarından bazıları profesyonel destek ararken bazıları da bu ihtiyaçları kendileri gidermeye çalışmıştır. Profesyonel destek arayan sağlık çalışanları sıklıkla eğitim, çocuk bakımı, çocuğun eğitiminin desteklenmesi ya da psikolojik destek gibi konularda destek almışlardır.

Sonuç olarak; ebeveynlerin var olan rolleri ile filyasyon çalışma koşullarındaki rolleri arasında denge kurmaya çalıştıkları saptanmıştır. Çalışma koşullarının da değişmesiyle birlikte yaşamlarında yeni düzenlemeler yapmak durumunda kaldıkları ve bu süreçte rutinlerinin, yaşam koşullarının değiştiği; ebeveynlerin yine çocuklarıyla ilgili düzenlemeler noktasında desteğe ihtiyaç duydukları da görülmüştür. Bazı ebeveynler filyasyon görevleri dolayısıyla desteğe ulaşamazken bazı ebeveynler ise hem çocukları için eğitsel hem de kendileri için psikolojik destek almışlardır. Bu süreçte çocuklarına ve yakınlarına hastalığı bulaştırma kaygısı yaşadıkları ve bu nedenle de onlardan uzak kalmak durumunda oldukları saptanmıştır. Salgın sürecinde filyasyonda çalışmanın sadece olumsuz yönleri değil olumlu yönlerine de sahip oldukları dikkat çekmektedir. Mesleki açıdan doyum sağlayan topluma yararlı bir hizmet sunuyor olmak ebeveynler açısından olumlu olarak değerlendirilmiştir. Filyasyonda çalışan sağlık personelinin hem kendi iyi oluşu hem de aile içi dinamiklerini korumasına yardımcı olabilecek düzenlemeleri yapabilmeleri için çalışma birimleri ya da yetkili birimlerce destek sağlanması önemli olduğu görülmektedir. Sadece filyasyonda çalışan aileler için değil salgın sürecinde aile içi roller ve dinamiklerin değişimi söz konusu olmuştur. Salgının aileler üzerindeki etkilerini belirlemek için bu alanlarda çalışmalar yapılması araştırmacılara önerilmektedir. Bununla beraber ailelerin ihtiyaç duyduğu salgının aileye olan etkisi konusunda aileye sunulacak olan danışmanlık hizmetleri oldukça önemli görülmekte olup bu konuda deneysel çalışmalar gerçekleştirilmesi önerilmektedir. Buna rağmen değerlendirme sonucu elde edilen sonuçların sadece Covid-19 salgını ile değil tüm salgın hastalıklarla mücadele eden sağlık çalışanlarına verilen ve verilecek olan aile danışmanlığı hizmetlerinin geliştirilmesine ve gelecekteki araştırmalar için kaynak oluşturmasına katkı sağlayacağı düşünülmektedir.

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Teachers' Views on Taboo Concepts in Philosophical Discussions with Children*

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Abstract: This research aims to determine the taboo concepts that teachers tend to avoid during philosophical discussions with children and why these concepts are considered taboo. We focus on teachers' experiences using phenomenology, a qualitative research design. For this purpose, we used the snowball sampling method to reach 73 teachers and they answered a questionnaire consisting of 5 open-ended questions. We carried out semi-structured interviews with 7 of these teachers to get in-depth responses and to reflect different views on the subject. Accordingly, 65 teachers had one or more taboos, while 8 teachers did not have any taboos. Death, religion, and sexuality emerged as the most prominent taboo concepts. According to the participants, taboos are formed because of children, teachers, and society. The participants expressed that taboos could have a negative impact on the child, the discussion environment, and the teacher, and they offered solutions. Teachers need to develop a better level of competence in engaging in philosophical discussions with children in order to overcome taboo concepts. Teacher training sessions can be organized to address how to approach taboo concepts and how to select children's books that contain such concepts. Research can be conducted on engaging taboo concepts in philosophical discussions with children. This body of research can explore the impact of questioning such concepts on children's perspectives toward them.

Keywords: Philosophy for children, philosophical discussions, taboo, teachers, death.

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Introduction

Philosophy for children (P4C) is an action where children can engage in philosophical discussions with a facilitator. The teacher or facilitator enables children to discuss a philosophical question based on various stimuli. These questions could include those such as “what is happiness,” “what is freedom,” and “what is correct behavior,” often based on a text. Such texts may include stories for children, picture books, novels, and news stories. The teacher introduces the children to different options through questions and supports them in explaining and justifying their views. The teacher uses his/her knowledge at the right time by asking the right questions, thus arousing curiosity in children (Lipman et al., 1980).

P4C began in the 1970s under the leadership of Matthew Lipman. P4C has introduced children to philosophy in many countries, from preschool to high school. With the implementation of P4C in classrooms, research on the subject has gained significant momentum. Studies have examined the contribution of P4C to thinking skills (Daniel and Auriac, 2011; Millett and Tapper, 2012), democracy (Bleazby, 2006; Burgh and Yorshansky, 2011), citizenship competencies (Garraat and Piper, 2011; Splitter, 2011), and reasoning skills (Lam, 2012; Marashi, 2009). Some researchers have evaluated the effects of P4C on discussion and dialogue skills (Cassidy and Christie, 2013; Poulton, 2014). Moreover, studies have revealed the positive effects of P4C on the courses included in the curriculum. Philosophical questioning in science and mathematics lessons enhances children’s competencies in accurate description, hypothesizing, clarifying concepts, analyzing, synthesizing, employing inductive and deductive reasoning, making formal and informal inferences, and evaluating evidence (Calvert et al., 2017). P4C also has contributions in social aspects; it improves assertiveness, collaboration, and self-control (Okur, 2008), while helping solve communication problems (Akkocaoğlu Çayır and Akkoyunlu, 2016).

For over fifty years, P4C has not been fully considered a method or included in curricula as a discipline or course despite its contribution to thinking skills and its general adoption across the world. The problem with formally implementing P4C in schools is partially associated with difficulties in its implementation and achieving the desired goals through P4C. This could be explained by the fact that most teachers have little or no experience with formal or informal philosophical questioning (Lewis and Sutcliffe, 2017). Teachers have difficulties carrying out philosophical discussions and fail to ask argumentative and philosophical questions. Green and Condy (2016) determined that pre-service teachers found it more challenging to ask philosophical questions compared to factual questions. While these pre-service teachers had an awareness of philosophical subjects, they struggled to transform this awareness into questions. Knight and Collins (2014) found that P4C could not progress at the desired level in Australia despite the significance given to it. Also, elementary school teachers perceived philosophical questioning as a useless effort. Therefore, the authors associated this lack of progress with teachers’ attitudes towards philosophy and their epistemological beliefs. Indeed, the difficulties teachers face in engaging children in philosophical discussions can be fundamentally

linked to their epistemological beliefs, i.e., their views on education and learning. Moreover, teachers' approaches to philosophy and children may also be associated with these difficulties. An approach where the teacher does not trust children's thinking capacities and looks down on their knowledge, skills, and experiences will create difficulties in P4C practices. Lyle (2014) also concluded that teachers' perceptions of children influenced the quality of P4C practices.

According to Farahani (2014), the main difficulties teachers face in engaging children in philosophical discussions include the following: teachers believe that children cannot engage in philosophical discussions based on Piaget's cognitive developmental stages, they disregard children's ideas and do not listen to them properly, they consider philosophy as a framework of knowledge and neglect its relationship with life and accurate thinking, and they interpret it as an adoption of certain beliefs or ideas. Another difficulty that impacts the implementation of P4C is teachers' inclination toward providing definite answers to children during discussions. Research indicates that there are certain challenges to implementing P4C in Turkey. These challenges include the nature of questions asked by teachers during discussions, statements, and behaviors that hinder critical thinking (Boyras, 2019). Besides, teachers are not adequately qualified to integrate P4C into the curriculum or effectively carry out assessment and evaluation processes (Kabil, 2021). Koyuncu and Demircan (2022) sought the opinions of 11 preschool teachers who implemented P4C in their classrooms about various factors that could impede this implementation. These factors included the suppressive effect of the traditional education system on children's curiosity and thinking, a lack of support or pressure from school administrations, the perception that children are incapable of engaging in philosophical discussions, and the belief that philosophy is complex and unnecessary. These difficulties impact all three critical features that are important in P4C: the teacher's role in the classroom, managing the questioning process, and selecting stimuli. The latter is crucial because texts and visuals can either enhance or limit the scope of questioning. A restrictive attitude can lead to missed opportunities for thinking (Haynes and Murriss 2009).

One of the tools used as stimuli in P4C is storytelling. Stories make philosophical questions more concrete for children through events and characters. Children may be hesitant to give examples from their own lives; thus, giving examples and expressing their opinions through characters is safer for them. Stories contain concepts that are suitable for philosophical thinking, such as good, evil, friendship, beauty, and love; they arouse curiosity in children and capture their attention more effectively, particularly children's books with illustrations (Akkocaoğlu Çayır, 2021).

According to Haynes and Murriss (2009), teachers often avoid bringing certain children's books to the classroom and consequently refrain from introducing important philosophical questions or concepts due to concerns that these books may contain taboos or undesirable messages. The avoided subjects include death, sexuality, and love. Teachers also tend to shy away from engaging in philosophical discussions about

death, fearing that it may upset children. According to Gregory (2008), politics and religion are some other areas that teachers tend to avoid discussing in the classroom.

Because teachers avoid engaging in philosophical discussions on such concepts, children are deprived of the opportunity to explore the diverse perspectives that exist in real life regarding these subjects. Children often encounter and discuss these topics in their everyday lives. These concepts are already a part of their lives and avoiding their discussions can result in an approach that is disconnected from real life. This can also mean disregarding their need to talk about these concepts. Avoiding these discussions can hinder the development of a democratic community and restrict children's potential to shape, organize, and make decisions about their thoughts. Besides, children should have the freedom to express their thoughts on these concepts as a human right. Ignoring children's views on such issues is inconsistent with their right to participate (Haynes & Murriss, 2009).

Restricting children's range of philosophical questions not only hampers the implementation of the P4C but also undermines the objectives of fostering critical thinking and promoting a democratic education model. By preventing children from engaging in critical thinking and discussing religious, moral, or political matters, they develop a distorted understanding of the nature of thinking. The perception that "only certain issues can be questioned" is one consequence of this approach. Moreover, it diminishes children's interest in the process of questioning itself (Gregory, 2008). Exploring teachers' taboos provides insights into the implementation of P4C and reveals their perspective on education and the education system. Karin Murriss and Joanna Haynes, who have contributed to the P4C literature, discuss taboo concepts that are avoided in philosophical discussions with children and picture books that contain these concepts in their article titled "The Wrong Message: Risk, Censorship, and the Struggle for Democracy in the Primary School," published in 2009. Based on the conceptual framework of this article, the current research addresses taboo concepts that are not examined in Turkey and are only studied to a certain extent abroad. Taboo concepts refer to those that are intentionally avoided, not discussed, or not subjected to philosophical questioning in the classroom, as used in the aforementioned article.

This research aims to discuss the taboo concepts that teachers avoid in philosophical discussions with children and the reasons they do not reflect these concepts into the questioning process from different perspectives. It is crucial to examine this issue in depth from the perspective of P4C practitioners in order to understand the problems that they experience, to include P4C in the classroom, to make it popular, and to institutionalize it.

Budak, Durmuş, and Çalışkan (2022) examined 69 studies conducted in Turkey on philosophy with children. The sample groups mostly consisted of elementary and preschool students. These studies focused on teachers' views on P4C, though studies that relied on teachers as a source of data were quite limited. Still, there is a need for research that focuses more on teachers' experiences, delves deeper into the problems and solutions, and highlights different dimensions of the subject rather than providing

general and limited insights. It is also important to increase the number of studies that focus on teachers in terms of effectively incorporating P4C into the classroom. Relevant research in literature is quite scarce. Thus, our results will make contributions both to the researchers and the practitioners of P4C. Within this framework, the current research seeks answers to the following research questions:

1. What are the taboo concepts that teachers avoid in philosophical discussions with children?
2. What are teachers' views on the sources of the taboo concepts that they avoid in philosophical discussions with children?
3. What are teachers' views on the stimuli that contain such taboo concepts?
4. What are teachers' views on the consequences of having taboo concepts?
5. What are teachers' suggestions for de-tabooing such concepts?

Method

Research Design

We utilized phenomenological design, a qualitative research method. This design focuses on phenomena or concepts that we are aware of but may not have a deep and detailed understanding of. Such phenomena can take various forms like events, experiences, perceptions, orientations, and concepts (Yıldırım and Şimşek, 2018). The phenomenon that we investigate in-depth is the taboo concepts for teachers who engage in philosophical discussions with children. We explore such taboo concepts, their nature, the reasons behind their formation, the consequences of having such taboos, and suggestions for de-tabooing these concepts based on the experiences of teachers who engage in philosophical discussions with children.

In phenomenological research, data sources consist of individuals who have experienced and can express the phenomenon that the research focuses on. To achieve this, the researcher can determine participants who can be included in the sample through observations and preliminary interviews conducted in the field. The snowball sampling method can be suitable for such studies (Yıldırım and Şimşek, 2018). The data source for this research consists of teachers who engage in philosophical discussions with children. We selected the teachers using the snowball sampling method. Initially, we used an open-ended questionnaire to understand teachers' perspectives on the phenomenon, to provide a general overview of taboos, and to identify areas that require further exploration. Subsequently, we conducted interviews with 7 teachers who represented different perspectives. Indeed, in phenomenology, the data collection process often involves interviews with individuals who have experienced the phenomenon (Creswell, 2013). During these interviews, teachers closely examined the taboo concepts they avoided in philosophical discussions and shared their insights on the formation and effects of these concepts in depth.

Data Collection

We used the snowball (chain or network) sampling method to reach the participants. This approach is used to reach people who can provide more information. The process starts with the question “Who should we interview about this issue?” By asking people who else to talk with, the snowball gets bigger as new information is accumulated (Patton, 2002). Since teachers have only recently recognized P4C and a limited portion of such teachers have introduced P4C to classrooms, our first sample consisted of teachers who engaged in philosophical discussions with children and who received training, lectures, or seminars on P4C. We then expanded the list of people who would respond to the questionnaire based on the suggestions of these teachers.

We sent the open-ended questionnaire via e-mail to P4C practitioners who worked in state or private schools affiliated with the Ministry of National Education. Thus, the research involved 73 participants who volunteered to complete the questionnaire. We decided not to increase the number of participants further for purposes of data saturation, that is, reaching the point where there is enough data. We read the teachers’ responses and conducted a preliminary analysis, which revealed that the responses fell under similar categories and showed repetition. Therefore, we did not expand the participant list any further. Data collection took place over a period of approximately three months, from December 2021 to February 2022.

Participants

Our sample consisted of 73 teachers from various disciplines who engaged in philosophical discussions with children. Table 1 shows the participants’ demographic information.

Table 1.

Demographic Information of Participants

Number of participants: 73		f	%
Discipline	Elementary school teaching	25	34,2
	Philosophy group	21	28,7
	Preschool	9	12,3
	Turkish language	4	5,4
	Psychological counselling and guidance	3	4,1
	Turkish language and literature	2	2,7
	English language	2	2,7
	Special education	1	1,3
	Social studies	1	1,3
	History	1	1,3
	Physics	1	1,3
	Mathematics	1	1,3
	Religious culture and moral knowledge	1	1,3
	Academic	1	1,3

Age	25-35	26	36,6
	35-45	34	45,5
	45-55	13	17,8
Gender	Female	67	91,7
	Male	6	8,2
Implemented P4C in the classroom for	1 month-1 year	20	27,3
	1- 5 years	45	61,6
	5 -10 years	7	9,5
	10 years and above	1	1,3

Because P4C is an interdisciplinary field, teachers from various disciplines participated in the research. Most teachers who engage in philosophical discussions with children are elementary school teachers, and most have P4C experience ranging from 1 to 5 years.

Data Collection Tools

Open-ended Questionnaire

We developed an open-ended questionnaire form consisting of 5 questions based on the opinions of two experts working in the field of philosophy with children. Then, we carried out a pre-implementation process with four teachers engaging in philosophical discussions with children and finalizing the form based on their opinions and suggestions. The questionnaire inquires whether teachers have taboo concepts that they avoid in philosophical discussions with children and why. Furthermore, we provided summaries of three picture books on such taboo concepts and asked the teachers whether they would use these books in philosophical discussions in their classrooms, along with their reasons for their decisions. Table 2 presents information about these books.

Table 2.

Stimuli Containing Taboo Concepts

Name of the Book	Author	Major concept
Duck, Death, and the Tulip	Wolf Elburch	Death
Tango Makes Three	Justin Richardson and Peter Parnell	Nature of family, identity, homosexuality
Whadayamean	John Burningham	God, religion, faith

Interview

In the second stage, we carried out semi-structured, face-to-face interviews with 7 teachers. All participants were located out of town, so the interviews were conducted face-to-face through a video conferencing platform. The interviews lasted an average of 45 minutes and were recorded with the participants' consent. We used the maximum variation sampling method in order to reflect different views. The purpose here is to

reveal different dimensions of the problem by reflecting the diversity of the individuals involved in the problem at the maximum level and to determine whether there are any common or shared phenomena among a wide range of cases (Yıldırım and Şimşek, 2018). Table 3 shows the demographic information of the 7 interviewed teachers.

Table 3.

Demographic Information of Interviewed Participants

Participant	Gender	Discipline (Major)	Age	Implemented P4C in the classroom for
P4	Female	Elementary school	50	5 years
P17	Female	Elementary school	43	4 years
P32	Male	Philosophy	48	25 years
P36	Female	Preschool	49	3 years
P54	Female	Elementary school	36	5 months
P55	Female	Philosophy	30	4 years
P56	Female	Philosophy	48	1 year

To deepen and clarify the responses, we followed a flexible process during the interviews. The semi-structured interview included the following questions:

1. Are there any concepts or philosophical questions that you avoid discussing with children because you consider them taboo or difficult?

a. If yes, what are those concepts or questions?

b. What are the reasons behind your belief that they are taboo or difficult?

c. What experiences have influenced your views on these matters?

2. How do you evaluate a teacher's stance on having or not having taboo concepts?

a. Should facilitators have no taboo concepts? Why?

b. Can certain taboo concepts continue to remain so? Why?

c. What are the consequences of teachers having taboo concepts? Why?

d. What are the consequences of teachers not having taboo concepts? Why?

3. What are your thoughts on using stimuli (such as stories, picture books, films, visuals, etc.)

that contain concepts you consider taboo (such as death, belief, sexuality, love, politics)?

a. Do you have any additional thoughts regarding the book "Duck, Death, and the Tulip"?

- b. Do you have any additional thoughts regarding the book "Tango Makes Three"?
- c. Do you have any additional thoughts regarding the book "Whadayamean"?
- 4. What are your thoughts on the importance of engaging in philosophical discussions on concepts that are considered taboo, such as death, religion, sexuality, love, and politics? Why?
- 5. What are your views on teachers de-tabooing these concepts?
 - a. If you believe that these concepts should be de-tabooed, what are your suggestions for doing so?

Reliability, Validity, and Ethical Considerations

One of the strategies used to increase credibility is triangulation. Triangulation involves using data obtained through different methods to confirm each other (Yıldırım and Şimşek, 2018). In this study, we used individual interviews to validate the participants' responses to the open-ended questionnaire. We reminded the teachers about their responses and asked them to add, correct, or further explain any parts they wished to enhance and deepen their opinions. A detailed description is one of the strategies used for transferability. This involves presenting raw data that is organized according to themes to the reader without adding interpretation (Yıldırım and Şimşek, 2018). To achieve this goal, the study frequently included quotations that reflect the relevant themes and subthemes. Another approach that we used to enhance transferability was sample selection. Ensuring maximum diversity in selecting individuals for interviews serves the purpose of allowing readers to use the study in various fields and for different purposes (Merriam, 2009). In this research, we employed the maximum variation sampling method in selecting individuals for individual interviews, thus selecting teachers who reflected different perspectives in their responses.

Prior to the research, we obtained the necessary ethical permissions from the Scientific Research and Publication Ethics Committee at Hacettepe University. We explained the research purpose and the data collection process to the teachers who completed the questionnaire and those who participated in the interviews and provided them with the necessary information regarding their rights. The teachers voluntarily participated in the research and signed a consent form confirming their participation.

Data Analysis

We analyzed the data using content analysis. Content analysis aims to uncover hidden truths within the data. We grouped similar data based on specific concepts and themes and presented them in a way for readers to understand (Yıldırım and Şimşek, 2018). We derived these themes from the participants' opinions. We separated the responses of teachers with taboos and those without taboos and subjected their reasons to content analysis. In this analysis, we also examined the reasons given by the participants under three categories: those who stated that they would use the presented books, those who would not use them, and those who would use them under certain conditions. We used content analysis again to investigate the participants' reasons, their thoughts on the

consequences of having taboos, and their thoughts on de-tabooing certain concepts. Various codes, themes, and subthemes emerged from these analyses.

In the first stage, we watched the recorded interviews and transcribed the dialogues between the researcher and the participants. Subsequently, we transferred the responses to an Excel file. We then identified and grouped meaningful units. Each of these meaningful units was then encoded with a single word or phrase. We grouped the codes under subthemes that aligned with the research questions and accurately reflected their meanings. These subthemes were further organized under the main themes. We applied the same process to the interview data. We compared the themes derived from the two data sources and reached the final versions of the themes. We presented certain quotes under the relevant research questions, reflecting the themes and subthemes. All participants were numbered P1, P2, P3, and so on, and the quotes were shared using these codenames.

Findings

1st Research Question

We asked the participants if there were any concepts that they avoided in philosophical discussions with children. 8 had no taboos, while 65 teachers had one or more taboos. Death, religion (beliefs, God, worship, fate, creator), and sexuality (sexual orientation, sexual identity, gender roles) were the most prominent taboo concepts among the teachers. Some other taboo concepts were emotions (love, fear, pain, jealousy), politics (justice, national values, democracy), violence (war, bullying), moral judgments, and family (divorce, parental roles). Some teachers also identified loneliness, free will, freedom, ethnic origins, culture, migration, goodness, existence, individual differences, illness, reality, the concept of self, and the concept of time as taboos. Below are some examples of teachers' statements.

"Concepts that are abstract and difficult for the age group (7-8 years): Ethics, sexuality, etc. Concepts that are considered taboo by society: Religion, sexuality, etc. Concepts that are considered inappropriate to talk about by the families: Death, sexuality, etc." (P2)

"Death, pain and suffering (wars, natural disasters, irreversible damage to nature), sexuality and sexual preferences (LGBT and so on), believing in God." (P58).

Below are two examples of teachers who had no taboos.

"I do not restrict or censor children in philosophical discussions with them. So, no taboo concepts. I have only one criterion, which is appropriateness!" (P32)

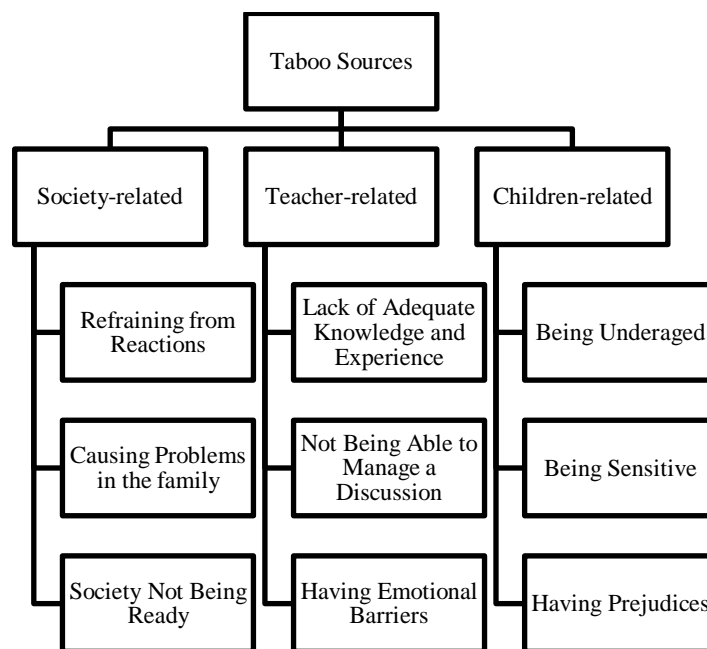
"Any concept that children are curious about should be open to questioning." (P53)

2nd Research Question

The participants wrote down their reasons for having taboos in the questionnaire. Teachers' taboo sources were grouped under three themes: society-related, teacher-related, and children-related. Figure 1 shows the relevant themes and their subthemes.

Figure 1.

Taboo Sources of Participants



Under the theme of society-related sources, teachers are worried about the reactions of families, school administrations, or other teachers if they discuss concepts that they consider taboo in the classroom. These reactions may manifest as complaints from families, discontinuation of the philosophy course, or parents expressing their discomfort to the teacher. Teachers believe that discussions centered around politics and religion in the classroom may lead children to question dominant ideologies, their families' viewpoints, or their religious preferences. They express concerns that this may not be well-received by families, school administrations, or other teachers. Discussing concepts such as death and pain is also met with resistance as it is thought to potentially upset children. Sexuality, on the other hand, is considered taboo for parents or school administrations due to its association with religious, political, or age-inappropriate topics for children. One teacher exemplifies this viewpoint as follows.

"Religion is generally perceived as a sensitive area by society. There is a concern that if a child brings up religious questions and the family considers the school as the source of those questions, it may disrupt the education process and the learning environment." (P42)

Teachers indicate that discussing philosophy on taboo concepts, as mentioned earlier, can potentially create problems within families. One of these challenges is that the child may share the discussion with their family in a manner that can lead to misunderstandings, creating an unresolved issue within the family. Besides, teachers think that society is not ready to discuss some concepts, especially death, religion, and sexuality. According to them, society has taboos and families have prejudices; society does not want some concepts to be questioned. Below is a participant's perspective that reflects this viewpoint.

"Death (concept). Since I work in a private institution, it can lead to complaints from parents." (P20)

Another theme of the second research question is teacher-related sources. Some teachers stated that it was necessary to have knowledge about taboo concepts, especially death, emotions, and sexuality. According to them, they should know the answers to such questions as "At what ages should these concepts be addressed?", "How should one intervene if one of the children is negatively affected during the discussion?" and they should be experienced in working with these concepts. The following statements exemplify this view.

"I have reservations about how to fully explain these concepts to children or find the appropriate stimulus to clarify them. Especially if it's a group I've just met, I consider these concepts taboos." (P39)

"In my opinion, many topics like death require a strong knowledge of psychology. Since I do not consider myself sufficient in this regard, I cannot delve deeper into that field." (P42)

Some teachers, on the other hand, think that they cannot effectively guide philosophical discussions on these concepts. The teachers are afraid of influencing children's ideas and are concerned about giving the wrong message. Moreover, they are worried about not being able to ask the right questions or make children approach the subject from different perspectives. Teachers are afraid of not being impartial and not being able to put aside their prejudices or opinions. They also stated that they did not know how to lead the discussion, especially if the children blamed each other for their opinions on political or religious issues. The following statements represent the teachers' views about the anxiety of not being able to manage the discussion.

"I do not discuss the concept of religion, or any subject based on religious preferences because I am afraid of influencing children in this regard." (P45)

"The uncertainty of my position in this matter and the ambiguity of where I stand concern me about how to handle these discussions." (P59)

"When I think about the children's ideas and answers, or the questions they might ask, I also worry about not being able to manage the group." (P61)

Some teachers expressed that the reasons for their taboos were related to themselves. Participants mentioned that they, themselves, are unsure about what they think about taboo concepts like death and religion, and they have doubts. They talked about their anxieties or fears of facing these issues since childhood. All these factors led to the formation of their own taboos. The following opinions are related to the subtheme of having emotional barriers.

"The concept of fear (taboo). Because of the fears we bring or nurture from childhood." (P1)

"Most importantly, to what extent do I accept these concepts? How well did I cope with the deaths of my relatives? How do I react to the wars and fires that occur in the environment we live in? In short, I think we must be at peace with these concepts." (P58)

Some teachers stated that the reasons for their taboos were related to children. The young age of children (especially in preschool and the first years of primary school) is a determining factor in teachers' selection of topics to discuss in their classrooms. According to them, children do not yet have the ability to comprehend abstract thinking, so they cannot make sense of concepts like God or death. They may also struggle with topics such as gender roles due to their developmental characteristics and not know what to think about them. Besides, since they are young, it is not yet necessary to talk about topics like pain, violence, war, and death. These topics should be discussed when they reach a certain age, considering their developmental characteristics. Below are the opinions of two participants on this subject.

"Religion is a concept that I avoid because they cannot fully comprehend it as they are still in the concrete operational stage". (P20)

"I thought I wouldn't be able to discuss the concept of sexual orientation at the primary education level because in my opinion they are not suitable to understand this concept, considering the developmental characteristics of the age group." (P44)

Some teachers stated that children develop prejudices over time, which brings some problems with it. When discussing these taboo concepts, children can unintentionally offend or mock one another. This can hinder the discussion and fail to deepen it due to biases. Breaking down these biases can be challenging, and it can lead teachers to perceive topics such as religion and politics as taboos. Below are some participants' opinions on this view.

"I believe that children are being fed with memorized or subliminal messages, which confuse their minds. At a certain point, they start internalizing the judgments that everyone is trying to dictate and impose on them, and then they begin to dictate those judgments onto others." (P17)

"Ethnic origin (taboo). My homogeneous group tends to alienate others rather than understand their differences." (P52)

Another taboo source concerning children is that teachers perceive them as sensitive. According to teachers, if topics like violence, death, pain, or war are discussed, children may feel afraid, anxious, or emotionally overwhelmed. They may feel embarrassed, hesitant, or fear being stigmatized in the face of these topics and may struggle to cope with them. Two participants express their opinions on this matter as follows.

"I think working with the concept of death with children can develop a fear in them."
(P12)

"I have the concern that I might cause emotional harm in children's inner worlds as an adult." (P57)

3rd Research Question

We presented summaries of the books *Duck, Death, and Tulip*, *Whadayamean*, and *Tango Makes Three* to the teachers and asked them whether they would use these books in philosophical discussions in their classrooms and why. The responses were gathered under three categories: "I would," "I would not," and "I would under certain conditions." Table 4 below shows these categories along with their reasons.

Table 4.

Using Stimuli with Difficult Concepts

Use	The quality of the stimulus	Readiness of the group	Family and School's attitude	Readiness of the teacher
I would	Suitable for philosophy	The group is ready	Suitable for the family and school	Teacher feels ready
I would not	Not suitable for philosophy	The group is not ready	Not suitable for the family and school	Teacher does not feel ready
I would under certain conditions	If adaptable for philosophy	If the group is ready	If the family and school approve	If the teacher feels ready

Teachers who expressed their intention to use the book(s) found the stimulus suitable for several reasons like including a philosophical question, concretizing the question through storytelling, allowing for discussions from different angles, and being designed for the age group of the children. Some of the teachers who stated that they would engage in philosophical discussions using these books specifically mentioned the concepts that the stories focus on and emphasized the importance of introducing these concepts to children. They believe that it is essential for children to contemplate and confront these concepts at an early age since they are already present in their lives, and avoiding discussions about them is not feasible. Also, it is important to address children's questions, alleviate their concerns, and increase their awareness regarding these topics. According to some teachers, children need to reflect on these concepts, and they are

ready for it. They are more flexible thinkers than adults, unburdened by prejudices, and free from taboos. When required, it is possible to bring these concepts into the classroom by collaborating with the family. Below are the opinions of some of the teachers who stated that they would use one or more of these stimuli.

"...death is a concept that frequently appears in children's lives and sparks their curiosity while also confusing them. Especially when they witness the death of pets or loved ones, working with this book can be beneficial for them." (P4)

"I have no hesitation in using this stimulus because even at a young age, children already have value judgments about God that come from their families, and the name "God" is mentioned in their homes in different ways. Even if it is not explicitly mentioned, the child is already aware of or has thought about this idea. So, I believe that children are already prepared for this topic... In the philosophy class with children, we can think about and discuss this topic, and they can defend different ideas." (P7)

"I would use it. I believe it is important to break the stereotypical judgment of the mother figure with children. In nature, there should be no judgment of gender identities in any way." (P31)

Some teachers set certain conditions for using one or more of these stories. Some of these conditions were related to the stimuli. These conditions include not showing the illustrations (due to finding them disturbing, for example), reading only up to a certain point, or removing certain words from the story. On the other hand, some teachers would use these stories for philosophical discussions when they felt prepared, acquired knowledge about the relevant concepts, improved their skills in facilitating discussions, or had enough experience conducting discussions. Other conditions include obtaining permission from and informing families, as well as having an appropriate school climate. The readiness of the group to engage in discussions on these concepts is also highlighted as an important factor. For some teachers, the preschool or early years of primary school are not suitable for discussing these concepts. According to the participants, it is more appropriate to discuss these concepts if the age group is older, if children do not have negative experiences (especially about death), if they have sufficient inquiry-based experiences, if they emotionally prepare themselves to discuss these concepts, if the children's socio-cultural level allows for such discussions, and if they have questions or are curious about the relevant topics. Below are some examples that emphasize the importance of the readiness of the group.

"Yes, I can use it with children starting from the second grade of primary school onward. I believe that the concept of God had not formed in their minds before that age." (P36)

"...I do not find it appropriate to directly talk about the topic of death without asking for permission or without the children expressing their interest in it. It would be more beneficial to assess the readiness of the group and then engage in thoughtful discussions and deepen the understanding." (P8)

The teachers who do not want to use these stories in philosophical discussions mentioned the following reasons: pressure from parents and schools, a lack of readiness by them or by the children. Their justifications are consistent with the taboo sources mentioned earlier. Below are some examples of these teachers' opinions.

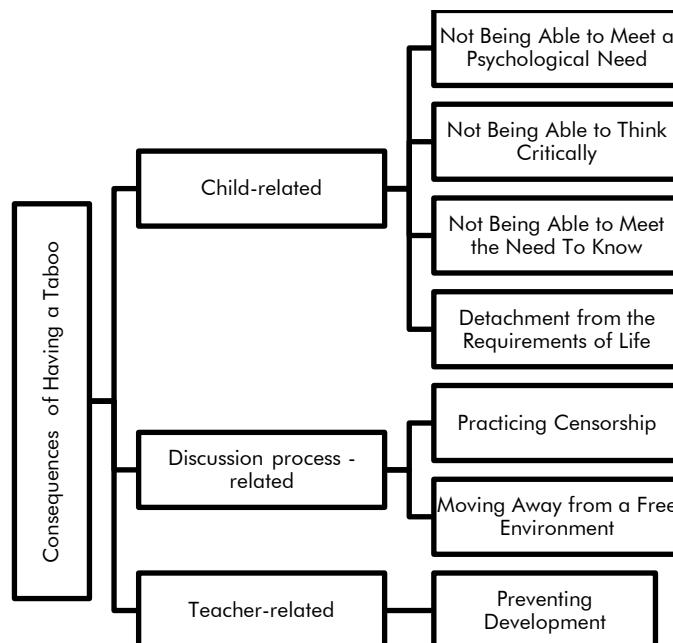
"I would prefer not to use these stimuli in order to avoid receiving negative feedback from parents or administrators, who may have concerns about students asking too many questions related to sexual orientation and the potential confusion it may cause after the lesson." (P18)

"I would not use this book to engage in philosophical discussions with children because I feel that I don't have enough experience. Death is quite an abstract concept, and it can be somewhat scary as well. Besides, I believe that my own thoughts on death are not mature enough yet." (P49)

4th Research Question

The data for this research question relied heavily on individual interviews, where teachers with and without taboos expressed concerns about the potential negative consequences of avoiding philosophical discussions with children on certain concepts. Figure 2 shows an overall depiction of these results.

Figure 2.
Participants' Views about the Consequences of Having a Taboo



Based on the interviews, some teachers emphasized that not discussing taboo concepts like death, war, pain, fear, love, politics, religion, etc. could lead children to suppress their fears and anxieties related to these subjects. This can ultimately result in unmet psychological needs. These teachers highlighted the importance of creating an

environment where children feel supported and are not alone in discussing these topics. They also emphasized the need for children to have the opportunity to interpret and understand these concepts, helping them overcome confusion and uncertainty. Evasive attitudes by teachers can contribute to higher anxiety levels among children. They also added that discussing such challenging topics strengthens the group and brings the joy of overcoming difficulties together.

Another idea was that teachers' avoidance of discussing taboo concepts is considered to distance children from thinking critically about these topics. This leads to children being unable to think or question accurately, or to put aside their prejudices regarding these concepts. Another aspect was the potential dampening of children's desire to know. Children naturally have questions and are curious about these concepts in their daily lives. According to teachers, avoiding discussions on these topics hampers their learning and desire to know, suppressing their curiosity. Moreover, living as if violence, war, or death do exist and avoiding talking about them will disconnect children from the realities of life and leave them vulnerable to the outside world. However, school is meant to be an experiential space. One teacher expressed her viewpoint on this matter as follows.

"...we cannot isolate students as if they are in a separate world. In my opinion, we leave them unprepared. By not discussing or thinking about these concepts we send them to the next level of education ill-equipped. Thus, these concepts are being suppressed and pushed into the subconscious without proper thought and discussion, relying on hearsay and incomplete information. For example, homosexuality is one such concept...." (P17)

Avoiding discussions on these concepts has consequences for the quality of philosophical questioning. It can also impact the proper understanding and implementation of P4C. Another viewpoint that emerged from individual interviews was that refraining from discussing certain topics and inhibiting or disregarding children's questions and comments on these topics would hinder the creation of a free and open environment for discussion. One teacher expressed the need for P4C to disrupt the power dynamics between the teacher and the student in traditional education, emphasizing the importance of an approach that considers children's needs and recognizes them as individuals. Furthermore, the teacher described the act of imposing restrictions on stimuli or philosophical questions in the discussion environment or avoiding certain topics as a form of censorship. She stated the following.

"...When a teacher starts deciding which topics should be discussed and which ones should be avoided, they enter the realm of legislating..." (P32)

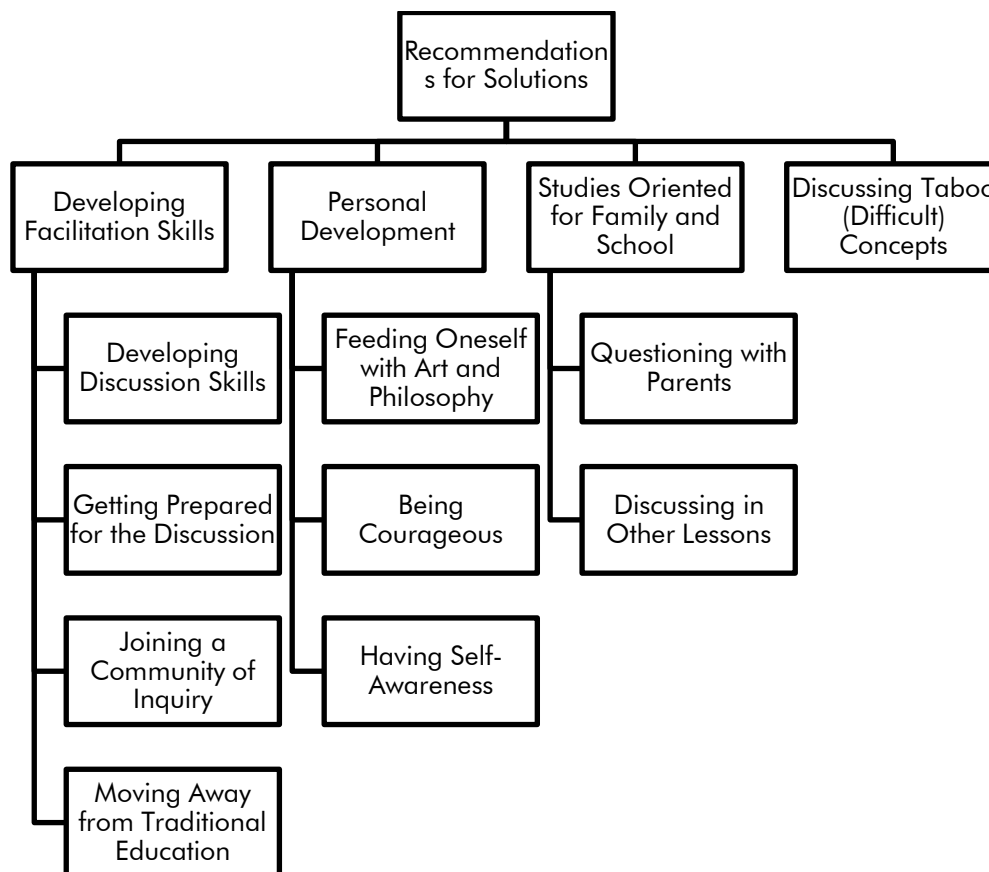
In the interviews, another teacher expressed that avoiding discussing the mentioned concepts can hinder the teacher's personal development and reflection on these topics.

5th Research Question

The data for this research question was based on individual interviews. Teachers perceived the existence of taboos as a problem in terms of understanding and spreading the use of P4C. Moreover, participants provided solutions and suggestions for teachers to de-taboo or eliminate some of these concepts. These suggestions were categorized into three main themes and their subthemes, as depicted in Figure 3.

Figure 3.

Participants' Solutions for De-Tabooing Some Concepts



The suggestions above also appear to be necessary for being a good teacher, the most prominent being developing facilitation skills. Participants emphasized the importance of teachers gaining more experience by facilitating more discussion sessions and receiving feedback through observations by experts. The suggestions offered during the discussion include being flexible, being as interested as the children, being curious, and maintaining an equal distance from every viewpoint. One participant expressed the belief that teachers should possess reasoning skills as follows.

"...we are living in a world where the content of everything is being emptied. It is not just about forming a circle; we must know the reasoning there; a teacher should understand the difference between consistent reasoning and valid reasoning." (P32)

Another recommendation was for teachers to engage in preparation prior to the discussion process. This includes conducting readings on the concepts to be discussed (such as death, violence, love, war, etc.), exploring philosophers' views on these subjects, engaging in independent thinking, and questioning the philosophical questions at hand. An encouraging option to empower teachers, particularly when discussing taboo concepts, is to participate in a community of inquiry. Observing an experienced teacher can expose them to different perspectives and provide the flexibility to stretch and potentially change their own viewpoints. A participant expressed their view in this regard as follows.

"...it would be beneficial for me to witness how another teacher manages this process. I see myself as rigid or close minded. I feel the need to participate in a few sessions to see how it is managed." (P36)

One of the taboo sources is engaging in discussions that involve concepts like death, love, and violence. The suggestions above can be meaningful in addressing these concerns. According to a participant, another taboo source is the traditional educational approach. This approach contradicts the student-centered understanding on which P4C is based. P4C does not imply knowledge transmission; instead, it aims to improve their thinking skills. Stimuli are merely tools for discussion. In line with this explanation, the teacher expressed the below views.

"...teacher candidates often struggle to understand the difference between the stimulus and the content. A story can serve as a stimulus. Our concern is not merely discussing the story with closed-ended questions but addressing the underlying issues. It can be about topics like the apocalypse, death, violence, or friendship. We are not specifically discussing the friendship between two LGBT individuals; we are discussing friendship itself. Do you understand what I'm trying to say? Behind this censorship are the codes of traditional education..." (P32)

The participant who made the above statement emphasized that stimuli, such as texts used in philosophical discussions with children, should be seen by teachers as mere tools. According to the participant, teachers tend to view the perspectives and ideas within these texts as content that should be transmitted and focused on, based on their habit of traditional education. Hence, the content overrides the process of discussion. However, the aim here is to discuss the problem presented in the text through questioning, considering the text as a means. In fact, some statements led to the belief that teachers engaging in philosophical discussions with children operated from a perspective rooted in traditional education. Teachers may have perspectives that do not align with the process of engaging in philosophical discussions with children, such as answering their questions and providing information about the relevant concepts. An example that reflected these perspectives was as follows.

"...If a child has watched a movie or witnessed a same-sex couple holding hands and asks, "I saw them. How does this happen?", I would explain it to them in an age-appropriate language, even if they were young. I would explain that it is a natural thing, that people can love each other in this way... I wouldn't hesitate to do so. But would I bring it up out of the blue?... I don't think so, as I don't see the need for it." (P56)

When engaging in philosophical discussions with children, the teacher's primary task is not to explain but rather to ask questions that encourage children to think and engage in discussions with each other. Also, the teacher should refrain from expressing their own opinions during the discussion process and should not attempt to steer children toward the right answer. Such a concern can lead teachers to avoid discussing certain concepts (due to not wanting to convey a biased viewpoint or having uncertainties or question marks about the subject matter), thus contributing to the formation of taboos.

One of the solutions included teachers' personal development. Being brave in questioning concepts like death, politics, and religion with children was one of the recommendations in this regard. Moreover, engaging with literature and cinema can enhance teachers' perspectives and writing down their emotions, thoughts, and experiences will raise their awareness. Furthermore, the participants suggested that before engaging in discussions with children, teachers should be aware of their own thoughts regarding philosophical questions, critically examine their own views, become aware of their biases, and confront themselves, especially regarding challenging concepts like death, religion, and sexuality. These steps can help teachers overcome their taboos. The following statements reflect these recommendations.

"I believe it should be like this: first, teachers should overcome their own limitations. Some teachers may feel inadequate or avoid engaging in such discussions because they don't know how to handle them, how to lead the discussion, or how to navigate the conversation. Here, in fact, they deflect the problem, saying the parents do not approve. It is essential for teachers to first address their own taboos and barriers as adults." (P17)

Conducting studies on families and schools can facilitate parents' and schools' acquaintance with P4C and, in turn, facilitate the discussion of taboo subjects. Engaging in philosophical discussions with parents and adopting a holistic approach by addressing taboo topics in other subjects were also among the suggestions. One participant expressed the following statements.

"I agree with the idea that it is important to discuss these topics, but they should not be limited to a specific time frame of 40-45 minutes dedicated to children. If these subjects are to be discussed, they should be integrated with other subjects." (P55)

Participants emphasized that teachers should also discuss taboo concepts, but they need to be sensitive when engaging children in philosophical discussions on these topics. There were some similarities and differences in the identified sensitivities. As expressed by some participants (P5, P71), taboo concepts can be considered difficult topics that should not be avoided in discussions. However, certain considerations should be taken

into account before, during, and after the discussion. According to the teachers' perspectives, these considerations can include the following.

- Knowing the group: it is important for the group to ask questions about these concepts, be curious about them, ensure that no child has experienced any trauma related to these concepts, acknowledge that these concepts are present in children's lives and they may need to discuss them, pay attention to the socio-cultural characteristics of the group, be aware of their fears, interests, etc., and have knowledge about the developmental characteristics of the children's age.
- Managing discussions: the teacher should avoid expressing their own views, remain neutral, listen to the children, and allow them to set the boundaries of the discussion based on their own needs and questions. Also, they can allow the children to determine the questions based on the stimulus and encourage critical thinking rather than directing them towards a specific viewpoint.
- Selecting and using the stimulus: the teacher should select thought-provoking stimuli and adapt or modify them as needed to fit their own culture and the characteristics of the group, utilize some of the stimuli, and grasp the stimuli within a philosophical questioning framework.
- Collaboration with parents: the teacher should get to know the parents, engage in dialogue with them, when necessary (regarding children's traumas, interests, questions, etc.), and provide book recommendations on difficult topics if needed.

Results and Discussion

We asked 73 teachers across various disciplines who engage in philosophical discussions with children if there are any concepts, they avoid discussing with children. Most teachers indicated that they avoided taboo concepts while engaging in philosophical discussion with their students. The taboo concepts that ranked highest were death, religion, and sexuality, followed by emotions (love, fear, etc.) and politics. The most prominent concepts were in line with the taboos identified by Haynes and Murriss (2009) as well as Gregory (2008).

We asked teachers about the reasons behind the existence of their taboos. These reasons were grouped into three themes: society-related, teacher-related, and children-related. Teachers expressed that they did not want to discuss these concepts because they were worried about the reactions of parents and the school. They also added that when such classroom discussions are brought home, it could potentially lead to certain problems. In Gregory's (2008) article titled "On Philosophy, Children, and Taboo Topics," he mentions two main reasons for this. The first is that parents may believe that school could influence their children's views when discussing these topics. According to families, schools should not have the authority to shape children's moral values. The

second reason is that children may start questioning these subjects and abandoning the ideas adopted by their families.

The first reason is already contrary to the nature of P4C because P4C focuses on fostering critical thinking in children and does not aim to impose any particular view on them. Considering the assumptions underlying P4C, the second reason is not relevant either. This is because the attempt by parents to instill their own ideas or values in children is not a democratic attitude. It hinders children's independent thinking. Furthermore, children need more than just how their family thinks when explaining the reasons behind their own opinions.

Another taboo topic among the teachers is about themselves. They believe that they lack sufficient knowledge and experience regarding such concepts and anticipate difficulties in conducting discussions about them. They also mention question marks, concerns, and challenges in areas that they find difficult to confront in their minds. Stokell et al. (2017) conducted a case study on personal, social, and health education courses in England. They found that teachers struggled to talk about sensitive topics with children. The authors suggested that teachers needed training to deal with more sensitive and challenging subjects, and they should be confident enough to address these issues with children. Teachers need a tool that encourages critical, creative, and compassionate thinking within themselves but also one that can help them improve their confidence, alleviate their stress, and ease their concerns when discussing such issues with children. For this purpose, the teachers received P4C training and conducted their first philosophical discussion on gender, relationships, and the role of motherhood. While this initial implementation indicated some progress, it was clear that both the children and the teachers required more experience. P4C provides an opportunity for both children and teachers to think about challenging concepts, but the teacher's competence in facilitating the discussion is also crucial. Teachers who do not feel ready to discuss taboo concepts respectfully and reasonably or who are not sufficiently skilled in facilitating philosophical dialogue should postpone such discussions and work on developing their own competence (Gregory, 2008).

In our research, some teachers considered concepts like death and God taboo because they believed that children were not mentally or psychologically mature enough to discuss them. The concept of God may not be suitable for discussion with children (especially in the early years of preschool and primary school) as they may have difficulty grasping abstract concepts. Similarly, discussing death may be sensitive and should be approached with caution. Besides, children may tease or label each other during these discussions. According to teachers, these children can disrupt the process of inquiry. Teachers' attitudes toward children create a barrier to the proper understanding, implementation, and spread of P4C. Lyle (2017) suggests that these attitudes stem from teachers' perceptions of childhood. Certain models of childhood in their minds, such as "innocent," "rebellious," "blank slate," or "developing," serve to limit children's participation in philosophical discussion and lead them to view children as "incomplete."

They see adults' roles as trying to tame the rebels, protect their innocence, and fill their blank slate minds with knowledge. Sometimes teachers perceive rebellious children as potentially destructive and disruptive to the process of questioning. Teachers often take on a protective role during the discussions and take their roles quite seriously. In this research, many teachers considered certain concepts taboo in order to emotionally protect children. Koyuncu and Demircan (2022) reported that preschool teachers expressed certain barriers to implementing P4C. The socio-cultural barriers category highlights the perceptions of children held by society. Some preschool teachers stated that the perception of children as inadequate in society could be a barrier to the use of P4C. In order to implement P4C effectively, teachers should view children not as incomplete, vulnerable, and in need of protection compared to adults, but as individuals whose rights are respected, whose thinking capacity is trusted, and whose interests and needs are valued.

The concept of death was one of the taboos that stood out in the current study. Among children, death serves as a starting point for various discussions, including topics such as God, evolution, creation, sexuality, and the origins of humanity. These concepts are thought-provoking for adults as well. Furthermore, they encompass the views of philosophers on appearance and reality, identity and difference, and growth and transformation. Children engage in discussions about questions such as "Does God exist?", "Does the devil exist?" "What happens when we die?", and "How can God be everywhere at the same time?" just as passionately as their parents. In philosophical questioning, the teacher's role is not to express their own views on these matters; rather, their role is to guide children in clarifying their own thoughts and ideas when these questions arise. The emergence of children's thoughts on these topics will largely depend on the cultural and sociological context, but they will inevitably arise one day. It would be irresponsible for teachers to dismiss these questions or provide cliché answers to them (Kennedy, 2022). In the present study, some participants expressed that topics such as death, God, and war are present in children's lives and it is impossible to avoid them. They also added that disregarding these questions would dampen children's curiosity and increase their anxieties. Lone (2017) states that children, like adults, experience a range of concerns triggered by questions about identity, the meaning of life, and the nature of death. One of the ways to alleviate children's concerns is to think of these difficult questions together. It is important to engage children in philosophical discussions on these topics in order to ensure that they do not lose their curiosity, motivation for thinking, and questioning. The process of questioning is valuable for children in terms of facing and accepting different aspects of life.

In this research, the taboo concepts under the category of religion included beliefs, God, worship, fate, creator, etc. Engaging in regular philosophical discussions with children on these topics, despite the pressures from families or society, can help children develop the ability to engage in respectful dialogue with other children who have different religious or cultural backgrounds. Children learn to listen carefully to all the arguments presented in a constructive manner while showing respect to others. Thus, they will be

prepared to handle the multicultural or pluralistic realities of societies more effectively. P4C provides more opportunities to discuss different religious or cultural perspectives and exposes participants to various viewpoints on specific topics. It teaches children to prioritize freedom of expression in all circumstances and to demonstrate empathy toward the affected group when uncomfortable conversations arise. Also, the school is a safe environment consisting of teachers and students, so it is more suitable for discussing sensitive and controversial questions (Minette, 2014). P4C provides a safe space for teachers as well. Teachers generate questions based on children's responses and they are not obligated to provide answers to the questions that children ask in order to acquire knowledge or learn their side. Children's needs and curiosities determine the boundaries of the discussion. Hence, there is no room for a discussion environment that exceeds the limits of the community of inquiry and overwhelms its members. Furthermore, since P4C does not rely on the teacher expressing their own views, it can be preferable for schools and families. Su (2022) examined the changes in the religious commitments of 9th grade students after 12 weeks of philosophical activities. The researcher's findings support the claim that Lipman's P4C approach does not have a destructive impact on religious commitments. This finding contradicts the perspective that P4C has a negative effect on children's religious development.

In the present research, some teachers perceived gender roles, sexuality, sexual orientation, and sexual identity as taboo topics. These subjects are interconnected with many important issues today, such as gender-based discrimination, gender stereotypes, prejudices, family dynamics, parenthood, self-identity, human nature, rights, and inequality. Taboos associated with the concept of sexuality will impose limitations on discussions related to these topics. As the teachers expressed, these concepts already exist in children's lives. Children have a need to hear others' perspectives, express their curiosity and questions, and clarify any confusion in their minds. A similar perspective applies to emotions. Viewing emotions such as fear, anxiety, and love as taboo and avoiding discussions about them will encourage children to suppress these emotions, which is not a healthy coping mechanism.

Some teachers who do not want to use children's books that focus on death, God, or sexuality in their classrooms cited societal pressure as their reason. Some believe that children are not ready to discuss these topics, while others do not feel ready themselves. Some teachers, on the other hand, have found one or more of these stimuli suitable for engaging in philosophical discussions on the relevant concepts. The varying opinions on the appropriateness of books depend on teachers' experiences, discussion skills, their own taboos, and their perspectives on P4C. Besides, teachers tend to choose stimuli or topics that they feel more comfortable with or that have explicit moral messages when engaging in philosophical discussions with children (Lyle, 2017). However, the stimuli in P4C serve certain functions, like supporting thinking skills, stimulating thinking by developing arguments within the story, and fostering students' willingness to engage in conversation and discussion (Wartenberg, 2018). Furthermore, children may be hesitant to provide examples from their own lives, but they may find it easier and more

comfortable to give examples based on characters in stories (Akkocaoğlu Çayır, 2021). Children's books that tackle difficult concepts such as death, war, violence, and belief systems can also serve as safe and effective tools for engaging in philosophical discussions. According to Goering (2014), talking about death with children through a story allows them to form close relationships with the characters while maintaining a certain distance from the experience of mortality. This way, books can nurture children's natural curiosity in a safe environment. Goering (2014) states that through stories like *Duck, Death, and the Tulip*, we can engage in discussions about the injustice or inevitability of death and how it shapes our choices and moral attitudes. Unlike adults who may have anxieties about the topic, children are often open to discussions about death. These inquiries prompt children to reflect on the importance of living in the present moment, the meaning of life, and the natural cycle of existence.

According to our participants, avoiding engaging in philosophical discussions with children about certain concepts can have negative consequences. By disregarding children's questions and confusions about certain concepts, children's psychological needs will not be met. Also, it deprives them of the opportunity for critical thinking about these concepts, neglecting their needs for recognizing and knowing them. Ultimately, children are being disconnected from the realities of life. Avoiding these concepts in discussions, refraining from talking about them, or not using the stimuli that contain them imposes a kind of censorship and hinders the environment's freedom. These consequences align with the arguments put forth by Haynes and Murriss (2009) against such censorship in P4C practices. One of these is the pragmatic argument. Children bring up controversial topics and these need to be explored through reasoning and dialogue. A sterilized curriculum is not realistic, even if desired, and it widens the gap between school and life outside of school. The legal argument asserts that children should enjoy their rights to freedom of thought and expression in accordance with human rights. The socio-philosophical argument points to the need for children to engage in discussions on all topics, critically examine dominant discourses, and develop alternative perspectives. The literary argument suggests that children have a need to explore and contemplate all themes (including topics such as death, religion, etc.) that are presented in the full range of children's literature.

The teachers that we interviewed considered the presence of taboos a problem that needed to be solved. The existence of these taboos indicates a problem in how teachers perceive philosophy and how they bring it into the classroom. Therefore, teachers with taboos should first focus on developing their facilitation skills. Becoming proficient in leading discussions is crucial in this context. Moreover, teachers must move away from traditional educational approaches. They should distance themselves from an approach that is protective of children, does not focus on their interests and needs, and is teacher-centered, relying primarily on knowledge transmission. In fact, Koyuncu and Demircan (2022) reported that preschool teachers drew attention to institutional barriers to implementing P4C, including the traditional education system. According to them, the

education system in Turkey, in some respects, may not support the use of P4C in preschool education and may create obstacles to its implementation.

Research indicates that P4C brings about changes in teachers' traditional educational approaches and prompts them to question their dominant roles in the classroom (Boyras, 2019). Furthermore, research shows changes in the former prejudice that teachers cannot engage in philosophy because they are young (Kayaalp, 2021). Kabil (2021) compared preschool teachers who received P4C training and those who did not in terms of pedagogical competencies related to thinking skills. The author observed that teachers who received P4C training preferred inquiry-based methods, while those who did not receive such training tended to rely more on traditional methods.

Our participants suggested that teachers should take steps to overcome their own taboos in order to ensure their personal development and organize philosophical discussions with parents in order to break their resistance. Teachers should strive to address taboo concepts while also empowering themselves. However, there are some points to consider when bringing these concepts into the discussion environment. The developmental characteristics, interests, and needs of the group should be taken into account, as well as their socio-cultural background. Moreover, effective guidance is necessary to facilitate discussions. Actively listening to children is important in this guidance process. In this regard, Haynes and Murriss (2012) draw attention to philosophical listening. Listening is an element that enhances the depth and meaningfulness of philosophical discussions. Listening to children means accepting their right to exist. It helps us understand their priorities, interests, and concerns. It is also a vital part of building respectful relationships with children (Clark, 2004). Knowing the group is an important determinant in the teachers' decision to work on taboo or difficult/sensitive topics and listening to children is a crucial prerequisite for recognizing them.

According to Clark (2004), listening to children and working with them in a democratic manner can free practitioners from the obligation of knowing all the answers. This is also important in the process of philosophical discussion. Children's responses and questions will determine the boundaries of the discussion, serving as a compass for the teacher. It will also relieve teachers from the pressure of knowing everything or providing answers to everything, especially when it comes to taboo concepts. Teachers can allow children to decide on the questions by presenting relevant stimuli (whether it involves taboo concepts or not). Some children may request to discuss a philosophical question related to taboo concepts. In this case, teachers can offer them a choice; one option is to continue the process with those who wish to engage in the discussion.

Suggestions

One of the reasons teachers cannot bring taboo concepts like death, religion, politics, love, and fear into philosophical discussions is that they do not feel competent or experienced enough to engage children in philosophical discussions. Teachers need effective P4C training to properly implement P4C. In this regard, it is important to include P4C in in-service training programs or as a course in teacher education faculties. Based on this research, we suggest the following for the content of these training programs:

- Teachers should observe a practitioner in a questioning process.
- Teachers should engage in the classroom practices of P4C and receive feedback on their implementation.
- Programs should touch on taboo concepts, their formation, strategies to overcome them, and ways to incorporate these concepts into philosophical questioning.
- Programs should contain information about the relationship between P4C and the perception of childhood, and the impact of different perspectives on children.
- Programs should discuss the relationship between P4C and traditional education approaches, and the barriers created by traditional education when conducting philosophical discussions and asking questions.
- Programs should deal with how to select children's books that include taboo concepts and how to use them as stimuli for philosophical discussions.

On the other hand, it is crucial for teachers to evaluate themselves as members of a community of inquiry or as practitioners conducting the inquiry, encouraging them to reflect on their own thinking processes. In this regard, teachers can keep a journal where they write down their feelings and thoughts. This way, they can identify areas that need improvement and strengthening and determine their specific needs, particularly when addressing challenging topics. This can help them improve their questioning skills and increase their awareness.

Models of childhood that are based on protection or discipline and that do not prioritize the needs, interests, and rights of children must be replaced with approaches that view children as individuals. The history of childhood, the sociology of childhood, and childhood models can also be included in teacher education and in-service training programs. These training programs can serve as powerful tools to understand children's inquisitive and curious natures and their tendency toward engaging in philosophical discussions. Moreover, these programs can help transform learning environments that are dominated by teachers and lack democratic principles.

According to teachers, the views of families and society influence the formation of taboos. We suggest that teachers organize inquiries with school administrators and parents to enhance a better understanding of P4C. Furthermore, addressing topics like death, emotions, religion, and politics can be challenging not only for P4C but also for many other lessons. Further research should investigate the difficulties of addressing these topics in other courses. Research should also focus on engaging children in philosophical discussions on taboo concepts. Such studies can focus on the impact of these inquiries on children's perspectives on these concepts.

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Genişletilmiş Türkçe Özet

Çocuklar için felsefe (ÇİF), bir rehber eşliğinde çocukların felsefe yapmalarına işaret eder. Öğretmen ya da kolaylaştırıcı çeşitli uyarıcılardan yola çıkarak çocukların, bir felsefe sorusunu tartışmalarını sağlar. Bu sorulara genellikle bir metinden yola çıkarak cevap aranır. Metinler aracılığıyla mutluluk, dostluk, bilgi, adalet gibi kavramlar üzerine felsefe yapılır. Bu araştırmanın amacı, çocuklarla felsefi soruşturma yürüten öğretmenlerin, felsefesini yapmaktan kaçındıkları tabu kavramları ve bu kavramları sorgulama süreçlerine taşımamalarının nedenlerini farklı açılardan ele almaktır. Uygulayıcı öğretmenlerin gözünden bu konuyu derinlemesine incelemek, ÇİF uygulayıcılarının yaşadıkları sorunları anlamak, ÇİF'in doğru bir şekilde anlaşılmasını, sınıfa aktarılmasını, yaygınlaşmasını ve kurumsallaşmasını sağlamak açısından önemlidir. Bu çalışmada elde edilen sonuçların hem alanyazınla ilgilenen araştırmacılara, hem de ÇİF uygulayıcılarına katkı sağlayacağı söylenebilir.

Bu çalışmada nitel araştırma yöntemlerinden fenomenoloji deseni kullanılmıştır. Araştırmada derinlemesine araştırılmak istenen fenomen, çocuklarla felsefe yapan öğretmenlerin tabu kavramlarıdır. Burada tabu kavramların var olup olmadığı, varsa bunların neler olduğu, tabu kavramların oluşma gerekçeleri, tabu kavramlara sahip olmanın sonuçları ve tabu kavramları, tabu olmaktan çıkarmaya yönelik öneriler çocuklarla felsefe yapan öğretmenlerin deneyimleri çerçevesinde ele alınmıştır.

Katılımcılara kartopu (zincir) örnekleme yöntemi aracılığıyla ulaştırılmıştır. Beş soruyu içeren açık uçlu bir soru formu e-posta aracılığıyla ÇİF uygulayıcısı olan ve Milli Eğitim Bakanlığına bağlı devlet ya da özel okulda çalışan 73 öğretmene ulaştırılmıştır. Açık uçlu soru formunda öğretmenlere, çocuklarla felsefesini yapmaktan kaçındıkları tabu kavramları olup olmadığı, varsa bunların neler olduğu sorulmuş ve gerekçelerini yazmaları istenmiştir. Ayrıca alanyazından yola çıkarak tartışma odağında "zor/tabu kavramlar" olan 3 resimli çocuk kitabının özeti verilmiş ve bu kitabı sınıflarında felsefe yapmak amacıyla kullanıp kullanmayacaklarını nedenleriyle birlikte açıklamaları istenmiştir. Araştırmanın ikinci aşamasında soru formlarına verdikleri yanıtlardan yola çıkarak 7 öğretmenle yarı yapılandırılmış görüşmeler gerçekleştirilmiştir. Veriler araştırma soruları çerçevesinde içerik analizi aracılığıyla analiz edilmiştir.

Öğretmenlerden 8'i herhangi bir tabusu olmadığını, 65 öğretmen ise bir ya da birden fazla tabusu olduğunu belirtmiştir. Ölüm, inanç (din, Tanrı, ibadet, kader, yaratıcı...) ve cinsellik (cinsel yönelim, cinsel kimlik, cinsiyet rolleri) öğretmenlerin tabu kavramları olarak ön plana çıkmaktadır. Bunları, duygular (aşk, korku, acı, kıskançlık), siyaset (adalet, milli değerler, demokrasi), şiddet (savaş, zorbalık), ahlaki yargılar ve aile (boşanma, anne baba rolleri) takip etmektedir. Bazı öğretmenler, yalnızlık, özgür irade, özgürlük, etnik köken, kültür, göç, iyilik, varlık, bireysel farklılıklar, hastalık, gerçek, benlik, zaman kavramlarını da tabu olarak belirtmişlerdir. Katılımcılar soru formuna tabuya sahip olma gerekçelerini yazmışlardır. Öğretmenlerin tabu kaynakları "Toplumla İlişkili Kaynaklar", "Öğretmenle İlişkili Kaynaklar" ve "Çocuklarla İlişkili

Kaynaklar” olmak üzere üç tema altında toplanmıştır. Bu noktada bazı öğretmenler, okul ve velilerin tepkisi nedeniyle bu kavramları kullanmaktan kaçındıklarını, bazılarının ilgili kavramların ele alındığı tartışmaları yürütmek için yeterli hissetmedikleri ya da ölüm gibi konularda kendilerinin de kafalarının karışık olduğunu ifade etmişlerdir. Bir kısım öğretmen ise çocukların ölüm, din, cinsellik gibi kavramları pek çok sebeple tartışmaya hazır olmadıklarını söylemişlerdir. Öğretmenlerin, ölüm, cinsellik ve din kavramlarını içeren 3 kitabı sınıflarında felsefe yapmak amacıyla kullanıp kullanmayacaklarına yönelik yanıtları “Kullanırım”, “Kullanırım ama” ve “Kullanmam” başlıkları altında toplanmıştır. Gerekçelerinin tabu kaynaklarıyla büyük oranda örtüştüğü söylenebilir.

Katılımcılar, öğretmenlerin bazı kavramlar üzerine çocuklarla felsefe yapmaktan kaçınmalarının olumsuz sonuçlar doğurabileceğinden söz etmişlerdir. Onlara göre çocuğun bazı kavramlara ilişkin sorularının ve zihinlerindeki bulanıklığın göz ardı edilmesiyle psikolojik ihtiyacı karşılanmamaktadır. Aynı zamanda bu kavramlar üzerine eleştirel düşünme şansları ellerinden alınmakta; bunları tanımaya, bilmeye ilişkin ihtiyaçları karşılanmamaktadır. Nihayetinde çocuklar yaşamın gerçekliğinden koparılmaktadır. Öğretmenlere göre tartışmalarda bu kavramları kullanmama, bunları konuşmaktan kaçınma gibi nedenlerle özgür bir sorgulama ortamından uzaklaşmak ve bu kavramları ya da bunları içeren uyarıcıları seçmeyerek bir çeşit sansür uygulamak da söz konusudur. Çocukların sorgulamalarını, meraklarını ve düşünme konusundaki motivasyonlarını bırakmamaları için bu konularda onlarla felsefe yapmak önemlidir. Sorgulamalar, çocukların hayatın tüm evreleriyle yüzleşmeleri ve kabullenmeleri açısından kıymetlidir.

Katılımcılar, öğretmenlerin ilgili kavramları tabu olmaktan çıkarmaları için çözüm önerileri de sunmuşlardır. Burada ön plana çıkan, tartışma yürütmede yetkinleşmektir. Aynı zamanda öğretmenler geleneksel eğitim anlayışından da uzaklaşmalıdır. Öğretmenler, çocuğa korumacı yaklaşan, onun ilgi ve ihtiyacına odaklanmayan, öğretmen merkezli ve bilgi aktarımının esas alındığı bu anlayışın etkilerinden sıyrılmalıdır. Öğretmenlerin tabularını, tabu olmaktan çıkarmaları, kişisel gelişimlerini sağlayacak adımlar atmaları ve özellikle ailenin direncini kırmaları için velilerle felsefe tartışmaları düzenlemeleri de öneriler arasındadır. Öğretmenler bir yandan kendilerini yetkinleştirirken diğer yandan tabu kavramları ele almak konusunda çaba göstermelidirler. Bunun yanı sıra ilgili kavramlar, tartışma ortamlarına taşınırken bazı noktalara dikkat edilmelidir. Grubun gelişim özelliklerini, ilgi ve ihtiyaçlarını, sosyo-kültürel özelliklerini bilmek ve tartışmaya etkili bir şekilde rehberlik etmek gerekir. Bu rehberlik sürecinde çocukları etkin bir şekilde dinlemek önemlidir.

Tüm bunlardan yola çıkarak öğretmenlerin çocuklar için felsefeye yönelik aldıkları eğitimlerin içeriğinin güçlendirilmesi gerektiği söylenebilir. Öğretmenlerin sınıf içi uygulamalar gerçekleşmesi ve bunlara geribildirim verilmesi, tabu kavramlar ve bunların üstesinden gelme yolları, geleneksel eğitim anlayışının çocuklarla felsefe yapma sürecine olumsuz etkileri, ölüm, din gibi kavramları içeren kitapların nasıl seçileceği ve kullanılacağı içerik önerileri olabilir.

Yukarıdakilere birlikte bu eğitimlerde, öğretmenlerin bir soruşturma topluluğunun üyesi ya da soruşturma yürüten bir kolaylaştırıcı olarak kendilerini değerlendirmeleri, kendi düşünme süreçleri üzerine düşüncelerini sağlamak önemli olabilir. Bu çerçevede öğretmenler günlük tutabilir, buraya duygu ve düşüncelerini yazabilirler. Özellikle zor konuları ele aldıkları soruşturma süreçlerinde eksik ve güçlendirilmesi gereken yönlerini belirleyebilir, buna yönelik ihtiyaçlarını tespit edebilirler. Bu hem soruşturma becerilerini geliştirebilir hem de ilgili konulara yönelik farkındalıklarını artırabilir.

Öğretmenlere göre tabuların oluşumunda ailenin ve toplumun bakışı da etkilidir. Öğretmenlerin çocuklar için felsefenin daha iyi anlaşılmasını sağlamak için okul idarecileriyle ve velilerle soruşturmalar düzenlemesi bir öneri olarak sunulabilir. Ayrıca ölüm, duygular, inanç, siyaset gibi konuları ele almak sadece ÇİF için değil pek çok ders için de sorun olabilir. Başka derslerde bu konuların ele alınmasındaki sorunlar üzerine araştırmalar yürütülebilir. Çocuklarla tabu kavramlar üzerine felsefeye yapmaya yönelik araştırmalar düzenlenebilir. Bu çalışmalarda, sorgulamaların çocukların ilgili kavramlara yönelik bakış açılarındaki etkisine odaklanılabilir.

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Evaluation of Music Teaching Undergraduate Program in terms of Piano Education Competence in the Line of Music Teacher Candidates' Opinions*

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Abstract: The aim of this research is to evaluate the music teaching undergraduate program in terms of piano education adequacy in line with the opinions of music teacher candidates. As a result of the research, it was determined that the music teacher candidates found in terms of "playing works related to different periods of piano literature", and "playing accompaniment". It has been revealed that they feel lacking in basic piano playing skills. One of the remarkable results is that some of the music teacher candidates could not play the piano accompaniment of the National Anthem. Some suggestions in the research; increasing the piano education from two semesters to eight semesters in the music teaching undergraduate program, the content of the piano education curriculum; The aim is to organize teacher candidates in a way that will enable them to develop their performance skills on the piano, to develop their musical development and to use the piano instrument effectively to support other field lessons.

Keywords: Undergraduate program of music teaching, piano education, piano education sufficiency, music teacher candidates.

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Introduction

Music education is the process of gaining musical behaviors to individuals or changing, transforming, and developing individuals' musical behaviors in a purposeful and methodical way (Ucan, et al., 1999). One of the instruments included within the scope of instrument training in vocational music education, which is a dimension of music education, is the piano. The piano has a very rich pedigree in terms of history. The piano, which is from the keyboard instrument family, emerged with the evolution of various instruments (tympanon, organum, clavichord, harpsichord, etc.) considered to be ancestors. The piano began to be developed in 1709 in Florence, Italy by Bartelomeo Cristofori. Piano at that time meant a clavichord with both soft and strong tones. Over the years, only piano in the sense of "soft" remained (Yener, 1990:68). Thanks to the contributions of many instrument makers in the historical process, it has taken its current form. The piano, which has had an important place in international art music for more than three hundred years, was used frequently in the field of music education in Turkey only in the years after the establishment of the Republic.

From the instructions of the Music Teachers' School, which was founded in 1924, published in 1925; Until the Music Teaching Undergraduate Program (MTUP), which came into force in 1998 and is still being implemented today, piano education was the "basic instrument" that continued uninterrupted. Piano has had an important place in music teaching programs since the beginning of music teacher training (Aydiner, 2008). This instrument, which is the basis of music teacher education, is an instrument that supports the practice of many lessons, considering the contents of the related field courses. The main reasons for this are the functionality it offers other field courses, being a polyphonic instrument and providing the opportunity to accompany.

It can be said that the piano is one of the most suitable instruments for the practice of polyphonic music compared to other instruments in terms of sound width. As Say (2001) stated; "Piano's sound possibilities are equivalent to the harmonic possibilities of an orchestra body". This instrument, which offers ample opportunities to the player and the trainer, is used as a solo instrument as well as an accompaniment instrument. The piano, which is a fretless instrument due to its mechanism, gives the right sound with every keypress, without intonation problems. This instrument, which has female, male and child tones in its wide sound chamber, is suitable for agility (quickness). It is suitable for playing choral and orchestral works. It has a very large literature (Say, 2001). "It can be said that the piano, which constitutes a dimension of volunteer and vocational instrument education, is the most universal and basic instrument in terms of playing music, gaining listening and reading skills, understanding music, creating musical knowledge and forming the basis for other musical studies (Karan and Yokus 2022)". However, piano education can be considered a process that enables individuals to experience, hear and practice polyphony (Tufan, 1997). Every student in all institutions providing vocational music education receives piano education (Yasmut, 2013). The piano, as a solo and accompaniment instrument and with its wide possibilities, is considered to be one of the most important tools of music education as a supporting instrument for other lessons. In

this context, when considered in terms of MTUP, It can be said that lessons that are supported by piano include the theory and practice of western music (solfeccio, dictation, hearing, etc.), harmony and accompaniment, polyphonic choir, composing educational music, school music repertoire, Turkish music polyphony, individual lessons, voice training, individual instrument training lessons (flute, clarinet, singing, tar, viola) etc.

When considered from a different dimension, piano education is a long and challenging process that develops mental, psychomotor, and affective skills. The main purpose of this training is to improve the musicality of individuals by using technical skills as a tool (Ertem, 2011). It can be said that through piano education, it is aimed to provide students with the skills of technique, tactics, strategy, hand-arm-foot coordination, horizontal and vertical reading, interpretation of periods and styles, and musicality. It is thought that these skills enable students to read and play the works comfortably and to overcome the technical difficulties they encounter in the artwork.

In our country, vocational music education is carried out in faculties of education, faculties of fine arts, conservatories and performing arts faculties at the higher education level. In the Music Education Departments of the Fine Arts Education Departments affiliated to the Education Faculties, vocational music education is given for the purpose of training music teachers. Piano education, which is compulsory for all music teacher candidates in the context of field courses within the scope of music teacher education, has been reduced from 8 semesters (YOK, 2006) to 2 semesters within the scope of the 2018 music teaching undergraduate program (YOK, 2018). When the course contents are examined, it can be said that the course focuses on basic piano playing skills.

When the relevant literature is examined, it is seen that there are a limited number of studies (Erozkan & Yokus, 2021) on the adequacy of compulsory piano education in the music teaching undergraduate program. On the other hand, when the relevant literature is examined, no study has been found on the evaluation of the adequacy of the two-semester compulsory piano education according to the opinions of the music teacher candidates.

It can be said that the proficiency of piano education, which can be described as one of the most basic instruments for which a music teacher candidate can receive support within the scope of his education, is related to his professional competencies. However, Erozkan and Yokus (2021) state that the proficiency to be gained in piano playing is an important factor for teacher candidates to develop their musical skills, provide professional holistic knowledge, and reflect this knowledge in the teaching profession. Based on these considerations, the research is unique in that it is the first study to be carried out to reveal the proficiency of piano education according to the views of the music teacher candidates. In addition, with this research, it is hoped that the potential problems related to piano education within the scope of the music teaching undergraduate program will be determined and the educational expectations specific to the field will be revealed according to the views of the teacher candidates.

The Aim of the Research

The aim of the research is to evaluate the music teaching undergraduate program in terms of piano education adequacy in line with the opinions of music teacher candidates.

The Problem Statement

The problem statement of the research is “What are the opinions of the music teacher candidates regarding the adequacy of the two-semester piano education in the music teaching undergraduate program?” poses a question.

The Sub-problems

The sub-problems determined in line with the problem statement of the research are as follows:

According to the music teacher candidates, two semesters of compulsory piano education;

1. Is it enough for them to play the works of different periods of piano literature?
2. Is it sufficient in terms of supporting other field courses?
3. Is it enough for them to play accompaniment?

Limitations

The research is limited by;

1. 4th grade music teacher candidates studying in the Spring Semester of the 2021-2022 Academic Year and voluntarily participated in the research,
2. Music teacher candidates who have successfully completed two semesters of compulsory piano education (Piano Education 1-2),
3. Music teacher candidates “whose individual instrument is not the piano” within the scope of individual instrument education lessons.

Method

The Model of the Research

The research is a case study conducted within a qualitative framework. Qualitative research, on the other hand, can be defined as research in which qualitative data collection methods such as observation, interview and document analysis are used and a process is followed to reveal perceptions and events in a realistic and holistic way in the natural environment. It allows an in-depth examination of a phenomenon or event that he cannot control (Yildirim and Simsek 2011).

The Study Group

The study group for the research was determined within the framework of the criterion sampling method, which is one of the purposive sampling methods. Criterion sampling can be composed of people, events and situations that meet the criterion or quality determined in the research (Buyukozturk, et al., 2008). As a criterion for participation in the study group, it is based on the condition that there are 4th grade students who are not trained in the field of piano within the scope of Individual Instrument Education courses and who have successfully completed these courses by taking the compulsory Piano Education 1 and 2 courses. In this context, the study group of the research was included in the study group of Mugla Sitki Kocman University, Faculty of Education, Department of Fine Arts Education, Department of Music Education in the 2021-2022 Academic Year Spring Semester which consists of 4th grade students. Before starting the research, an informed consent form was written, and the necessary application permissions were obtained from the Social and Human Sciences Scientific Research Ethics Committee of Mugla Sitki Kocman University on May 18, 2022.

Information on the demographic characteristics of the music teacher candidates participating in the research is given in the table below.

Table 1.

Distribution of Music Teacher Candidates by Demographic Characteristics

Gender	F
Female	7
Male	5
Total	12
High School Type	F
Fine Arts High School	7
Other	5
Total	12
Individual Instrument Type	F
Guitar	1
Violin	5
Clarinet	1
Double bass	2
Viola	1
Cello	2
Total	12

As seen in Table 1, 7 of the pre-service teachers participating in the research are female and 5 are male. 7 of the teacher candidates graduated from fine arts high schools and 5 of them graduated from other high schools. In addition, within the scope of individual instrument training, 1 of the teacher candidates receive guitar, 5 violin, 1 clarinet, 2 double bass, 1 viola and 2 cello training.

Data Collection Tools

As a data collection tool in the research, a semi-structured interview form developed by the researchers to determine piano education proficiency in line with the purpose and sub-problems of the research was used. At the stage of creating the form, firstly, the relevant literature was scanned, and questions were formed by examining the contents of Piano Education 1 and 2 courses and other field education courses in the music teaching undergraduate program. In this context, the interview questions are based on the two-semester compulsory piano education that the music teacher candidates have received; 3 questions on determining whether it is sufficient for them to be able to play the piano, to support other field courses and to play accompaniment; 3 of which are aimed at collecting information about the demographic characteristics of teacher candidates (gender, high school type, individual instrument type), summing up a total of 6 questions respectively. The content validity of the interview form was ensured by taking the opinions of 5 instructors who are experts in the field of music education, and the form was given its final shape by making the necessary corrections and arrangements in line with the expert opinions and suggestions. In line with expert opinions, it was evaluated whether the research questions were suitable for the purpose of the research. Thus, the content validity of the research was ensured.

Data Analysis

Research data were analyzed descriptively. Descriptive analysis is an analysis technique in which the data obtained are summarized and interpreted according to predetermined themes, direct quotations are frequently used to reflect the views of the interviewees in a striking way, and the results are interpreted within the framework of cause-and-effect relationships. Descriptive, "What?" In order to find an answer to the question, it is necessary to collect the data that is the subject of the research and reveal what is said about the problem situation or what results are reached (Yildirim and Simsek 2011). In the analysis of the data, the themes of "Sufficiency in playing works related to different periods of the piano literature", "Sufficiency in supporting other field courses" and "Competence in playing accompaniment" were formed within the framework of the dimensions determined by the researcher in line with the purpose of the research for the adequacy of two-semester compulsory piano education in the analysis of the data, and the data were analyzed.

According to the determined themes, the data were handled in parallel with the research questions. During the reporting phase of the research, a code was given to each participant so that participant opinions could be included within the framework of ethical rules. Accordingly, the participants were coded as "K1" (Participant 1), "K2" (Participant 2) and so forth. In line with the data obtained from the interviews, direct quotations were also included in the study in order to reflect the views of the participants more deeply within the scope of the analysis. In the process of analyzing and interpreting the study data, expert opinions were used to increase reliability.

Findings

The findings of the research were organized in accordance with the themes determined within the framework of the questions included in the scope of the research and in line with the data obtained from the interview.

Opinions of Music Teacher Candidates in Two-Semester Compulsory Piano Education on the Sufficiency of Playing Works Related to Different Periods of Piano Literature

When the participants were asked about their opinions about the ability of the two-semester compulsory piano education to play the works related to different periods of the piano literature, it was determined that all of the participants (K1-K12) thought that the two-semester compulsory piano education was not sufficient in terms of playing the works related to different periods of the piano literature. No matter how much they wanted to improve themselves on the piano, some participants stated that they could not reach the level of playing and they could not take adequate lessons and they felt incomplete in recognizing and playing the piano literature as they tried to finish the curriculum rather than focusing on their own development (K1, K4, K11), and some participants stated they were graduates of other high school types and as they just started to get familiar with piano at the university, they couldn't reach the level of playing piano.(K2, K3, K5, K6, K10). Additionally, it is determined that participants do not have the required knowledge and adequacy on different periods of piano literature and find it hard to distinguish the tones and harmonies of the periods (Baroque, Classical, Romantic, Modern) as well as composers (K4, K3, K7, K8, K9). Some of the participants stated that they felt at the beginner level of the piano instrument (K2, K3, K5). In this context, one participant stated that s/he deliberately dropped out of Piano Education classes just to get more piano education. For example:

I have adequacy in the piano in terms of periods, but it is not due to two periods, but thanks to all my musical education. In short, it is never enough. (K1)

It certainly isn't; because time was limited and since I did not graduate from a fine arts high school, I think it had an effect as well. Time was limited and we couldn't steal everything. That's why our teachers gave us work according to our level. So actually, it's like this: In two semesters, I could only get to know the piano. (K2)

I think it's not enough, because I started piano education at the university. I just learned to decipher, I learned the location of the notes, and I learned the most basic things. I could only get to know the piano and play a few simple pieces. Other than that, I don't think I can play any works from that period. (K3)

I just think I'm good enough at the beginner level, I don't think I can even get to the intermediate level. In short, I could only get to know the piano during these two periods. (K5)

I do not know each period very well; because, I think, recognition is achieved by performing. I can't say that I know him very well because I can't perform very well. (K7)

I played in all periods, but this was thanks to my fine arts education. After two semesters, I continued to study because I loved it, but my motivation was very low, so I could not study much. I was able to reach certain degrees with my own effort. I could have been so much better if there had been sufficient lessons. (K11)

Not enough at all. Because it's beginner level. You play scale, etude, Czerny, Hanon on the piano at first, there is a certain process until the piece. If you add up, I could only play for two terms. I can say that it was impossible to internalize and interpret the periods in these two periods. (K12)

Opinions of Music Teacher Candidates on the Level of Support for Two-Semester Compulsory Piano Education for Other Field Courses

All of the participants are of the opinion that the level of supporting for the other field courses of the two-semester compulsory piano education is quite insufficient (K1-K12). While some participants see the piano as a basic building block that would help them in every part of the music, like a dictionary for music teachers (K1, K4, K6, K9), some other participants are of the opinion that studying the piano increases cognitive intelligence, which has a great contribution to other lessons (K3, K10, K6). For example:

The piano is a very basic building block for classical music, we can say that. So, it's definitely not enough. Because the more time you spend with the piano, the more connected you will be with music. (K1)

Frankly, I don't think it's enough either. Maybe if it had been four years, the piano lesson could have supported it, but we didn't do any work for them anyway. I didn't feel the absence of the piano in the harmony and accompaniment classes because we were just playing chords. (K3)

Two semesters are not enough; because, as I said again, since I graduated from Anatolian High School, for example, my friends were making it easier in theory lessons by thinking about scales on the piano. I couldn't recognize them anyway, but I could only understand the piano in two periods. (K5)

Although we know that the piano is the basis for other music lessons, we do not have time to use it. I can say that we did too little to accompany, but despite that, I had a hard time. (K6)

For someone who has never had piano training, these two terms are essential. So, for someone just starting out, it's hard to reconcile lessons. So, I couldn't quite understand. Again, this was not enough. It would have been better for everything if it had been four years. (K10)

Opinions of Music Teacher Candidates on the Sufficiency of Playing Accompaniment in Two-Semester Compulsory Piano Education

According to the findings obtained from the research, all of the participants stated that two semesters of compulsory piano education are not sufficient in terms of playing accompaniment (K1-K12). In addition, some of the participants stated that they did not have any readiness for playing accompaniment (K1, K5, K7, K8, K9). It is identified that some of the participants felt quite insecure about playing accompaniment and playing the accompaniment of the National Anthem (K2, K3, K4, K5, K10), they did not take adequate lessons in accompaniment with the piano and playing the accompaniment of the National Anthem, and they even graduated without playing the National Anthem (K2, K3, K5, K6) and some of the participants observe that the vast majority of their classmates are incapable of playing the National Anthem (K2, K5, K7, K8, K11). For example:

I think I will support students in accompaniment with the piano, but I can't do it all of a sudden, I have to study beforehand. (K1)

I absolutely do not believe, because we have already received very little training on this subject. I feel so low about accompaniment that I am not feeling it. I do not think that the two semesters of education given are sufficient. I can not play the National Anthem or any accompaniment right now. (K2)

These were not taught to me in the training I received. We never learned to accompany the National Anthem and other things. If given the task, I will try to learn it myself. (K3)

I definitely don't think I can do it in terms of being able to play the National Anthem since there is no focus on the National Anthem and we do not have a separate lesson for the National Anthem. (K5)

For example, we have never played the National Anthem. I wish we played. I think it's the most basic thing every music teacher should know. Since I play the guitar, I have a predisposition to chords, but if I hadn't played the guitar, then maybe I wouldn't have been able to accompany at all. (K6)

I don't think I can play the National Anthem right now without preparation. Since there is no teacher guide, I do not feel like studying the piano, I cannot provide the necessary motivation for myself. (K9)

I am a graduate with a lack of capability and naturally, it is a difficult process for me to solve and play a piece given to me on the piano. I can play the National Anthem with one hand. I can also help with very simple accompaniments. (K10)

I know most of my classmates will graduate before they can play the national anthem. But there is nothing to do. What can you learn the most in two semesters? (K11)

We have never seen a piano accompaniment lesson. This affected us quite badly.
(K12)

Conclusion, Discussion, and Recommendations

The importance of the piano in terms of music education is emphasized by many music educators (Ercan, 1990; Karan and Yokus, 2022; Karkın, 2007; Kıvrak, 2003; Say, 2001; Yasmut, 2013). This research is aimed to evaluate the music teaching undergraduate program in terms of piano education proficiency in line with the opinions of music teacher candidates. The results obtained within the scope of the research are as follows:

Within the scope of the first sub-problem of the study, it was determined that two semesters of compulsory piano education were not sufficient for playing the works related to different periods of piano literature, according to all music teacher candidates. It has been determined that the music teacher candidates are insufficient in playing the repertoire of different periods of piano literature during the continuing education process after two semesters of piano education. In addition, it has been determined that graduates of other high school types have the opinion that they can only get to know the piano in two semesters, and that they cannot even learn the most basic benefits that the piano will provide to a music teacher. In addition, it has been determined that there is a music teacher candidate who consciously left Piano Education 1 and 2 courses until the last year in order to benefit from the piano course for four years.

When the relevant literature is examined, as a result of Kaleli's (2014) study on piano education in the music teaching program, it has been revealed that pre-service teachers have some problems at the 3rd grade level in playing the works of different periods by applying their technical behaviors. It was determined that the students had difficulties in the Classical and Romantic periods, and because there were more pedal elements in the Romantic works, the students could not concentrate on the technical behaviors required by the period if the pedal use was weak. In addition, within the scope of the research, the piano instructors stated that it is not enough for the exercises that develop technical behaviors, since the lesson time is one hour a week. It can be said that the result obtained from this research supports the result obtained from this research. However, considering the eight semesters (four years) of piano education in MTUP (YOK, 2006) during the research process, it is quite remarkable that piano education has been reduced to two semesters in the renewed MTUP (YOK, 2018). In addition to these, considering that students had difficulties understanding and interpreting the periods even in the past MTUP, it is obvious that it is a predictable situation that the piano education reduced to two semesters will be insufficient in understanding, learning, interpreting, and playing the periods.

Erozkan and Yokus (2021), in their research supporting the above view, evaluated the renewed (2018) music teaching undergraduate program in terms of piano education adequacy in line with the opinions of the instructors. As a result of the research, it has been determined that two semesters of compulsory piano education are very insufficient

for music teacher candidates to be able to play national and international piano works (Baroque, Classical, Romantic and Modern periods), piano works of Turkish composers technically and musically, and to use the piano instrument masterfully in the teaching profession. Considering that the data of the research carried out by Erozkán and Yokus (2021) were obtained in the 2018-2019 Academic Year, which is the year in which the 2018 MTUP –in this context, two-semester piano education- started to be implemented, the piano playing proficiency of the two-semester piano education of the piano instructors- it is seen that their views (or their predictions in a sense) are in parallel with the result obtained from this research.

Within the scope of the second sub-problem of the study, when the opinions of the music teacher candidates were asked on the adequacy of the two-semester compulsory piano education to support other field courses; It was determined that all of them found the two-semester compulsory piano education to support other field courses insufficient. On the other hand, pre-service music teachers are of the opinion that piano increases cognitive intelligence and this situation affects other field courses positively. In addition, the view that the piano forms the basis of music education and that the relevant lessons are built on this basis is among the views adopted by the music teacher candidates. In addition to this, as a result of the research, the opinions of the participants indicated that the quality of the products in other field courses decreased due to the decrease in the effectiveness of the piano in education programs.

According to Ozen (1998), a candidate who will be trained as a music teacher cannot be considered only for the ability to use the piano functionally so that he/she can present the skills to be gained in piano lessons with a concert approach. Other lessons in the field of music, especially harmony and accompaniment, musical hearing reading, musical forms and musical analysis, etc. are thought to be highly affected by piano playing skills in lessons on the success of the lesson. For this reason, it is thought that a close connection between the piano lesson and these lessons will be achieved, the necessary equipment for the teaching profession will be provided and a music teacher model will be achieved with the required competencies for primary and secondary education. As Ozen states, the piano lesson, due to its natural nature, nourishes the foundation of every music education lesson. There are many concrete and abstract examples of this.

To give a concrete example, the results of Karkin's (2007) research on "the effects of music theory and hearing education courses on piano education, encountered problems and solution proposals" can be looked at. Accordingly, it was concluded that the "Music Theory and Hearing Education (MTHE)" course in the Music Education Program of the Fine Arts Education Departments contributed positively to the piano education, and the piano education to the MTHE course, and the benefit of piano education in the music teaching profession was revealed and has been deemed very necessary. According to the data obtained from the related research, it can be said that the majority of the students who take piano education give more importance to individual instrument education than the piano, and if the piano is like a major, the success rate in this course will increase even more. As a matter of fact, when the results of this research are

evaluated, it is understood how important the benefits of the piano lessons are to the field lessons.

Kıvrak on the other hand, stated in his research published in 2003 that the separation of piano education, which is within the scope of music education, from other field courses in music education would greatly harm the program and argued that piano should be more intertwined with other field courses. He mentioned the necessity of using the piano, which is the application area of the harmony lesson, actively in this lesson. In another study, Erturk (2018) found that as a result of his research, hearing education and piano education complement each other in terms of cognitive and kinetic aspects, and that students actively use the piano while learning and applying subjects such as cadence, interval-chord institutions, solfeggio accompaniment in MİOY education, therefore, the information learned in MİOY education is theoretical. He stated that they were able to make learning permanent to a certain extent by moving from the first stage to practice, and that MİOY education increased the productivity and readiness level for piano education gains.

When the above views and research results are evaluated, it can be seen how important piano education is in terms of supporting other field courses. In addition to these, the results of the research conducted by Erozkán and Yokus (2021), which is in parallel with the result obtained from this research, and their opinions within this scope are as follows:

Considering the two-semester compulsory piano education in terms of supporting undergraduate courses; music teacher candidates can establish connections to support Western Music Theory and Practice, Harmony and Accompaniment, Educational Music Composition courses; develop their musical skills and perceptions, musical culture and knowledge; It was determined that they were insufficient in terms of expressing their feelings, thoughts and experiences musically, supporting the professional development of pre-service teachers who graduated from GSL, and improving the creativity skills and abilities of pre-service teachers. In terms of music teacher education, Piano education is an educational process that directly or indirectly contributes to and supports almost all of the field education courses. From this point of view, the role and importance of piano education in supporting undergraduate courses in the context of field education should not be overlooked. However, it is thought that the inadequacy of the mentioned program at this point will have negative repercussions in terms of obtaining the desired gains in the music teacher training process. (Erozkán and Yokus, 2021, p.121)

Within the scope of the third sub-problem of the study, as a result of the opinions of the music teacher candidates about the two-semester compulsory piano education's sufficiency to play accompaniment, it was determined that they were of the opinion that the two-semester piano education given was not sufficient in terms of playing accompaniment. In this context, it has been determined that the music teacher candidates do not find themselves at a sufficient level in playing accompaniment, and they think that their basic piano knowledge is insufficient in this regard. In addition, as

a result of the research, it was determined that the music teacher candidates felt quite insecure about playing the accompaniment of the National Anthem and the accompaniment of other works, and the biggest reason for this insecurity was the lack of piano lessons in terms of the number of semesters and lesson hours. Another remarkable result is that some of the music teacher candidates could not play the piano accompaniment of the National Anthem and some of them observed that their friends were insufficient in playing the piano accompaniment of the National Anthem.

When the course contents of MTUP are examined (YOK, 2018), students are expected to have the ability to use the piano as an accompaniment instrument within the scope of "Harmony and Accompaniment 2", "School Music Repertoire" and "Turkish Music Polyphony" courses. In this context, it can be said that students' finding themselves inadequate at playing accompaniment may negatively affect this and other field courses. On the other hand, while the subjects of accompanying piano were included in the content of the above-mentioned courses in the 2018 MTUP, the fact that piano education was reduced to two semesters and the "Accompaniment Play" course in the previous (YOK, 2006) MTUP was abolished is something that can be interpreted as remarkable and contradictory.

In the study of Erozkán and Yokus (2021), when the two-semester compulsory piano education is evaluated in terms of accompaniment, according to the views of the instructors; music teacher candidates can play the accompaniment of children's songs, songs in the form of lied-accompaniment, polyphonic choir works, our National Anthem, school marches; it was determined that they were insufficient in terms of being able to accompany vocal exercises and improvise children's songs. When the results obtained from the research are evaluated, it is seen that they are in parallel with the results obtained from this research.

Kutluk (1996, p.3-4) briefly explains the place of the piano as an accompaniment instrument as follows: "The main instrument used as an accompaniment instrument is the piano. One of the most important goals in music education is to give students a sense of polyphony. While playing or singing a melody, the piano is the most suitable instrument on which it is possible to accompany that melody with a suitable harmonization". On the other hand, Ercan (1990) states that: "A teacher who can accompany school songs with his piano and perform activities such as listening to music by playing himself will not only make his lesson enjoyable, but also supply appreciation for the student" (As cited in Bilgin, 2006, p.328).

In addition to the above views, Sualp (2002) states that the most important issue in teaching is to accompany on the piano, and it is necessary to consider how hard it will be for the teacher who cannot accompany to contribute to the development of the student. Similar to this view, Yurga and Kaya (2009) state that performance studies with piano accompaniment give students; the benefits of developing the ability to play and sing together, developing the perception of the style and form of the piece, developing the behavior of acquiring historical information about the piece, improving their musical adaptability, reinforcing their musical and artistic skills, and helping solve the intonation

problem. In addition, Turgut (2018) states that the piano as an accompaniment instrument has a very important dimension for the music teacher as a result of his research titled "The Views of Music Teacher Candidates on the Importance and Necessity of Accompaniment with the Piano".

When the results of the research are evaluated in general, it is seen that the music teacher candidates who received education within the scope of the 2018 MTUP; found their education insufficient in "playing the piano", "supporting other field courses" and "playing accompaniment". As a result of their research Erozkán and Yokus (2021), drew attention to the role and importance of 2018 MTUP's two-semester compulsory piano education in supporting undergraduate courses and they expressed their opinion that the inadequacy in this matter will have negative repercussions in terms of obtaining the desired gains in the music teacher training process. Accordingly, some of the remarkable results in this study on this subject are; consciously dropping out of piano Education 1 and 2 lessons until the last year of music teacher candidates - In order to benefit more from the piano lesson; Some of the music teacher candidates could not play the accompaniment of the National Anthem and some of them observed that their friends were insufficient to play the accompaniment of the National Anthem. Considering these results, it could be predicted that music teacher candidates will experience a lack of these situations in their professional lives.

As a result, the two-semester piano education in the 2018 MTUP is insufficient in terms of "playing works related to different periods of piano literature", "level of support for other field courses" and "playing accompaniment" according to the opinions of music teacher candidates.

Suggestions

In line with the results obtained from the research, the following recommendations were made:

- Piano education should be increased from two semesters to eight semesters in MTUP.
- Piano education curriculum content should be arranged in a way that will allow teacher candidates to develop their performance skills on the piano, to use the piano effectively to support their musical development and other field lessons.
- The practices of playing anthem, song, chorale and instrument accompaniment that the music teacher candidates will need in their professional lives should be included in the piano lesson and/or in the accompaniment lesson. However, since the Accompaniment Course is not included in the 2018 MTUP, the "Accompaniment Play" (or Accompaniment Playing and Improvisation) course should be included within the framework of school music practices, which will include activities such as playing children's songs, folk songs, marches, vocal exercises, playing the accompaniment of the National Anthem and improvising songs.
- In order for the research results to be more generalizable, the research could be carried out on larger groups or samples.

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Genişletilmiş Türkçe Özet

Bu araştırmanın amacı, müzik öğretmenliği lisans programının piyano eğitimi yeterliliği açısından müzik öğretmeni adaylarının görüşleri doğrultusunda değerlendirilmesidir. Araştırma nitel çerçevede gerçekleştirilen bir durum çalışmasıdır. Araştırmanın çalışma grubu amaçsal örnekleme yöntemlerinden ölçüt örnekleme yöntemi çerçevesinde belirlenmiştir. Çalışma grubuna katılım ölçütü olarak Bireysel Çalgı Eğitimi dersleri kapsamında piyano alanında eğitim görmeyen, zorunlu Piyano Eğitimi 1 ve 2 dersini alarak bu dersleri başarıyla tamamlamış 4. sınıf öğrencileri olması koşulları esas alınmıştır. Bu kapsamda araştırmanın çalışma grubunu Muğla Sıtkı Koçman Üniversitesi Eğitim Fakültesi Güzel Sanatlar Eğitimi Bölümü Müzik Eğitimi Anabilim Dalında 2021-2022 Eğitim-Öğretim Yılı Bahar Yarıyılında Bireysel Çalgı Eğitimi dersleri kapsamında piyano alanında eğitim görmeyen, zorunlu Piyano Eğitimi 1 ve 2 dersini alarak bu dersleri başarıyla tamamlamış 4. sınıf öğrencileri oluşturmaktadır.

Araştırmada veri toplama aracı olarak araştırmacılar tarafından araştırmanın amacı ve alt problemleri doğrultusunda piyano eğitimi yeterliliğini belirlemeye ilişkin geliştirilmiş olan yarı yapılandırılmış görüşme formu kullanılmıştır. Görüşme formunun kapsam geçerliği müzik eğitimi alanında uzman 5 öğretim elemanının görüşleri alınarak sağlanmış, uzman görüş ve önerileri doğrultusunda gerekli düzeltme ve düzenlemeler yapılarak forma son şekli verilmiştir. Uzman görüşleri doğrultusunda araştırma sorularının araştırmanın amacına uygun olup olmadığı değerlendirilmiştir. Böylece araştırmanın kapsam geçerliği sağlanmıştır.

Araştırma verileri betimsel olarak analiz edilmiştir. Araştırmada verilerin analizinde iki yarıyılık zorunlu piyano eğitiminin yeterliliği için araştırmacı tarafından araştırmanın amacı doğrultusunda belirlenen boyutlar çerçevesinde "Piyano literatürünün farklı dönemlerine ilişkin eserleri çalabilme yeterliliği", "Diğer alan derslerini desteleme düzeyi yeterliliği" ve "Eşlik çalabilme yeterliliği" temaları oluşturulmuş ve veriler analiz edilmiştir. Belirlenen temalara göre veriler, araştırma sorularına paralel olarak ele alınmıştır. Araştırmanın raporlaştırılması aşamasında katılımcı görüşlerine etik kurallar çerçevesinde yer verilebilmesi için her bir katılımcıya kod verilmiştir. Bu doğrultuda katılımcılar "K1" (Katılımcı 1), K2 (Katılımcı 2) ... vb. şekilde kodlanmıştır. Görüşmelerden elde edile veriler doğrultusunda ayrıca analizler kapsamında katılımcıların görüşlerini daha derinlemesine yansıtabilmek için çalışmada doğrudan alıntılara da yer verilmiştir.

Araştırmanın 1. alt problemi kapsamında, müzik öğretmeni adaylarının tamamına göre iki yarıyılık zorunlu piyano eğitiminin piyano literatürünün farklı dönemlerine ilişkin eserleri çalabilme açısından yeterli olmadığı belirlenmiştir. Müzik öğretmeni adaylarının iki yarıyılık piyano eğitiminin ardından devam eden eğitim süreçlerinde piyano literatürünün farklı dönemlerine ilişkin repertuarı çalabilme konusunda yetersiz oldukları saptanmıştır. Ayrıca diğer lise türü mezunlarının iki yarıyıldaki piyanoyu ancak tanıyabildikleri, piyanonun bir müzik öğretmenine sağlayacağı en temel faydaları dahi öğrenemedikleri yönünde görüşleri olduğu belirlenmiştir. Buna ek olarak, Piyano Eğitimi

1 ve 2 derslerini -piyano dersinden dört sene yararlanabilmek için- son sınıfa kadar bilinçli olarak bırakan müzik öğretmeni adayının da olduğu belirlenmiştir.

Araştırmanın 2. alt problem kapsamında, müzik öğretmeni adaylarının iki yarıyılık zorunlu piyano eğitiminin diğer alan derslerini destekleme düzeyi yeterliliğine ilişkin görüşleri değerlendirildiğinde; tamamının iki yarıyılık zorunlu piyano eğitiminin diğer alan derslerini destekleme düzeyini yetersiz bulduğu belirlenmiştir. Bununla birlikte, müzik öğretmeni adayları piyanonun bilişsel zekâyı arttırdığını ve bu durumun diğer alan derslerini olumlu yönde etkilediğine yönelik kanaatindedir. Ayrıca piyanonun müzik eğitiminin temelini oluşturduğu ve bu temel üzerine ilgili derslerin kurulduğu görüşünün müzik öğretmeni adaylarınca benimsenen görüşlerdendir. Bunlara ek olarak, araştırma sonucunda piyanonun eğitim programlarındaki etkinliğinin azalması nedeniyle diğer alan derslerinde ortaya çıkan ürünlerin kalitesinin düştüğüne yönelik katılımcı görüşleri ortaya konmuştur.

Araştırmanın 3. alt problemi kapsamında, müzik öğretmeni adaylarının iki yarıyılık zorunlu piyano eğitiminin eşlik çalabilme yeterliliğine ilişkin görüşleri sonucunda tamamının verilen iki yarıyılık piyano eğitiminin eşlik çalma açısından yeterli olmadığı kanaatinde oldukları belirlenmiştir. Bu bağlamda, müzik öğretmeni adaylarının eşlik çalma konusunda kendilerini yeterli bir düzeyde bulmadıkları, temel piyano birikimlerinin bu konuda yetersiz kaldığı görüşünde oldukları saptanmıştır. Ayrıca araştırma sonucunda müzik öğretmeni adaylarının İstiklal Marşı'nın eşliğini çalma ve diğer eserlerin eşliğini çalma konusunda kendilerini oldukça özgüvensiz hissettikleri, bu özgüvensizliğin en büyük sebebinin ise piyano derslerinin dönem sayısı ve ders saatlerinin yetersizliğinden kaynaklandığı görüşünde oldukları belirlenmiştir. Dikkat çekici diğer bir sonuç ise müzik öğretmeni adaylarının bir kısmının İstiklal Marşı'nın piyano eşliğini çalamamaları ve bir kısmının ise arkadaşlarının İstiklal Marşı'nın piyano eşliğini çalma konusunda yetersiz olduklarını gözlemlemiş olmalarıdır.

Araştırma sonuçları genel olarak değerlendirildiğinde, 2018 MÖLP kapsamında eğitim alan müzik öğretmeni adaylarının; "piyano çalma", "diğer alan derslerini destekleme" ve "eşlik çalma" konusunda eğitimlerini yetersiz buldukları anlaşılmaktadır. Erözkan ve Yokuş (2021), araştırmaları sonucunda 2018 MÖLP'ün iki yarıyılık zorunlu piyano eğitiminin lisans derslerini destekleme rolü ve önemine dikkati çekmiş ve bu husustaki yetersizliğin müzik öğretmeni yetiştirme sürecinde istenilen nitelikte kazanımların elde edilmesi açısından olumsuz yansımalarının olacağı konusunda görüş bildirmişlerdir. Buna göre, bu konuda bu araştırmada dikkat çekici sonuçlardan bazıları; müzik öğretmeni adaylarının piyano Eğitimi 1 ve 2 derslerini -piyano dersinden daha fazla yararlanabilmek için- son sınıfa kadar bilinçli olarak bırakması; müzik öğretmeni adaylarının bir kısmının İstiklal Marşı'nın eşliğini çalamamaları ve bir kısmının ise arkadaşlarının İstiklal Marşı'nın eşliğini çalabilme konusunda yetersiz olduklarını gözlemlemiş olmalarıdır. Bu sonuçlar göz önüne alındığında, müzik öğretmeni adaylarının mesleki yaşamlarında da bu durumların eksikliğini yaşayacakları düşünülmektedir.

Sonuç olarak, 2018 MÖLP’de yer alan iki yarıyılık piyano eğitimi müzik öğretmeni adaylarının görüşlerine göre “piyano literatürünün farklı dönemlerine ilişkin eserleri çalabilme”, “diğer alan derslerini destekleme düzeyi” ve “eşlik çalabilme” açılarından yetersizdir.

Araştırmadan elde edilen sonuçlar doğrultusunda aşağıdaki önerilere yer verilmiştir:

- Piyano eğitimi MÖLP’de iki yarıyıldan sekiz yarıyla çıkartılmalıdır.
- Piyano eğitimi öğretim programları içeriği; öğretmen adaylarının piyanoda icra becerilerinin geliştirilmesi, müzikal gelişimi ve piyano çalgısından diğer alan derslerini desteklemek için etkili olarak yararlanma olanağı verecek şekilde düzenlenmelidir.
- Müzik öğretmeni adaylarının mesleki yaşamlarında ihtiyaç duyacakları marş, şarkı, koral ve çalgı eşliği çalma uygulamalarına piyano dersi kapsamında ve/veya eşlik çalma dersinde yer verilmelidir. Ancak Eşlik Çalma dersi 2018 MÖLP’de yer almadığı için; okul müziği uygulamaları çerçevesinde çocuk şarkıları, türkü, marş, ses egzersizi eşlikleri çalma, İstiklal Marşı’nın eşliğini çalma ve doğaçlama şarkı eşliği yapma gibi çalışmaları kapsayacak “Eşlik Çalma” (ya da Eşlik Çalma ve Doğaçlama) dersine yer verilmelidir.
- Araştırma sonuçlarının daha genellenebilir olması için, araştırma daha geniş gruplar ya da örneklem üzerinde gerçekleştirilebilir.

Ethics Committee Approval: The ethics committee approval of this research was obtained from the Social and Human Sciences Ethics Committee of Mugla Sıtkı Kocman University on April 27, 2022 with decision no.55 and protocol number 220038.

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The Combination of Flipped Learning, Station Technique and Technology in Harmony Lesson: Evaluating Student's Achievement, Attitude and Views

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Abstract: To mitigate the negative impacts of COVID-19 on the distance education Harmony course, a contemporary educational strategy with experimental content has been developed in this study. This research uses a mixed-methods sequential explanatory design, combining (a) a pretest-posttest control group design and (b) a qualitative study to comprehend the potential quantitative changes resulting from the use of the flipped learning model, station technique, and technology combination. The technology combination is built with the Bandlab social music platform, YouTube lesson support platform, QR codes, and Zoom Breakout Rooms. The study examines how these approaches affect students' success in the harmony lesson, their attitudes towards the lesson, and their learning experiences. The study sample consists of music teaching 2nd-grade students (control group n=41 & experimental group n=44). The experimental procedure takes nine weeks and includes three stages. After the learning sessions, individual semi-structured interviews were conducted with the experimental group students. As a result, positive improvements were achieved in students' attitudes towards the lesson, their success levels, and their learning experiences.

Keywords: Harmony, flipped learning, station rotation, technology combination, youtube, distance education

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Introduction

The unexpected emergence of COVID-19 and its rapid spread throughout the world have resulted in devastating earthquakes and unexpected changes in music education (Daubney & Fautley, 2020). COVID-19 has brought about a re-evaluation of music education as a reflection of newly emerging ideas on teaching (Calderón-Garrido et al., 2021). It has also led to the production of new pedagogical solutions (Bolívar-Chávez et al., 2021). All of these things have come to the forefront in response to the negative effects that the pandemic has had. Furthermore, we are confronted with the reality that online learning cannot replace the musical skills that a student acquires while attending school (Adam & Metljak, 2022). In addition, research on online distant music education is still in its early phases (Edward et al., 2018; Koutsoupidou, 2014).

Studies found in the relevant literature regarding the COVID-19 pandemic period and music education have shown significant problems, especially in practical lessons. Music department students stated that practical lessons conducted during the pandemic were not as effective as face-to-face education (Özer & Üstun, 2020). In line with students learning experiences (Keskin & Özer Kaya, 2020), the need for conducting experimental research to properly structure education during the pandemic makes this study of higher importance. Ng et al. (2022) have pointed out that research on the effectiveness of online pedagogy for music learning is not sufficiently developed at this point.

Some problems encountered in Harmony lessons have influenced the planning of this study. Some of these problems are: a deepening of students' musical learning losses (Camlin & Lisboa, 2021), problems with students' internet access (Nichols 2020; Vaizman, 2022), a lack of technological equipment (Rucsanda et al., 2021), online teaching is very time-consuming in terms of planning course activities. These and other issues have prompted music instructors to consider the use of technology in the classroom and to reconsider the value of online music education (Vaizman, 2022). In response to the negative experiences encountered in Harmony lessons during the pandemic, some studies focusing on modern pedagogy have been examined. The proposal to combine the Flipped Learning model and the station rotation model within the blended learning approach (Clayton Christensen Institute, 2020) has provided guidance for the planning of the current study (Govindaraj & Silverajah, 2017). Consequently, there was a need to understand the student experiences resulting from combining these two models. Various technology-supported learning tools have also been included to strengthen the research. The combination of technological learning tools and QR codes enables students to learn anytime and anywhere (Kalogiannakis & Papadakis, 2017).

The sub-dimensions of blended learning have been used in designing the current study. Among these, the Rotation model stands out as an important dimension of blended learning (Rehman & Lakhan; Staker & Horn, 2012). Within the Rotation model, there are four specific types: station rotation, lab rotation, Flipped Learning, and individual rotation (Ayob et al., 2020). The literature shows that some types within this model have been combined in academic studies. Particularly, the combination of station rotation and

Flipped Learning models has some features that enhance students' learning levels (Smalls, 2019), provide them with a fun learning environment (Sanubari, 2022), and make them more actively engaged in the lessons (Sohaya et al., 2021). It also offers significant flexibility in meeting the needs of both instructors and students in the classroom (Lopes & Soares, 2018). Furthermore, the Flipped Learning model has been preferred by researchers as an alternative model during the pandemic period because it is included in both the combination and blended learning models (Sanubari, 2022).

With the help of scientific evidence, this study aims to reveal a solution to the problems encountered in the distance education harmony lesson by utilizing new technological resources and modern teaching methods. In this process, a YouTube course support platform and technology-supported activities that support the flipped learning model (Ng, 2022) have been designed to trigger collaboration, facilitate learning and save time.

Developing Research Questions and Hypotheses Based on Literature Background

In this section, research questions and hypotheses were developed in line with the literature background to understand students' learning experiences.

Effects of the Flipped Learning Model on Learning

Based on the literature information below, the first research question was formulated to understand students' learning experiences in the Flipped Learning model.

RQ1. What positive effects does Flipped Learning have on students' learning experiences?

The use of the flipped learning method in music lessons enables teachers to communicate effectively with students (Kim & Kyoung Song, 2020). It is also ideal for facilitating and accelerating students' music learning processes (Akbel, 2018) and providing effective solutions to their motivation problems (Brownlow, 2016). Thanks to the mobile instrument application designed by Davy et al. (2022) with the flipped learning model, it has been proven that the students have reached high motivation.

Effects of YouTube on Learning

Based on the literature information below, the second research question was formulated to understand students' learning experiences on YouTube.

RQ2. What positive effects does the YouTube lesson support platform have on students' learning experiences?

According to Koutsoupidou (2014), the probability of students gaining different learning experiences and increasing their interest in learning by using YouTube videos is higher than in traditional instrument training courses. YouTube's simple, functional, and pragmatic nature (Waldron, 2013) allows students to listen to and compare different performances of a piece they are studying (Wise et al., 2011). It provides practical and

self-learning opportunities (Smith & Secoy, 2019), which offer significant advantages for music education. Stowell and Dixon (2014) concluded that YouTube is a valuable learning tool in music lessons for both teachers and students.

Effects of QR Codes on Learning

The third research question was formulated to understand students' learning experiences with QR codes based on the literature information below.

RQ3. What positive and negative effects do QR codes have on students' learning experiences?

QR codes used in instrument and composition education enabled students to instantly access information, and their learning experiences improved (Palazón & Giráldez, 2018). On the other hand, serious problems may arise due to the holding position of the mobile device or the incorrect positioning of QR codes on paper (Sever, 2019).

The Effects of the Station Technique Applied in Zoom Breakout Rooms on Learning

The fourth research question was formulated to understand students' learning experiences with the station rotation technique applied in Zoom breakout rooms based on the information from the literature below.

RQ4. What positive effects does the station rotation model applied to Zoom breakout rooms have on students' learning experiences?

Studies using Zoom breakout rooms and station techniques in different disciplines other than music provided important clues for the current study. Aslan (2021) used Zoom breakout rooms for group work for the experimental group and reached higher scores than the control group in which traditional methods were used. As a result of a study in which Zoom breakout rooms were used to create a live group activity in medical education, students provided positive feedback on the application (Rucker et al., 2020).

The literature shows that station techniques are used infrequently in music education, but more frequently in other disciplines. The station rotation model is included in the blended learning experiences of South Korean music teachers (Kim, 2021). It showed that station teaching can potentially improve the cooperative learning aspects of undergraduate students in English language teaching (Chien, 2017). According to preservice classroom teachers, the station technique is a fun, useful activity that supports active participation, and helps creative and imaginative thinking (Genç, 2013).

Effects of the BandLab Social Music Platform on Learning

Based on the literature, the fifth research question was formulated to understand students' learning experiences on the BandLab social music platform.

RQ5. What positive effects does the BandLab platform have on students' learning experiences?

Thanks to BandLab, students can collaborate with musicians from all over the world, invite each other on the platform, and work together on a collaborative arrangement project, albeit remotely (Giddings, 2020). BandLab is also the software that promotes the motivating and collaborative acquisition of both musical and digital skills (Moltó & Prada, 2021). As a result of a compositional project study in which BandLab was used, significant improvements were achieved in the self-efficacy beliefs of preservice teachers (Harris & Carroll, 2020).

Based on the results of previous research, it was thought that there could be an improvement in the students' attitudes toward the lesson and their success levels. Considering these studies in the literature, the following hypotheses have been put forward:

Hypothesis 1. There will not be a significant difference between the success levels of the experimental and control group students regarding the online harmony lesson before the experimental procedure.

Hypothesis 2. There will be a significant difference between the success levels of the experimental and control group students regarding the online harmony lesson after the experimental procedure.

Hypothesis 3. There will be a significant difference between the experimental and control group students' attitudes toward the online harmony lesson after the experimental procedure.

Method

This research was designed with an explanatory sequential mixed-methods design. This design was used to explain quantitative findings further using qualitative data (Creswell, 2017). A pre-test post-test control group design was used in the quantitative dimension of the study. In the qualitative aspect, semi-structured interviews were conducted with the experimental group of students.

Study Group and Data Collection Instruments

This study was conducted with the participation of second-year undergraduate students enrolled in the Music Education Department of a state university in Turkey. The experimental group consisted of 44 students (25 females & 19 males, $SD=2,51$), and the control group consisted of 42 students (19 females & 21 males, $SD=2,09$). The average age of all students was 21.4 years. It was determined that the participating students had access to mobile devices, computers, and the internet. The Harmony lesson was a two-semester course in the Music Education curriculum. The participating students previously took the Harmony lesson for one semester before the experimental procedure, but it was their first time participating in a lesson designed with the Flipped Learning model.

The Role of the Researcher

The researcher assumed the following roles during the study: collecting relevant information on the topic, interpreting the analysis of quantitative data, conducting the experimental procedure, monitoring students and team leaders, structuring the YouTube lesson support platform, preparing QR codes and lesson notes, creating their own instructional videos, engaging in direct communication with the participating students, and analyzing and interpreting qualitative data.

Attitude Scale

The "Attitude Scale Regarding the Use of Distance Education Environments in the Pandemic Process" developed by Yıldız et al. (2021) was used in the study. The internal consistency coefficient of the scale was .93, as determined by Cronbach's Alpha, to test the reliability of the scale, which consisted of 24 items and has a 4-factor structure. As a result of the statistical analysis for the sub-dimensions of the scale, the internal consistency coefficients were .94 for the competence and motivation dimension, .81 for usability, .88 for effectiveness, and .84 for satisfaction (Yıldız et al., 2021).

Achievement Test

The achievements related to the harmony lesson were first examined, and 30 questions were prepared. An item analysis was carried out to ensure the construct validity of the test. The questions were reduced to 20 in line with the criteria and the feedback of two experts. Afterward, a pilot exam was conducted on the university's online exam platform with the participation of senior students in the department of music teaching ($n=39$). As a result of this exam, it was determined that it was not necessary to remove any questions or rearrange the questions. The Kuder-Richardson 20 (KR-20) value was calculated for the reliability of the achievement test. The KR-20 value of the test was calculated as (.82).

The experts worked as faculty members in Music Education programs in different cities. They also had academic publications on modern pedagogies and instructional technologies. The first expert supervised a doctoral thesis on the Flipped Learning model and guitar instruction during the COVID-19 pandemic and also published this thesis as an academic publication.

Semi-Structured Interview Protocol

Experts who evaluated the achievement exam were given six interview questions developed by the researcher. The number of questions was reduced to 5 in line with expert feedback. With these questions, a pilot application was carried out on two senior students via Zoom. No changes were made to the questions in line with the feedback of these two participants. The interviews were conducted by the researcher over the phone for 15-20 minutes and were recorded with the permission of the participants. The recorded interviews were transcribed.

Structured Interview Questions:

1. Can you describe your learning experiences with the Flipped Learning model? Did you encounter any advantages or disadvantages?
2. Can you tell us about your learning experiences with the YouTube lesson support platform? Did you encounter any advantages or disadvantages?
3. Can you tell us about your learning experiences with QR codes? Did you encounter any advantages or disadvantages?
4. Can you tell us about your learning experiences with the station technique in Zoom breakout rooms? Did you encounter any advantages or disadvantages?
5. Can you tell us about your learning experiences on the Bandlab platform? Did you encounter any advantages or disadvantages?

Data Analysis

According to Table 1, students showed a balanced distribution in terms of gender and age variables. When Kolmogorov-Smirnov analysis and skewness-kurtosis (± 3) values of z scores were examined, it was seen that a normal distribution was realized in MAT scores. There were significant deviations from normality in factor scores other than the attitude scale and usability. Therefore, parametric (paired samples t-test, independent samples t-test) and non-parametric approaches (Mann-Whitney U test) were used for the analysis. The d and r coefficients were calculated to determine the effect size. The values were interpreted as .2 was small, .5 was medium. For, .8 was large for d, .1 was small, .3 was medium, .5 was a large effect (Cohen, 1988).

Table 1.

Gender, Age, and MAT Descriptive Values

	Experimental (n=44)		Control (n =42)			
			Female		Male	
Gender n (%)			25	56.8	21	50.0
			19	43.2	21	50.0
	$\bar{x} \pm sd$	Min-Max	KS ***	$\bar{x} \pm sd$	Min-Max	KS ***
age	21.84 \pm 2.12	19-30	-	21.55 \pm 1.58	19-27	-
MAT (pre-test)	50.34 \pm 12.64	25-80	.20	53.09 \pm 10.18	30-70	.20
MAT (post-test)	74.09 \pm 15.45	20-90	.20	56.19 \pm 16.74	20-90	.19
Competence and Motivation	32.50 \pm 3.13	20-35	.00 **	17.66 \pm 4.45	7-27	.20
Availability	34.86 \pm 3.13	28-39	.19	28.90 \pm 3.18	21-36	.20
Effectiveness	23.40 \pm 2.52	13-25	.00 **	14.22 \pm 2.37	10-20	.00 **
Satisfaction	18.70 \pm 1.97	13-20	.00 **	12.61 \pm 1.88	9-18	.02 *
Attitude Scale Total	110.05 \pm 7.91	75-119	.00 **	73.39 \pm 9.24	58-93	.04 *

* p<.05 ** p<.01 ****Kolmogorov-Smirnov significance (MAT)

Content analysis was conducted on the qualitative findings. To increase the reliability of the findings, inter-coder consistency was determined. A table was created to prevent differences that may occur in inter-coder consistency. The inter-coder consistency was calculated as .88.

Table 2.

Code Chart

Code	Collaboration
Code Definition	Whether the implementation process encourages students to learn cooperatively
Full Definition	Students act of their own will and desire to work collaboratively and evaluate the experimental procedure phases.
Sample quotes	"The activities used in the course encouraged me to work collaboratively"
Usage Time	When students actually mention the word cooperation or a synonym
Time to Use	When students' talk about cooperation cannot be reasonably interpreted

The concepts in this codebook are listed with the title of the code, a short and complete description, and one or more sample citations to show the type of evidence to be determined for the code (Creswell, 2019). While editing this chart, a sample code chart (cited from Creswell, 2019) in Guest et al., (2006) was used.

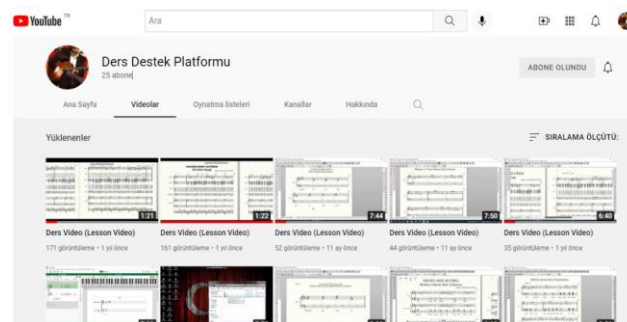
Experimental Procedure

Experimental procedure studies were introduced to the students in a meeting held on Zoom. Students were given different tasks in each of the three stages. In this process, the students were divided into six groups by the researcher.

The course videos for the experimental group were prepared by the researcher and uploaded to the YouTube lesson support platform. Students accessed these videos with QR codes placed on PDF files. Lecture notes are also embedded in PDF files. Before the online lesson, the students watched the lesson videos they were assigned to watch, took notes, and prepared questions about the points they did not understand.

Figure 1.

YouTube Lesson Support Platform



First Stage

At this stage, the study groups were determined as composition, tonal harmony, model harmony, counterpoint, accompaniment figure, and orchestration. Students were given information about the use of Zoom breakout rooms and the subjects they were responsible for. The names of the groups are written in the name section of the Zoom breakout rooms. The students logged in to the assigned rooms by finding the group names.

Two 60-minute lessons were held in the Zoom break rooms in the second and third weeks. The researcher navigated between the breakout rooms, guided group discussions, and tried to encourage students to collaborate to increase group work efficiency (Aslan, 2021). The groups' tasks on the melody given to them in the first stage are as follows: 1. The composition group wrote the lyrics, 2. The tonal harmony group did chord programming, 3. The modern harmony group did chord programming, 4. The contrepoint group did a double vocal study, 5. The accompaniment figure group performed piano accompaniment, 6. The orchestration group performed orchestration work on a different melody for the 1st and 2nd strings, viola, violoncello, and contrabass instruments.

Figure 2.

A Section of Contrepont, Chord Programming and Piano Accompaniment

The musical score for Figure 2 consists of three systems of music. The first system shows a melody line in the treble clef and a bass line with chords. The chords for the first system are: Cmaj7, A7, Dm7/A, Em7, Fmaj7/A, Em7, Dm7, G7, Fmaj7/A, Dm7/A. The second system shows a piano accompaniment line with chords. The chords for the second system are: C, F/C, G/B, C, G/B, G/B, F/C. The third system shows a melody line in the treble clef and a bass line with chords. The chords for the third system are: G7, Bm7(b5), Am7, Cmaj7, Em7, Dm7, Fm(maj7)/C, G7/D, Cmaj7. The fourth system shows a piano accompaniment line with chords. The chords for the fourth system are: G/B, C, G/B, C, G/B, C.

Figure 3.

A Section of Orchestration

The musical score for Figure 3 shows a section of orchestration. It features a vocal line in the treble clef and six string lines: Violin I, Violin II, Viola, Cello I, and Cello II. The score is in 3/4 time and features a melody line, a bass line with chords, and a piano accompaniment line with chords.

Second Stage

At this stage, the previous workflow was followed, the students were given the same tasks on a different tune, and station technique was conducted in the Zoom break rooms. Six different stations were established, and each station was given 10 minutes of working time. Group leaders worked only at their own stations until the end of the study, and they gave information about the study flow to the new students who logged in to the breakout rooms during station changes. This cycle continued until the students served at each station and arrived at their own station. The station work took approximately 70 minutes.

Figure 4.

Station Technique Cycle

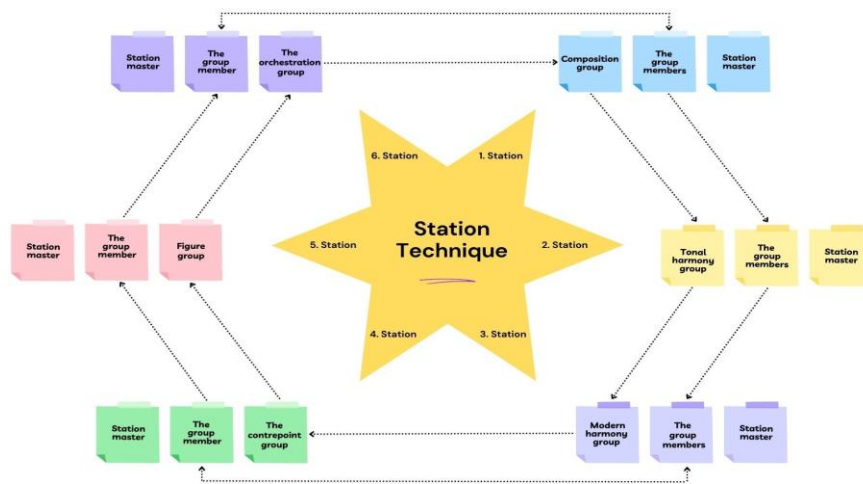


Figure 5.

A Section from the Station Technique Study

Largo ♩ = 60

Jazz harmony chords

Tonal harmony chords

Third Stage

At this stage, the Composition group was assigned to make arrangements on the BandLab platform and direct other groups. All students signed up for BandLab before they started study. Students met on Zoom for the application, and the BandLab project page was shared on Zoom. The students first exchanged ideas about the arrangement. In the first channel, the trumpet was chosen, and the solo of the melody was written. In the second channel, accompaniment chords were written with electro piano. And in the third channel, electric bass legato and bass accompaniment were written. Modern metal was chosen from the drum machine section for the rhythm channel. All recording procedures were carried out by the team leader of the Composition group, and the arrangement was sent to the researcher.

What Happened in the Control Group?

The lessons were conducted online with the control group students on the university's live lesson platform. The researcher used Finale notation software, a course book, and course slides during the lesson. Teacher-centered direct instruction and question-answer methods were adopted in the lessons. In this process, the students learned the same subjects as the experimental group students. Students were assigned homework on these topics.

Quantitative Findings

This section of the research presents both quantitative findings and interpretations from the attitude scale and achievement test.

Table 3.

Experimental and Control Group's Pre-test Music Achievement Scores

Group	n	x ± sd	t	p	D
Experimental	44	50.34 ± 12.64	-1.11	.27	-
Control	42	53.09 ± 10.18			

Regarding the first hypothesis, Table 3 shows that the pre-test scores of the experimental and control groups are close to each other, and there is no significant difference between the scores ($p > .05$).

Table 4.

Experimental and Control Group's Pre-test and Post-test Music Achievement Scores

		n	x ± sd	t	p	D
Experimental	Pre-test	44	50.34 ± 12.64	-10.98	.00 **	-1.65

	Post-test	42	74.09 ± 15.45			
Control	Pre-test	44	53.09 ± 10.18			
				-1.64	.11	-
	Post-test	42	56.19 ± 16.74			

**p<.01

In relation to the second hypothesis, it was determined that the post-test scores (\bar{x} = 74.09) of the experimental group students are significantly higher than the pre-test scores (\bar{x} = 50.34) (t [43], p <.01). It was seen that the effect size is high (d = -1.65). It was determined that there was no significant difference in the control group's scores before and after the procedure (p >.05).

Figure 6.

Pre-test Post-Test Scores of the Experimental and Control Groups

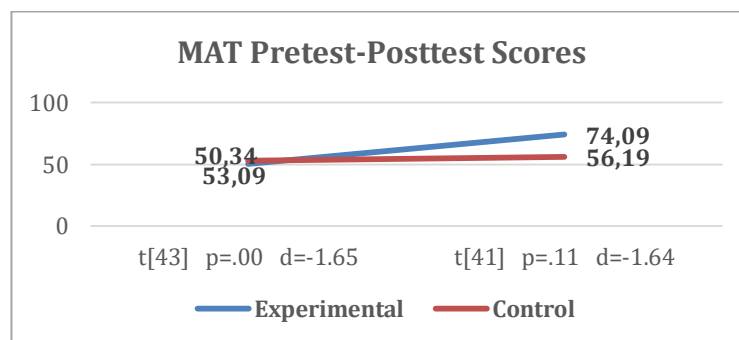


Table 5.

Experimental and Control Group's Post-Test Music Achievement Scores

Group	n	$\bar{x} \pm sd$	t	p	D
Experimental	44	74.09 ± 15.45	5.16	.00 **	1.11
Control	42	56.19 ± 16.74			

**p<.01

As can be seen in Table 5, there is a significant difference in music achievement test scores in terms of the group variable (t [84], p <.01). It was determined that the experimental group (\bar{x} = 74.09) is more successful compared to the control group (\bar{x} = 56.19). Considering the effect size value, it can be said that the program is highly effective (d = 1.11).

Figure 7.

Post-test Scores of the Experimental and Control Groups

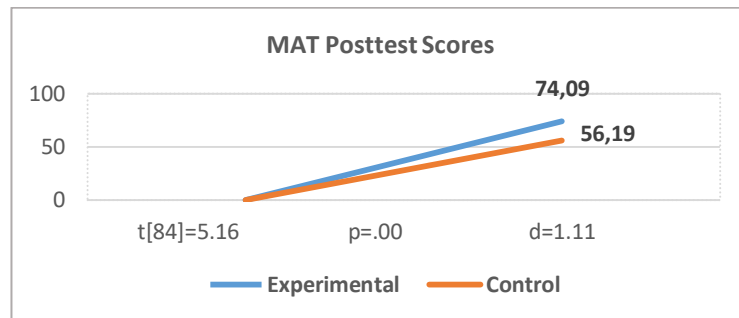


Table 6.

T-test Results for the Experimental Group's Post-Test Attitude Scores

	Group	x ± sd	U	p	r
Attitude Total	Experimental	110.05 ± 7.91	14.50	.00 **	-.84
	Control	73.39 ± 9.24			
Competence and Motivation	Experimental	32.50 ± 3.13	18	.00 **	-.84
	Control	17.66 ± 4.45			
Effectiveness	Experimental	23.40 ± 2.52	50.50	.00 **	-.81
	Control	14.22 ± 2.37			
Satisfaction	Experimental	18.70 ± 1.97	56.50	.00 **	-.81
	Control	12.61 ± 1.88			
	Group	x ± sd	t	p	D
Availability	Experimental	34.86 ± 3.13	8.64	.00 **	1.89
	Control	28.90 ± 3.18			

** $p < .01$

Regarding the third hypothesis, Table 6 shows that the attitude total and factor scores of the experimental group are significantly higher than those of the control group ($p < .01$). When the effect size values were examined, it was determined that these values were high for all score groups.

Qualitative Findings

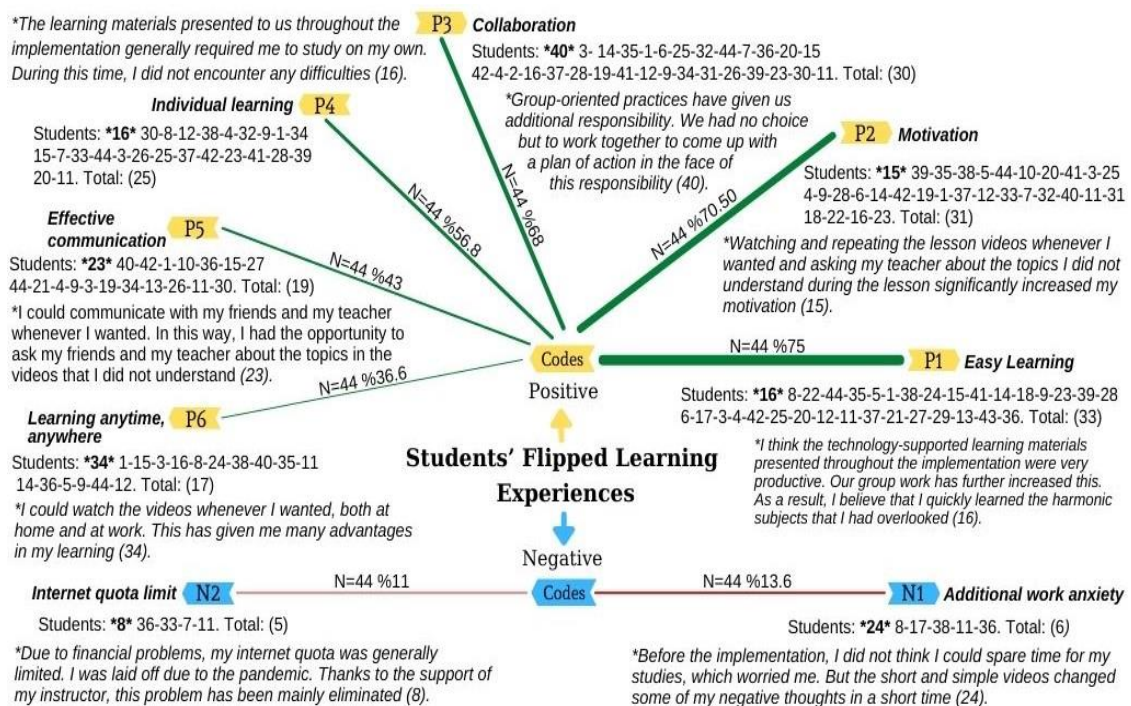
In this section, qualitative findings and interpretations obtained from the semi-structured interview questions are presented.

Lesson Activities from the Perspective of the Students

In this section, the interview question is "Can you describe your learning experiences with the Flipped Learning model? Did you encounter any advantages or disadvantages?" was explored to answer the first research question. The students' learning experiences are depicted on the relationship map shown in Figure 8.

Figure 8.

Relationship Map of Students' Group-Focused Flipped Learning Model Learning Experiences

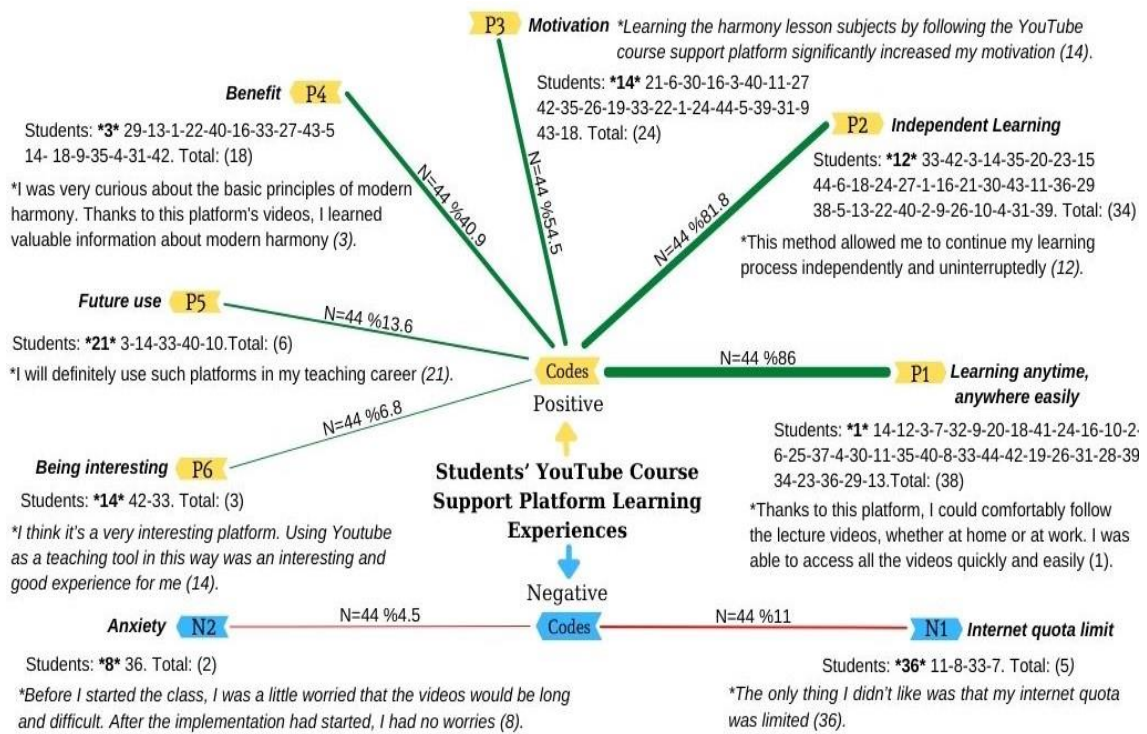


According to Figure 8, students focused heavily on positive codes in relation to the first research question. Positive codes generally indicate the learning outcomes targeted by modern pedagogy. Every student in the negative category has code(s) in the positive category. For instance, student number 11, who chose two negative codes, expressed their opinion on all positive codes and showed the most intense distribution that included both categories. The fact that the negative codes were not related to the content of the flipped learning model showed that the students had adopted this model at a high level.

In this section, the interview question is "Can you tell us about your learning experiences with the YouTube lesson support platform? Did you encounter any advantages or disadvantages?" was explored to answer the second research question. The students' learning experiences are depicted on the relationship map shown in Figure 9.

Figure 9.

Relationship Map of Students' Youtube Lesson Support Platform Learning Experiences

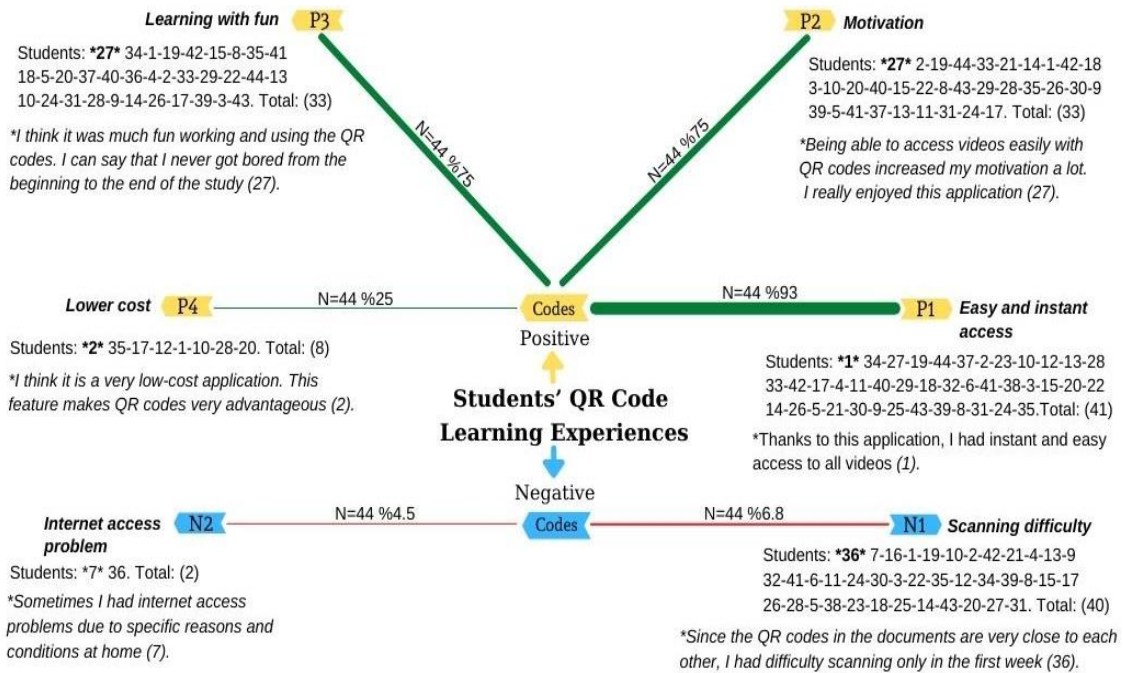


According to Figure 9, students showed interest in the YouTube support platform related to the second research question, but they also highlighted some issues. However, the interviews revealed that these problems were quickly resolved. No negative views criticizing the content or functionality of the platform were found within the negative codes. In fact, the total number of students in the negative code category appears to be significantly lower compared to the students in the positive category. All the positive codes likely contributed to an increase in students' motivation.

In this section, the interview question is "Can you tell us about your learning experiences with QR codes? Did you encounter any advantages or disadvantages?" was used to answer the third research question. The students' learning experiences are presented in the relationship map shown in Figure 10.

Figure 10.

Relationship Map of Students' QR Code Learning Experiences

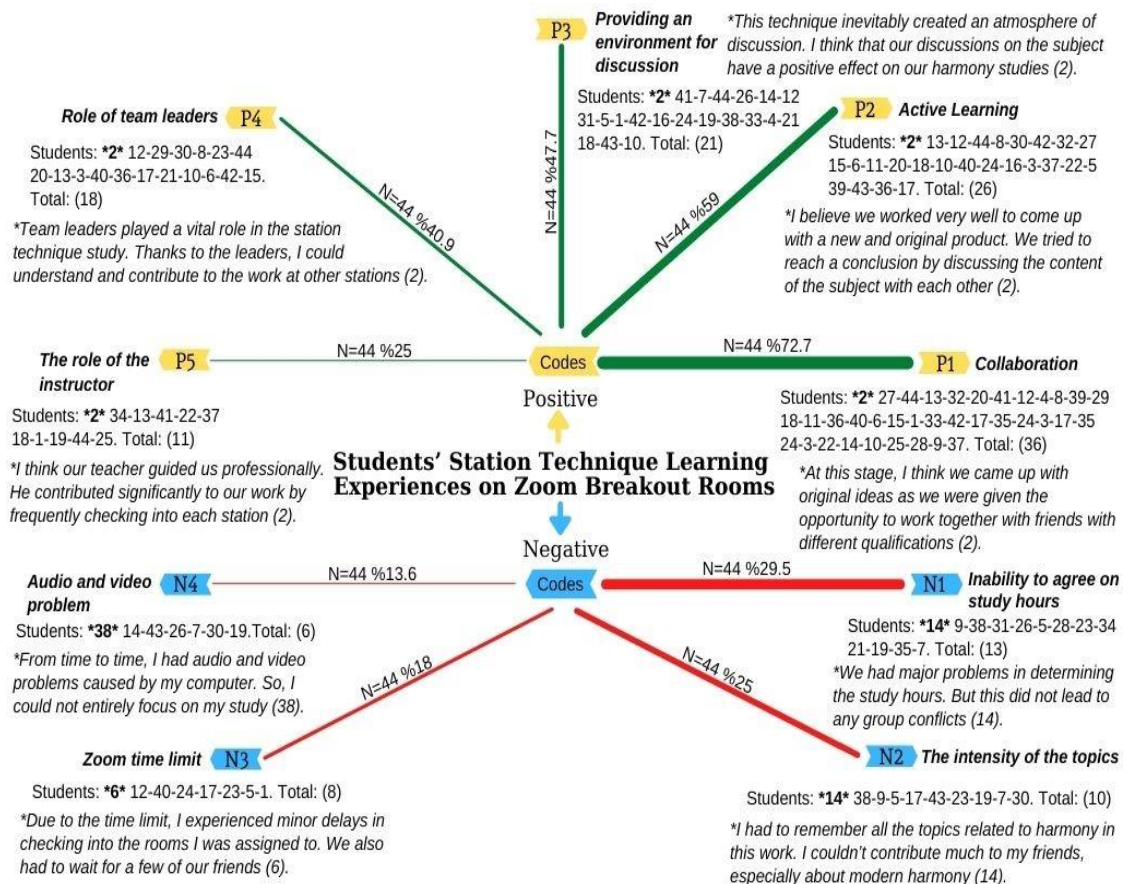


According to Figure 10, students predominantly focused on positive codes and sporadically on negative codes related to the third research question. It is understood that some students occasionally experience difficulties both scanning QR codes and connecting to the internet. Fortunately, the students mentioned that the impact of these problems was short-lived. The majority of students reported having learning experiences that enhanced their learning process. Additionally, among all the experiences, the highest total student distribution was observed for the negative code N1 (Total: 40).

In this section, to answer the fourth research question, the students learning experiences with the Station Technique in Zoom Breakout Rooms were explored by asking the question, "Can you tell us about your learning experiences with the station technique in Zoom breakout rooms? Did you encounter any advantages or disadvantages?" The students' learning experiences are depicted in the relationship map presented in Figure 11.

Figure 11.

Relationship Map of Students' Station Technique Learning Experiences in Zoom Breakout Rooms

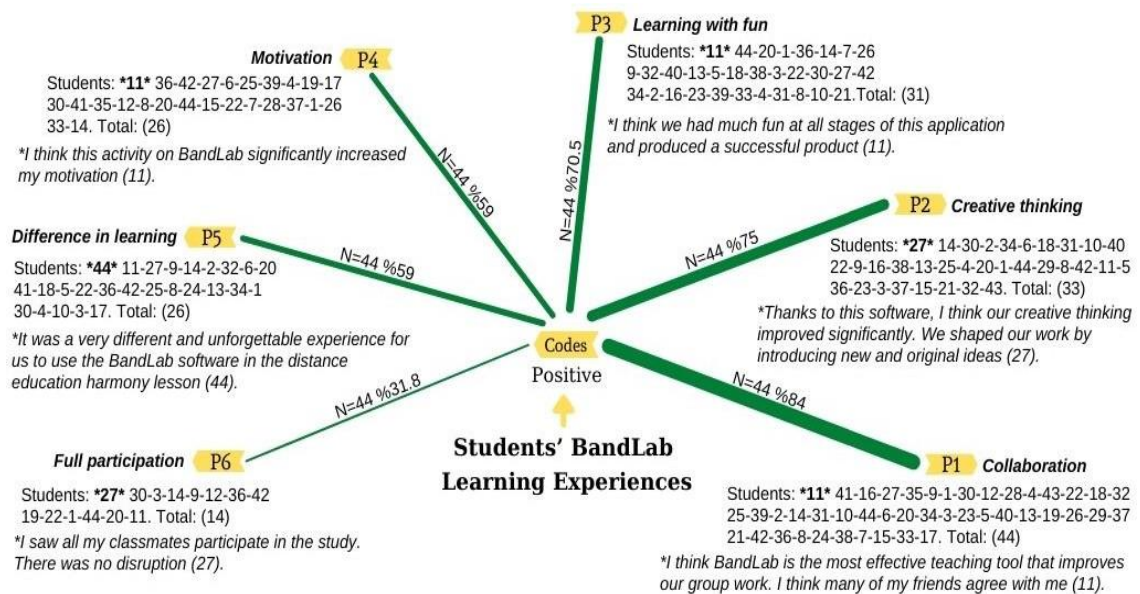


According to Figure 11, students predominantly focused on negative codes related to the fourth research question in their experiences with the Station Technique in Zoom Breakout Rooms. Despite this finding, students expressed their views mainly through positive codes. Notably, Student 2 had the highest weighted score on positive codes across the board, an interesting observation. Influenced by the instructor and team leaders, creating both a discussion and an active learning environment contributed to students' strong inclination toward the collaboration code. Although the highest number of negative codes emerged during this process, students did not express any negative views regarding the content of the Station Technique.

This section aimed to answer the fifth research question by responding to the interview question, "Can you tell us about your learning experiences on the Bandlab platform? Did you encounter any advantages or disadvantages?" Students' learning experiences are presented in the relationship map depicted in Figure 12.

Figure 12.

Relationship Map of Students' Bandlab Learning Experiences



As shown in Figure 12, students primarily focused on positive codes related to the fifth research question. The fact that all students (n= 44) mentioned the concept of collaboration, which ranks first, suggests that BandLab is a highly effective teaching tool. Unlike other experiences, this study revealed the attainment of contemporary educational concepts such as "creative thinking" and "diversity in learning." Additionally, it is noteworthy that students have equally emphasized codes P4 and P5.

Results and Discussion

The combination of the Flipped Learning model and Station Rotation formed the foundation of the experimental procedure in this study. The findings align with similar studies in the literature that have employed the combination of Flipped Learning and Station Rotation models (Govindaraj & Silverajah, 2017; Nurkamto et al., 2019). For instance, Smalls (2019) implemented both Station Rotation and Flipped Learning models simultaneously at the secondary school level and observed an increase in both class and district assessment scores. In another study that evaluated these two models separately, the findings showed that students who used the Flipped Learning model achieved higher learning outcomes (in social studies) than students who used the Station Rotation learning model (Sanubari, 2022).

This study, in line with the findings of Lai (2021) and Ng (2022), has demonstrated that the Flipped Learning model is an effective method in relation to the first research question. However, some students have expressed concerns about additional workload, similar to the findings of Wanner et al. (2015). Students have also raised concerns about

the duration and content of instructional videos. According to Birgili and Demir (2021), low-quality and lengthy videos contribute to decreased motivation in students' experiences with the Flipped Learning model. Sever (2014) suggests that a well-designed instructional video for the Flipped Learning model should be concise and comprehensible. In the current study, the instructional videos were prepared to be engaging and within a duration that does not overwhelm students (Yıldız and Otacıoğlu, 2017), approximately ranging from 7 to 12 minutes (Ng, 2022). Short videos used in music education facilitate students' progress (Vaizman, 2022).

Concerning the second research question, the "P1" code that students are predominantly engaged with suggests that YouTube provides students with easy access anytime and anywhere, consistent with the literature (Alp & Kaleci, 2018; Clifton & Mann, 2011). In this study, YouTube was not used as a live teaching tool since there was a high possibility of encountering various communication problems in live lessons conducted through YouTube (Baki & Çelik, 2021). However, it was considered beneficial to deliver the instructional videos prepared for the experimental procedure to students through the YouTube platform (Serçemeli & Kurnaz, 2020).

Related to the third research question, QR codes enabled students to instantly access the videos on the YouTube lesson support platform. Study group students emphasized QR codes functions, such as low cost, ease of use (Zhang et al., 2015), motivation-enhancing (Palazón & Giráldez, 2018), and enjoyable learning experience (Özkaya et al., 2015). However, in contrast to these findings, Wells (2012) pointed out that conservatory music students experienced internet access issues during an activity involving QR codes, consistent with the current study. In addition, it was observed that 40 students had difficulty scanning the QR codes in the current study. It can be said that the researcher should have been more prepared and careful about such problems. Sever (2019) also pointed out that two students could not scan the codes located in the middle of a page in a QR code game study they developed for Suzuki violin lessons. Responding to this problem, all QR codes were repositioned on documents at different angles and with more spacing before being sent to the students.

The study conducted by Kalogiannakis and Papadakis (2017) found that the use of mobile technologies in environmental education improves students' attitudes towards curriculums. In line with this finding, this study highlights the learning benefits of using QR codes and mobile technologies, and it also supports the findings of previous studies in the literature (Ceipidor et al., 2009; Crompton, 2013; Lai et al., 2013; Lai & Hwang, 2014).

In relation to the fourth research question, students were encouraged to engage in collaborative, interesting, and active learning activities (Li et al., 2021). They had the opportunity to socialize with each other (Davis et al., 2021) with the support of Zoom breakout rooms and station techniques. In the current study, a collaborative working environment (Romero-Ivanova et al., 2020) was created in break rooms to facilitate more efficient group work on projects. In addition, group leaders provided significant convenience for both students and researchers. In previous studies, students have

expressed the need for team leaders in Zoom breakout room-supported activities (Lee, 2021).

Regarding the fifth research question, this study demonstrated that BandLab triggered collaboration and creative thinking behaviors in students, consistent with the findings of Bilevičiūtė (2020) and Harris and Carroll (2020). The other positive codes identified by students also indicated the different advantages of BandLab.

The experimental procedure revealed a potential power for enhancing students' achievement levels, attitudes, and perspectives towards the course. The quantitative findings obtained with the achievement test and the attitude scale confirmed the first, second, and third hypotheses of the study. Accordingly, it was seen that the education applied to the experimental group students was effective in composition, tonal harmony, model harmony, contrepunt, accompaniment figure, orchestration, and lyricizing skills.

Delimitations and Implications

The present research has some delimitations. First, testing the research on a larger sample could yield richer and more diverse findings for music educators. Secondly, this study was conducted for harmony lessons, and further research could explore similar findings in other music subjects. Thirdly, and most importantly, both the attitude scale and achievement test findings did not clearly distinguish the effects of Flipped Learning and Station Rotation models. In other words, these two models were not treated as the first and second independent variables. Lastly, organizing such innovative studies to cover both distance and face-to-face education could offer different perspectives on music education. In addition, this study can be further developed and tested based on blended learning. This experimental study, conducted during the COVID-19 pandemic, is currently being continued, enriched, and renewed in the face-to-face education process with the reutilization of the Zoom platform as of 2022.

Recommendations

According to Govindaraj and Silverajah (2017), "even though there are many studies conducted on the effects of station-rotation and the flipped classroom model on students learning, there have been inadequate reported attempts to understand the impact of the combination of these models in a single research setting" (p. 74). The current study aims to contribute to addressing this gap by providing an alternative approach. In further research, the effectiveness of this alternative approach can be discussed through experimental studies.

Based on the fact that distance education requires higher motivation, this study presented an alternative and modern pedagogical approach for the harmony lesson. Quantitative and qualitative data measured students' learning experiences from different perspectives and produced rich and detailed results that supported each other. Findings emphasized the positive effects of using student-centered teaching approaches and technology-based teaching materials together in a systematic cycle.

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Genişletilmiş Türkçe Özet

Armoni derslerinde literatürle benzer şekilde karşılaşılan bazı sorunlar bu çalışmanın tasarlanmasında etkili olmuştur. Bu sorunlardan bazıları şunlardır: öğrencilerin müzikal öğrenme kayıplarının derinleşmesi (Camlin ve Lisboa, 2021), öğrencilerin internet erişimiyle ilgili sorunlar (Nichols, 2020; Vaizman, 2022), teknolojik ekipman eksikliği (Rucsanda vd., 2021) ve çevrimiçi öğretimin ders etkinliklerini planlama açısından çok zaman alıcı olması. Pandemi sürecinde yürütülen Armoni dersinde yaşanan bu olumsuzluklar karşısında bazı modern pedagoji içerikli çalışmalar incelenmiştir. Harmanlanmış öğrenme içerisinde yer alan ters yüz öğrenme modeli ve istasyon rotasyon modelinin (Clayton Christensen Enstitüsü, 2020) tek bir araştırma ortamında birleştirilme önerisi (Govindaraj ve Silverajah, 2017) mevcut çalışmanın planlanmasında yol gösterici olmuştur. Araştırma soruları ve hipotezleri aşağıdaki gibidir:

AS1. Ters yüz öğrenme modelinin öğrencilerin öğrenme deneyimleri üzerinde ne gibi etkileri vardır?

AS2. YouTube ders destek platformunun öğrencilerin öğrenme deneyimleri üzerinde ne gibi etkileri vardır?

AS3. QR kodlarının öğrencilerin öğrenme deneyimleri üzerinde ne gibi etkileri vardır?

AS4. Zoom breakout rooms üzerinde uygulanan istasyon tekniği rotasyon modelinin öğrencilerin öğrenme deneyimleri üzerinde ne gibi etkileri vardır?

AS5. BandLab platformunun, öğrencilerin öğrenme deneyimleri üzerinde ne gibi etkileri vardır?

Hipotez 1. Deney ve kontrol grubu öğrencilerinin çevrimiçi armoni dersine ilişkin başarı düzeyleri arasında deneysel prosedür öncesi anlamlı bir fark olmayacaktır.

Hipotez 2. Deney ve kontrol grubu öğrencilerinin çevrimiçi armoni dersine ilişkin başarı düzeyleri arasında deneysel prosedür sonrası anlamlı bir farklılık olacaktır.

Hipotez 3. Deney ve kontrol grubu öğrencilerinin çevrimiçi armoni dersine ilişkin tutumları arasında deneysel prosedür sonrası anlamlı bir farklılık olacaktır.

Bu araştırma, açıklayıcı sıralı karma yöntem deseni ile tasarlanmıştır. Araştırmanın deneysel prosedürü, Türkiye’de ki bir devlet üniversitesinin müzik öğretmenliği bölümünde öğrenim gören 2. sınıf lisans öğrencilerinin katılımıyla yürütülmüştür. Deney grubu 44 öğrenciden (25 kız ve 19 erkek); kontrol grubu ise 42 öğrenciden (19 kız ve 21 erkek) oluşmuştur. Araştırmada veri toplama aracı olarak Yıldız vd. (2021) tarafından geliştirilen “Pandemi Sürecinde Uzaktan Eğitim Ortamlarının Kullanımına İlişkin Tutum Ölçeği”, araştırmacı tarafından geliştirilen “Başarı Testi” ve “Yarı Yapılandırılmış Görüşme Formu” kullanılmıştır. Nicel verilerin analizinde Kolmogorov-Smirnov analizi, nitel verilerde ise içerik analizi kullanılmıştır.

Birinci hipotezle ilişkili olarak, deney ve kontrol grubunun ön test puanlarının birbirlerine yakın olduğu ve puanlar arasında anlamlı farklılık olmadığı görülmüştür ($p > .05$). İkinci hipotezle ilişkili olarak, deney grubu öğrencilerinin son test puanlarının ($\bar{x} = 74.09$), ön test puanlarından ($\bar{x} = 50.34$) anlamlı düzeyde yüksek olduğu tespit edilmiştir ($t_{[43]}$, $p < .01$). Kontrol grubunun ise işlem öncesi ve sonrası puanlarında anlamlı farklılık olmadığı saptanmıştır ($p > .05$). Üçüncü hipotezle ilişkili olarak, deney grubunun tutum toplam ve faktör puanlarının kontrol grubuna göre anlamlı düzeyde daha yüksek olduğunu görülmüştür ($p < .01$).

Öğrenciler, ters yüz öğrenme modeli, Youtube ders destek platformu, QR kodları, Zoom Breakout Rooms ve BandLab öğrenme deneyimleri içerisinde yoğun olarak pozitif kodlara yönelmişlerdir.

Bu araştırmada uygulanan ters yüz öğrenme modeli ve istasyon tekniğinin kombinasyonu, literatürdeki benzer çalışmalarla (Govindaraj ve Silverajah, 2017; Nurkamto vd., 2019) tutarlı bulgular ortaya koymuştur. Örneğin Smalls (2019), ortaokul düzeyinde istasyon rotasyonu ve ters yüz öğrenme modellerini bir arada kullanmış öğrencilerin hem sınıf hem de bölge değerlendirme puanlarında artış sağlamıştır.

Birinci araştırma sorusuyla ilişkili olarak bu çalışma, Lai'nin (2021) ve Ng'nin (2022) bulgularını takip ederek ters yüz öğrenme modelinin etkili bir yöntem olduğunu göstermiştir. Buna karşılık bazı öğrenciler, Wanner vd. (2015) çalışmalarında olduğu gibi ek iş yükü kaygısına dikkat çekmişlerdir. Öğrenciler, ders videolarının süresi ve içeriği ile ilgili kaygılarını da belirtmişlerdir. Birgili ve Demir'e (2021) göre öğrencilerin ters yüz öğrenme modeli deneyimlerindeki motivasyon düşüklüklerine, uzun süreli ve düşük kaliteli videolar sebep olmaktadır. Sever'e (2014) göre ters yüz öğrenme modeli için iyi planlanmış bir ders videosu mümkün olduğunca kısa ve anlaşılır olmalıdır. Mevcut araştırmada ki ders videoları, ilgi çekici ve öğrenciyi sıkmayacak sürede (Yıldız & Otacıoğlu, 2017) yaklaşık olarak 7 ile 12 dakika arasında (Ng, 2022) hazırlanmıştır. Çünkü müzik eğitiminde kullanılan kısa videolar, öğrencilerin ilerlemelerini kolaylaştırmaktadır (Vaizman, 2022).

Öğrencilerin araştırmanın ikinci sorusuyla ilişkili olarak birinci sırada yöneldikleri "P1" kodu, literatürle tutarlı olarak YouTube'un öğrencilere her yerde ve her zaman kolay bir erişim fırsatı sağladığını göstermiştir (Clifton ve Mann, 2011; Alp ve Kaleci, 2018). Bu çalışmada, Youtube platformu bir canlı ders aracı olarak kullanılmamıştır; çünkü Youtube üzerinden yapılan canlı derslerde çeşitli iletişim problemleriyle karşılaşılması (Baki ve Çelik, 2021) büyük bir olasılıktır. Deneysel prosedür için hazırlanan eğitici videoların Youtube platformu üzerinden öğrencilere sunulmasının faydalı olabileceği (Serçemeli ve Kurnaz, 2020) düşünülmüştür.

Üçüncü araştırma sorusuyla ilişkili olarak QR kodları, öğrencilerin Youtube ders destek platformunda ki videolara anında ulaşabilmelerini sağlamıştır. Öğrenciler, QR kodunun düşük maliyetli, kolay (Zhang vd., 2015), motivasyonu artırıcı (Palazón ve Giráldez, 2018) ve eğlenerek öğrenme (Özkaya vd., 2015) gibi fonksiyonlarına dikkat çekmişlerdir. Bu sonuçlara karşılık Wells, (2012) konservatuvar müzik öğrencileri için

hazırladığı QR kodu içerikli bir etkinlikte, mevcut çalışmada olduğu gibi öğrencilerin internet erişimi ile ilgili sorun yaşadıklarına dikkat çekmiştir.

Dördüncü araştırma sorusuyla ilişkili olarak öğrenciler, zoom breakout rooms ve istasyon tekniği desteğiyle işbirlikçi, ilgi çekici ve aktif öğrenme etkinliklerine teşvik edilmiş (Li vd., 2021), birbirleriyle sosyalleşme (Davis vd., 2021) imkanı bulmuşlardır. Mevcut çalışmada öğrencilerin grup projeleri üzerinde daha verimli çalışabilmeleri için ara odalarda işbirlikçi çalışma ortamı (Romero-Ivanova vd., 2020) oluşturulmuştur. Ayrıca grup liderleri, hem öğrenciler hem de araştırmacı için önemli kolaylıklar sağlamıştır. Öğrenciler geçmişteki araştırmalarda, zoom breakout rooms destekli çalışmalarda ekip liderlerine ihtiyaç duymuşlardır (Lee, 2021). Beşinci araştırma sorusuyla ilişkili olarak bu araştırma, Bileviçiüté (2020) ile Harris ve Carroll'un (2020) bulgularını takip ederek BandLab'in öğrencilerde işbirliği ve yaratıcı düşünme davranışlarını tetiklediğini göstermiştir.

Ethics Committee Approval: Ethics committee approval was obtained from the Ataturk University Scientific Research and Publication Ethics Committee in the Field of Social and Human Sciences with the decision numbered E-56785782-050.02.04-2100313818 on November 21, 2021.

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An Overview of Digital Storytelling Studies in Classroom Education in Turkey

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Abstract: The purpose of this study is to analyze the findings of studies on digital storytelling in the field of classroom education in Turkey using the systematic review method and determine the type of distribution that exists. The study analyzed 36 scientific publications made until the end of 2021. ERIC, Web of Science, Ulakbim, Google Scholar and National Thesis Center databases of the Council of Higher Education were used in the selection of the studies. Each of the theses and articles were analysed by content analysis and the results obtained from the research were examined in terms of digital storytelling tools. In the interpretation of the data obtained, tables were used and only frequencies were included numerically in the tables. As a result of the analysis, it was observed that the outputs of all categories in the studies using desktop applications were mostly obtained from Photostory. When we look at the results of the studies in which web-supported tools were used, it was determined that the cognitive outputs were mostly obtained from the studies in which Powtoon and Tondoo tools were included in the implementation process. Similarly, the data revealed in terms of social and teaching aspects were obtained from studies dealing with Powtoon as a digital storytelling tool. Goanimate software was generally used in studies involving technological and affective findings. It was determined that the results evaluated under the psychomotor title were generally obtained from studies in which Goanimate and Storyjumper were used. Based on these results, in order to reach web 4.0 technology, virtual libraries that contain digital stories can be created in schools in Turkey. In rural areas that are unable to access the Internet, mobile libraries can be prepared.

Keywords: Digital Storytelling, Classroom Education, Systematic review

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Introduction

Advances in technology that have occurred or been experienced have accelerated the conduct of more scientific studies (Aydın, 2018). As a result of these developments, the thoughts concerning the characteristics of students began to change (Tumay & Köseoğlu, 2011). Therefore, it has been emphasized that today's education should give individuals life skills such as communication, problem solving and critical thinking, as well as knowledge skills such as science literacy (İspir & Yıldız, 2021). These skills, which are generally expressed as 21st century skills, have been among the main topics of many educational research (Binkley et al., 2012). Therefore, diversity has been provided in many tools and resources, as well as different methods and techniques in educational environments (Smeda et al., 2014). In this context, stories have come out as one of the methods in which students can play an active role in the learning environment and reveal their own products by doing and experiencing (Robin, 2008).

Kukul and Kara (2019) described stories of various types as effective tools for communicating any message or passing on people's experiences and knowledge to future generations. Thus, storytelling has been used throughout history for the preservation of heritage through learning-teaching strategies (Condy et al., 2012; Wang & Zhan, 2010). In other words, storytelling, which has been used in the transfer of knowledge from one generation to the next, has been a popular and effective tool from ancient times to the present (Smeda et al., 2014). In this context, stories were considered as the oldest form of education (Reinders, 2011). From this aspect, storytelling has been considered as a natural way of human communication used to better understand complex ideas, concepts or information (Chung, 2006). In addition, as Raven and O'Donnell (2010) stated, the stories were used to strengthen the message given since the meddahs by making use of dance, poetry and music. However, today, this situation necessitated creating a different meaning from the current understanding with the technological explosion and globalization, and traditional life has started to transform as a necessity. Turkish education policies and system have also been directly affected by all these changes. Thus, as of 2006, the constructivist approach has been adopted in the Turkish National Education System and the effective use of technology in education has become a necessity (Yürük & Aıcı, 2016). In this respect, stories that are constantly used in education have been moved to digital environments especially with the development of technology, and Web 2.0 tools. Thus, recently emerging digital storytelling has become a frequently used method for integrating technology into educational environments (Kukul & Kara, 2019).

The foundations of digital storytelling, which has been popular in recent years, are based on digital storytelling centers established in San Francisco, under the leadership of Joe Lambert, his wife Nina Mullen, and her colleague Dana Atchley in the mid-1990. Today, this movement has now spread across the United States to large countries like China and has rapidly expanded worldwide (Mangal, 2020). In this process, many definitions and descriptions of digital storylines were made and most of them were shaped around similar ideas. The aforementioned definitions have often focused on storytelling and the

integration of different digital media tools. Therefore, digital storytelling can be defined as modernizing or electronically describing traditional storytelling with technology in the most basic sense (Razmia et al., 2014; Reinders, 2011). In addition, digital storytelling can be expressed as a technology application that is positioned to enable users to take advantage of the content they contribute and teachers to use the technology efficiently in their classrooms (Robin, 2008). Digital storytelling, on the other hand, can be explained as a developing technique that helps people tell their real lives using digital elements such as text, pictures, audio and video (Song et al., 2012).

Multimedia elements mentioned above are often combined using computer software to tell stories that are shaped around a theme or subject. Students and teachers can use free or low-cost, user-friendly, interactive Web 2.0 tools such as Toondoo, Goanimate, Storyjumper (Nelson et al., 2009; Robin & Mcneil, 2013) and computer software such as Microsoft Photo Story 3, Microsoft Windows Movie Maker. This allows multimedia presentations to be combined from scratch or the applications of independent web service providers to be integrated. These digital stories have a relatively short format and a length of between 2 and 10 minutes. They are recorded digitally via a computer or other device that can play video files. In addition, digital stories can typically be uploaded to the Internet via any popular web browser (Robin, 2016). In this respect, digital storytelling can be considered a short, personal, esthetic, creative element based on the use of multimedia tools to create stories and share information (Meadows, 2003; Sawyer & Willis, 2011). Taking into account the definitions in the literature, digital storytelling can be described as an artistic and innovative method in which scenarios made on a particular topic are digitalized using multimedia tools; an effective pedagogical tool that enables students to develop skills such as communication, collaboration and reflection. This means that digital storytelling is important for individuals to develop and move forward and serves different functions.

Developing digital storytelling, above all, allows students to combine digital images and verbal expressions to tell their own stories (Kajder & Swenson, 2004). Digital storytelling helps to support all the skills required for the 21st century such as visual literacy and collaboration. It also encourages creativity and problem solving (McLellan, 2006). Digital storytelling allows users to interact more and shape the story rather than just traditional storytelling, where the users are only listeners (Dörner et al., 2002). Digital storytelling also gives the user the opportunity to apply the story in real life by giving control to the user and to reinforce it by repetition (Balaman, 2016) and to think about how to create story content by animating it in their minds. As a result, as the literature review revealed digital storytelling can be considered a strong model for creating constructivist e-learning environments. However, the novelty of learning technology, the difficulty of creating a meaningful narrative, and the combination of the relevant images and the choice of sounds creates noise when trying to reconcile with the preexisting schema in the mind (Garcia & Rossiter, 2010). In the digital storytelling process, those who have not written a story before can have difficulties in making fiction and determining characters (Erdoğan, 2021). In addition, other problems are that digital storytelling is not appropriate for all levels (Aslan & Kazu, 2021) and is not available for

its intended purpose if it is perceived as a game (Karaoglan-Yılmaz et al., 2018). Therefore, studies are being carried out on which steps digital stories will be followed.

In terms of how to create digital stories, researchers have shown different stages with different numbers and names. Wawro (2012) described the digital story creation process in six stages. In the first stage, stories for the selected topic are written. The stories that are written are then recorded. In the third stage, the images should be collected or created, and in the fourth stage, they should be added to the software. Then, effects are given to the film if the software is suitable. In the final stage, the work is converted to video format. Barrett (2009), on the other hand, collects the stages in the process of creating digital stories under six headings: developing a scenario, audio recording and editing, collecting visuals, combining sound and footage in a timeline and adding music tracks, using optional effects, presenting and publishing. Although the process of creating digital storytelling is explained with different names and stages in the literature, it is seen that this process consists of basic elements such as creating text, vocalizing, collecting pictures, adding music and presenting the digital product. This means that effective digital storytelling is the result of the integration of multimedia sources such as the appropriate amount of text, audio, image and video (Chung, 2007). In this context, the specified elements can be combined by using some computer and web software in the digital storytelling process. In addition, the stages expressed can be discussed in many areas such as art and health, where digital storytelling is emphasized.

Digital storytelling, which is used in different vocational branches, has also been integrated into education. Therefore, it is used as a learning tool in schools and teaching programs. As a result of the changes in students' interests, expectations and needs, it can be argued that digital storytelling is a powerful tool for students and teachers in educational environments (Robin, 2006). In this way, students can gain desired behaviors through digital storytelling, which can be effective in creating change in individuals. In addition, in digital storytelling, if the stories are not made into a routine and prepared in different ways, both the motivation and success of the individuals for the lesson can increase. Digital storytelling applications, which will be created by considering the listed stages, can enable individuals to be more effective in education and contribute to more reliable and valid results in research on digital storytelling. An inclusive framework for creating digital stories is needed to facilitate exploitation of the stated benefits.

When the literature is examined, it is observed that there has been an increase in research on digital storytelling in Turkey in recent years. As a result of various researches on digital storytelling in learning environments, digital storytelling has been determined to help enrich the learning environment and learning experiences in the classroom (Sadik, 2008), and increase academic success, motivation and learning strategies (Demirer, 2013). Digital storytelling contributes to developing creative thinking (Karakuş et al., 2020; Özen & Duran, 2021) and thus empowering students intellectually and culturally (Benmayor, 2008). On the other hand, digital storytelling improves writing performance (Gider, 2019) and raises the attitude towards the course and the entrepreneurial spirit (Mangal & Kurtdede-Fidan, 2022). In this respect, the results of digital storytelling studies

conducted at each stage of the education, including kindergarten (Preradovic et al., 2016), primary school (Niemi & Niu, 2021), secondary school (Özen & Duran, 2021), high school (Ayvaz-Tunç, 2017) and university (Aslan & Kazu, 2021) were generally found to be similar. This shows that the method is suitable for all ages and is versatile. However, Karademir (2020) concluded that digital storytelling does not make a significant difference to the development of collaboration and communication subskills compared to traditional storytelling. This result may be due to the fact that the technological fiction of the story could not be created effectively or was performed incorrectly. Thus, it can be said that correct guidance and good preparation can positively influence the skills that are intended to be gained by increasing both the direct and indirect impact of digital storytelling.

When the national literature was examined, no systematic review studies were found on digital storytelling research in the field of classroom education. In addition, there is no study in the literature that examines the results of digital storytelling in terms of tools. In this context, it is seen that the software that facilitates digital story development and the important points about the software are not presented clearly enough. This study is thought to provide guidance on digital storytelling tools and the results obtained by using these tools. Since digital storytelling tools are analyzed in depth in the study, it is expected that the findings will shed light on those who will do research on digital storytelling. In line with the stated reasons, the aim of the study is to analyze the results of the studies on digital storytelling in the field of classroom education in Turkey with the systematic review method and to determine what kind of distribution exists. Within the scope of this purpose, answers to the following questions were sought:

In Turkey, digital storytelling studies carried out in the field of classroom education;

1. How was it evaluated in terms of the scientific process?
2. How was it evaluated socially?
3. How was it evaluated in terms of technology?
4. How was it evaluated in terms of teaching?
5. How was it cognitively evaluated?
6. How was it evaluated in terms of psychomotor perspective?
7. How was it evaluated in terms of affective perspective?

Methodology

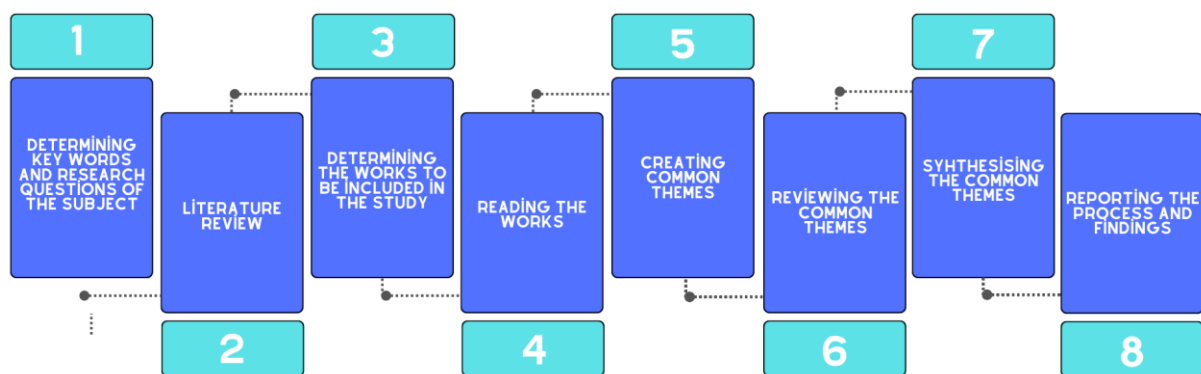
Research Design

This research is a systematic review study. A systematic review is a means of identifying, evaluating and interpreting all available research on a particular research question, topic area, or phenomenon of interest (Denyer & Tranfield, 2009; Kitchenham, 2004).

In systematic reviews, it is known that the data or results obtained from quantitative and qualitative studies are clearly integrated (Pluye & Hong, 2014). For this reason, a total of 36 studies, including 16 theses and 20 articles on digital storytelling, conducted in the field of Classroom Education in Turkey, were analyzed by the researchers. The stages followed in this process are shown in Figure 1 based on the study of Polat and Ay (2016).

Figure 1.

Stages Followed in the Research Process



Data Collection

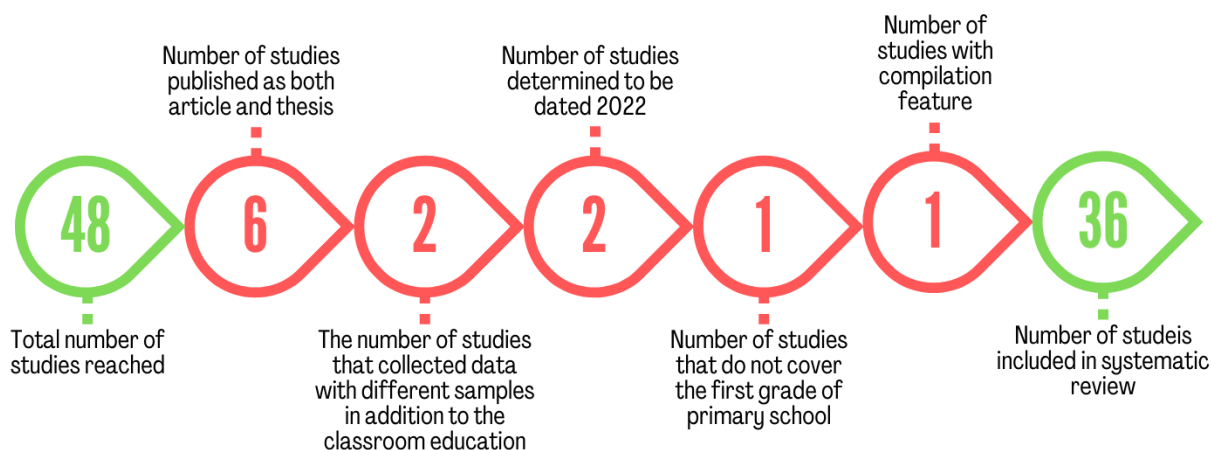
As academic publication types, articles and postgraduate theses were included in the research. In the study, the keywords "digital narrative, digital story, digital storytelling," were used for searching. According to the keywords identified, the literature was searched from the databases of ERIC, Web of Science, Ulakbim (TR Directory), Google Scholar and the National Thesis Center of the Council of Higher Education. As a result of the scanning, a total of 48 scientific studies, 24 articles and 24 theses, were identified in accordance with the selected topic. Subsequently, the abstracts of the publications were read carefully by the researchers. In cases where the summaries of published articles and theses were not considered sufficient to make a decision, the entire text was examined. Thus, studies that did not meet the selection criteria were excluded from the analysis. In this respect, in addition to classroom education, data collected ($n=2$) with different samples and determined to be dated 2022 ($n=2$) were not analyzed. Although the phrase "primary school" was mentioned in the title, 6 scientific studies that were not conducted with primary school students or teachers ($n=1$) and had the feature of compilation ($n=1$) were excluded. In addition, only studies published as articles ($n=6$) were taken into account in order not to repeat the data in studies published as both articles and thesis. For the theses and articles included in the research, the selection criteria listed below were taken into account and the flow diagram for the inclusion process of the documents is presented in Figure 2.

- Research is located in ERIC, Web of Science, Ulakbim (TR Directory), Google Scholar or National Thesis Center of the Council of Higher Education.
- The title, summary or keywords contain one of the phrases "digital story", "digital narrative", "digital storytelling",.

- The research was published by 31 December 2021 at the latest.
- The people who make up the study group are selected only from the field of classroom education (primary school first level students, classroom teachers or classroom teacher candidates).
- The research was conducted in Turkey.
- The full text of the research is available or accessible.
- The research is whether an article or a thesis.
- The studies are written in English or Turkish.
- The purpose, method, study group, data collection tools, data analysis, findings and results should be expressed clearly, and intelligibly in the research.

Figure 2.

Selection of Documents Suitable for Systematic Review



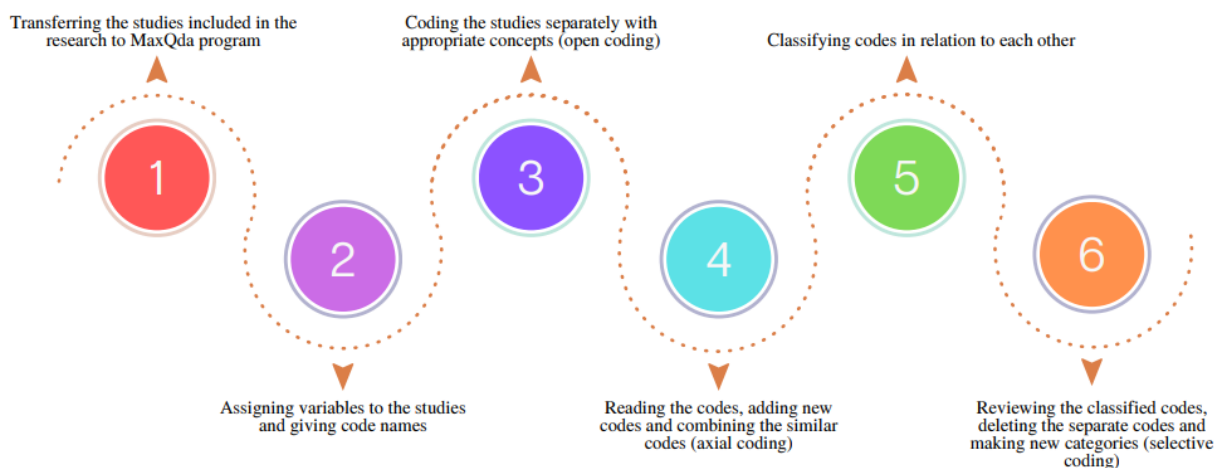
Coding Process

First of all, the sections related to the categories of each study included in the research were read in detail in the MaxQda 2022 program. In addition, each study examined was named as A1, A2, A3... A36 in order to avoid data confusion and these code names were used in the study. Then, all the documents included in the study were examined and coded in terms of the main categories considered. All coding was completed in three stages in a controlled manner. Three stages are classified as open coding, axial coding and selective coding (Neuman, 2012). Within the scope of open coding, the basic outputs, findings and results in the studies examined were coded separately for each study with appropriate concepts. In the axial coding phase, the studies were read in depth and adding new codes to the first encoding and combining similar codes in subsequent studies. At the end of this process, the codes were classified in relation to each other in order to obtain common categories. In selective coding, another selective reading is performed to identify new codes that may be relevant to previously generated codes. Classified codes were reviewed, identical codes were deleted, codes that were not in the appropriate category were removed or revised, and new categories were created. After the coding processes of the studies included in the research were carried

out, the frequency values for the main and sub-categories were determined. The stages followed in the coding process are shown in Figure 3.

Figure 3.

Stages Followed in the Coding Process



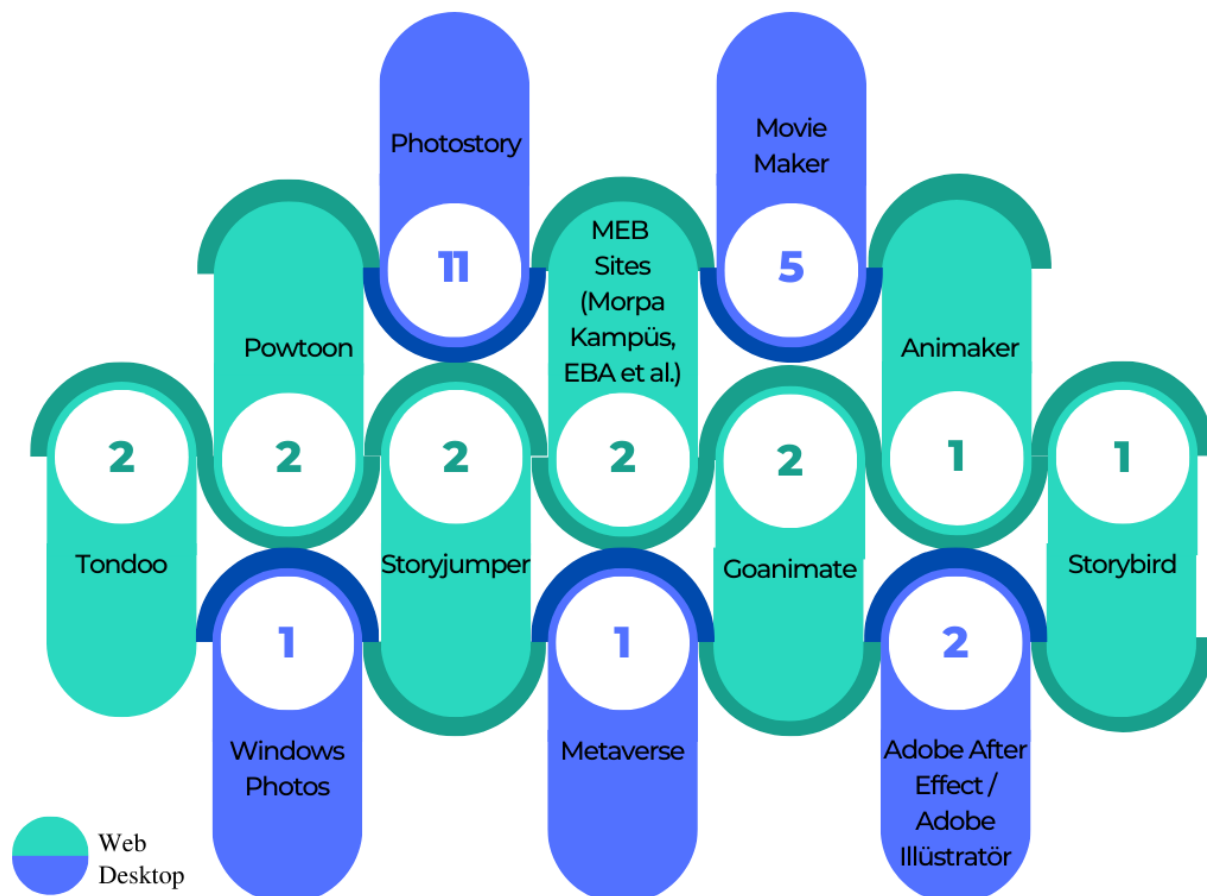
Data Analysis

A comprehensive content analysis was done with the documents. Content analysis, which is frequently used in the field of social sciences, is a systematic and repeatable analysis method in which a text is summarized in smaller categories with certain coding (Büyüköztürk et al., 2015). The studies examined in the research went through some stages while being subjected to content analysis. After accessing the publications used in the research, first of all, the studies were divided into categories in terms of main criteria. In this respect, tables have been prepared in order to present the studies included in the research as a summary. The main reason that the data was presented like this is to provide an idea at first glance about the studies investigated and to increase the visibility. Only frequencies are given numerically in the tables. The frequencies reached as a result of the content analysis allow comparisons to be made for the classifications created during the analysis of the studies. However, numerical expressions are considered important in terms of revealing whether similar results are obtained if the study is repeated.

When the results of 36 digital storytelling studies carried out in the field of Classroom Education in Turkey are considered in terms of the tools, it was seen that no explanation was made about the digital storytelling tool used in 7 studies (A2, A3, A7, A8, A19, A26, A27). In another study (A25), it was found that sample tools such as Prezi, Powtoon and Moovly were introduced before starting the teaching practices, but it was not clearly specified which digital storytelling tools would be used. However, in 6 studies (A10, A13, A17, A20, A23, A31), it was found out that two digital storytelling tools were used together. The stated digital storytelling tools and the number of their use in the studies are shown in Figure 4.

Figure 4.

Digital Storytelling Tools and the Number of Tools Used in Studies



In addition to the digital storytelling tool, the other components examined in the studies and used in this research are the sample level and the implementation time. The sample of the studies that are considered generally consists of primary school students (18 studies in fourth grade, 5 studies in third grade, 4 studies in second grade) and undergraduate students (6 studies in third grade, 2 studies in second grade, 1 study in fourth grade). In one study, classroom teachers and undergraduate students were preferred as samples, but undergraduate degrees were not specified. In addition, when looking at the studies examined, it was seen that digital storytelling tools were generally limited to 6-10 weeks (n=15). In addition, it was determined that 6 studies were completed within 1-5 weeks; 7 studies were carried out for 11-15 weeks and 8 studies did not directly include the implementation period. Considering the aforementioned components, a general interpretation was made under each table and the prominent parts of the studies were discussed according to their importance.

Validity and Reliability of the Research

In order to ensure validity and reliability in this study, the strategies listed by Yıldırım and Şimşek (2018) were used. The research primarily identified the selection, number and

exclusion reasons for the documents to be used in systematic review. The studies were examined for three months after they were downloaded from the databases in order to avoid any errors during coding. Thus, long-term interaction and depth-oriented data collection processes were carried out in the research. Subsequently, coding was done considering the research questions. For the validity of the codings, the analysis was reviewed in line with the main categories for a month and coding were found to be largely consistent. In addition, after the coding process was completed, necessary corrections were made by consulting a faculty member who is an expert in his field. The final version of the coding system and the code names assigned to the studies that constitute the study group are given additionally.

The purpose and questions of the study were clearly expressed to ensure validity and reliability. The data collection method and inclusion criteria were clearly explained for the validity of the findings. In addition, detailed explanations were made about the number of studies included in the research and their limitations. The analysis of the data and the creation of common themes are presented in detail. In addition, all the findings obtained from the studies were conveyed using descriptive expressions and direct quotations were used with the explanations given under each category.

In order to ensure the coding reliability of the study, a total of 4 publications (approximately 10% of the studies), 2 theses and 2 articles, were coded by the first researcher at two different times according to the coding template. The reliability of the codings and the level of compatibility with each other were calculated with the "inter-research agreement calculation" formula suggested by Miles and Huberman (1994):

$$\text{Reliability} = \left[\frac{\text{Consensus(Na)}}{\text{Consensus (Na) + Differences of Opinion (Nd)}} \right] \times 100$$

As a result of the calculation done with the above-mentioned formula, it is expected that the compatibility between the codes will be over 90% (Miles & Huberman, 1994). For this study, the coding concordance value performed by the researcher at two different times was determined as 89.5% and the relevant results are shown in Table 1.

Table 1.

Reliability Between Researchers' Codings at Different Times

Data Set	Amount of Match (Na)	Amount of Mismatch (Nd)	Percentage of Match (%)
A17	3	0	100.0
A18	11	2	84.6
A30	17	1	94.4
A34	3	1	75.0
Total	34	4	89.5

As a result of the second coding process, it was determined that creative thinking and enriching the course in the A17 coded study were different from the first coding. In

addition, it has been determined that communication for A18 coded study and the efficient use of time for the A30 coded study does not match with the first coding. These matching values show that the coding system of the study is reliable. All the validity and reliability measures carried out are presented in Table 2 in a holistic manner.

Table 2.

Practices on the Validity and Reliability of the Research

Strategy	Precaution	Practices
Internal Validity (Credibility)	Expert review	Expert opinion was sought on the subject of the research and the coding, and evaluations were made.
	Long-term interaction	In order to avoid any errors during coding, the studies were examined for three months after they were downloaded from the databases. For the reliability of the coding, the analyzes were reviewed for one month in line with the main categories.
	Using direct quotes	The results are presented in a descriptive way and direct quotations are frequently included.
External Validity (Transferability)	Detailed description	All stages of the research process are presented to the reader in a clear and detailed manner.
Internal Reliability (Consistency)	Compatibility between coders	The concordance values of the coding performed at two different times by the researcher were calculated.
External Reliability (Confirmability)	Verifiability of the research	In order to verify the findings reached as a result of the research, all the data obtained, the qualitative analysis of the data and all the documents related to the study were kept by the researcher.
		Thesis and articles, which constitute the study group of the research, and the coding system are shown as an appendix. The selection of the studies examined within the scope of the purpose and the reasons for the exclusion of the studies are stated.

Findings

In Turkey, the results of the digital storytelling studies carried out in the field of Classroom Education in terms of scientific process, social and technological aspects were examined in depth in terms of the tools. The general distribution of the data obtained as a result of the examinations is presented in Table 3.

Table 3.

Results Obtained in terms of Scientific Process, Social and Technological

Scientific Process, Social and Technological Outcomes	Scientific Process		Social		Technologic		Total	
	Doing Research	Cooperation	Bilateral Relations	Communication	Computer Use	Technological Literacy		
Web	Powtoon	-	A21	-	A21	-	-	2
	Tondoo	-	-	-	-	-	-	-
	Goanimate	-	A18	-	-	A12, A18	A18	4
	MEB Websites	-	-	-	-	-	-	-
	Animaker	-	-	-	-	-	-	-
	Storyjumper	-	-	-	-	-	-	-
	Storybird	-	-	-	-	-	-	-
Desktop	Photostory	A16, A30	A16, A30, A36	A30	A30	A4, A30, A31, A33, A34, A36	A36	14
	Moviemaker	-	-	-	-	A31	-	1
	Metaverse	-	-	-	-	-	-	-
	Windows Photograph	-	-	-	-	-	-	-
	Adobe After Effect	-	-	-	-	-	-	-
	Adobe İllustratör	-	-	-	-	-	-	-
	Total	2	5	1	2	9	2	21

Considering Table 3, it has been found out that social outputs are mostly obtained through desktop applications. It has been seen that only Photostory is used among the programs. According to the findings in this program, it was seen that cooperation was supported the most. On the other hand, it was observed that the communication and relationship dimension were addressed the least. Social outputs obtained through web software were obtained from studies using Powtoon and Goanimate tools. When the studies using these software were examined, three conclusions were reached about cooperation and two about communication. In the document coded A21, which is one of the related studies, different results were encountered for both cooperation and communication. For example, in the quantitative part of the study, it was determined that digital story applications did not have any effect on cooperation and communication sub-skills. This case was described in the study as, " it was concluded that Digital storytelling applications performed by the second-grade gifted students in primary school

did not have any effect on cooperation and communication sub-skills from learning and renewal skills." In the qualitative part of the same research, based on student opinions and the diaries that the researcher kept in the process; it has been stated that digital storytelling contributes to cooperation and communication skills. In another study (A18), it was underlined that digital storytelling provides peer learning as well as cooperation, and in this respect, "That they did digital storytelling studies in small groups provided the students work in cooperation and peer learning." statement is included. In general, it is noticeable that cooperation is coded the most among social outputs. In studies where no digital storytelling tool is specified (A2, A7, A27); cooperation, communication, peer relations, life and career skills are discussed. It has been observed that the outputs for these dimensions have positive effects.

On the other hand, considering Table 3, it was determined that technological outputs are mostly obtained through desktop applications. It has been determined that only Photostory and Movie Maker are used within the applications. When the findings in these applications are examined, it has been observed that computer and internet usage is mostly discussed, and technological literacy is mentioned the least. Similarly, the technological outputs obtained through web-based applications were only obtained from studies using the Goanimate software. When the studies using this software are examined, two conclusions regarding computer and internet usage and technological literacy have been reached. In general, it is noticeable that the most computer and internet usage is coded among the technological outputs. It was revealed that both computer use and technological literacy were the subjects in studies (A7, A25, A28) where digital storytelling tools were not specified. It has been observed that the outputs for these dimensions have positive effects. However, in the study coded A31, some technological difficulties encountered in the digital story creation process were mentioned and at this point, "As a result of the data analyzes, the difficulties encountered in the digital story creation process were studied after they had been divided into six categories, including the audio record not working simultaneously with the images, not being able to create an ideal scenario, not being able to find an appropriate image for the scenario, audio disconnection during image transition, difficulties in finding background music, and difficulties in using the program." statement has been made. Therefore, a preliminary study can be done for technologically incompetent students to acquire basic computer skills before using digital storytelling applications.

On the other hand, according to Table 3, it was determined that scientific process outputs were obtained through desktop applications, and no scientific process output was obtained in studies where web tools were used. Only Photostory has been found to be used in desktop applications. When the findings in the aforementioned program were examined, it was observed that results were obtained only on the ability to conduct research. In the studies (A3, A26) where no digital storytelling tool was specified, the ability to interpret was the subject. the outputs for this skill have been determined to conflict with each other. In the document coded A26, it is stated that digital storytelling improves students' skills in interpretation. However, in the A3 coded document, it is claimed that digital storytelling can lead to misinterpretations.

In Turkey, the results of digital storytelling studies conducted in the field of Classroom Education were examined in depth in relation to the tools. The general distribution of the data obtained as a result of the investigations is presented in Table 4.

Table 4.

Results Obtained in terms of Teaching

Teaching Outcomes		Making the Lesson Fun	Ensuring Active Participation	Bringing a Different Perspective to Teaching	Making the Lesson Efficient	Making the Lesson Easier	Using Time Efficiently	Summarising the Lesson	Time Consuming	Being Exhausting	Total
Web	Powtoon	A21	-	A21	A21	-	-	-	-	-	3
	Tondoo	A23	-	-	-	-	-	-	-	-	1
	Goanimate	A18	A18	-	-	-	-	-	-	-	2
	MEB Websites	-	-	-	-	-	-	-	-	-	9
	Animaker	A6	-	-	-	-	-	-	-	-	1
	Storyjumper	-	-	-	-	-	-	-	-	-	-
	Storybird	A1	-	A1	-	-	-	-	-	-	2
	Photostory	A16, A30, A33	A30, A31, A36	A30	-	A31	A31	A31	A30	A30	12
Desktop	Moviemaker	-	A31	-	-	A31	A31	A31	-	-	4
	Metaverse	-	-	-	-	-	-	-	-	-	-
	Windows Photograph	A24	-	-	-	A24	-	-	-	-	2
	Adobe After Effect	-	-	-	-	-	-	-	-	-	-
	Adobe İllustratör	-	-	-	-	-	-	-	-	-	-
Total	9	5	3	1	3	2	2	1	1	27	

Considering Table 4, it has been determined that the teaching outcomes are mostly dealt with desktop applications. It has been seen that only Photostory, Movie Maker and Windows Photos are used among the programs. Given the findings in the programs expressed, it was observed that making the lesson fun and ensuring active participation were the main subjects. In the study coded A34 a finding is included, by saying "In addition, students stated that they had fun in science lessons taught with digital storytelling." In addition to its positive effects, negative effects such as time-consuming and exhausting were determined in the studies in which the Photostory program was used. Since studies are often carried out with primary school students, long and exhausting practices can adversely affect the level of development and physical health of students. It has been revealed that the teaching outcomes reached through web software are obtained from studies using Powtoon, Tondoo, Goanimate, Storybird and

Animaker tools. When the studies using these software are examined it was observed that five results were discussed about making the lesson fun, two results about giving a different perspective to teaching, and one result for active participation and making the lesson productive. In general, it is striking that among the outputs of the teaching category, making the lesson fun and ensuring active participation are coded the most. In studies where it is not clearly stated which digital storytelling tool is used (A2, A3), the issues of using time efficiently, enriching the lesson, facilitating planning, providing classroom management, not appealing to all levels, and being boring are discussed together with other outputs. For these dimensions, it is seen that only the findings of not complying with the level of all students and causing the student to get bored are negative.

The cognitive results of the digital storytelling studies conducted in the field of Classroom Education in Turkey were examined in depth in line with the tools. The general distribution of the data obtained as a result of the examinations is presented in Table 5.

Table 5.

Results Obtained in terms of Cognitive

Cognitive Outcomes	Learning	Creative Thinking	Permanence	Critical Thinking	Akademikritical Thinking Success	Problem Solving	Imagination	Awareness	Visual Memory	Internal Control	Eliminating Concept Misconceptions	Total
Web	Powtoon	-	A21	-	A21	A15	A21	-	-	-	-	4
	Tondoo	A23	A20	-	A20	-	-	-	-	-	A23	4
	Goanimate	A18	-	-	-	-	-	-	-	-	-	1
	MEB Websites	-	-	-	A35	A35	-	-	-	A35	-	3
	Animaker	A6	-	A6	-	-	-	-	-	-	-	2
	Storyjumper	-	A22	-	-	-	-	-	A22	-	-	2
	Storybird	-	-	-	-	-	-	-	-	-	-	-
Desktop	Photostory	A5, A16, A30, A31, A33, A34	A14, A31	A4, A31	A14	A16	A30	A30, A33	A33	A10	-	17
	Moviemaker	A31	A31	A31	-	A9	-	-	A10	-	-	5
	Metaverse	-	A29	-	-	-	-	A29	-	-	-	2
	Windows Photograph	-	-	A24	-	A24	-	-	-	-	-	2
	Adobe After Effect	A13	-	-	-	-	-	-	-	-	-	1
	Adobe Illustrator	A13	-	-	-	-	-	-	-	-	-	1
Total	12	7	5	4	5	2	3	2	2	1	1	44

According to Table 5, cognitive outputs have been found to be handled mostly through desktop applications. Among the desktop applications, Photostory was used the most. Considering the results of the studies in which digital storytelling applications were carried out through the aforementioned program, it was observed that learning was mentioned the most. In addition to its positive effects, in one of the studies (A34) in which the Photostory program was used, digital storytelling did not have a significant effect on social-emotional learning skills. Similarly, in the study coded A9, using the Movie Maker application, it was stated that digital storytelling does not support academic success. This case was described in the study as, "Digital story-based instruction has been found to have no effect on students' academic achievement in mathematics." In one of the studies (A10), which carried out digital storytelling applications through a program, both Photostory and Moviemaker tools were used together and it was claimed that digital storytelling increased visual memory capacity. Similarly, in A13 (Adobe Illustrator, Adobe After Effect) and A31 (Photostory, Moviemaker) coded documents, two different applications were used together and it was emphasized that the lessons conducted with these tools supported learning. In addition, it was stated that creative thinking skills improved in the study coded A31.

The cognitive output accessed through web software has been found to be mostly from studies using Powtoon and Tondoo tools. In general, it is noticeable that learning and creative thinking are coded the most among the outcomes of the cognitive category. In addition to the outputs shown in Table 5, in studies that did not provide information about which tools were used for digital storytelling (A3, A19, A25, A27), in addition to the outputs shown in Table 5, it has often been focused on reducing cognitive load, eliminating concept misconceptions, inadequate technological-pedagogical content knowledge, inability to provide self-evaluation, inability to process information, misunderstanding, and inability to distinguish between fiction and reality. It can be said that only the findings of cognitive load and misconceptions for these dimensions are positive. In addition, only studies using Storybird software did not have cognitive findings.

The psychomotor results of the digital storytelling studies conducted in the field of Classroom Education in Turkey were examined in depth in terms of the tools. The general distribution of the data obtained as a result of the examinations is presented in Table 6.

Table 6.

Results Obtained in terms of Psychomotor

Psychomotor Outcomes		Writing Skills	Language and Speech Development	Reading Skills	Painting-Drawing Skills	Total
Web	Powtoon	-	-	-	-	-
	Tondoo	-	-	-	-	-
	Goanimate	A12, A18	-	-	-	2
	MEB Websites	-	-	A11	-	1
	Animaker	-	-	-	-	-
	Storyjumper	A17	A17	-	-	2
	Storybird	-	-	-	-	-
Desktop	Photostory	A10, A14, A30, A33, A34, A36	A14, A30, A33	-	A4, A30	11
	Moviemaker	A10, A17	A17	A32	-	4
	Metaverse	A29	-	-	-	1
	Windows Photograph	-	-	-	-	-
	Adobe After Effect	A13	-	-	-	1
	Adobe Illustrator	A13	-	-	-	1
	Total	14	5	2	2	23

According to Table 6, it was determined that psychomotor outputs were mostly revealed through desktop applications. In studies using web software, it was determined that five psychomotor findings were reached. Considering desktop applications, Photostory has been used more than other programs. Considering the results of the studies in which digital storytelling applications were carried out through this program, it was determined that writing skills and language and speech development were mentioned most frequently. In a document (A10), which uses a program for digital storytelling applications, both Photostory and Moviemaker tools were used together and it was stated that digital storytelling improves writing skills. Likewise, the A13 (Adobe Illustrator, Adobe After Effect) coded study used two applications together and it was claimed that the digital storytelling activities applied with these tools contributed to the writing skill.

Psychomotor outputs accessed through web software were found only in studies using Goanimate and Storyjumper software and MoNE (Ministry of Education) training sites. In the studies where Storyjumper and Goanimate were used in the digital story creation process, writing skills improved; in the study, that carries out educational activities with MoNE education sites, it has been claimed that digital stories do not benefit reading

skills. However, in one study (A17), both web software (Storyjumper) and desktop application (Moviemaker) were used together. According to the results obtained from the study, it can be said that digital storytelling applications improve writing skills. In the same study, it was stated that collaborative digital storytelling supports language development, while individual digital storytelling does not contribute to language development. In the study coded A17 for this situation, it did not support the fourth hypothesis, which states that "The language development level of gifted students who receive writing instruction with the individual digital storytelling application is higher than the students who receive writing instruction with traditional application, it was seen that the language development level of gifted students who were taught writing with the collaborative digital storytelling application was higher than the students who were taught writing with the traditional method, which supported the fifth hypothesis. In this direction, it can be thought that collaborative work can eliminate the negative effects of digital storytelling. In general, it is noticeable that the writing skill is coded the most among the outcomes of the psychomotor category. In studies where digital storytelling is carried out but the tool used in the process is not specified, positive results were obtained about listening (A26), writing (A2) and reading skills (A2) and visual skills (A26).

The affective results of digital storytelling studies carried out in the field of Classroom Education in Turkey were examined in depth in terms of the tools. The general distribution of the data obtained as a result of the examinations is presented in Table 7.

Table 7.

Results Obtained in terms of Affective

Affective Outcomes		Motivation	Attract Attention and Interest	Attitude	Bringing Excitement	Improving Self-Confidence	Making Effort	Total
Web	Powtoon	-	A15	A15	-	-	-	2
	Tondoo	A23	A20, A23	A20	-	-	-	4
	Goanimate	A12, A18	A18	A18	-	A18	-	5
	MEB Websites	-	-	-	-	-	-	-
	Animaker	A6	A6	-	-	-	-	2
	Storyjumper	-	-	-	-	-	-	-
	Storybird	-	-	-	A1	-	-	1
Desktop	Photostory	A5, A16, A30, A33, A36	A16, A31, A36	A16, A30, A33	-	-	A33	12
	Moviemaker	A9	A31	A9, A32	-	-	-	4
	Metaverse	-	A29	-	-	-	-	1
	Windows	-	-	-	-	-	-	-
	Photograph	-	-	-	-	-	-	-
	Adobe After Effect	-	-	-	-	-	-	-
	Adobe Illustrator	-	-	-	-	-	-	-
Total	10	10	8	1	1	1	31	

Considering Table 7, it has been determined that affective outputs are mostly handled through desktop applications. It has been seen that only Photostory, Moviemaker and Metaverse are used among the applications. Considering the findings in these programs, it was observed that motivation and attracting attention were the main subjects. In the document coded A27, "At the same time, students were pleased with the applications and stated that they increased their motivations." statement is included. In a study (A32) using the Moviemaker program, in addition to its positive effects, it was found that digital storytelling did not have any effect on attitude. It has been revealed that the affective outputs reached through web software are obtained from studies using Goanimate, Tondoo, Powtoon, Animaker and Storybird tools. When the studies using the mentioned software are examined, it has been observed that five results related to attracting attention and interest, four about increasing motivation, three about developing positive attitudes, and one about increasing excitement and self-confidence were discussed. In general, it is observed that motivation, attention and interest are coded the most among the outcomes of the affective category. In studies where no digital storytelling tool was specified (A3, A19, A25, A26), in addition to the outputs shown in Table 7, the issues of adding value, reducing anxiety, creating stress and causing attention difficulties were mentioned. Only stress and attention-difficulty findings for these dimensions are found to be negative.

Conclusion, Discussion and Recommendations

The aim of this study is to analyze the results of studies on digital storytelling in the field of classroom education in Turkey using the systematic review method and to determine what kind of distribution exists. With this purpose, the results of digital storytelling studies from a social, affective, cognitive, technological and psychomotor perspective have been examined in depth in terms of scientific process and teaching. When the studies using desktop applications are examined, it is observed that the outputs of all categories are mostly obtained from Photostory. Similarly, according to the studies of Turgut and Kışla (2015) and Ulu (2021), it was stated that the Photostory program is generally used in digital storytelling research. The reason for this is that Photostory is free, easy to use, and suitable for students of all levels. In addition, this may be due to the fact that the software is known more than others and allows voice recording using a microphone (Pape et al., 2012; Robin & Mcneil, 2013; Wikan et al., 2010; Yılmaz et al., 2017). When we look at the results of the studies in which web-supported tools were used, it was determined that the cognitive outputs were mostly obtained from the studies in which Powtoon and Tondoo tools were included in the application process. Similarly, the data revealed in terms of social and teaching were obtained from studies dealing with Powtoon as a digital storytelling tool. The fact that Powtoon has features that can be used by people of all ages and groups starting from primary school age and that it allows the preparation of very impressive animation videos by taking little time may cause this result (Uysal, 2020). However, the presence of tutorials, webinars and articles explaining how to use the application on the site can be expressed as the reason why Powtoon is

preferred more than others (Forbes, 2014). Goanimate software was generally used in studies involving technological and affective findings. It was determined that the results evaluated under the psychomotor title were generally obtained from studies in which Goanimate and Storyjumper were used. This result may be due to the fact that Storyjumper, an alternative to Powtoon, supports creating a free story (Yılmaz et al., 2017).

Based on the social outputs, it can be said that web-based digital storytelling tools support collaboration. However, in one study (Karademir, 2020), different results were encountered for cooperation. As a part of the quantitative findings of the related study, it was determined that the scores of the students for cooperation skills did not change. In the study, the fact that primary school second grade students could not choose the desired characters depending on the version of the Powtoon tool during digital storytelling applications can be considered as the reason for this. In addition, it can be said that teachers' practices to increase cooperation in primary school affect interpersonal skills and therefore cooperation does not make a quantitative difference between the two groups. Qualitative findings obtained from the same study show that students cooperate effectively during storytelling practices. The finding in Başdaş and Vural's (2017) study that drama-based digital storytelling affects the development of children's social skills is generally consistent with the results of this research. Similarly, according to the findings obtained from this research, it can be said that desktop applications contribute to the cooperation of students. Therefore, it can be mentioned that both desktop and web-based applications have a positive effect on collaboration. In the systematic analysis study conducted by Demirbaş and Şahin (2020), the fact that students work in collaboration as a result of digital storytelling is similar to these results. This may be due to the fact that students have prior knowledge about multimedia tools, as required by the age of technology. Sadik's (2008) statement that students with sufficient technical skills about multimedia tools establish more cooperation supports this idea. However, as a result of the investigation of Ulu (2021), it has been determined that there are problems with cooperation in the digital storytelling process.

When examining the technological outputs, it has been observed that computer and internet use are mostly supported through desktop applications. Based on the outputs obtained, no negative effects of digital storytelling were found in terms of technology. Similar to these findings, Davis (2004) demonstrated in a study that students achieved a variety of technological competencies through digital storytelling. Robin (2008) also stated that if it is ensured that an individual is actively involved in the digital storytelling process, their technological skills will improve. In addition, as a result of the literature review by Turgut and Kışla (2015), the conclusion that the digital storytelling method increases the students' ability to use technology supports this study. However, in line with Ulu's (2021) studies, it was concluded that digital storytelling does not affect the development of technological competencies or literacy. However, according to the data obtained from the study, it has been revealed that although students have positive perceptions about technology use, they do not experience problems in computer and internet use, except for disconnections on the internet network (Alkan, 2019). Thus, it

can be said that the problems encountered in the digital storytelling process are caused by technological opportunities or inadequacies (Dayan & Girmen, 2018; Demirbaş & Şahin, 2020). Therefore, it can be stated that it is very important to create the infrastructure necessary to use in the digital storytelling method, which has scientifically proven effectiveness and efficiency. In order to achieve this situation, digital storytelling libraries can be created where stories are written, recorded and shared (Turgut & Kışla, 2015).

When the outputs obtained in terms of the scientific process are taken into account, it has been observed that Photostory, which is only one of the desktop applications, helps the research skills. However, in one of these studies (Erdoğan, 2021), it was stated that students had difficulties in collecting information and images for research in the digital storytelling process, and thus the story formation process slowed down. This may be due to the fact that the environment in which digital storytelling applications are carried out is not suitable for research. In another study mentioned before (Mangal, 2020), students stated that the working environment is important in creating digital stories by mentioning the inconvenience of the physical environment and the fact that they could not find a quiet place.

Given the outputs obtained from teaching perspective, web-based digital storytelling tools can be said to make the lesson fun. Similarly, based on the findings of this research, it can be stated that desktop applications provide an enjoyable lesson. Thus, it can be said that desktop and web-based tools have a positive effect in terms of entertainment. However, Ay's (2020) study suggested that digital storytelling can be boring for disinterested students. It can also be stated that desktop programs enable students actively participate in the lesson and facilitate the lesson. In the systematic review study prepared by Demirbaş and Şahin (2020), it was concluded that digital stories support active participation, embody abstract expressions and make the lesson more understandable. In addition to its positive effects, it has been found that digital storytelling can be time-consuming and exhausting. In the study prepared by Kukul and Kara (2019), it is thought that digital storytelling will cause problems especially in terms of time management. Aslan and Kuzu (2021) mentioned that digital storytelling is not suitable for every student or grade level and stated that there are problems. Considering that the studies included in this research are generally carried out with primary school students, it may be necessary to take precautions against the previously mentioned negative situations. Digital storytelling can be done in shorter time intervals (Demirbaş & Şahin, 2020) or planning for digital storytelling can be done very carefully.

Based on the cognitive outputs, it can be stated that web-based digital storytelling tools support learning, creative and critical thinking. However, in the study prepared by Uslu and Uslu (2021), digital storytelling has no significant effect on learning skills. According to the findings obtained from the same research, desktop applications have found to contribute to students' learning and creative thinking. Thus, it can be mentioned that both desktop and web-based story creation tools have a positive effect on learning and creative thinking. The findings of Demirbaş and Şahin (2020), Turgut and Kışla (2015) and Ulu (2021) coincide with the findings of this study. In addition, it was

determined that academic success and permanence increased thanks to desktop applications. However, in Çakıcı's (2018) study, showed that digital story-based instruction had no effect on students' academic achievement. In the same study, it was thought that this situation stemmed from the fact that the control group might have been chosen from students with good levels due to the inability to make an unbiased assignment in the research. However, the fact that the experimental group students could not reach sufficient equipment and maturity in digital storytelling due to the limitation of the research process to 5 weeks may have eliminated the difference in success. In a different study (Göçen-Kabaran et al., 2019), it was determined that the participants had problems due to the short duration of the process, which supports this idea.

When outputs were examined from the psychomotor perspective, it was observed that writing skills improved with desktop and web-based digital storytelling tools. As a result of the literature research of Turgut and Kışla (2015) and Ulu (2021), the fact that the digital storytelling method also improves writing skills supports this idea. It was also concluded that desktop applications generally support language and speech development. However, according to the results of Gider (2019), it has been determined that individual digital storytelling applications do not increase language development levels. Experiencing problems in terms of classroom and time management in the study may be the reason for this situation.

Given the outputs obtained from affective perspective, desktop and web-based story creation software have found to increase the interest, motivation and attitude towards the lesson. Therefore, unlike the methods that students are used to, learning with digital storytelling can be an important factor for the development of interest, attitude and motivation. In Yüksel's (2011) study, the fact that students' interest increases as the classroom environment changes through digital activities supports this idea. However, in the study conducted by Kılıç and Sancar-Tokmak (2017), the fact that digital storytelling applications cause problems related to attention difficulties does not match with the findings of this research. In addition, the students' preparation of creative and original products in the digital storytelling process may have contributed to the positive development of their motivation and attitudes. According to studies in the related literature, digital storytelling has positively affected students' attitudes towards lessons (Figg & McCartney, 2010; Hung et al., 2012; Salpeter, 2005).

Overall, it has been determined that desktop programs are used more than web-based applications in digital storytelling studies, but the tools in both types have some positive aspects and limitations. In addition, it can be said that digital stories realized with both desktop and web applications directly affect the teaching process. Changes in the teaching process can indirectly shape students' skills and social life. Öztürk's (2007) statement that students find the lesson enjoyable during the learning process or that the pleasure they receive is the primary source of motivation supports this idea.

Taking into account the results of the current study, virtual libraries that contain digital stories can be created in schools in Turkey in order to reach web 4.0 technology. Mobile libraries can be prepared in rural areas that cannot access the Internet. It has been

determined that research on digital storytelling generally focuses on students and ignores the teacher dimension. In addition, it is thought that teacher guidance has a critical importance in achieving desired results in digital storytelling applications. For this reason, workshop programs and seminars can be organized that will involve teachers in the digital storytelling process and provide them with sufficient equipment. On the other hand, in teacher training institutions, it can be ensured that pre-service teachers receive necessary training on technology-based applications such as digital storytelling and augmented reality.

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Genişletilmiş Türkçe Özet

Dijital öyküleme, insanların gerçek hayatlarını metin, resim, ses ve video gibi dijital öğeleri kullanarak anlatmalarına yardım eden ve gelişmekte olan bir teknik olarak açıklanabilir (Song vd., 2012). İfade edilen multimedya öğeleri, genellikle bir tema veya konu etrafında şekillenen hikâyeleri anlatmak için bilgisayar yazılımı kullanılarak birleştirilmektedir. Bu süreçte öğrenciler ve öğretmenler; Toondoo, Goanimate, Storyjumper gibi ücretsiz veya düşük ücretli, kullanıcı dostu, etkileşimli Web 2.0 araçlarından (Nelson vd., 2009; Robin & Mcneil, 2013) ve Microsoft Photo Story 3, Microsoft Windows Movie Maker gibi bilgisayar yazılımlarından yararlanabilmektedir. Böylece dijital öyküleme eğitimle bütünleştirilmekte, okullarda ve öğretim programlarında bir öğrenme aracı olarak kullanılabilir. Çünkü öğrencilerin ilgi, beklenti ve ihtiyaçlarında görülen değişimler sonucunda dijital öykülemenin eğitim ortamlarında öğrenciler ve öğretmenler için güçlü bir araç olduğu ileri sürülebilir (Robin, 2006). Olumlu etkilerinden dolayı Türkiye’de, son yıllarda dijital öykülemeyle ilgili araştırmaların arttığı gözlenmektedir.

Öğrenme ortamlarında dijital öykülemeye yönelik yapılan çeşitli araştırmaların sonucunda, dijital hikâye anlatımlarının; sınıftaki öğrenme ortamını ve öğrenme deneyimlerini zenginleştirmeye (Sadik, 2008), akademik başarı, motivasyon ve öğrenme stratejilerini artırmaya (Demirer, 2013) yardımcı olduğu belirlenmiştir. Dijital öyküleme yaratıcı düşünmeyi geliştirmeye (Karakuş vd., 2020; Özen & Duran, 2021) ve böylece öğrencileri entelektüel ve kültürel olarak güçlendirmeye (Benmayor, 2008) katkı sağlamaktadır. Öte yandan dijital hikâye anlatımı, yazma performansını ilerletmekte (Gider, 2019) ve derse yönelik tutum ile girişimcilik ruhunu yükseltmektedir (Mangal & Kurtdede-Fidan, 2022). Bu doğrultuda anaokulu (Preradovic vd., 2016), ilkokul (Niemi & Niu, 2021), ortaokul (Özen & Duran, 2021), lise (Ayvaz-Tunç, 2017) ve üniversite (Aslan & Kazu, 2021) olmak üzere eğitimin her kademesinde gerçekleştirilen dijital öyküleme araştırmalarının sonuçlarının genellikle benzerlik gösterdiği tespit edilmiştir. Bu durum, yöntemin her yaşa uygun ve çok yönlü olduğunu göstermektedir. Ancak ulusal alanyazın incelendiğinde, sınıf eğitimi alanında yapılan dijital öyküleme araştırmalarına yönelik herhangi bir sistematik inceleme çalışmasına rastlanmamıştır. Ayrıca alanyazında, dijital öykülemenin sonuçlarını araç ekseninde inceleyen bir çalışma bulunmamıştır. Bu çerçevede dijital hikâye geliştirmeyi kolaylaştıran yazılımların ve yazılımlarla ilgili önemli noktaların yeteri kadar açık sunulmadığı görülmüştür. Dolayısıyla çalışmanın dijital öyküleme araçlarına ve bu araçların kullanımıyla elde edilen sonuçlara ilişkin rehberlik sağlayacağı düşünülmektedir. Çalışmada dijital öyküleme araçları, derinlemesine analiz edildiği için elde edilen bulguların dijital öyküleme üzerine araştırma yapacaklara ışık tutması beklenmektedir. Belirtilen gerekçeler doğrultusunda çalışmanın amacı, Türkiye’de sınıf eğitimi alanında dijital öyküleme ile ilgili yapılmış çalışmaların bulgularını sistematik inceleme yöntemiyle analiz ederek nasıl bir dağılım olduğunu saptamaktır.

Akademik yayın türleri olarak makale ve lisansüstü tezler araştırma kapsamına alınmıştır. Çalışmada tarama için “dijital öykü, dijital hikâye, dijital öyküleme, digital story ve digital

storytelling” anahtar kelimeleri kullanılmıştır. Belirlenen anahtar kelimeler doğrultusunda ERIC, Web of Science, Ulakbim, Google Scholar ve Yüksek Öğretim Kurulu Ulusal Tez Merkezi veri tabanlarından alanyazın taraması yapılmıştır. Tarama neticesinde, seçilen konu başlığına uygun olarak 24 makale ve 24 tez olmak üzere toplamda 48 bilimsel çalışma tespit edilmiştir. Akabinde ulaşılan yayınların, özet bölümleri araştırmacılar tarafından dikkatli bir şekilde okunmuştur. Yayınlanan makale ve tezlerin özetleri karar vermek için yeterli görülmediği durumda metnin tamamı incelenmiştir. Böylece seçim ölçütlerine uygun görülmeyen araştırmalar analiz dışı bırakılmıştır. Bu kapsamda 2021 yılının sonuna kadar yapılmış 36 bilimsel yayın MaxQda 2022 programında ayrıntılı olarak okunmuştur. Daha sonra çalışma kapsamına alınan bütün dokümanlar düşünülen temel kategoriler açısından incelenerek kodlanmıştır. Böylece tez ve makalelerin her biri içerik analizine tabi tutularak araştırmalardan ulaşılan sonuçlar, dijital öyküleme araçları açısından incelenmiştir. Elde edilen verilerin yorumlanmasında tablolardan yararlanılmış ve tablolarda sayısal olarak sadece frekanslara yer verilmiştir.

İncelemeler sonucunda, masaüstü uygulamalarını kullanan çalışmalarda tüm kategorilere ait çıktılardan daha çok Photostory’den elde edildiği gözlenmiştir. Benzer şekilde Turgut ve Kışla (2015) ile Ulu’nun (2021) incelemelerine göre, dijital öyküleme araştırmalarında genellikle Photostory programının kullanıldığı belirtilmiştir. Photostory’nin ücretsiz, kullanılabilirliğinin kolay ve her seviyedeki öğrenciye uygun olması bunun nedeni olarak düşünülebilir. Ayrıca bu durum, yazılımın diğerlerine göre daha fazla bilinmesi ve mikrofon kullanarak ses kaydı yapmaya imkân tanınmasından kaynaklanabilir (Pape vd., 2012; Robin ve Mcneil, 2013; Wikan vd., 2010; Yılmaz vd., 2017). Web destekli araçların kullanıldığı çalışmaların sonuçlarına bakıldığında, bilişsel çıktılara çoğunlukla, uygulama sürecinde Powtoon ve Toondoo araçlarının yer verildiği çalışmalardan ulaşıldığı belirlenmiştir. Benzer şekilde sosyal açıdan ve öğretim açısından ortaya çıkarılan verilere, dijital öyküleme aracı olarak Powtoon’u ele alan çalışmalardan ulaşılmıştır. Powtoon’un ilkökul çağından itibaren her yaşta ve gruptan kişinin kullanabileceği özelliklere sahip olması ve kısa zamanda çok etkileyici animasyon videolarının hazırlanmasını sağlaması bu sonucun ortaya çıkmasının sebebi olabilir (Uysal, 2020). Bununla birlikte sitede uygulamanın nasıl kullanılacağını açıklayan öğreticilerin, web seminerlerinin ve makalelerin bulunması Powtoon’un diğerlerine nazaran daha fazla tercih edilmesinin sebebi olarak ifade edilebilir (Forbes, 2014). Diğer taraftan teknolojik ve duyuşsal bulguların yer aldığı çalışmalarda genellikle Goanimate yazılımı kullanılmıştır. Psikomotor başlığı altında değerlendirilen sonuçların ise genel olarak, Goanimate ve Storyjumper’in kullanıldığı çalışmalardan elde edildiği tespit edilmiştir. Bu sonuç, Powtoon alternatifi olan Storyjumper’in ücretsiz olarak hikâye oluşturmayı desteklemesinden kaynaklanabilir (Yılmaz vd., 2017).

Genel olarak ele alındığında, dijital öyküleme çalışmalarında masaüstü programlarının web tabanlı uygulamalara nazaran daha fazla kullanıldığı, ancak her iki türe ait araçların bazı olumlu yönlerinin ve sınırlılıklarının olduğu belirlenmiştir. Ayrıca hem masaüstü hem de web uygulamalarıyla gerçekleştirilen dijital hikâyelerin öğretim sürecini doğrudan etkilediği söylenebilir. Öğretim sürecinde yaşanan değişimler ise

dolaylı olarak öğrencilerin becerilerini ve sosyal hayatını şekillendirebilir. Öztürk'ün (2007) öğrenme süreci boyunca öğrencilerin dersi eğlenceli bulmaları veya aldıkları hazzın, motivasyonun birincil kaynağını oluşturduğunu belirtmesi bu fikri desteklemektedir. Bu sonuçlardan hareketle, internete erişim sağlayamayan kırsal bölgelerde mobil kütüphaneler hazırlanabilir. Öğretmenleri dijital öyküleme sürecine dâhil edecek ve onların yeterli donanım kazanmalarını sağlayacak atölye programları ve seminerler düzenlenebilir. Ayrıca öğretmen yetiştiren kurumlarda öğretmen adaylarının dijital öyküleme ve artırılmış gerçeklik gibi teknoloji tabanlı uygulamalar hakkında gerekli eğitimi almaları sağlanabilir.

Ethics Committee Approval: All the rules in the Scientific Research and Publication Ethics Directive were complied with, and none of the "Actions Contrary to Scientific Research and Publication Ethics" in the second part of the Directive were applied.

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Inequalities in the Transition to University: A Qualitative Study on the Social Class Position *

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Abstract: This study aims to understand the effect of inequality patterns on students' transition to university on the axis of social class positions and the role of universities in perpetuating these inequalities. The conceptual framework is discussed within the economic and cultural capital framework, which forms the center of Pierre Bourdieu's "reproduction theory". The single-case embedded design, which is a type of qualitative research method, was used in the study. The study consisted of 38 students studying engineering, social sciences, and language at Ankara Yıldırım Beyazıt and Bilkent Universities during the 2020-2021 academic year. The research data were collected through in-depth interviews using a semi-structured interview form. Data were analyzed using MAXQDA 2018 Analytics Pro qualitative analysis program with descriptive structural analysis and visualized with two case models. The results obtained in the study are as follows: Parents' income level, education level, occupation and educational values affect students' transition to university. Students' cultural capital shapes their preparation process for university, their choice of department/university, and results in unequal positions in their placement at the university. While the majority of AYBU students see university education as an activity that will enable them to work in the public sector and earn a regular income, the majority of Bilkent students see university education as an investment that will enable them to work in the private sector and earn a high income and prestige in the future. As a result of the study, it was suggested that the dependence on the central exam be reviewed to lessen the effect of social and economic factors on the transition to higher education.

Keywords: Education, social class, inequality, economic capital, cultural capital.

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Introduction

In order for a student to enter higher education in Turkey, he/she must first receive a score that differs from his/her competitors as a result of the central exams conducted by the Student Selection and Placement Center (OSYM) in 1974 (Tekeli, 2010, p. 173). After the results of the central exam are announced, the preferences of the department (program) and the school (institution) must be met (Yüksek Öğretim Kurulu [YOK], 2021). Since the number of students applying to the university is much higher than the university quotas, the university entrance exam has a secret function in the reproduction or maintenance of social inequalities, contrary to the doctrine of equal opportunities itself.

More than 2.4 million people in Turkey applied for the 2020 transition to higher education exam, of which only 431,000 received a place. In this context, only 17.7% of candidates applying to higher education can settle in any undergraduate program (YOK, 2022). The fact that the number of candidates who take the exam but are unable to be placed in any program exceeds the higher education population exempted from open education demonstrates that the necessary need cannot be met and that the supply-demand relationship in the transition to higher education is quite unbalanced (Celik, 2020, pp. 529-530; Celik vd., 2020, pp. 69-74).

According to the data of 2019, Turkey differs considerably from other OECD countries in the process between the end of high school education and the beginning of higher education. Although the rate of those who enter higher education for the first time is considerably higher than the OECD average (17%) with 48% in associate degree programs, the rate of students who start their undergraduate level is considerably lower than the OECD average (76%) with 50% (Organisation for Economic Co-operation and Development [OECD], 2021: p. 197). This imbalance between supply and demand in Turkey's transition to higher education causes aggressive competition among students. When prestigious universities and departments are taken into consideration, it is clear that opportunities for higher education are limited, and that one's socioeconomic status plays a significant role in the process of making the transition to higher education (Suna et al., 2020). Inequalities in access to higher education on this axis should be resolved in terms of inequalities between social classes and supply-demand practices, such as managing distribution or expanding the number of programs (Kilic, 2014).

Studies conducted in Turkey in recent years reveal that various elements of the class position related to the economic, cultural and social dimensions significantly affect the inequalities experienced in the transition to higher education. In these studies, the focus is on the effect of characteristics related to class position, such as *parents' income level* (Buyruk, 2008; Bulbul, 2021; Ekinci, 2011; Kilic, 2014; Suna et al., 2020; Tunc, 2011), *parents' education level* (Buyruk, 2008; Bulbul, 2021; Ekinci, 2011; Suna et al., 2020; Tunc, 2011), and *parents' occupation* (Buyruk, 2008; Bulbul, 2021; Tunc, 2011). However, there are few qualitative studies on how social status affects the transition to university based on students' experiences (Buyruk, 2008; Bulbul, 2021). Buyruk's (2008) study, for example, focused on the unequal situations of students in different departments

rather than the position of universities. The unequal positions of students in different departments of a university were examined from a similar perspective in Bulbul's study (2021). It can be seen that the studies are mainly consistent with the field of study and social class. However, it has not been examined to what extent the positions of universities coincide with the social class positions of students. However, this similarity is also the simplest indicator of the practical consequences of equal opportunity policies in education in terms of maintaining social mobility. This is because education is one of the key areas in which these practices are implemented. Universities are the last link to break the cycles of inequality transmitted within the family cycle.

The originality of this study is that it uses a single nested case study of the qualitative research method to evaluate the social class positions of students in similar or the same departments but at two different institutions. Thus, on the other hand, the objective is to highlight the relationship between universities, which are positioned in an unequal structure in terms of educational opportunities and prestige, and the social positions of students. Consequently, the increased participation and unequal representation of particular social strata in higher education opportunities is one of the most significant challenges to democratic higher education. This study is significant for investigating educational inequalities and drawing attention to social inequalities in terms of transforming universities into more egalitarian institutions because it examines educational inequalities and draws attention to social inequalities.

Conceptual Framework

According to Yin, the use of a theoretical background is not common in qualitative studies because it may distort the researcher's approach to the social phenomenon. In case studies, however, the aim is to examine the case in reality. Previous studies and theories play an important role in case study design because case studies can be misleading if there is no evidence to support them (Yin, 2003, p. 28). Accordingly, the mechanisms of inequality that lead to students being positioned in different institutions and programmes of study at the university are discussed within the framework of theories of social reproduction.

Social class position, educational inequality and transition to higher education

Over the last 50 years, global demand for and participation in higher education has increased substantially. The transformation of the policies implemented by the countries from elitist education to mass education has been effective in increasing the participation rates. In 1970, there were 32 million students in higher education worldwide, 159 million in 2008, (UNESCO, 2010, p. 12) and more than 222 million in 2020 (World Bank, 2020, p. 1). The demand for higher education in Turkey has also increased rapidly over the years. In 1985, the number of students in higher education was 449,414 (YOK, 1997, p. 18) and the population of Turkey was 50,664,458 (TUIK, 2015). This shows that the ratio between the number of university students and the total population was 0.88% in 1985. By the year 2020, the number of students enrolled in higher education (including those participating in open education programs) reached 8.240.997 (YOK,

2022), while the population had increased to 83.614.362. This resulted in a ratio of 9.8% between the number of students enrolled in higher education (TUIK, 2021) and the total population. However, despite the rapid spread and expansion of higher education around the world and in Turkey, studies show that different social groups are not able to benefit equally from higher education opportunities (Boliver, 2011; Bulbul, 2021; Ekinci, 2011; Konstantinovskiy, 2017). In this context, who has access to higher education is important and how students from different social strata benefit from the higher education level (Bourdieu & Passeron, 2014, p. 16).

Bourdieu's studies, which focus on inequalities in the higher education system, show that students positioned in different departments and schools within higher education come from different social classes and are trapped in unequal professional opportunities. He examines educational inequalities in the context of social classes, but unlike other reproduction theorists such as Bowles and Gintis (2011) and Althusser (2006), he also focuses on cultural and economic elements (Giroux, 2014, pp. 117-119).

Bourdieu conceptualizes valuable resources as capital, unequally distributed among students, paving the way for the formation of their disposition (Bourdieu, 1986). According to him, the capital that students have inherited from their families is crucial for their academic success and professional opportunities. Given that Bourdieu defines social class in the context of capital type (Swartz, 2011, pp. 216-264), it is critical to examine the type and amount of capital that parents and students possess in order to understand the impact of student social class status on the transition to university.

The effect of parents' capital type and volumes on the transition to higher education

According to Bourdieu, there are three types of capital: economic, cultural and social (Bourdieu, 1986). Economic capital is the possession of products and services and has the power to manifest its effects more quickly than other forms of capital (Bourdieu, 1986, p. 16). Based on this definition, the **parents' economic capital** is discussed in the study in the context of income level. *Parents' income levels* are one of the valuable resources that enable students to purchase goods and services for better education and thus increase their chances of success (Bourdieu & Passeron, 2014, p. 30; Swartz, 2011, pp. 252-253).

Another central concept in Bourdieu's theory of reproduction is the concept of cultural capital, which is the basis for social classes and shows the qualitative differences between them (Atli, 2022). In the study, the **parents' cultural capital** was first discussed within the framework of the *parents' education level and profession*. In reality, Bourdieu's empirical investigation revealed that parents' superior education level and occupation, which correspond to cultural capital, boosted children's chances of gaining entry to higher education (Bourdieu & Passeron, 2014, pp. 16-25). The value the family places on education in terms of their educational attainment and occupation also shapes the career expectations of their children (Bourdieu, 1974) and their participation in the university. From this point of view, the second element of the family's cultural capital in

the research is the parents' values regarding education, including beliefs, opinions and expectations about higher education (Bourdieu & Passeron, 2014, pp. 76-87).

Students inherit their parents' assets and dispositions and develop them into their cultural capital (Bourdieu, 2017, p. 129). By transforming the capital that students have inherited from their families into cultural capital, they differentiate themselves from their competitors in the educational system, which positively affects their academic performance, and place themselves in unequal positions. In the research, the following title describes in full the features of the students' cultural capital.

The effect of students' cultural capital on the transition to university

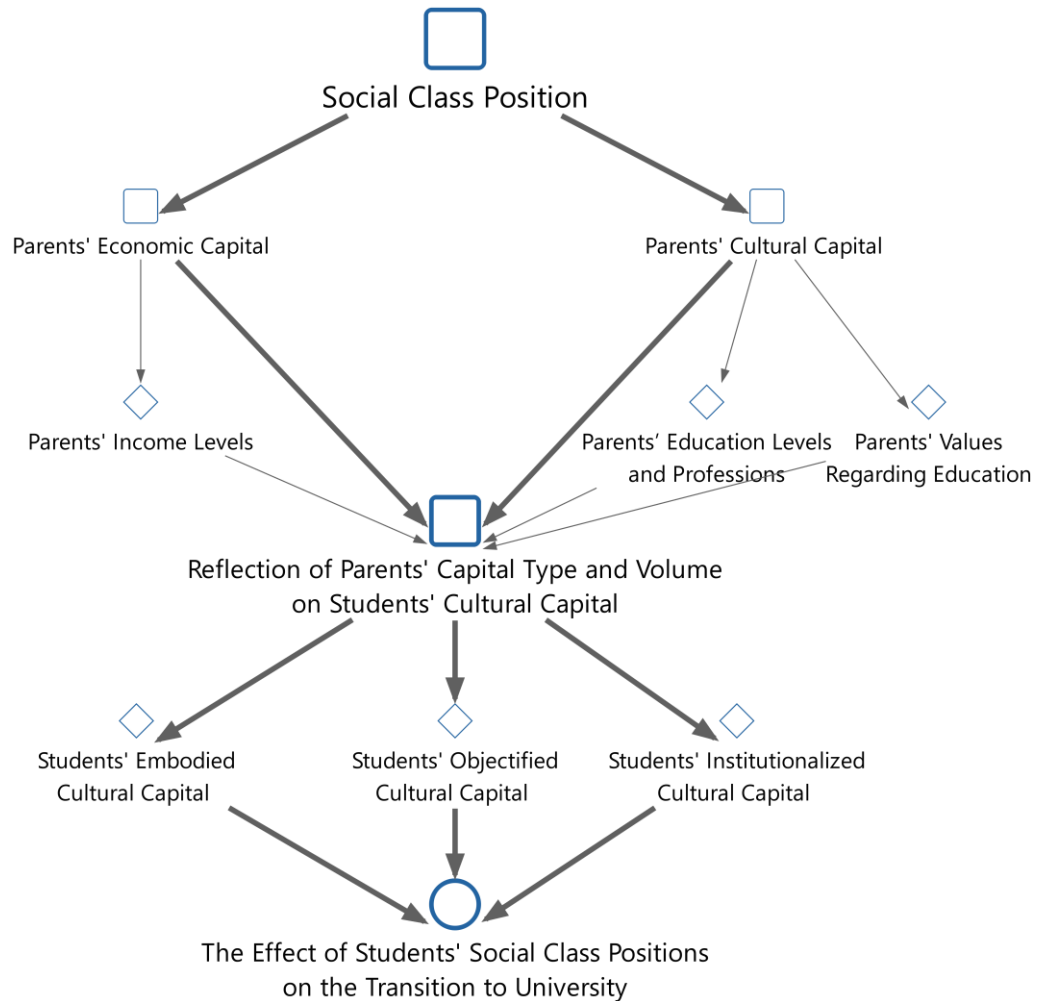
The cultural competencies that the school system requires of pupils and transmits to them are remarkably similar to the ruling social class's cultural capital. Therefore, children from the middle and upper classes outperform their peers academically by exerting less effort at school due to the cultural capital they have acquired (Bourdieu & Passeron, 2014, p. 46). Thus, the education system eliminates pupils from the lowest classes from schooling by means of cultural capital (Harker, 1990, pp. 91-92).

According to Bourdieu, cultural capital emerges in three forms: embodied; objectified and finally institutionalized cultural capital (Bourdieu, 1986: p. 17). **Embodied cultural capital** is the disposition that develops when a culture is internalized for an extended period of time and settles in the body and mind. In the research, embodied cultural capital was considered a cultural competence corresponding to students' knowledge about higher education. In addition, according to Bourdieu, since ethos -that is, values, beliefs, and convictions pertaining to education- is related to the professions that students will perform in the future and their university preferences (Bourdieu & Passeron, 2014, p. 98), the values pertaining to education are cultural values embodied in the research. It has been treated as a capital asset (Bourdieu, 1974, pp. 20-22; Bourdieu & Passeron, 2014, pp. 76-87). Within the framework of educational values and ethical provisions and values that students inherit from their class position (Bourdieu, 2018, pp. 159-160), they identify with certain schools and departments, avoid others, eliminate themselves from the education system, and reproduce their class positions (Bourdieu & Passeron, 2015, p. 76). **Objectified cultural capital** is defined as the consumption of cultural assets (Bourdieu, 1986, p. 19). What is important for Bourdieu here is that goods and services provide a benefit to people with a specific purpose (Bourdieu, 1986, p. 20). Therefore, it is possible for students to increase their academic achievement by utilizing a variety of goods and services linked to their education and to separate themselves from others on the academic journey through their objectified cultural capital related to education (Byun et al., 2012; Xu & Hampden-Thompson, 2012). **Institutionalized cultural capital** is the recognition of academic qualifications at the institutional level (Bourdieu, 1986, p. 20). Students are awarded or punished with this type of capital based on their past academic qualifications and performances. The institutionalized cultural capital of students during the transition to university was investigated by taking the type of high school into account.

As shown in Figure 1, the effects of parental capital types and students' cultural capital on the transition to university are investigated in two dimensions.

Figure 1.

Research Model



The Purpose of the Research

The research aims to understand the effect of students' social class positions on the transition to university. The following questions were addressed in the study to achieve this goal:

1. How does parents' economic and cultural capital affect students' transition to university?
2. How does the embodied, objectified, and institutionalized cultural capital of students influence their transition to university?

3. What role do higher education institutions play in the transfer of class status from the family to the child along the axis of these capitals?

Method

Research Design

This study, which examines the effects of students' social class positions on their transition to university, was designed with a single-case embedded design, one of the qualitative research methods (Yin, 2003, p. 39). According to Yin (2003, p. 13), a case study is the evaluation of a phenomenon in the setting of real life in situations in which the boundaries between the phenomenon and the context are unclear. The aim here is to understand how and why the current phenomenon takes place in this way. For this, it is important to determine the context and choose the people to be interviewed (Merriam, 2018, pp. 40-44). According to Yin, the only intertwined case study is that a common situation includes various analysis units and is examined within its own context (Yin, 2003, pp. 40-45). In this study, the fact that students are in uneven circumstances during the transition to college was viewed as a single, universal phenomenon. Since the two analysis units of this situation are Bilkent and Ankara Yıldırım Beyazıt Universities, the single-case embedded design was adopted in the research. In this context, the research focuses on the unequal access that students from different schools and departments have to university departments and programs. Instead of studying students in a single institution of higher education, this study studied the uneven status of students in two institutions that differ in terms of academic achievement score during the transition to university. Thus, it was examined in depth how the social class positions of the students in different higher education institutions and departments and actively experienced this shaped the transition process to university.

Participants of the Study

The theoretical sampling technique was used to select two universities in the study. According to Silverman, theoretical sampling in case studies is the creation of study groups in line with the criteria and antecedents that are suitable for the purpose and theory of the research (Silverman, 2018, pp. 88-89). The theoretical premise of this study is that social position has an impact on academic achievement. Based on this premise, the social class positions of the students in higher education institutions with academic achievement differences also differ from each other. Therefore, the aim of the research was selected in İhsan Doğramacı Bilkent University (Bilkent) and Ankara Yıldırım Beyazıt University (AYBU), two higher education institutions with very different achievement scores at university entrance in relation to their theoretical framework and the single-case embedded design. Bilkent University was chosen because the departments' base achievement score was relatively high. As another higher education institution, Ankara Yıldırım Beyazıt University was preferred because the score of most of the departments in it was lower than Bilkent University. On the other hand, the reason for choosing these

two universities in Ankara is that the researchers can easily reach the students in these universities. Therefore, the topic of the research was more essential than the province when selecting these two universities, and it was noted that their achievement score were different.

On the other hand, because Bilkent University is a foundation university, attention was paid to selecting scholarship and 50% scholarship students from the fields of social sciences, numerical and language to increase student diversity. In this context, a total of twelve students, three 100% and nine 50%, are studying in scholarship programs. In addition, the achievement score of the majority of the students studying in paid programs at Bilkent University is higher than the achievement score of the related programs in the AYBU (Annex, Table 2).

In order to make a comparison in the study, the same department portfolio was tried to be preferred in two universities. In this context, departments in numerical field (math and science), equal weight field (Turkish and Math) and language were determined. Engineering departments were preferred because of their higher scores in the numerical (math and science) field compared to other departments and because they were seen as a more reputable profession. In the field of numerical, interviews were conducted with a total of 10 students, 6 from Bilkent and 4 from AYBU. The departments of students in the field of numerical consist of industry, electrical-electronics, computer, machine, metallurgy and material engineering.

The departments selected within the field of equal weight (Turkish and Math) are law, political science and public administration, international relations, sociology, economics and interior architecture and environmental design. In this field, a total of 20 students were interviewed, 11 in Bilkent and 9 in the AYBU. Finally, in the language field, a total of 8 students were interviewed, including four students from the English Translation and Interpretation departments at the AYBU and four from the English Language and Literature departments at Bilkent.

Since the same department/program was not included in both universities in the language field, the departments in the portfolio close to each other were selected. In the verbal field, this field was not included in the study group because there were no identical or similar programs from both universities. After the departments were determined, the key participants were first interviewed in determining the students to be interviewed in the research. The snowball sampling method was used using their opinions. Accordingly, the study group formed within the scope of the research consists of a total of 38 students who are actively studying in the 2020-2021 academic year. The characteristics of the participants of the study group are presented in Table 2 of the annex.

Data Collection Tool and Process

In this study, data were obtained through in-depth interviews, and a semi-structured interview form was utilized to allow for flexibility in the questionnaire and to ask

participants probing questions. With the approval of the Ethics Committee of the Senate of Hacettepe University, data were collected in April and May 2021.

The interviews were conducted with students from Bilkent and AYBU who were actively studying. Due to the coronavirus outbreak, some interviews were conducted using the Zoom application, which permits video and audio interviews, and others were conducted in-person. Before starting the interviews, information was given about the research and prior permission was requested for the recording. Interviews were held with the participants who wanted to participate in the research voluntarily. Questions of any kind that could potentially identify the identities of the participants were avoided.

The semi-structured interview form consists of 3 sections based on the conceptual and theoretical framework in order to reveal the inequalities experienced by the students during the transition to the university. The first section included questions concerning the students' personal information. This section consists of four personal questions that include students' demographic information and information about the university exam result. The second part consists of five questions related to the evaluation of the effects of the type and volume of capital owned by the parents on the transition to university. The final section focuses on the relationship between students' cultural capital and their transition to university. In this section, four questions were asked to assess the impact of students' embodied, objectified, and institutionalised forms of cultural capital on the transition process to university, particularly on preferences for school and department.

Validity and Reliability

Validity in qualitative research is the representation of the accuracy of a social phenomenon using different strategies (Silverman, 2018: p. 126). Construct validity in a case study is the creation of accurate operational measurements for the concepts studied (Yin, 2003, p. 34). Reliability, on the other hand, is related to the reproducibility of the findings from the collected data, in other words, their repeatability (Merriam, 2018). Based on these definitions, a number of measures were taken in the research to increase (i) validity, (ii) construct validity and (iii) reliability.

(i) In order to strengthen the validity of the research, a comprehensive literature review was carried out prior to the design of the semi-structured interview form. As a result, questions regarding the mechanisms that cause inequity in the transition to university were revealed. In the literature review, questions were created by using the conceptual framework and Bourdieu's theoretical framework. The questions created as a draft were presented for the opinion of an expert who has studied the subject in the literature and has experience. After receiving the criticism and feedback of the expert, some questions were changed and some were completely removed from the questionnaire. Thus, the content validity of the questions was tried to be ensured. On the other hand, the interviews were conducted in an environment where students could comfortably express themselves. In the interviews, the purpose of the research was mentioned to ensure that participants were sincere and honest in their responses to the questions posed, and a

conversational and dialogic environment was created during the interview process. Thus, it is aimed to increase the internal validity.

(ii) In order to increase the construct validity in this case study, the mechanisms that cause education inequality were determined and then operational definitions were created. The operational definitions of the concepts are given in a theoretical framework and the relationship between the concepts is presented in Figure 1. Thus, what exactly the concepts try to measure (Yin, 2003, p. 34) has been associated with literature review.

(iii) A strategy was developed to increase reliability by keeping the number of students at both universities high and stopping interviews after reaching saturation point. In order to increase the coding reliability, two independent coding processes were carried out by the researchers. The two different codings obtained were compared with each other, and inter-coder reliability analysis was used (Miles & Huberman, 1994). Reliability= $[\text{Consensus} / (\text{Consensus} + \text{Disagreement})] \times 100$ formula was used for the process of this analysis. Based on this formula, the reliability between coders was initially 78%. According to Miles and Huberman (1994), the reliability analysis between coders should be at a minimum level of 80%. Therefore, the researchers repeated the coding process and the reliability was calculated as 89% after the necessary corrections were made.

Data Analysis

Within the scope of the research, the audio recordings obtained with the semi-structured interview form were transcribed, and the data obtained were analyzed using the MAXQDA 2018 Analytics Pro qualitative analysis program by explanatory structure analysis, which is one of the forms of analysis of the case study. According to Yin (2003), after a theoretical statement or proposition is created based on the explanatory structure analysis literature in case studies, the first findings are compared with this statement or proposition. Then, the theoretical statement or proposition is revised and the current situation is expressed again as a result of this revision (Yin, 2003, pp. 121-122). From this point of view, all dimensions of the phenomenon discussed in the research before starting the analysis process were formed within the conceptual and theoretical framework as a result of a comprehensive literature review. In light of this, the results of past research as well as the recommendations provided by the theoretical framework were considered before beginning the process of analyzing the themes and categories.









In the study, sociological factors that cause inequality during the transition to university were determined within the framework of previous studies on educational inequality and associated with Bourdieu's reproduction theory. As a result of this process, it was seen that the economic and cultural capital assets inherited from families played a critical role in the transformation of students into cultural capital. In the study, cultural capital was discussed in three categories as an inequality factor that students have in the transition to university. These are embodied, objectified and institutionalized forms of cultural capital. These categories were defined operationally and related questions were created. The data obtained from the students were examined in detail, and codes that were

similar and different from each other were associated with categories. Thus, a connection was established between the literature and the data obtained in the research. As a result of the new codes, the coding scheme created at the beginning was revised.

In the study, the transition processes to the university were analyzed by comparing them with each other based on the statements of Bilkent and AYBU students. In this direction, two-case models were used in the MAXQDA program to compare the findings of both university students. By comparing the two case models, it became clear which codes were used in common by the two university groups and which codes occurred in different ways. Thus, the similarities and differences in the coding between the two groups became evident. In order to understand the inequalities in the process of transition to university, the connections between codes, categories and themes are schematized. Thus, rather than a single element that causes inequality, the relationship of the elements with each other is visualized. Table 1 provides explanations concerning visual shapes and symbols.

Table 1.

Explanations of Shapes and Symbols Used for Data Visualization in the Research

	As a result of the coding and categorizing procedures, the visual represents the overall meaning.		The visual expresses the link (weak) between the code or categories.
	It is a visual that expresses a meaningful structure by combining more than one code.		The analysis of the two case models shows that the visual points to different higher education institutions.
	It is a visual created from the expressions of the participants and expresses summarizing, striking, and meaningful data.		İhsan Doğramacı Bilkent University
	The visual expresses the connection (strong) between code and categories.		Ankara Yıldırım Beyazıt University

Note: The table was prepared using the work of Zayimoglu Ozturk et al. (2020).

Findings

In this section, the findings obtained from the study are presented under two headings according to the structure of the research model and the sub-objective questions of the study. The first title includes findings obtained from the cultural capital of the parents of the students, while the second title includes findings obtained from the students' cultural capital.

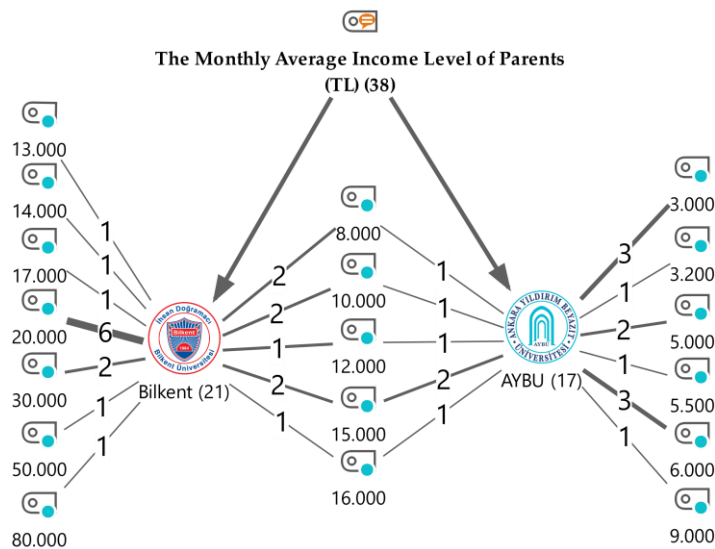
1. Findings Regarding the Capital of the Parents of the Students During the Transition to the University

1.1. Findings related to the economic capital of the parents of the students

Under this heading, students were asked the following questions. Firstly, students were asked, "What is your parents' average monthly income level in 2020?" and secondly, "What are your opinions on your parents' financial income during the university admission process?". These questions sought parents' opinions about the impact of their economic capital on students' educational lives and, in particular, on their transition to university.

Figure 2.

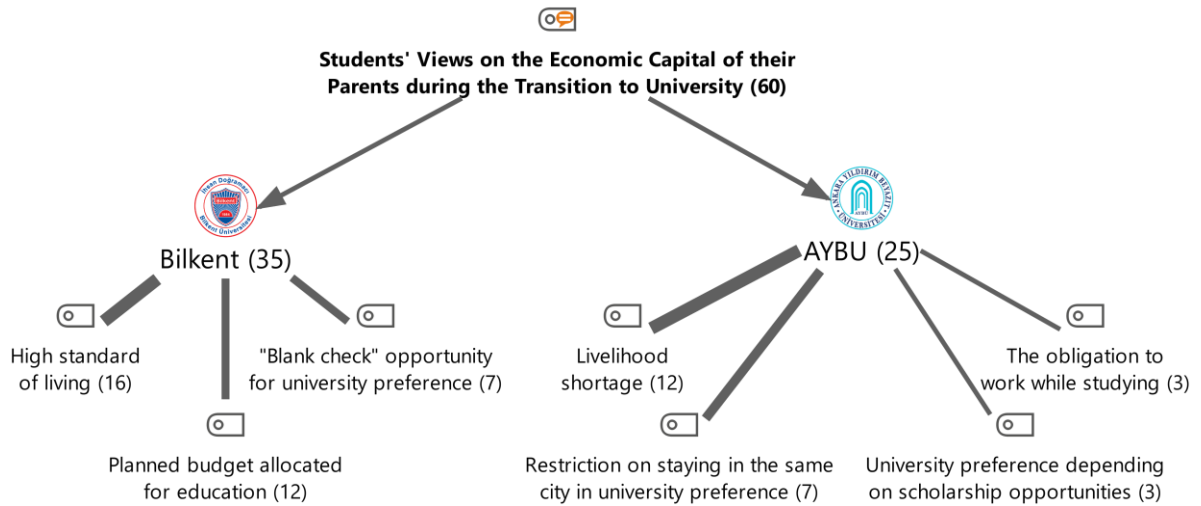
Students' Views on the Monthly Average Income of their Parents



In Figure 2, it is evident from the responses of the students that the parental income levels of Bilkent and AYBU students are significantly different. It is seen that parents with Bilkent have an average monthly income between 8,000 and 80,000 TL and parents with AYBU have an average monthly income between 3,000 and 16,000 TL.

Figure 3.

Students' Views on the Economic Capital of their Parents during the Transition to University



As can be seen in Figure 3, a significant number of Bilkent students reported that they had a high standard of living during the transition to university thanks to their parents' economic capital. The answer of S1, who is among the first 150 people in the university exam, is as follows:

"My father lives on his capital investment and real estate gains for about a year. In general, the work he did in the last 10-15 years was on dollars and rials. That's why the exchange rate was so different. But right now I can say about 15 liras. Before my father left, he could find 8-10 thousand dollars especially in Ramadan. [...] Therefore, I can say that we live a comfortable life " (S1, Law, Bilkent), [High standard of living].

The high income levels of the families of Bilkent students significantly affect their children's educational lives. It is seen that families allocate a planned budget for their children's education in line with their economic capital. S13 expresses the situation as follows:

"My family has always supported me so far. Psychologically and financially. Up until this point, they have sent me to a variety of different training classes, and each time they have told me, "This is your training." It's more important than anything, so even if you fail or you don't feel like it, we'll always give you that support '. As they say, there is always a money allocated for my education in the corner " (S13, Political Science and Public Administration, Bilkent), [Planned budget allocated for education].

It was observed that some of the bilkent parents used a high budget for education. S1 stated that their parents kept their economic resources available for university preferences and gave them "blank checks" for preferences. In this context, the term "blank check" refers to various facilities, such as the possibility for students to study abroad or to study abroad because they receive broad financial support from their parents for their education:

"He (my parents) gave me a blank check so that I could always get a quality education. They even thought of sending it to Germany " (S1, Law, Bilkent), ["blank check" opportunity for university preference].

Unlike Bilkent parents, it is understood from the answers of the students that the economic capital volumes of the parents with AYBU are more limited. It is understood that a certain part of the students have difficulty in earning a living. S31 expressed this situation as follows:

"I can say that we are poor in this period. [...] My father has a pension. My father also does extra work. Even though he's retired, he tries to make furniture and kitchens. This happens once or twice a year. This is about three to four thousand Turkish liras. There are such things. He doesn't have a permanent job. That's where it comes from. Therefore, there are periods when we have some difficulty in living " (S31, Sociology, AYBU), [Livelihood shortage].

This shortage of livelihood experienced by some AYBU students negatively affects their transition to university. S24 stated that his parents had a difficulty on staying in the city where they entered the university due to their low economic resources:

"My preferences were universities in Ankara or nearby Ankara. Actually, I wanted to study out of my home town. [...] You can't say that you will go (out of town). There is an economic return on this. Being a student is already very difficult economically. It would be an extra burden if you were out of town. When I got a place at the university here, I did not go" (S24, Law, AYBU), [Restriction on staying in the same city in university preference].

The limited economic resources caused some AYBU students to prefer the university depending on the scholarship opportunities provided by the state. S30 expresses this situation as follows:

"I'm getting a KYK (Accommodation) scholarship. There was a difficult process for my family in the 12th grade before I entered university. My father is unemployed, and my mother earns a little by tutoring. My admission to university was dependent on my financial situation at the time. I thought the KYK scholarship would be provided by the state, therefore I chose it. "If the scholarship hadn't come out, I might have dropped out." (S30, International Relations, AYBU), [University preference depending on scholarship opportunities].

Some AYBU students state that they have to work while studying due to lack of economic capital as follows:

It's hard. You are always in debt, but you always end up paying off the bill the next month. You work somewhere for 3-5 days. You earn 100-200 liras by working in different paces; and been getting by. Occasionally, there will be a job at labor market, potatoes will be transported, onions will be transported. You go to the market, because I'm from Kars, the marketers are familiar. I say brother, I've no money, they say come and work here. You're going to restaurants as an extra. But there is no such continuous work because there is a school and you cannot work" (S32, Sociology, AYBU), [The obligation to work while studying].

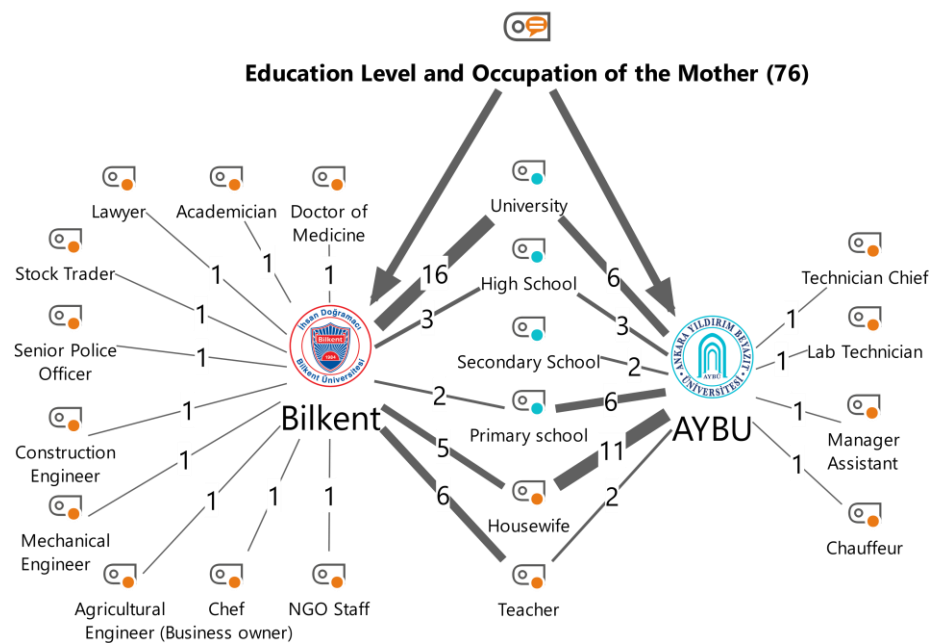
High and middle income parents strategically deploy and invest in their economic capital by providing planned resources for their children's education to accumulate cultural capital. While families with high income levels can effectively realize this investment, families at the lower socioeconomic level can postpone their education expenditures by considering their basic needs.

1.2. Findings related to the cultural capital of the parents of the students

The theme related to the cultural capital of the parents of the students consists of two categories. The first category includes "education level and profession of parents" and the second category includes "education-related values of parents". In this context, regarding the first category, students were asked "What is the education level and profession of your parents?". Bilkent and AYBU students' responses about their mothers are shown in Figure 4.

Figure 3.

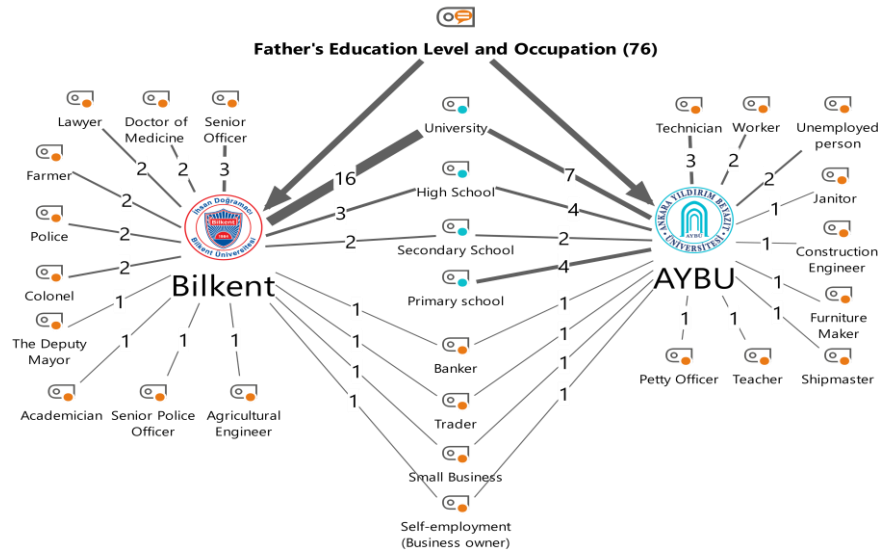
Education Level and Occupation of the Mother



As seen in Figure 4, the education level and professions of the mothers of the students differ significantly among the students in different higher education institutions. While it is seen that most of the Bilkent mothers are university graduates, the education level of AYBU mothers is more diverse and lower. When the occupations are compared, it is clear that the majority of Bilkent mothers perform reputable career professions. It is understood that the majority of mothers from AYBU are housewives.

Figure 4.

Father's Education Level and Occupation

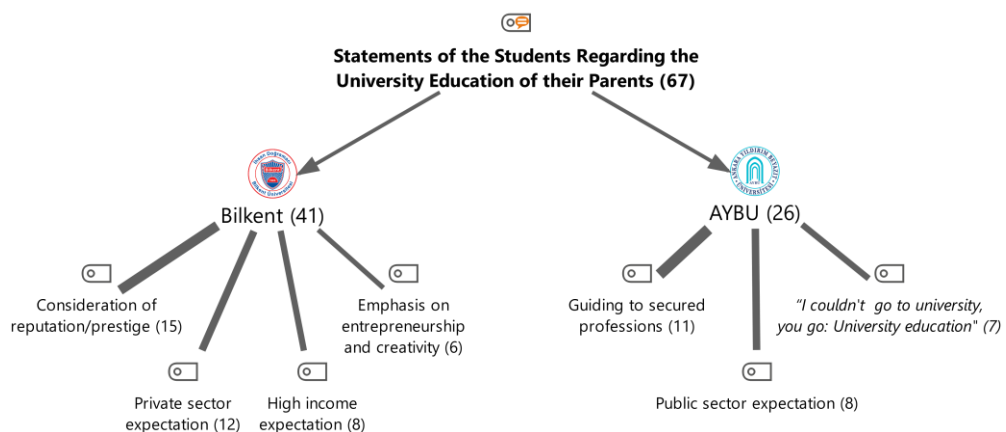


In Figure 5, the answers of the students regarding the education level and profession of their fathers are presented. While it is seen that the majority of Bilkent fathers are university graduates, and most of them have reputable professions. On the other hand, most AYBU fathers are university graduates but have less prestigious occupations.

Within the scope of the research, regarding the second category of parents' cultural capital, the question "What are your parents' thoughts and expectations about university education?" has been posed. Thus, the study examined how parents' value judgments about education affect students' transition process to university. Students' views on their parents are presented in Figure 6.

Figure 5.

Statements of the Students Regarding the University Education of their Parents



During the transition to university, the opinions of Bilkent and AYBU parents about education differ significantly from each other. The majority of parents of Bilkent students

believe that a respectable university education will give their children dignity/prestige. S4 expresses his/her parents' thoughts as follows:

"When I told them I wanted to be a lawyer, they responded, 'If you want to be a lawyer, you have to graduate from a well-known university.' In order for it to be a university that knows language and has an internationally valid diploma, you need to choose Bilkent University ' (S4, Law, Bilkent), [Consideration of reputation/prestige].

In addition, some Bilkent students' parents expect that their children will be employed in the private sector and earn high profits thanks to university education. The statement of S7 is as follows:

(My parents') expectations are to graduate with a good degree and start my own business or take a job with a good income in a high-level place" (S7, industrial engineering, Bilkent), [High income expectation].

On the other hand, some parents' emphasis on entrepreneurship and creativity draws attention with the private sector's expectation regarding university education. S17 expresses his/her parents' thoughts and expectations as follows:

"My mother was also involved to some extent. She continually reminds me that I should be open to new ideas and creative. I don't know how true this is, but according to my mother, if I study politics, my field of work will be limited only to the state, and if I study international relations, private companies and abroad will come into play more. International relations were more like having him elected because he had more foreign legs and more private company areas " (S17, International Relations, Bilkent), [Private sector expectation. Emphasis on entrepreneurship and creativity].

The thoughts and expectations of AYBU parents about their children's university education are quite different from those of Bilkent. Most of the students from AYBU stated that their parents turned to professions that assure them in the future. S28 expresses his/her parents' thoughts as follows.

"They (my parents) always wanted us to choose professions in which we would not have problems while advancing our lives. Although they did not specifically specify a profession, they would want me to continue in this way. [...] When we look at the profession, my father is an organized person in general, he would say that getting 8 liras every month will lead you to a more stable life instead of getting 10 liras every three months. They say that the profession you will have should be a profession that will sustain your life continuously " (S28, Industrial Engineering, AYBU), [Guiding to secured professions].

Contrary to the private sector emphasis of Bilkent parents, it is understood that AYBU parents expect to be employed in the public sector. Therefore, they want their children to work in the public sector by directing them to secured professions. S33 expresses the situation as follows:

"[My parents] always thought that it does not matter if you have a job, a regular life, a government or a fixed salary. Have job assurance than what I do, get on your own feet, they talk as if what you do is now up to you " (S33, International Relations, AYBU), [Public sector expectation].

Some AYBU students believe that because their parents did not obtain appropriate education in their previous life, they mobilized their resources for their university

education under the assumption that "I couldn't study, you study." S36's opinion on this issue is as follows:

"My father's cultural background stems from the fact that he always wanted to, but couldn't get to a point like university due to some circumstances and inadequacies. He always said he wanted to go to university. At that time, he could not go beyond high school because he lost his father and continued his education in the village. Due to the nature of the society at that time, he/she did not go to university due to concerns such as getting married and getting involved in life as soon as possible. My father kept telling, I couldn't attend university. "You go to university." He tries to offer us these opportunities when he can "(S36, English Translation and Interpreting, AYBU), ["I couldn't go to university, you go: University education"].

In summary, the values and expectations of the families of the students in different universities and departments in higher education differ significantly from each other based on their social class position.

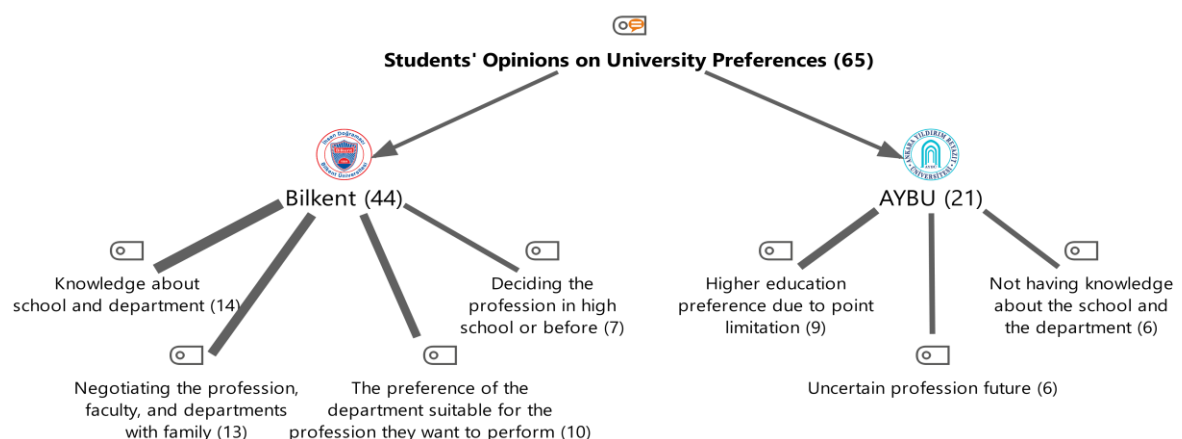
2. Findings Regarding the Cultural Capital of Students During the Transition to University

2.1. Findings related to the embodied cultural capital of the students

The theme related to the cultural capital of the parents of the students consists of two categories. As the first category of embodied cultural capital, the students were asked, "How did your process of choosing a university and a department change over time?" This question sought to elucidate students' familiarity with higher education by focusing on how they selected a higher education institution and how they were familiar with its knowledge. The analysis of the opinions of the students is presented in Figure 7.

Figure 7.

Students' Opinions on University Preferences



When the opinions of the students are examined, it is seen that there are significant differences between the participants from Bilkent and AYBU. It is assumed that Bilkent students have thorough knowledge of higher education before enrolling at the university. S1's statement about the situation of different universities is as follows:

"Students who rank in the top 600–700 students are eligible for admission to Ankara Faculty of Law. That's an extraordinary number. It's not possible. There is no obligation to attend such an education there, the finals are annual. At the end of the first semester, they take an exam, at the end of the second semester, they take an exam and they are evaluated according to these grades. It was not possible for me to prefer such a thing " (S1, Law, Bilkent), [Knowledge about school and department].

Some of the students from Bilkent stated that they negotiated universities, departments and professions with their families. The fact that families have professional occupations enables their children to direct their education routes. The following is the statement of S3:

"Before I entered the faculty for the first time, my father and I had already talked for a long time, about the quality of the department's education, about what to expect when I start my education. When I entered, we mostly exchanged ideas about what I should do, what I could do better, or how I could proceed here because my father is a lawyer, and what could be better for me" (S3, Hukuk, Bilkent), [Negotiating the profession, faculty, and departments with family].

It is understood from the statements of the participants that a significant number of Bilkent students made departmental preferences in accordance with the profession they want to perform in the future. Moreover, it is seen that this situation becomes evident in some students at the high school or pre-school education level. The statement of S7 is as follows:

"(This faculty and the department) I choose in order of scholarship, semi- scholarship, paid. I've had such an experience. [...] I only choose industrial engineering. I decided what I would be starting from high school, I was interested in the field of engineering in general and industry in particular " (S7, Industrial Engineering, Bilkent), [The preference of the department suitable for the profession they want to perform. Deciding the profession in high school or before].

Some students from AYBU emphasized that they preferred higher education due to the score limitation. In addition, students' lack of knowledge about the university and department they are in accompanies this situation. The statement of S28 is as follows:

"I didn't really want to be an industrial engineer. I'm more interested in computers and software. In fact, my last choice is this school and this department. And my score was enough for what I wanted. But since the ranking was very different from the score, industrial engineering came. But again, it's okay, I'm still working on the software. Industrial engineering covers a very wide area. I did not write this department very fondly, it was just a place where I wrote it so that it wouldn't come out anyway."" (S28, Industrial Engineering, AYBU), [Higher education preference due to point limitation, Not having knowledge about the school and the department].

Some AYBU students' lack of knowledge about the department is closely related to ambiguous professional ideals. S38 expresses the situation he/she has experienced as follows:

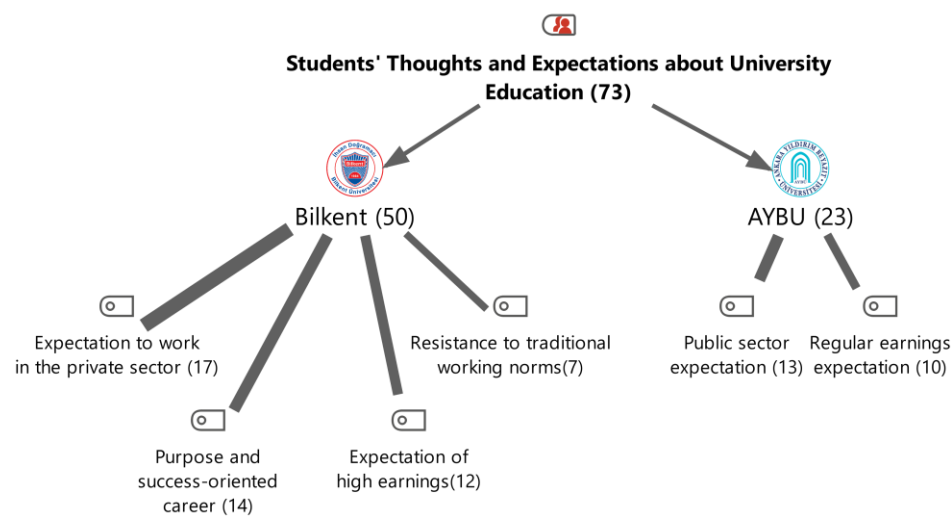
"At first, I thought of being a lawyer. Then I gave up on choosing the law. I had my mind set on interpreting, but I didn't even know what the interpreter was doing. I thought it was just the part for me because it pushed the boundaries of human English. I did not know exactly

what this profession was doing until I moved to university " (S38, English Translation and Interpreting, AYBU), [Uncertain profession future].

Within the scope of the research, values related to education are discussed as the second category of embodied cultural capital. In this direction, students were asked "What are your thoughts and expectations about university education?". The analysis of the opinions of the students is given in Figure 8.

Figure 8.

Students' Thoughts and Expectations about University Education



Bilkent students from the middle and upper social classes see university education as an investment that can help them to work in the private sector in the future and achieve high earnings.

"When I started law school, I was always going to be a lawyer. I don't like the civil service discipline in the judge and prosecutor's office that I saw from my father. I want to be a lawyer with the idea that my free earnings are a little more open-ended and I can increase my earnings when I graduate from a good university. [...] My expectation is to be able to work as a lawyer in an international company " (S4, Hukuk, Bilkent), [Expectation to work in the private sector. Expectation of high earnings].

In addition, some students stated that university education is a necessary investment both to create a career oriented towards purpose and achievement and to go beyond traditional working norms:

"After graduating from school, working in a world-renowned factory in China for 3-5 years, returning to a good place in Turkey and carrying it to my father's company" (S7, Industrial Engineering, Bilkent), [Purpose and success-oriented career].

" I am unable to bear up under difficulties." More comfort. Comfort is very important to me and I would like it to be a little more comfortable. I want what I do to be a good job. Let me choose my own working hours according to work intensity " (S15, Political Science and Public Administration, Bilkent), [Resistance to traditional working norms].

Students with ABU from the lower social class see university education as an activity that allows them to work in the public sector. The statement of S22 is as follows:

"I want to work in a position especially in the Ministry of Foreign Affairs. I would particularly like to be a legal advisor to the Ministry of Foreign Affairs. [...] I'm in financial trouble. I don't know if I can do this comfortably in private. It seems to me that the state will provide that convenience better " (S22, Law, AYBU), [Public sector expectation].

The public sector expectation turns into regular earnings expectation for some AYBU students at a later stage. S36 states the importance of making regular earnings as follows:

"One of the special areas of interest to me is working under the title of translator and interpreter in Ministries. As I said, it would be good to have a stable salary with difficult job opportunities " (S36, English Translation and Interpreting, AYBU), [Regular earnings expectation].

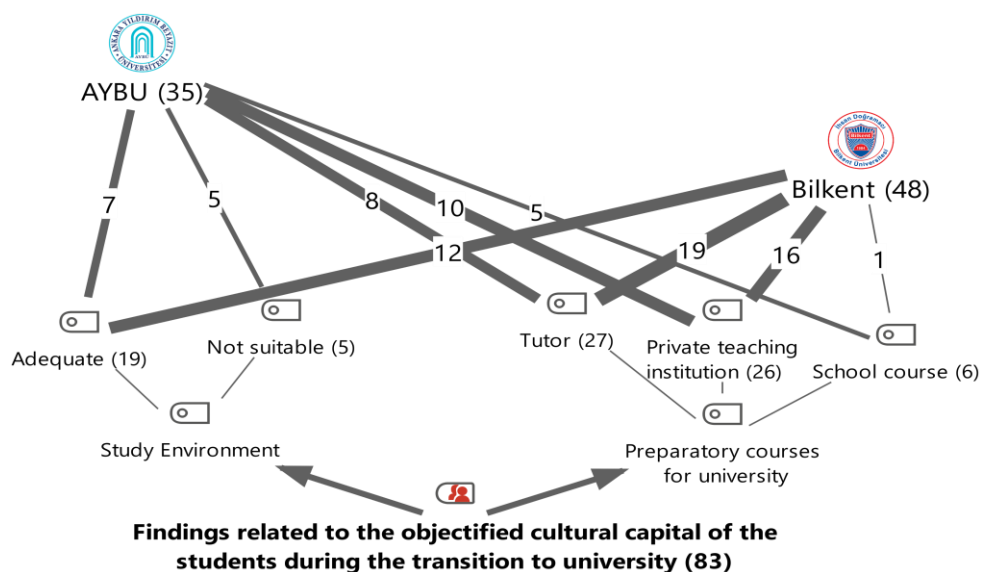
In summary, it is understood that social class position has a differentiating effect on how university preferences are realized and on the expectation of university education.

2.2. Findings related to the objectified cultural capital of the students

Within the scope of the research, students were asked "Can you give information about the home environment, the courses you have attended and the cultural/sports/musical activities you have participated in your university preparation process?". Thus, the research examined the working environment, cultural and educational resources that students benefit from during the transition to university. The analysis of the data obtained as a result of the opinions of the students is presented in Figure 9.

Figure 9.

Findings related to the objectified cultural capital of the students during the transition to university



In the transition to university, the majority of students in both groups indicate that their study environment is adequate. However, those who indicate that the work environment

is not appropriate are only AYBU students. Some of the opinions of these students are as follows:

"When I was getting ready for college, I was living with my grandparents. My brother and I share a room, my grandparents share a room, my parents share a room, and the living room is empty. There is constant noise in the house. There are old people, and my mother has to make her voice heard by those old people. There was no study environment at home" (S32, Sociology, AYBU), [Study environment is not suitable].

"My home environment was never good, it is not good at the moment. I don't have a table in my room. We have a situation where our house is crowded right now. My sister got married and divorced, and now they live with us, and we live in my room. Everything was put on the table except for courses-lessons. There are two young girls in the room. It's a makeup bag or something. I mean, I couldn't study. I do everything in bed, I sit in bed. The internet in the other rooms is not very good, and I don't want to sit there. My nephew makes a lot of noise. I'm locking this room, when I am studying. [...] I go to class, I say, I have a class. I take classes (online) up to 4 days a week. My nephew comes and takes a toy out of here, knocks on the door if I don't open it. My mother inviting me for the breakfast. So when I turn on the microphone, I check and turn it on 10 times. They argue, or the music, or anything, or my nephew's cartoon noises. Living in such a way that you can study it is impossible. [...] It was hard in high school, too. I had a nephew in high school when I was studying for the exam. At that time, we were having family problems, there was not a very healthy environment at home, but I could work at school " (S37, English Translation and Interpreting, AYBU), [Study environment is not suitable].

The students' answers to the category of university preparatory courses regarding this theme are quite different from each other. Almost all of the students from Bilkent stated that they went to the private courses not only during the university preparation process, but also throughout their education life:

"I went to primary school. 4. 5. I must have gone to class. I must have been to all 4-5-6-7-8. Then I didn't go to 9th grade in high school. I went to a boutique classroom in high school 10-11" (S16, International Relations, Bilkent), [Preparatory courses for university: Private teaching institution].

The majority of students with AYBU stated that they only benefited from the private courses during the transition to university. Some of the students emphasized that Bilkent students should convince their families to go to the preparatory courses, unlike their family supports:

"I went to the preparatory course. I only went for a year. 12. I started at the beginning of the class. Even 11th grade In the summer of the classroom, August, September and so on, the prep courses starts at that time. Honestly, it was kind of hard for me to go to the school, but I went anyway. I had to convince my parents that I had to go to the school. They know it, but they don't know it. I mean, they saw from the people around us, but they didn't realize that I had to go or prepare for a certain period of time. I struggled a lot " (S31, Sociology, AYBU), [Preparatory courses for university: Private teaching institution].

One of the most striking findings related to this theme is the students' taking private lessons. It is understood that a significant part of the students from Bilkent have taken private lessons from various courses for many years:

"At that time, I was taking a private lesson, but after a while, we were finishing a private lesson question-bank and then we were skimming the book and closing it. We weren't leaving

any unsolved questions in that book. After that, after a week or two, we were choosing a book and meeting in a cafe. We were just picking out a book and analyzing it. For a while, I was also taking literature in addition to Mathematics. Since it was a verbal lesson, a person with a certain reading culture, at least until Tanzimat, I had mastered the period. Apart from that, I had special teachers from physics, chemistry, biology and mathematics lessons just for problem solving " (S1, Law, Bilkent), [University preparation courses: Tutor].

Students from AYBU also stated that they took private lessons. It is thought, however, that the number and duration of private classes they take are more limited:

"I took math course , I took it at 12th Grade. I took a total of 3 months with 3-4 months left for the exam, it was a short time" (S30, International Relations, AYBU), [University preparation courses: Tutor].

"I have taken private math lessons twice. Because I still didn't know Cos 60 three months before the exam. I still don't know, actually, I learned for the exam " (S23, Law, AYBU), [University preparation courses: Tutor].

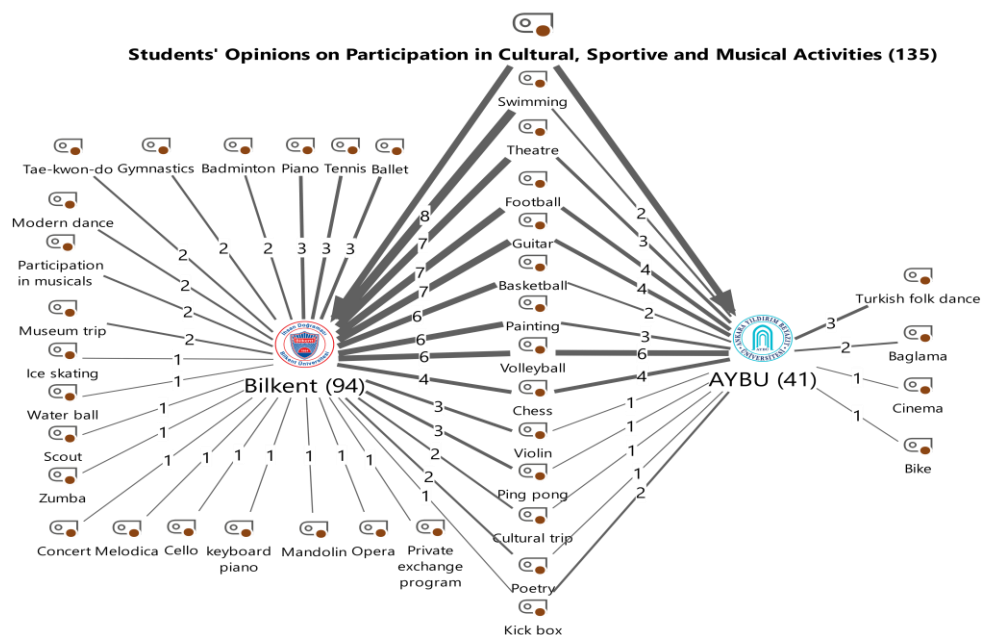
It is understood that some AYBU students who cannot attend private courses and dormitories benefit from the courses provided free of charge at school. The statement of S27 is as follows:

"I didn't go to any private courses. The state has courses, it is called support / supplementary courses. We prepared with them, we attended this course " (S27, Mechanical Engineering, AYBU), [University preparation courses: School course].

The last category related to this theme is the participation of students in cultural, sportive and musical activities. The students stated that they did these activities by taking private lessons, attending courses or in line with their interests. The analysis of the data obtained from the interviews with the students is presented in Figure 10.

Figure 10.

Students' Opinions on Participation in Cultural, Sportive and Musical Activities



As seen in Figure 10, it is seen that students' participation in cultural, sportive and musical activities is generally different. On the left side of the figure, various activities of Bilkent students are seen and it is understood that they have differentiated predispositions:

"I went to the ballet course. I went to a basketball course. I like to paint, I like to paint oil paintings, so I went to a special course, but I also painted paintings with my art teacher in secondary school. Then I played the violin with a special teacher. Then I played guitar and electric guitar for a very long time, I think from grade 2nd grade to 8th grade. I played chess for a while, went to swimming lessons in elementary school. My mother is good at it and tries to send me to everything. I played badminton in a club in high school and was licensed for a semester. I had the opportunity to improve myself on many subjects " (S19, English Language and Literature, Bilkent).

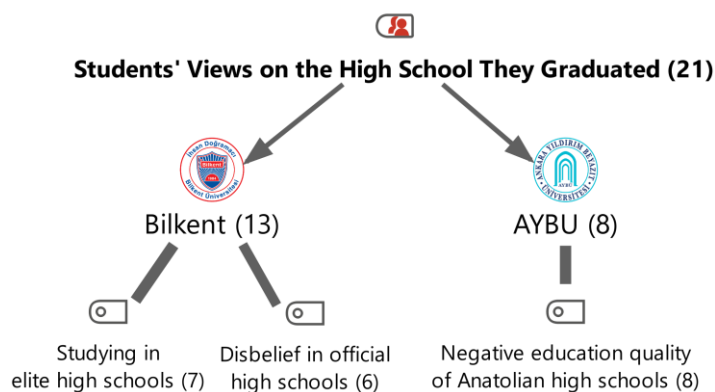
Activities that are common among students are shown in the middle of figure 11. On the right side of the figure are activities carried out by students from AYBU. It is understood that the activities of AYBU students are quite simple and "ordinary" compared to Bilkent students.

2.3. Findings on institutionalized cultural capital of students

Within the scope of the research, students were asked "What are your thoughts about your high school?". Thus, the quality of the students' high school education was discussed and its effect on university entrance was examined. The analysis of the data obtained from the opinions of the students is presented in Figure 11.

Figure 11.

Students' Views on the High School They Graduated



There are significant differences between the types of high schools where students graduated before higher education. It is seen that most students from Bilkent graduated from private high schools and the majority from AYBU graduated from Anatolian high schools (Annex, Table 2). In the study, some Bilkent students stated that they studied in very elite high schools by getting a high score from the transition exam to secondary education.

"Of course, I continued to read constantly. I got into Science High School. It was already one of the top 20 to 21 science high schools opened. In this exam, I was actually in the first 1 percentile. When you opened the list, whether private or public high schools in Turkey, the number of schools that I could not prefer was numbered with fingers " (S1, Law, Bilkent), [Studying in elite high schools].

Some of the students from Bilkent stated that they prefer private high schools although they have a very high score in the transition to high school. It is understood that the fact that the parents consider the quality of education of public high schools as low is effective in these preferences of the students and that they do not trust the education given in these public high schools:

"When I entered high school, I completed the TEOG process well. I got 488 points and now I was in the process of choosing. But at this point, my mother was the most influential. My mother influenced my opinion and decision. I wanted to go to Atatürk Anatolian High School (High school in Ankara). My mother said, "My trust in public schools was broken." [...] That's why she thought I should go to private school. And I thought what she said made sense. Because even though it was one of the best high schools in Turkey, it was like my mother said. That's why we started visiting private schools. There was an environment that I created in the classroom that I called A.... There were teachers I got along with very well. They called us and we talked there. I started my education there " (S8, Electrical Electronics Engineering, Bilkent), [Disbelief in official high schools].

Although the majority of students with AYBU study in Anatolian high schools, it is seen that some students consider the educational quality of this type of school as negative:

"I graduated from Anatolian high school. [...] It was close to home and there were no other high schools to go to. I didn't really want to go there because high school had a terrible reputation. Because its students were filthy. Some of the students were constantly trying to influence me and my friends. There were things going on at school that shouldn't have happened. For example, fighting becomes fighting, obscene situations... Fighting was a lot between male students because teachers were afraid of students. Also, the authority of the school was low, they could not manage the school well. The school was under the students' control, so I assume the principal wasn't doing a very good job. Very dirty things were heard" (S37, English Translation and Interpreting, AYBU), [Negative education quality of Anatolian high schools].

Conclusion and Discussion

In the study, the effect of students' social class positions on the transition to university was examined. The results obtained in the study were compared and evaluated under two headings with the results of previous national and international studies.

Conclusion and Discussion on the Capital of Students' Midwives

Under this heading, the economic capital of the parents was examined within the scope of the first theme. When the parents' income levels of the students participating in the study were compared, it was seen that the parents of the Bilkent students allocated their economic resources more to educational expenditures because the students with AYBU had much more income than their parents. The economic capital of parents is an

important source of inequality that separates Bilkent and AYBU students from each other and causes them to be pushed into unequal positions in higher education. This finding supports the findings of studies on economic capital differences in the transition to higher education (Buyruk, 2008; Bulbul, 2021; Ekinci, 2011; Suna et al., 2020; Tunc, 2011). In addition, the current findings obtained in this study support the researches emphasizing the findings that the need for daily "survival" for families with limited economic capital comes before the desire for higher education, children from these families spend less time in their education and academic work due to their part-time jobs, and compete with other students on unequal terms (Blanden & Machin, 2004; Lynch & O'Riordan, 1998), parents cannot meet their housing costs due to insufficient income levels, and students are limited to prefer universities in the city where their families live (Kara, 2009).

Under this heading, the parents' cultural capital was examined within the scope of the second theme. When the education level and professions of the parents of the students from Bilkent and AYBU were compared, it was revealed that the separation and inequality were experienced intensively. It is understood that most of the parents of the students from Bilkent are university graduates, while the parents from AYBU are in more diverse and lower level education stages. While this makes it easier for Bilkent students to become familiar with university education in the family, it causes AYBU students to get less knowledge and experience about university education from their parents. This finding is consistent with and supported by the results of other studies in which the education level of parents increased and students benefited more from higher education (Buyruk, 2008; Bulbul, 2021; Ekinci, 2011; Kilic, 2014; Suna et al., 2020; Tunc, 2011). In addition, in various reports examining educational inequality (Eğitim Reformu Girişimi [ERG], 2014; Ferreira ve Gignoux, 2010), at the secondary education level in Turkey, it is seen that there is a close relationship between the education level and profession of parents and the academic achievement of students. In the reports published by the Ministry of National Education regarding the secondary education transition exams in 2020 and 2021, there is a difference of 120 points or more between those whose parents' education level is primary school and those who have a postgraduate degree (MEB, 2020, pp. 27-28; MEB, 2021, pp. 25-26). The formation of such a high score difference separates students into different high schools and causes them to be in unequal positions in higher education in the future.

Another topic within this theme's scope is their parents' values regarding education. In the study, it was seen that the values and expectations of Bilkent and AYBU parents regarding education differed considerably from each other and affected the transition of their children to university. For some Bilkent parents, university education is an activity that provides dignity/prestige. Parents see the university as the key to working in the private sector and earning high earnings. University is an area for them to be entrepreneurial and creative. On the other hand, for some parents of AYBU, university education is a diploma that enables their children to reach secured professions. These secured professions are a job guarantee, hence work in the public sector. For this reason, it is understood that parents expect their children to work in the public sector for university

education. Therefore, while the parents of Bilkent students want new bourgeois to be raised, some parents of AYBU want their children to be civil servants who will raise and guarantee their social class positions.

Conclusion and Discussion on the Cultural Capital of Students

Under this heading, the cultural capital of the students participating in the research was evaluated under three themes. These are (1) embodied, (2) objectified, and (3) institutionalized cultural capital.

(1) Within the scope of embodied cultural capital, it is seen that some students from Bilkent have a qualified knowledge about universities, programs and professions and their familiarity with higher education not only during the transition process to higher education, but also during a period based on pre-secondary education, they gained by negotiating in detail with their families and made very determined program preferences for the professions they want to perform in the future. On the other hand, some AYBU students reported that they made higher education preferences in accordance with the score they got from the university exam, that they were in an uncertain career planning, and that they did not have clear information about the departments and programs. Therefore, while career and professional images for Bilkent people come before the score they get from the university exam, for AYBU people, the score they get from the university exam ensures the formation of career and professional images. There are studies in the literature revealing these differences between secondary school students. In the study conducted by Coskun (2019, p. 208) on private basic high schools and students studying in public high schools and their parents, inequalities in secondary education were examined. As a result of the research, it was determined that middle class parents established an effective and constructive communication with their children and negotiated their career planning over a long period of time. The results of the study conducted by Akcelik (2019) also support this situation. It has been determined that career planning of children from upper social class families who perform professional professions is quite prominent and parents play an important role in this situation. On the contrary, while lower class parents wanted their children to go to university, they were found to be less supportive in their school and department preferences.

Values play a central role in shaping individuals' and groups' actions, goals and expectations (Ulusoy, 2020, p. 17). On this axis, students' preferences as they move from high school to college are strongly linked to the cultural values they bring with them from their class positions. It was determined that the education-related values of the majority of the students participating in the study and the education-related values of their parents were compatible and related to each other. On the other hand, it was observed that the expectations from education differed significantly between Bilkent and AYBU students. A great majority of Bilkent students expect to work in the private sector. This is accompanied by goal- and achievement-oriented career expectations, high earnings expectations and resistance to traditional working norms. It is understood that some of the AYBU students expect to work in the public sector and earn regular earnings. In the study of Buyruk (2008, p. 104), it was revealed that students from middle-class families

who are similar to Bilkentian students have high ideals and "sense of self-confidence", while students from the lower class experience "fear of the future" and lack of self-confidence. Unlike the study of Buyruk, this study emphasizes that students with AYBU will gain regular earnings in the future rather than lack of self-confidence and are in the expectation of the public sector. As in Bulbul's (2021, p. 320) study, this result is closely related to the sub-social class position of the families of students' motivations to find work in the public sector. Similarly, in the study of Troiano and Elias (2014), it was determined that working class children kept risk to a minimum during university preference and chose the programs that they would secure themselves in the future. Therefore, with the emphasis of Bourdieu, it is seen that the subjective expectation of the students and their objective class positions are extremely in harmony in the transition to higher education (Bourdieu and Passeron, 2015, p. 200).

(2) Within the scope of objectified cultural capital, it was observed that the home environment in the transition to the university, the special education courses/courses taken and the cultural, sportive and musical activities attended by the students were differentiated. It is understood that some of the students with AYBU are preparing for the exams under inappropriate conditions due to the high number of people in the house and lack of their own rooms. Since the parents have more financial resources for education, most of the students from Bilkent benefit much more from the private courses and private teachers. Moreover, this situation is not only experienced in the transition to higher education, it is understood that students go to private lessons and classrooms for a long period of their education life. Fewer of the students from AYBU are preparing for university by taking private lessons and benefiting from private courses.

The fact that the number of students applying to higher education is well above the current quotas has given more qualification and selection to the central exams. This situation has led to an overflow of competition between students in the transition to higher education and an increase in the sector of preparing students for university entrance exams such as extra classes, private lessons, courses and additional education (TED, 2005, p. 6). Therefore, the importance of class position in students' competition is gradually increasing.

(3) Within the scope of institutionalized cultural capital, it has been observed that the disintegration and inequalities experienced by the students in the transition to university are closely related to the previous education level, secondary education. In the study, it was concluded that the majority of Bilkent students graduated from science or prestigious private high schools, and the majority of AYBU students graduated from Anatolian high schools. Therefore, it is understood that the students' dissociation into certain high schools during the transition to secondary education and the secondary education achievement scores they obtained during the high school process affect their transition to higher education by institutionalizing over time. The striking result of the research is that some Bilkentian students prefer paid private education institutions while they have the right to free education in public high schools with their high scores. Students and parents evaluate the educational quality of public high schools negatively and stay away

from public high schools consciously thanks to the opportunity provided by economic capital.

As a result, a student's position in higher education will provide important clues in terms of his position in the social hierarchy in the future. Although the departments in the university are the same or similar, it is a fundamental fact that graduation from Bilkent and AYBU is not equal. Therefore, there are various studies showing that the expansion of higher education and over-centralized transition systems to higher education lead to greater inequalities between universities (Carnoy, 2011; Liu et al., 2016; Lynch and O'Riordan, 1998). This shows that economic, cultural and social resources are a serious element of inequality even if individual rights and opportunities are provided in terms of social justice (Barry, 2017, p. 32).

Recommendations

In order to reduce the impact of factors such as courses, private lessons and classes that overflow outside the school during the transition to higher education, the economic and cultural capital of the families should be taken into consideration and policies should be developed on the basis of equity in this direction. For this purpose, rather than increasing the higher education quotas, it can be considered to reduce the centrality of the higher education transition exams, review and reconstruct the exams, and take into account the students' abilities. Otherwise, the higher education exams in which the right of entry is provided to all students will continue to maintain the elimination and selection mechanisms invisibly under the principle of "formal equality" and to realize social reproduction.

At the secondary education level, opportunities should be increased to ensure that students' abilities and potentials are objectively recognized.

It is among the researches that should be examined who benefits from higher education scholarships and whether the scholarship systems are inclusive in terms of social justice.

In the future, comparative studies of universities can be done to examine the inequalities experienced during the transition to higher education.

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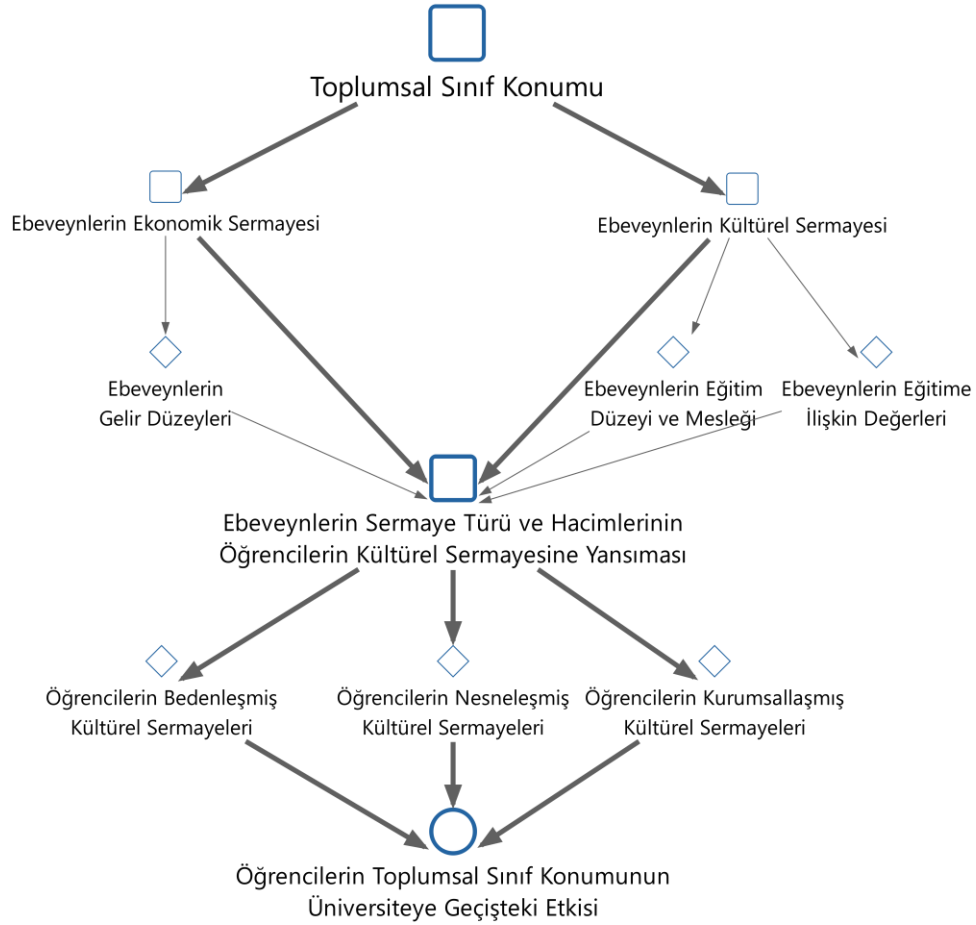
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Genişletilmiş Türkçe Özet

Türkiye’de 2020 yılında yükseköğretime geçiş için sınava başvuranların sayısı 2,4 milyonun üzerindedir ve bu sayı içinden lisansa yerleşenler sadece 431 bin civarındadır. Bu bağlamda yükseköğretime başvuran adayların ancak %17,7’si herhangi bir lisans programına yerleşebilmektedir (YÖK, 2022). Sınava giren fakat herhangi bir programa yerleşemeyen adayların sayısının açık öğretimden muaf tutulmuş yükseköğretim nüfusundan fazla olması, gerekli ihtiyacın karşılanamadığını ve yükseköğretime geçişte arz-talep arasındaki ilişkinin oldukça dengesiz olduğunu göstermektedir (Çelik, 2020, ss. 529-530; Çelik vd., 2020, ss. 69-74).

Prestijli üniversite ve bölümler göz önüne alındığında ise yükseköğretim fırsatlarının giderek daraldığı ve yükseköğretime geçiş üzerinde toplumsal sınıf konumunun önemli bir rol oynadığı görülmektedir (Suna vd., 2020). Bu eksende yükseköğretime erişimdeki eşitsizlikler, dağıtımın yönetilmesi ya da program sayılarının genişletilmesi gibi arz ve talep arasındaki ilişkiye yönelik uygulamaların yanı sıra toplumsal sınıf eşitsizlikleri açısından çözümlenmelidir (Kılıç, 2014).

Bu araştırmanın özgün yanı, nitel araştırma yönteminden iç içe geçmiş tek durum çalışması benimsenerek üniversiteye geçişte benzer ya da aynı bölümlerde bulunan ancak farklı iki kurumda yer alan öğrencilerin, toplumsal sınıf konumlarının karşılaştırılarak incelenmesidir. Böylelikle öğrencilerin toplumsal sınıf konumları ekseninde eşitsizlik örüntülerinin üniversiteye geçişteki etkisini ve üniversitelerin bu eşitsizlikleri sürdürmedeki rolünü anlamak amaçlanmaktadır. Sonuç olarak, yükseköğretim fırsatlarından toplumun belirli katmanlarının daha fazla yararlanması ve eşitsiz biçimde temsil edilmeleri, demokratik yükseköğretimin önündeki ciddi engellerden birini oluşturmaktadır. Bu çalışma, üniversitelerin daha eşitlikçi kurumlara dönüştürülmesi konusunda eğitim eşitsizliklerini incelemesi ve toplumsal eşitsizliklere dikkat çekmesi bakımından önem arz etmektedir. Kavramsal çerçeve, Pierre Bourdieu’nün “yeniden üretim kuramı”nın merkezini oluşturan ekonomik ve kültürel sermaye çerçevesinde ele alınmıştır.



Öğrencilerin toplumsal sınıf konumlarının üniversiteye geçişteki etkilerini inceleyen bu araştırma, nitel araştırma yöntemlerinden iç içe geçmiş tek durum deseni ile desenlenmiştir (Yin, 2003, s. 39). Bu durumun iki analiz birimi ise Bilkent ve Ankara Yıldırım Beyazıt Üniversiteleridir. Araştırmanın katılımcılarını 2020-2021 eğitim-öğretim yılında Ankara Yıldırım Beyazıt ve Bilkent Üniversitelerinde mühendislik, sosyal bilimler ve dil alanında öğrenim gören toplamda 38 öğrenci oluşturmaktadır. Araştırma verileri yarı yapılandırılmış görüşme formu kullanılarak derinlemesine görüşmeler ile toplanmıştır. Veriler açıklayıcı yapı analizi ile çözümlenmiş, MAXQDA 2018 Analytics Pro nitel analiz programı kullanılarak iki vaka modeli ile görselleştirilmiştir.

Araştırmaya katılan öğrencilerin ebeveynlerinin gelir düzeyleri karşılaştırıldığında Bilkentli öğrencilerin ebeveynlerinin, AYBÜ'lülere göre çok daha fazla gelire sahip olmaları dolayısıyla ekonomik kaynaklarını eğitim harcamalarına daha fazla ayırdıkları görülmüştür. Ebeveynlerin ekonomik sermayeleri Bilkentli ve AYBÜ'lü öğrencilerin birbirinden ayırıştırıcı ve yükseköğretimde eşitsiz konumlara itilmelerine neden olan önemli bir eşitsizlik kaynağıdır. Bu bulgu yükseköğretime geçişte ekonomik sermaye farklılıklarını konu alan çalışmalarda bulguları desteklemektedir (Buyruk, 2008; Bülbül, 2021; Ekinci, 2011; Suna vd., 2020; Tunç, 2011). Ayrıca bu çalışmada elde edilen mevcut bulgular; kısıtlı ekonomik sermayeye sahip aileler için gündelik "hayatta kalma" ihtiyacının yükseköğretim isteğinden önce geldiği, bu ailelerden gelen çocukların

yarı zamanlı işlerde çalışmalarından dolayı eğitimlerine ve akademik çalışmalarına daha az vakit ayırdığı ve diğer öğrencilerle eşit olmayan şartlarda rekabet ettiği (Blanden & Machin, 2004; Lynch & O'riordan, 1998), ebeveynlerin gelir düzeylerinin yetersiz olmasından dolayı barınma maliyetlerini karşılayamadığı ve öğrencilerin ailelerinin yaşadığı şehirdeki üniversiteleri tercih etme kısıtlılığı içinde bulunduğu (Kara, 2009), bulgularını vurgulayan araştırmaları desteklemektedir.

Araştırmada Bilkentli ve AYBÜ'lü ebeveynlerinin eğitime ilişkin değer ve beklentilerinin de birbirinden oldukça farklılık gösterdiği ve çocuklarının üniversiteye geçişini etkilediği görülmüştür. Bilkentli bazı ebeveynler için üniversite eğitimi saygınlık/prestij sağlayan bir faaliyettir. Ebeveynler üniversiteyi özel sektörde çalışmanın ve yüksek kazanç elde etmenin anahtarı olarak görmektedir. Üniversite onlar için girişimci ve yaratıcılıklarını gerçekleştirebilecekleri bir alandır. Öte yandan AYBÜ'lü bazı ebeveynler için üniversite eğitimi, çocuklarının güvenceli mesleklere ulaşmasını sağlayan bir diplomadır. Bu güvenceli meslekler iş garantisi, dolayısıyla kamuda çalışma anlamına gelmektedir. Bu nedenle ebeveynlerin üniversite eğitimi için çocuklarından kamuda çalışma beklentisi içinde oldukları anlaşılmaktadır. Dolayısıyla Bilkentli öğrencilerin ebeveynleri yeni burjuvaların yetişmesini istemekteyken, AYBÜ'lü bazı ebeveynler ise çocuklarından kendi toplumsal sınıf konumlarını yükseltecek ve garantiye alacak devlet memuru olmalarını istemektedir.

Bu doğrultuda araştırmaya katılan öğrencilerin çoğunluğunun eğitime ilişkin değerleri ile ebeveynlerinin eğitime ilişkin değerlerinin birbiriyle uyumlu ve ilişkili olduğu tespit edilmiştir. Diğer yandan Bilkentli ve AYBÜ'lü öğrenciler arasında eğitimden beklentiler ise birbirinden oldukça farklılaştığı görülmüştür. Bilkentli öğrencilerin çok büyük bir bölümü özel sektörde çalışma beklentisi içindedir. Bu duruma amaç ve başarı yönelimli kariyer beklentileri, yüksek kazanç beklentileri ve geleneksel çalışma normlarına direnç eşlik etmektedir. AYBÜ'lü öğrencilerin bir bölümünün ise kamu sektöründe çalışma ve düzenli kazanç elde etme beklentisi içinde oldukları anlaşılmaktadır.

Öğrencilerin üniversiteye geçişteki ev ortamının, almış olduğu özel eğitim kursları/derslerinin ve katıldığı kültürel, sportif, müzikal faaliyetlerinin ayrıştığı görülmüştür. AYBÜ'lü öğrencilerin bir bölümü, evdeki kişi sayısının fazla olmasından ve kendilerine ait odaları bulunmadığından dolayı uygun olmayan koşullarda sınavlara hazırlandıkları anlaşılmaktadır. Ebeveynlerinin eğitim için daha fazla maddi kaynağa sahip olmasından dolayı Bilkentli öğrencilerin büyük bir bölümü dersane ve özel öğretmenlerden çok daha fazla faydalanmaktadır. Üstelik bu durum sadece yükseköğretime geçişte yaşanmamakta, eğitim hayatlarının uzun bir dönemi boyunca öğrencilerin özel ders ve dersanelere gittikleri anlaşılmaktadır. AYBÜ'lü öğrencilerin ise daha azı özel ders alarak ve dersanelerden faydalanarak üniversiteye hazırlanmaktadır.

Öğrencilerin üniversiteye geçişte yaşadığı ayrışma ve eşitsizliklerin bir önceki eğitim kademesi olan ortaöğretim ile yakından ilişkili olduğu görülmüştür. Araştırmada Bilkentli öğrencilerin çoğunluğunun fen ya da itibarlı özel liselerden, AYBÜ'lü öğrencilerin büyük bir bölümünün ise Anadolu liselerinden mezun olduğu sonucuna ulaşılmıştır. Dolayısıyla öğrencilerin ortaöğretime geçişte belirli liselere ayrışması ve lise sürecinde elde ettikleri

ortaöğretim başarı puanları zamanla kurumsallaşarak yükseköğretime geçişlerini etkilediği anlaşılmaktadır. Araştırmada çarpıcı olan sonuç, Bilkentli bazı öğrencinin sahip oldukları yüksek puanlar ile devlet liselerinde ücretsiz öğrenim görme hakları bulunmaktayken ücretli özel eğitim kurumlarını tercih etmeleridir. Öğrenci ve ebeveynler itibarlı devlet liselerinin eğitim niteliğini olumsuz olarak değerlendirmekte ve ekonomik sermayelerin sağlamış olduğu imkân sayesinde kendilerini bilinçli olarak devlet liselerinden uzak tutmaktadırlar.

Sonuç olarak, bir öğrencinin yükseköğretimdeki konumu gelecekte sosyal hiyerarşideki konumu açısından önemli ipuçları verecektir. Her ne kadar üniversitedeki bölümler aynı ya da benzer olsa bile Bilkent ve AYBÜ'den mezun olma durumunun eşit olmadığı temel bir gerçektir. Yükseköğretimin genişlemesinin ve aşırı merkezîyetçi yükseköğretime geçiş sistemlerinin üniversiteler arasında daha büyük eşitsizliklere yol açtığına dair çeşitli araştırmalar bulunmaktadır (Carnoy, 2011; Liu vd., 2016; Lynch ve O'riordan, 1998). Bu durum sosyal adalet açısından (Barry, 2017, s. 32), üniversiteye geçişte bireysel hak ve fırsatların sağlanmış olsa bile ekonomik, kültürel ve sosyal kaynakların ciddi bir eşitsizlik unsuru olduğunu göstermektedir. Çalışma sonucunda yükseköğretime geçişte sosyoekonomik koşulların etkisinin azaltılması için merkezi sınava olan bağımlılığın gözden geçirilmesi önerilmektedir.

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Annex. Information about the participants interviewed

Table 2.

Information of the Interviewees

Code	Gender	University	Department:	Success Ranking	Scholarship Status	Type of High School	Monthly Average Family Income
S1	Male	Bilkent	Law	150	Scholarship	Science High School	15.000
S2	Male	Bilkent	Law	2.000	Fee-paying	Private High School	20.000
S3	Male	Bilkent	Law	5.000	Fee-paying	Private High School	30.000
S4	Male	Bilkent	Law	12.000	Fee-paying	Private High School	20.000
S5	Female	Bilkent	Industrial Eng.	6.000	50%	Private High School	13.000
S6	Female	Bilkent	Industrial Eng.	9,000	50%	Science High School	14.000
S7	Male	Bilkent	Industrial Eng.	19.000	Fee-paying	Science High School	20.000
S8	Male	Bilkent	Electrical and Electronics Eng.	3.000	50%	Private High School	8.000
S9	Female	Bilkent	Electrical and Electronics Eng.	20.000	Fee-paying	Anatolian High School	20.000
S10	Female	Bilkent	Computer Eng.	29.000	Fee-paying	Private Anatolian High S.	30.000
S11	Male	Bilkent	Economics	300	Scholarship	Private Anatolian High S.	10.000
S12	Female	Bilkent	Interior Architecture and Environmental Design	50.000	50%	Private Anatolian High S.	12.000
S13	Female	Bilkent	Political Science and Public Administration	140.000	50%	Private High School	80.000
S14	Female	Bilkent	Political Science and Public Administration	290.000	Fee-paying	Private High School	20.000
S15	Male	Bilkent	Political Science and Public Administration	500.000	Fee-paying	Private Anatolian High S.	50.000
S16	Male	Bilkent	International Relations	70,000	50%	Anatolian High School	10.000

S17	Female	Bilkent	International Relations	110.000	Fee-paying	Private Anatolian High S.	17.000
S18	Female	Bilkent	English Language and Literature	2.200	Scholarship	Science High School	8.000
S19	Female	Bilkent	English Language and Literature	8.000	50%	Private Anatolian High S.	15.000
S20	Female	Bilkent	English Language and Literature	9,000	50%	Anatolian High School	16,000
S21	Female	Bilkent	English Language and Literature	10.000	50%	Anatolian High School	20.000
S22	Female	AYBU	Law	DGS 400	Free of charge	Anatolian High School	3.000
S23	Male	AYBU	Law	12.000	Free of charge	Anatolian High School	15.000
S24	Female	AYBU	Law	14.000	Free of charge	Anatolian High School	16,000
S25	Male	AYBU	Law	11,000	Free of charge	Anatolian High School	12.000
S26	Female	AYBU	Computer Eng.	35,000	Free of charge	Science High School	8.000
S27	Male	AYBU	Mechanical Eng.	56.000	Free of charge	Science High School	9,000
S28	Female	AYBU	Industrial Eng.	59.000	Free of charge	Private High School	6.000
S29	Male	AYBU	Metallurgy and Materials Eng.	165,000	Free of charge	Private High School	3,200
S30	Male	AYBU	International Relations	70,000	Free of charge	Anatolian Teacher High S.	3.000
S31	Female	AYBU	Sociology	100,000	Free of charge	Anatolian High School	3.000
S32	Male	AYBU	Sociology	210.000	Free of charge	Anatolian High School	6.000
S33	Female	AYBU	International Relations	104.000	Free of charge	Anatolian High School	5.000
S34	Male	AYBU	Economics	127,000	Free of charge	Anatolian High School	5.500
S35	Male	AYBU	English Translation and Interpreting	6.000	Free of charge	Science High School	15.000

S36	Male	AYBU	English Translation and Interpreting	10.000	Free of charge	Anatolian High School	6.000
S37	Female	AYBU	English Translation and Interpreting	11,000	Free of charge	Anatolian High School	5.000
S38	Female	AYBU	English Translation and Interpreting	12.000	Free of charge	Anatolian High School	10.000

The Role of Motivation to Lead in Teacher Leadership*

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Abstract: While there is consensus that teacher leadership plays an important role in school development, it is often unclear what exactly teacher leadership requires. However, there is limited understanding regarding the driving forces that impact the rise and progression of teacher leadership within the Turkish educational framework. The objective of this study is to analyze the perspectives of teachers concerning the significance of motivation in relation to their capacity to assume leadership roles within the teaching profession. Phenomenological design, which is one of the qualitative research methods was used in this study. The data were obtained through semi-structured interviews with 15 teachers selected with purposive sampling method. The driving forces that affect teachers' transition from a teaching role to a leadership role in the emergence of teacher leadership were examined on the basis of the "Motivation to Lead Model" of Chan and Drasgow (2001). The research findings partially supported the claims that professional tendencies in the teaching profession might transform into teacher leadership. While the findings of the research partially supported the previous research results on motivation in teacher leadership, they largely explained the importance of motivation to lead in teacher leadership. A number of recommendations have been made to researchers and education policymakers that take individual differences in teacher leadership into account to maximize investment in leadership education and development.

Keywords: Teacher leadership, teacher professionalism, factors affecting teacher leadership, teacher leadership and motivation, motivation to lead.

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Introduction

In the 21st century, teacher leadership is acknowledged as an alternative school leadership model built on the shortcomings of traditional school leadership. (Bush, 2015; Beycioglu & Aslan, 2010; Can, 2006; Smylie & Eckert, 2018). Teacher leadership is frequently encouraged because of its positive impact on teachers' professional development and on the success of students and their academic achievements. (Beycioglu & Aslan, 2012; Poekert, 2012; Wenner & Campbell, 2017). While the concept continues to attract the attention of researchers, there is a significant amount of knowledge in the literature about who the teacher leaders are, their areas of influence, and the factors that affect teacher leadership (Beycioglu & Aslan, 2010; Nguyen et al., 2019; Wenner & Campbell, 2017). However, it is noteworthy that the role of motivation in teacher leadership has been addressed in a limited number of studies (Berg & Zoellick, 2019; Gray, 2016; Leigh Ross, 2019; Wei, 2012). It is believed that certain motivational factors that facilitate some teachers to undertake leadership roles and responsibilities beyond the expectations of their colleagues in the same school environment, have yet to be fully explored. Thus, it is important to clarify the concept in order to understand exactly what teacher leadership entails. (Schott et al., 2020; Wenner & Campbell, 2017; York-Barr & Duke, 2004). Otherwise, it is thought that sustainable teacher leadership capacity in schools can not be developed. When the overlaps between the newly emerged concept of teacher professionalism and teacher leadership are added to the inadequately explained aspects of teachers' leadership motivation, the uncertainties regarding when and where teacher leadership begins are further compounded. (Hunzicker, 2019).

The new understanding of teacher professionalism necessitates teachers to be inclusive, collaborative, flexible, and progressive, to lead change (Sachs, 2003), and to work effectively with groups and organizations outside the school. (Hargreaves, 2000). Hunzicker (2019) claims that teachers who may develop a professional understanding of teaching can become teacher leaders. However, this perspective on teacher leadership is not considered sufficient to explain where professionalism ends and leadership begins. As a matter of fact, while Coggins & McGovern (2014) state that increasing professionalism ideals for teachers make it more difficult to understand teacher leadership, they essentially point to the question of which professional teachers undertake the leadership mission. Considering that teacher leadership is evaluated as an influencing process in the literature and that it begins with teachers transitioning from their instructional role to a leadership role (Berry, 2018; Leigh Ross, 2019; Silva et al., 2000; Wenner & Campbell, 2017), it is believed that exploring the relationships between teaching, leadership, and motivation to lead may provide answers to these questions.

Understanding the motivational tendencies underlying teachers' leadership behaviors and the factors influencing these tendencies is considered important for comprehending uncertainties about when teacher leadership begins and for initiatives aimed at promoting teacher leadership. Hence, research findings indicating that teachers' leadership potentials are not sufficiently revealed support our thoughts in this direction. (Chen, 2020; Fairman & Mackenzie, 2014; Kurt, 2016; Wenner & Campbell, 2017; York-Barr & Duke, 2004). Indeed, the increasing interest in teacher leadership

encouragement in recent years has led researchers to examine the role of motivation in teacher leadership (Gray, 2016; Leigh Ross, 2019; Schott et al., 2020). There is a rich accumulation of knowledge indicating that teachers are motivated to engage in teacher leadership due to various individual (Berg & Zoellick, 2019; Gray, 2016; Leigh Ross, 2019; Wei, 2012) and organizational factors (Ash & Persall, 2000; Margolis & Huggins, 2012; Nguyen et al., 2019; Katzenmeyer & Moller, 2013; Schott et al., 2020). However, current research mostly explains the work of teacher leaders and the motivational factors that affect the development of teacher leadership. More empirical research is needed to explain why some teachers are more willing to take on leadership roles and responsibilities. Therefore, in the current research, the problem is approached from the perspective of motivation to lead rather than the perspective of motivation in teacher leadership.

In this research, teachers' attempts to take leadership responsibilities beyond their teaching obligations were examined based on the "Motivation to Lead" model (MTL) (Chan & Drasgow, 2001). The individual difference variable known as MTL is considered a theoretical framework that can assist in understanding and enhancing teachers' motivation to lead by identifying their unique characteristics. Furthermore, comprehending the associations among teaching, leadership, and motivation to lead is crucial in optimizing investments in leadership education and development (DeRue & Myers, 2014; Gurdjian et al., 2014), as it will aid in determining whether teacher leadership should be expected of all teachers or only those with a proclivity for leadership.

Thus, the goal is to examine the significance of motivation to lead in teacher leadership by analyzing the leadership experiences of teachers who are recognized as teacher leaders in their respective schools. To achieve this objective, the study aims to address the following research inquiries:

1. How do teachers explain the reasons for their interest in leadership?
2. How do teachers explain the factors affecting their motivation to lead?

Literature Review

Teacher leadership

Although uncertainties continue about what teacher leadership requires, there are various definitions in the literature aimed at explaining who teacher leaders are. For instance, according to Wenner & Campbell (2017), teacher leadership is "teachers taking on leadership responsibilities outside the classroom while maintaining classroom-based teaching responsibilities". Harris (2003) interprets teacher leadership as "a form of distributed leadership that includes empowerment, collective and shared action that supports the development of learning communities in schools". One of the most comprehensive definitions of who teacher leaders are belongs to York-Barr and Duke (2004). Researchers define teacher leadership as "influence of teachers, individually or collectively, with colleagues, school principals, and other members of the school community to improve teaching and learning practices to increase student learning and

achievement". The focus of all definitions is the work-oriented professional development of teachers for student learning and school development (Poekert, 2012). This focus indicates that teacher leadership occurs in the dimensions of "coordination and management, curriculum work, professional development, participation in school development, involvement of families and communities, contributions to the profession, and pre-service education (York-Barr & Duke, 2004). Some researchers explain the emergence of teacher leadership by pointing out that teachers who demonstrate "achievement and determination" in most or all dimensions of teacher leadership are the leading teachers (Hunzicker, 2019; York-Barr & Duke, 2004). Thus, it is pointed out that professional tendencies in the teaching profession may transform into teacher leadership (Hunzicker, 2019).

Some researchers consider supportive school culture (Ash & Persall, 2000; Can, 2006; Katzenmeyer & Moller, 2001) and factors such as the leadership style of the school principal as driving forces for the transformation of professional tendencies into teacher leadership in the teaching profession (Bellibas et al., 2020; Espinoza, 2013; Kurt, 2016; Margolis & Huggins, 2012). It is argued that school principals who adopt instructional leadership and distributive leadership styles, in particular, develop teachers' leadership potential (Hohenbrink et al., 2011; Kurt, 2016; Zeng & Lo, 2021). Recent studies have emphasized the positive effects of professional learning communities on teacher leadership (Lee & Kwan, 2021; Zeng & Lo, 2021). Although current research has made important contributions to understanding teacher leadership, it is important to grasp the nuances between teacher leadership and teacher professionalism to clarify the concept.

Teacher professionalism

Professionalism is the functionalization of professional knowledge and skills (Demirkasimoglu, 2010; Goepel, 2012) with the determination of criteria such as expertise, occupational standards, selection, supervision and autonomy in entering the profession (Bureau & Suquet, 2009; Carr, 2000). However, when it comes to the teaching profession, there are two different perspectives on the concept of professionalism in the literature. The first of these perspectives is related to the idea that the teaching profession is a semi-professional occupation (David, 2000). According to researchers who advocate this point of view, teachers are employees who have a professional status but have limited individual autonomy and are guided by their administrators (Leiter, 1978). As a matter of fact, Samuels (1970) supports these claims while stating that teachers are not autonomous in their studies because they cannot participate in important decisions in educational environments. According to the second perspective that considers the occupation as professional, teacher professionalism is defined as "a field of work with sociological, ideological, and educational dimensions that aims to achieve high standards based on knowledge, skills, and values in the teaching profession." (Demirkasimoglu, 2010). With this definition, it is underlined that the teaching profession has evolved from a semi-professional position based on classroom-based knowledge and skills over the years to professionalism (Bair, 2016). While changing sociological, ideological and educational conditions encouraged

professionalism in the teaching profession, it also caused teacher professionalism to turn into a concept with multiple meanings (Hargreaves, 2000; Sachs, 2003).

Hargreaves (2000) defines today's teacher professionalism as postmodern professionalism. While using this definition, the researcher criticizes teacher professionalism on the grounds that teachers are being crushed under multiple pressures and intensified job demands, but also interprets it as an exciting social movement that enables and fosters effective collaboration with groups and institutions outside of school. Recently, teacher professionalism has been approached through dimensions such as participation in decision-making and planning processes and having a greater say; directing other teachers; and developing competencies through collaborative professional development and lifelong learning (OECD, 2016). Thus, it is aimed to develop teachers' professional qualifications such as "being good at their job", "fulfilling the highest standards" and "reaching perfection" and to ensure professionalism in the teaching profession (Demirkasimoglu, 2010). Today, at this point, concepts such as competence, effective teaching, collaboration, authority, and leadership are considered critical components of teacher professionalism (Grimsæth et al., 2008; Rizvi & Elliot, 2005). It is expected that teacher professionals, beyond teaching in the classroom, will enhance student success by reflecting on themselves, collaborating, and assuming leadership roles (Coleman et al., 2012).

Teacher leadership and motivation

Motivation is an important factor in understanding the driving forces behind teachers' professional effectiveness in the teaching profession (Han & Yin, 2016; Sinclair, 2008). The role of motivation in teacher leadership literature has been examined in the context of factors affecting teacher leadership. Researchers highlight the importance of a range of individual and organizational factors for the development of teacher leadership in a school setting (Bellibas et al., 2020; Chen, 2020; Kilinc et al., 2021; Kosar et al., 2017; Kurt, 2016; Lee & Kwan, 2021). It is stated that teachers are motivated to become a teacher leader with the effect of individual factors such as increasing student success, making a difference, creating a collaborative community, and the desire for professional development (Berry, 2018; Gray, 2016; Wei, 2012). On the other hand, there are research findings showing that teachers are motivated or demotivated to teacher leadership by the effect of organizational factors such as school climate, school culture, and school principal's leadership style (Ash & Persall, 2000; Bellibas et al., 2020; Can, 2006; Katzenmeyer & Moller, 2013, Nguyen et al., 2019).

Theoretical Foundation of the Research

Motivation to lead in teacher leadership (MTL)

Chan & Drasgow (2001) defined motivation to lead as "a construct that influences a leader's or candidate's leadership training, decisions to take on roles and responsibilities, the intensity of their effort to lead, and their persistence as a leader." While MTL may differ between individuals, it is relatively constant within the individual. It is also based on the assumptions that individuals' leadership skills may be developed through

leadership training and experience, and that leadership motivation may be shaped over time. According to the affective-identity MTL, individuals' interest in leadership is related to whether they like leadership and whether they see themselves as leaders. It is associated with a sense of obligation or conformity with group norms according to the social-normative MTL, and lastly with their decision to lead by evaluating the advantages or disadvantages of the leadership position according to the noncalculative MTL (Chan & Drasgow, 2001: 482). On the other hand, researchers suggested that personality traits representing each dimension of MTL are different from each other. For instance, individuals with affective-identity MTL are extroverted, have individualistic and competitive personality traits, and see leadership as a means of self-actualization. Individuals with social-normative MTL for leadership are those who possess personality traits characterized by patience and a high sense of responsibility, and view leadership as a social duty. Finally, it is stated that individuals with noncalculative MTL have harmonious, collectivist and altruistic personality traits, and these individuals take the lead without an individual benefit expectation by evaluating the advantages and disadvantages of leadership (Chan & Drasgow, 2001). In addition to personality, some individual characteristics such as sociocultural values, cognitive skills, and past leadership experiences were among the antecedents of MTL (Chan & Drasgow, 2001; Clemmons & Fields, 2011).

Although MTL points to a leadership motivation to advance in hierarchical levels (Porter et al., 2016; Vilkinas et al., 2020), this research provided the basis for our attempts to clarify the concept of teacher leadership and to explain when teacher leadership emerged. Especially considering the egalitarian nature of the teaching profession (Can, 2006; Fairman & Mackenzie, 2014; Lieberman & Campbell, 2015), the emergence of some teachers as teacher leaders has led us to think that these teachers have the motivation to lead. On the other hand, it is thought that the motivation to lead may be a determining factor in the distinction between teacher professionalism and teacher leadership.

Method

Study Design

In the research, phenomenological approach was used in order to understand the role of motivation to lead in teacher leadership. In the phenomenological approach, the data sources consist of individuals or groups who experience the phenomenon focused on in the research (Creswell, 2013). The aim of the present study was to understand in detail the factors that influence the leadership interests and motivation to lead of the participants known as lead teachers in the schools where they work. For this reason, the focus was on the participants' experiences of the phenomenon and the meanings that researchers formed based on these experiences. Thus, the experiences of the participants and the meanings of the researchers were interpreted together. This approach has been considered as a practical start for attempts to create a new theoretical framework about phenomena with limited knowledge (Patton, 2014).

Participants

The participants in this research were determined in two stages. In the first stage, the categories of teacher leadership, including coordination and management, curriculum studies, professional development, participation in school development, family and community participation, contributions to the profession, and pre-service training (York-Barr & Duke, 2004), were explained to 157 school principals who participated in the administrator development project (YOGEP) trainings in Ankara. School principals were asked to identify teachers who have successful and determined practices in these categories in their schools and share their email information with the researchers after obtaining the teachers' approval. Thus, the e-mail information of 37 teachers known as teacher leaders in their schools were obtained.

In the second stage, 37 teachers were asked to fill out a survey that was prepared based on York-Barr & Duke's (2004) teacher leadership categories and aimed to demonstrate their leadership roles and responsibilities at the school, district, city, province, or national level outside of their instructional duties. All teachers completed the questionnaire. However, 18 teachers, who have consistently carried out the studies stated in the questionnaire for at least three years and who consider themselves as teacher leaders, were invited to the research assuming that they have the motivation to lead. Pilot interviews were conducted with two of 17 teachers and the research was completed with 15 teachers. (see Table 1).

Table 1.

Characteristics of the Participants

Code	Teachers' leadership characteristics
P1	She organizes debating tournaments at the national level. She coaches debating teams at her school. She provides debate training. She is a member of various debate societies.
P2	He is a creative drama expert. He provides creative drama training to teachers He gives creative drama workshops at the school where he works. He participates in trainings organized by creative drama associations
P3	She organizes mind games competitions. She gives mind games seminars to teachers. She does mind games club activities at the school where she works. She manages a network of teachers created to develop mind games
P4	He manages the K12 game development platform at the national level. He coordinates high school digital game competitions. He organizes digital game development workshops in schools.
P5	She writes children's books for preschool children. She organizes teacher and parent training in early childhood education. She coordinates pre-school education dissemination projects.
P6	He conducts workshops on "I am learning mathematics with games". He makes project studies related to teaching mathematics. He gives seminars on teaching mathematics with games to teachers.

- P7** He participates in curriculum studies.
He gives curriculum seminars to physical education teachers throughout the province.
He teaches part-time at the university.
He works in the practical training of physical education teacher candidates.
- P8** She is the founder of the early childhood education teacher network.
She takes part in early childhood education curriculum studies.
She shares information on early childhood education through a personal blog.
- P9** He gives teacher training in experiment workshops.
He gives project preparation seminars to teachers and students.
- P10** He provides extra-curricular instrument training to teachers and students.
He organizes national choir competitions and festivals.
- P11** She participates in curriculum studies for gifted children.
She conducts teacher seminars on music education.
- P12** She works in the executive commission of philosophy olympiads at national level.
She prepares teams for the Philosophy Olympics.
She provides philosophical essay writing workshops to teachers and students.
- P13** He conducts curriculum workshops at the museum.
He gives museum education seminars to teachers.
He provides consultancy for the establishment of school museums in schools.
- P14** He prepares students for aviation, space and technology competitions.
He gives seminars to teachers on preparing TÜBİTAK projects.
He shares knowledge and experience in TUBITAK teacher networks.
- P15** He provides coding training for primary school students.
He conducts seminars on preparing digital teaching materials.
He coordinates coding competitions.
-

Data Collection Tool

Interviewing is a frequently used data collection method in qualitative research to collect in-depth data about cases with limited knowledge and to better understand the research phenomenon (Creswell, 2013). For this reason, a semi-structured interview form was prepared by the researchers. While preparing the questions, the relevant literature was examined (Bellibas et al., 2020; Berg & Zoellick, 2019; Chan & Drasgow, 2001; Chen, 2020; Gray, 2016; Leigh Ross, 2019; Nguyen et al., 2019; Porter et al., 2016; Vilkinas et al., 2020). After receiving expert opinions on the questions, the interview form was finalized with pilot interviews with two teachers from outside the participant group. Probe questions were included in the interview form to be used when necessary.

Data Collection Process

Data were collected through interviews with 15 teachers. First, the participants were informed about the purpose and content of the study and the purpose for which the results would be used. In addition, the participants were guaranteed that their identities would remain confidential, that the interviews would be recorded and that the recordings would only be used within the scope of the research. After signing the "Informed Consent

Form”, interviews were held on the planned dates with the participants. The interviews lasted between 35 - 50 minutes. To ensure confidentiality, the participants were given codes from P 1..., to P 15.

Data Analysis

Firstly, the recordings of the interviews were deciphered and transferred to a word file. The transcripts were sent to the participants and their confirmations were obtained. All relevant documents and data, including interview transcripts and interview notes, were recorded in the digital folders created for the participants.

In this study, thematic analysis was conducted based on the relevant literature and research questions. The codes and categories for participant interpretations were created independently by the researchers. However, when the coding was complete, it was noticed that both the number of generated codes increased and some of the codes overlapped. This situation has led researchers to look for broader themes or claims on the data. For this reason, the generated codes were checked many times; the relationships between the codes were examined; the codes were constantly compared with the relevant literature. Thus, the differences between the codes were explored. As the research reached valid findings, the themes, sub-categories and categories became clear. Cross-checks were made by comparing the thematic code lists created by the researchers.

The first research question led to the creation of categories explaining the reasons for teachers' interest in leadership. These categories were combined under the theme of motivation to lead. With the second research question, categories explaining the factors affecting teachers' motivation to lead were formed. These categories have been addressed under the theme of factors affecting leadership motivation. Although the two themes created at the end of the data analysis might suggest that ready-made themes were used, the themes were based on the relevant literature and research questions. The findings that explain the role of "leadership motivation" in teacher leadership point towards more conceptual claims and hypotheses, moving from exploration to confirmation in the research.

Finally, the results of the thematic analysis were checked by peers outside the study with the peer briefing strategy. As many quotes as possible are included in order to validate the findings and to transfer the findings of other researchers to different contexts (see Table 2).

Table 2.

Themes and the Related Categories

Themes	Categories
I. MTL	1. Affective-identity MTL
	2. Noncalculative MTL

II. Factors affecting MTL	<p>1. Individual factors</p> <ul style="list-style-type: none"> - Personality characteristics - Self-efficacy perception - Values <p>2. Contextual factors</p> <ul style="list-style-type: none"> - Group dynamics - Interaction with the principal
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Establishing Credibility and Trustworthiness

In qualitative research, processes such as reporting the data in detail and explaining how the results are achieved are followed in order to increase the credibility and trustworthiness (Patton, 2014). For this reason, a research agenda was first created in order to discipline all stages of the research and to increase the reliability. The study plan, research notes, individual thoughts and comments of the researcher about the interviews were recorded in this agenda. In addition, participant confirmations were received for each interview. The peer briefing strategy and the thematic analysis results were checked by colleagues outside the study. As much as possible, detailed quotations are included both to confirm the findings and to enable other researchers to transfer the findings to different contexts (Creswell, 2013).

Findings

In this section, the research findings obtained as a result of the interviews with the participants are included. Our findings reveal that teacher leaders go beyond their teaching roles and assume leadership roles in order to increase student learning and achievement; they influence their colleagues and school principals (Silva et al., 2000; Wenner & Campbell, 2017; York- Barr & Duke, 2004). All of the participants emphasize their influence areas while describing their experiences in this direction.

For example, the preschool teacher (P5) explained their leadership experience as “I see that my studies have a butterfly effect on the preschool community and my personal development. I started writing children's books with the experiences I gained in early childhood education and the feedback I received from children, colleagues, and parents. The interest in children's books both increased my recognition and opened new doors for me. As I continue to teach at school, I also share my experiences with larger audiences.”

On the other hand, our findings gave clues about making the distinction between teacher leadership and teacher professionalism. While most of the participants made this distinction between the lines based on their experiences, the mathematics teacher (P3) summarized her thoughts in this direction while talking about her studies on mind games:

“At the school, many of our colleagues strive to improve student success and drive the school forward. When you enter the teachers' room, you can see that the most heated conversations are

about students. Teachers often learn from each other the latest information and applications. Yet, to be able to affect more students, teachers and different groups requires, I do not know, a different kind of energy and desire. I think this energy changes the axis of teaching."

In addition, these sentences reinforced our thoughts that the uncertainties about when teacher leadership begins (Hunzicker, 2019; Poekert, 2012; York-Barr & Duke, 2004) may be explained by the motivation to lead.

Motivation to Lead (MTL)

MTL explains the leadership tendencies of individuals with motivational processes in leadership psychology. The participants of this research explained their leadership tendencies with different motivational processes (Chan & Drasgow, 2001). Thus, the theoretical foundations of MTL are largely supported by participatory interpretations. Nine participants' motivation to lead was associated with affective-identity MTL. These teachers expressed their pleasure and satisfaction in leading in different ways. The interpretations of the two participants explained the thoughts of the other participants who were interested in the affective-identity MTL and leadership:

"Being a pioneer in every aspect of my work, doing what has not been done, pushing the limits has always excited me." (P1).

"After every work I have successfully completed, there is nothing like stepping aside to watch the painting and be proud of myself." (P6).

On the other hand, six participants' reasons for being interested in teacher leadership were related to noncalculative MTL. These participants pointed out that they lead without any expectation of personal benefit. The music teacher (P10), who gives instrument training to teachers and students outside the curriculum, explained the leadership responsibilities he assumed without expecting any benefit explained in the following sentences.

"Those who know me know that I am good in my field. I always feel that I need to do more than an ordinary music teacher. I have been teaching students and teachers to play instruments for years even though it is not in the curriculum... I think it is necessary to do this despite the extra responsibilities it brings me."

In addition, the assumptions that individuals' leadership skills may be developed through leadership training and experience and that leadership motivation may be shaped over time were mostly supported in this research (Chan & Drasgow, 2001). The thoughts of the computer teacher (P4), who is the manager of the K12 digital game development platform, were also expressed by most of the participants.

"As a matter of fact, I cannot say that I am smarter or a better teacher than my colleagues. But I can say that I know myself more. I know what I want to do, why I want to do it and how I can do it. I think that every colleague who can achieve this will automatically stand out."

Our findings indicated that participants were motivated to lead with affective-identity MTL and noncalculative MTL; While explaining that MTL may be developed, the findings pointed to several individual and contextual factors that influence the emergence of MTL

dimensions. In the following theme, the factors affecting the motivation of the participants to lead are explained.

Factors Affecting Motivation to Lead

Individual factors

Participant narratives revealed that teachers' personality traits, self-efficacy perceptions and values affect their motivation to lead (Chan & Drasgow, 2001; Clemmons & Fields, 2011). For example, the literature teacher (P1), who organized national debate tournaments, gave clues about extroverted and competitive personality traits while explaining her motivation to lead.

"I am always sociable, active and assertive. This aspect is also reflected in my teaching. My dreams are way above teaching literature to 9th and 10th graders."

Similarly, the classroom teacher (P2), who is a creative drama instructor and does creative drama workshops, made a self-evaluation while explaining the reflections of personality traits on leadership motivation.

"They say that I am reliable, calm and conciliatory, like an opinion leader. These aspects of me help us to work in harmony with our teachers and students. So we all experience a profound, silent transformation."

The linking between participants' extroverted, competitive personality traits and affective-identity MTL, and collectivist and adaptive personality traits and noncalculative MTL were found to be important in that the research findings continue to support our theoretical foundation.

In addition to the personality traits of teachers, it was understood that their self-efficacy perceptions were reflected in their motivation to lead (Chan & Drasgow, 2001; Clemmons & Fields, 2011). However, while some teachers pointed out that self-efficacy perceptions develop under the influence of contextual factors, those who participated in curriculum studies in early childhood education (P8) expressed their experiences in this direction as:

"The good thing is that as I receive positive feedback from my colleagues and administrators, and as I see the benefits of our work for children, my belief in what I can do increases."

Some participants related the reflection of their self-efficacy perceptions on their motivation to lead completely with their individual characteristics. The philosophy teacher (P12) working in the National Philosophy Olympics executive committee summarized the thoughts of the participants who thought in this direction as:

"I think that my individual intellectual efforts are behind every study I have successfully completed. I see what I do as a guarantee of what I will do."

It was evaluated as a remarkable finding that the participants who associated their self-efficacy perception with individual factors had affective-identity MTL, while the participants who associated it with contextual factors had noncalculative MTL. Although

this situation made the researchers hesitant about in which category self-efficacy perception should be handled, self-efficacy perception was considered as an individual factor that can be affected by contextual factors in the study.

Finally, the values that affect the motivation of the participants to lead and the motivational roles of the values on the behaviors and behavioral tendencies of the individuals contributed to our explanation (Schwartz & Bilsky, 2013). The physical education teacher (P7), who teaches part-time at a university, explained the value he attaches to his individual development as follows:

“Actually, I am a good teacher. No one has any extra expectations from me. For me, all I do is a way of expressing and improving myself.”

Similarly, (P11), who provides music education to gifted students and works on curriculum programmes, explained her values shaped by conscience and sense of responsibility thusly:

“In our education system, gifted children are always expected to be inventors. We art teachers have to transform this understanding. If we can't do this, it will be a shame for the children. I want to lead this transformation.” She drew attention to the reflections of her values on her motivation to lead.

The values of the participants were also found to be related to the characteristics of the affective-identity MTL and the noncalculative MTL, just like their personality traits and self-efficacy perceptions. For example, it is noteworthy that the person with an affective-identity MTL (P5) values personal development and the noncalculative MTL (P11) is motivated by the values she attaches to the sense of conscience and responsibility.

On the other hand, the participants clearly stated between the lines that they were not interested in formal leadership roles. For example, the science teacher (P9), who gives teacher training in experiment workshops, explained his thoughts in this direction as follows:

“Being a head of department or an administrator is not for me. I see that the friends who do these jobs are drowning in documents and acting according to instructions. It is so evident that they are doing and trying to make others do things that they do not believe in.”

Contextual factors

Our research findings seem to be partially compatible with the results of recent MTL research, which adds contextual factors as well as individual factors to the motivation to lead (Porter et al. 2016; Rossi, 2011). Participants evaluated school principals, colleagues, and students among the factors affecting their motivation to lead. However, it was observed that these contextual factors indirectly affect the leadership motivation by contributing to their self-efficacy perceptions rather than directly affecting the leadership motivation of the teachers. The history teacher (P13), who gives museum education seminars to teachers and conducts workshops in museums, shared the effects of contextual factors on leadership motivation along these lines:

“Seeing the increasing interest of the students I work with and the fact that the children come to me with new ideas increases my faith in my work even more.”

Similarly, the physics teacher (P14), known for his TUBITAK projects, shared his experiences as:

"When I first came to school, I witnessed a group of teachers who heard about my work and laughed when they saw me saying Einstein was coming. Our principal also hinted several times that I should not stray from routine practices. Over time, as I saw the works that made a difference, I started to be accepted at school. Many of those who did not take our work seriously started coming one by one with project ideas in their pockets."

However, none of the participants made an assessment that they saw contextual factors as a direct demotivation cause. While a small number of participants mentioned that they were excluded at school, it was understood that these participants turned contextual factors in their favor as their sphere of influence expanded and their power increased.

In addition, the researchers' interview notes include comments such as "teachers are not complaining about increased workload and overtime as contextual factors that affect their leadership motivation. They are improving seemingly negative contextual situations through leadership. They are generally optimistic and appear determined in leadership." This was interpreted as the participants' ability to control the negative effects of contextual factors.

Discussion

In this study, it is aimed to understand the role of motivation to lead in teacher leadership in order to clarify the uncertainties about when teacher leadership begins and to contribute to the initiatives to encourage teacher leadership. Teachers' motivation to lead and the factors affecting their motivation to lead were examined on the foundation of Chan & Drasgow (2001) leadership motivation model (MTL). The reflections of the relations between teaching, leadership and MTL on teacher leadership have been explored through experiences. Current literature and empirical findings are interpreted together.

Our research findings suggest that teacher leadership begins with the transition from teaching role to leadership role, indicating that the teaching profession undergoes a transformation that includes participatory leadership actions. (Leigh Ross, 2019; Poekert, 2012). Indeed, Silva et al. (2000) described this situation as the re-culturation of the teaching profession, with explanations of third wave teacher leadership. On the other hand, our findings partially supported the claims that professional tendencies in the teaching profession may turn into teacher leadership and that teachers who show "success and determination" in teacher leadership categories may become teacher leaders (Hunzicker, 2019; York-Barr & Duke, 2004). Teacher leadership has been evaluated as a more comprehensive concept that includes teacher professionalism. The emergence of some teacher professionals with the identities of teacher leaders showed that these teachers have the motivation to lead. Thus, it has been explained by MTL that teacher leadership is expected not from all teachers but only from some teachers who are interested in leadership (DeRue & Myers, 2014; Gurdjian et al., 2014).

The emphasis on leadership role rather than teaching role in teacher leadership, (Beycioglu & Arslan, 2012; Curtis, 2013; Fairman & Mackenzie, 2014; Silva et al. 2000; Wenner & Campbell, 2017), as well as previous research on motivation in teacher leadership (Berg & Zoellick, 2019; Can, 2006; Leigh Ross, 2019; Gray, 2016) and our thoughts on the development of teacher leadership through the work of lead teachers, support our ideas while also highlighting once again the missing aspects of these studies. This research has largely explained the non-negligible importance of MTL in the transition from a teaching role to a leadership role. The role of individual differences in teacher leadership became clear when the components of MTL were added to the results of the research, which explained the reasons for teachers' interest in leadership with individual motivation factors.

In addition, the findings partially supported recent MTL research that added contextual factors as well as individual factors to MTL (Porter et al. 2016; Rossi, 2011). Research results revealed that contextual factors have a partial effect on some individual factors that affect teachers' motivation to lead (Ninkovic & Knez'evic' Floric, 2018; Vermeulen, et al. 2022). This situation has been interpreted as the indirect effects of contextual factors on teachers' motivation to lead (Espinoza, 2013; Hunzicker, 2012). It was seen that contextual motivation factors (Ash & Persall, 2000; Katzenmeyer & Moller, 2013, Nguyen et al. 2019) did not primarily affect teachers' motivation to lead, which was consistent with previous research findings examining teacher leadership motivation (Bellibas et al. 2020; Espinoza, 2013; Hunzicker, 2012; Kilinc et al. 2021).

Conclusion

While attempts to understand the complex nature of teacher leadership continue in the school leadership literature, Chan & Drasgow's (2001) MTL model has been a source to explain the reasons for teachers' interest in leadership in this research. The results of the research contributed to the understanding of teachers' motivation to lead by revealing their individual differences. Thus, while distinguishing between professionalism and leadership in the teaching profession, when teacher leadership emerged is explained from a different perspective. In addition, attention was drawn to the importance of individual and contextual factors that affect teachers' motivation to lead.

The first implication of the study, in line with previous research results, is related to the transition of teacher leaders from a teaching role that includes classroom-based teaching responsibilities to a participatory leadership role (Leigh Ross, 2019; Silva et al. 2000; Wang & Ho, 2020; Wenner & Campbell, 2017). This role transition has shifted the direction of teacher leadership and motivation research towards motivation to lead. For this reason, it is thought that new researches that will focus on teachers' motivation to lead will contribute to the rethinking of teacher leadership and the existing knowledge. Another important implication of this research is that teacher leaders do not see contextual antecedents that affect their motivation to lead as a primary source of motivation (Espinoza, 2013; Hunzicker, 2012; Wei, 2012). Therefore, policymakers in

education should not overlook the individual differences of teachers while improving contextual factors in their attempts to encourage teacher leadership. Indeed, Schwartz (2013) states that “leaders and organizations need to be more aware of the motivating strategies that followers desire; Otherwise, they will be insufficient to increase their leadership capacity”. In addition, Chan & Drasgow (2001) state that individuals' leadership skills may be developed through leadership training and that the motivation to lead may be shaped over time. Considering the future of teacher leadership, it should be taken into account how a leadership design based on individual differences may be included in efforts to increase the quality of teaching and learning in teacher leadership programs (Berg & Zoellick, 2019), keeping in mind that teachers are not interested in formal leadership roles.

This research, which was conducted with the participation of 15 teachers known as teacher leaders in their schools, is an important initiative in terms of being the first research that directly examines MTL under teacher leadership. However, since the study was conducted with a limited number of participants, it is clear that the findings may not be conclusively interpreted. It should also be noted that the research was conducted with a group of Turkish teacher leaders in a national context. For this reason, conducting similar studies in different cultural contexts will contribute to a better understanding of the subject. Moreover, examining the relations between teacher leadership, MTL and the antecedents of MTL with extensive quantitative research is considered important in terms of its contribution to the literature. Thus, it is thought that the first steps may be taken for a new teacher leadership model that takes MTL into account in teacher leadership. Finally, it is recommended to examine how teachers' different leadership motivations are reflected in their leadership styles in future research. In this way, inferences may be made about how the leadership styles of teachers with different leadership motivations affect job performance, school climate and organizational citizenship. The results of teachers' motivation to lead may be evaluated.

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Geniřletilmiř Trke zet

Gnmzde ğretmen liderlięi ğretmenlerin profesyonel geliřimi, srdrlebilir ğrenci bařarısı ve okul geliřimi iin kapasite oluřturmanın nemli yollarından biri olarak deęerlendirilmekte (Fulan ve Hargreaves, 2016; Lieberman, Campbell ve Yashkina, 2016; Scott, 2011) ve geleneksel okul liderlięine alternatif bir okul liderlięi modeli olarak teřvik edilmektedir (Bush, 2015; Can, 2006; Smylie ve Eckert, 2018). Alanyazında ğretmen liderlięinin olumlu etkilerini (Curtis, 2013; Supovitz, 2018) ve ğretmen liderlięini etkileyen faktrleri (Can, 2006; Bellibař, Gmř ve Kılın, 2020; Lee ve Kwan, 2021; Nguyen, Harris. ve Ng., 2019) anlamaya ynelik arařtırmalar devam ederken (Margolis, 2012; Sebastian, Huang ve Allensworth, 2017; Supovitz, 2018), ğretmen liderlięinin tam olarak neyi gerektirdięi ve ğretmen liderlięi davranıřlarının arkasında yatan motivasyonel faktrlerin neler olduęu konusunda belirsizlikler bulunmaktadır (Schott, vd., 2020; Wenner ve Campbell, 2017; York-Barr ve Duke, 2004). Aynı okul ortamında grev yapan bazı ğretmenlerin meslektařlarından beklenen sorumlulukların tesine geerek ğretmen lideri olmalarını etkileyen motivasyonel faktrleri aıklamak iin daha fazla ampirik arařtırmaya ihtiya duyulmaktadır. zellikle ğretmen profesyonellięi ile ğretmen liderlięi kavramları arasındaki rtřmeler ğretmen liderlięinin ne zaman ve nerede bařladıęına iliřkin belirsizliklerin artmasına neden olmaktadır (Hunzicker, 2019).

ğretmen profesyonellięi ğretmenlerin kapsayıcı ve iřbirliki olmalarını, deęiřime nclk etmelerini (Sachs, 2003), okul dıřında gruplar ve kurumlarla etkili bir řekilde alıřmalarını gerektirmektedir (Hargreaves, 2000). ğretmen liderlięi ise ğretmenlerin sınıf temelli ğretim sorumluluklarını srdrrken sınıf dıřında liderlik sorumluluklarını stlenmesi (Wenner ve Campbell, 2017); ğrenci ğrenmesini ve bařarısını artırmak amacıyla ğretme ve ğrenme uygulamalarını geliřtirmek iin ğretmenlerin bireysel veya toplu olarak meslektařlarını, okul mdrlerini ve okul topluluęunun dięer yelerini etkilemesi olarak tanımlanmaktadır (York-Barr ve Duke, 2004). Coggins ve McGovern' e (2014) gre ğretmenler iin artan profesyonellik idealleri ğretmen liderlięinin anlařılmasını daha da zorlařtırmaktadır. ğretmen liderlięinin bir etkileme sreci olarak deęerlendirildięi ve ğretmen liderlięinin ğretmenlerin ğretim rolnden liderlik rolne gemesiyle bařladıęı dikkate alındıęında (Berry, 2018; Leigh Ross, 2019; Silva vd., 2000; Wenner ve Campbell, 2017) ğretmenlik, liderlik ve liderlik etme motivasyonu arasındaki iliřkilerin incelenmesi bu yndeki belirsizlikleri anlayabilme ve ğretmen liderlięini teřvik etme giriřimleri aısından nemli grlmektedir.

Mevcut arařtırmada ğretmenlerin liderlik sorumluluklarını stlenme giriřimleri bireysel bir farklılık deęiřkeni olan "Liderlik etme motivasyonu modeli" (LEM) temelinde incelenmiřtir (Chan ve Drasgow, 2001). Liderlik etme motivasyonu, "bir liderin veya lider adayının liderlik eęitimi, rolleri ve sorumluluklarını stlenme kararlarını, liderlik etme abasının yoęunluęunu ve lider olarak kalıcılıęını etkileyen" bir yapıdır. Bireylerin liderlik becerilerinin liderlik eęitimi ve deneyimi yoluyla geliřtirilebileceęi varsayımlarına dayanır. Bireylerin liderlięe ynelimleri Duyuřsal- kimlik LEM' e gre liderlikten hořlanıp hořlanmamaları ve kendilerini lider olarak grp grmemeleri; Sosyal-normatif LEM' e gre zorunluluk veya grup normlarına uyma duygusu; ıkarsız LEM' e gre liderlik

pozisyonunun getireceği avantaj ya da dezavantajları değerlendirerek liderliğe karar vermeleri ile ilişkilidir (Chan ve Drasgow, 2001: 482). Diğer taraftan LEM' in her bir boyutu farklı kişilik özellikleri ile temsil edilmektedir. Dışa dönük, bireyci ve rekabetçi kişilik özellikleri Duyuşsal-kimlik LEM; sabırlı ve sorumluluk duygusu yüksek kişilik özellikleri Sosyal-normatif LEM; uyumlu, kolektivist ve fedakâr kişilik özellikleri Çıkarsız LEM ile ilişkilendirilir. Kişiliğe ilaveten değerler, bilişsel beceriler ve geçmiş liderlik deneyimi gibi bazı bireysel özellikler LEM' in öncülleri arasında görülür (Chan ve Drasgow, 2001; Clemmons ve Fields, 2011).

LEM, her ne kadar hiyerarşik kademelerde ilerlemeye yönelik bir liderlik motivasyonuna işaret ediyor olsa da (Porter vd., 2016; Vilkinas vd., 2020), bu araştırmada öğretmen liderliği kavramını netleştirme, öğretmen liderliğinin ne zaman ortaya çıktığını açıklama girişimlerimize temel oluşturmuştur. Araştırma sonuçları öğretmenlerin bireysel farklılıklarını ortaya koyarak, onların liderlik etme motivasyonunu anlamaya katkı sağlamıştır. Ayrıca öğretmenlerin liderlik etme motivasyonunu etkileyen bireysel ve bağlamsal faktörlerin önemine dikkat çekilmiştir. Öğretmenlik, liderlik ve LEM arasındaki ilişkilerin öğretmen liderliğine yansımaları deneyimler üzerinden keşfedilmiştir.

Araştırmada fenomenolojik bir yaklaşımla çalıştıkları okullarda öğretmen lideri olarak bilinen katılımcıların liderliğe ilgi duyma nedenlerini ve liderlik etme motivasyonlarını etkileyen faktörleri ayrıntılı olarak anlamak amaçlanmıştır. Bu yaklaşım sınırlı bilgi birikimi olan olgular hakkında yeni bir teorik çerçeve oluşturma girişimleri için pratik bir başlangıç olarak değerlendirilmiştir (Patton, 2014). Amaçlı örnekleme süreçleri izlenerek okullarında lider öğretmen olarak bilinen 15 öğretmen lideriyle yapılan yarı yapılandırılmış görüşmeler ile araştırma tamamlanmıştır. Araştırma verileri alanyazın ve araştırma sorularına dayanarak tematik analiz yoluyla analiz edilmiştir.

Bulgularımız öğretmen liderlerinin öğretim rollerinin ötesine geçerek liderlik rollerini üstlendiğini; öğretimi iyileştirmek için meslektaşlarını ve okul müdürlerini etkilediğini (Silva vd., 2000; Wenner ve Campbell, 2017; York- Barr ve Duke, 2004) ve öğretmen liderliği ile öğretmen profesyonelizmi arasındaki ayırmada liderlik etme motivasyonunun rolünü işaret etmiştir. Katılımcıların liderlik eğilimlerini, duyuşsal- kimlik LEM ve çıkarsız LEM' i çağrıştıran motivasyonel süreçlerle açıkladığı görülmüştür (Chan ve Drasgow, 2001). Katılımcılarla yapılan görüşmeler LEM' in üç boyutunun ortaya çıkmasında etkili olan bir dizi bireysel ve bağlamsal faktöre işaret etmiştir (Chan ve Drasgow, 2001). Örneğin katılımcıların dışa dönük, yarışmacı kişilik özellikleri ile duyuşsal –kimlik LEM, kolektivist ve uyumlu kişilik özellikleri ile çıkarsız LEM arasındaki bağlantılar, araştırmanın kuramsal temelini desteklemiştir. Kişilik özelliklerine ilaveten özyeterlik algısı (Chan ve Drasgow, 2001; Clemmons ve Fields, 2011) ve değerlerin katılımcıların liderlik etme motivasyonuna yansıdığı anlaşılmıştır (Schwartz ve Bilsky, 2013). Ayrıca katılımcılar okul müdürlerini, meslektaşlarını ve öğrencileri liderlik etme motivasyonlarını etkileyen bağlamsal faktörler arasında değerlendirmiştir. Ancak bu bağlamsal faktörler öğretmenlerin liderlik etme motivasyonlarını doğrudan etkilemekten ziyade onların özyeterlik algılarına katkı sağlayarak liderlik motivasyonunu dolaylı yoldan etkiliyor izlenimi oluşmuştur.

Sonuç olarak mevcut araştırma öğretim rolünden liderlik rolüne geçişte LEM' in ihmal edilemeyecek önemini büyük oranda açıklamıştır. Özellikle öğretmenlerin liderliğe ilgi duyma nedenlerini bireysel motivasyon faktörleri ile açıklayan araştırma sonuçlarına LEM' in bileşenleri eklendiğinde öğretmen liderliğinde bireysel farklılıkların rolü açıklık kazanmıştır. Öğretmen liderliğinin geleceği düşünüldüğünde, öğretmen liderliği programlarında öğretme ve öğrenmede kaliteyi artırma çabalarına (Berg ve Zoellick, 2019), bireysel farklılıklara dayalı bir liderlik tasarımının nasıl dâhil edilebileceği düşünülmelidir. Ayrıca Chan ve Drasgow (2001) bireylerin liderlik becerilerinin liderlik eğitimi yoluyla geliştirilebileceğini, liderlik etme motivasyonunun zaman içerisinde şekillendirilebileceğini belirtmektedir. Bu nedenle eğitimde politika yapıcılar öğretmen liderliğini teşvik etme girişimlerinde bağlamsal faktörleri iyileştirirken öğretmenlerin bireysel farklılıklarını gözden kaçırmamalıdır. Nitekim Schwartz (2013), "liderlerin ve örgütlerin, takipçilerin arzu ettiği motive edici stratejilerin daha fazla farkında olmaları gerektiğini; aksi takdirde liderlik kapasitesini artırmada yetersiz kalacaklarını" belirtmektedir.

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Investigation of Special Education Department Research Assistants' Perceptions of Teaching Practice Course

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Abstract: This study aims to examine the perceptions of research assistants in the department of special education about the teaching practicum course in the VII. and VIII. semester. Eight research assistants who conducted teaching practicum courses in the field of special education participated in the phenomenological approach. The data obtained through semi-structured interviews were analyzed through inductive analysis. The findings include the perceptions of the practice kit, the roles of the research assistants in the teaching practicum process, the grading of the students, and the perceptions of the teaching practicum process from the perspective of the students from the practitioner's point of view. On the other hand, the study recommends shortening the lesson plans and making them clear, understandable and usable.

Keywords: Special education, teaching practice, practice kit, practice file, practice materials.

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Introduction

All teacher training institutions around the world utilize pre-service and in-service training models in the process of providing teaching knowledge and skills (Darling-Hammond, 2000; Işık, Çiltaş & Baş, 2010). Pre-service education can be defined as the practices that higher education institutions carry out through many teacher training approaches or models during their undergraduate programs (Abazaoğlu, Yıldırım & Yıldızhan, 2016). Pre-service practices aim to prepare prospective teachers for the teaching profession during the undergraduate program (Aykaç, Kabaran & Bilgin, 2014). Today, two pre-service models are frequently applied. These models are the simultaneous model (modèle simultané) and the sequential model (modèle consécutif). The simultaneous model, which is also used in Turkey, is the preferred practice in most European countries. In this model, the decision to become a teacher is made in advance, and the prospective teacher starts the teaching program from the first year according to this decision (Ministere Education Nationale, 2006).

As of 1994, the first steps for YÖK's Pre-Service Teacher Training Project were taken with the support of the World Bank (Grossman, Onkol & Sands, 2007). In cooperation with the Ministry of National Education (MoNE) and faculties of education, the pre-service teacher training model has continued to be structured since the 1998-1999 academic year. YÖK prepares the undergraduate program for special education teacher training like all other programs.

The teacher training process in pre-service education consists of many steps such as general culture, teaching professional knowledge, field education courses and teaching practice is among the basic steps (Kavcar, 2002). The teaching practicum course is the experience step of the education process in which theoretical knowledge is transferred to the real environment and results in teaching (Paker, 2008; Yücesoy-Özkan et al. 2019). The teaching practice course aims for pre-service teachers to provide professional development, prepare materials and use them most accurately, and develop their evaluation skills (YÖK, 1999). Evaluation skills are the pre-service teachers' making inquiries about themselves, identifying their shortcomings and making efforts to close these gaps, realizing their teacher identity and developing reflective thinking skills (Poulou, 2007; Freese, 1999).

The practicing instructors are one of the most important stakeholders in the successful completion of the teaching practice, which is the final step of the teacher training process in the undergraduate education dimension. Practicum instructors, who represent teacher training programs and have a consultancy and evaluation role (Borko & Mayfield, 1995), should be experienced in the field and have consultancy competencies. These competencies include conducting the process with scientifically based knowledge, having experience in their field, and providing guidance and assistance to pre-service teachers. In addition, carrying out the assessment processes in an ideal way, reorganizing the process when necessary, communicating correctly with pre-service teachers, providing

emotional support, and timely tips and feedback are also skills that instructors should have (Hyland & Lo, 2006).

As in every branch, special education teacher candidates graduate by completing teaching practice courses. Teaching practice in the field of special education plays a role in ensuring that candidates reach certain standards. These standards are the qualities and development of students, individual learning differences, teaching strategies, learning environments and social interactions, communication, instructional planning, measurement, professional and ethical practices, and collaboration published by the Council for Exceptional Children (CEC) in 2001. Therefore, examining the relationship between the teaching practice process carried out in the special education teacher education program and the stated standards is important. However, it is seen that research on teaching practice in special education teaching is quite limited.

Dedeoğlu, Durali, and Tanrıverdi (2004) examined the opinions of undergraduate students and graduates of special education teaching programs about their departments, teacher training experiences and faculties of education. As a result of the research, it was stated that there should be more intensive applied courses in undergraduate courses and that there is a need to restructure faculties of education and teacher training methods. Especially graduated teachers stated that the course contents in undergraduate programs do not adequately represent real school environments. Yıkılmış et al. (2014) examined the views of final-year special education teaching students on the physical environment and mentor teachers in the classrooms where they practiced. The pre-service teachers stated that they found both the instructors and the practicum classroom teacher inadequate in skills such as feedback, guidance, planning, reinforcement, and behavior change. They stated that the physical conditions of the classrooms were deficient in terms of tools and materials. Karasu, Aykut, and Yılmaz (2014), in their research with teachers of the mentally disabled, found that the number of practice-oriented courses should be increased. While the participants stated that material supplies and appropriate physical environments could not be provided, they stated that solving behavioral problems in the classroom context was the most difficult issue. In another study, it is seen that pre-service teachers who continue their teaching practice in institutions where children with autism spectrum disorders are educated have a theoretical background but cannot transfer it to practice and need more experience. However, it can be said that the research is limited to the experiences of pre-service teachers and the perspective of the instructors conducting the practice will also contribute (Güleç-Aslan, 2014; Karasu et al., 2014). Therefore, there are very few studies on teaching practice in special education, revealing how the implementation process is carried out and how much the process overlaps with the teacher training standards is based on the participants' experiences.

The aim of this study is to examine the perceptions of research assistants in the special education department about the teaching practice course in VII. and VIII. semester. For this purpose, the following research question was sought to be answered:

1. How do the research assistants conducting the teaching practice course in the VIIth and VIIIth semesters of the special education teaching program perceive the teaching practice process?

Method

Research Design

Phenomenological A phenomenological approach was used in qualitative research designs. Phenomenology A phenomenology is an approach that tries to understand and explain the nature of a phenomenon by examining people's experiences of that phenomenon (Neubauer et al., 2019). In this study, the qualitative research method was preferred in order to examine in depth to examine the perceptions of research assistants conducting the teaching practice course in the VII and VIII semesters of the special education department special education teaching program about the teaching practice process. The teaching practice course for special education teaching is the phenomenon that is attempted to be understood and explained in this research. To examine this phenomenon, the life experiences of research assistants who have been conducting teaching practice for many years were utilized.

Participants

Eight research assistants who led the teaching practice course in the seventh and eighth semesters of the special education teacher education program took part in the study. Convenient sampling, one of the purposive sampling methods, was used in the selection process of the participants (Creswell, 2012). The criteria for inclusion in this study were having at least three years of experience in the teaching practice course in special education teaching, having a bachelor's degree from special education teaching programs, and voluntary participation. Participants who met these criteria were included in the study. Demographic information about the participants is given in Table 1. To protect the confidentiality of all participants, codes K1, and K2 were given.

Table 1.

Demographic information of the participants

Participants	Age	Gender	Work Experience	
			Teacher – Research Asistant	Experience in conducting teaching practice
K1	35	Male	2 year - 8 year	6 year
K2	35	Male	10 year - 3 year	3 years 6 months
K3	32	Male	1 year 5 month - 8 years	3 year
K4	32	Male	1 year 5 months - 8 years	8 year
K5	35	Male	4 year - 6 year	6 year
K6	29	Male	2 month - 5 year	5 year

K7	29	Male	7 month - 6 year	6 year
K8	29	Male	7 month - 6 year	6 year

The participants of the study work as research assistants in a state university in Turkey and in the special education department of the same university. All participants were male and aged between 29-35 years. Prior to their research assistantships, the teaching experience of each participant ranged from two months to ten years. The participants' years of experience in conducting instruction practice ranged from 3 to 8. All participants were informed about the study before it, and their consent was obtained for voluntary participation. Consent forms were signed by the participants before the interview.

Data Collection Tools

Research data were collected through semi-structured interviews. While preparing this form, the content of the teaching practice course of the VII and VIII semesters of special education teaching, including the practice kit, student files, materials, grading system, and what the students do in the teaching practice schools, were examined. In addition, the studies on this topic in the literature were examined in terms of data collection tools, findings, results and recommendations (Alptekin & Vural, 2014; Dedeoğlu et al., 2004; Doğan & Güven, 2021; Özen et al., 2009; Polat, et al., 2020; Yıldırım-Yakar et al., 2021; Yıkmiş et al., 2014; Yücesoy-Özkan 2019 et al.,). Based on the analyses, interview topics were constructed. The questions were distributed to three lecturers who are experts in special education instructional practice and qualitative research methods. In accordance with the feedback of the experts, the interview questions were revised. The revised questions were sent to the experts again and the experts were informed that the interview questions were appropriate. The semi-structured interview form consists of eight open-ended questions.

Data Collection Process and Analysis

The first and second author conducted face-to-face and one-on-one interviews on the day, time and place specified by the participants. The interviews were conducted in the participants' offices in November 2021. Audio recordings were made during the interviews with the consent of the participants. Information from the audio recordings shows that the duration of the interviews varied between 24 and 90 minutes. After the interviews with all participants were completed, the third author listened to the audio recordings and transcribed the participants' responses to the questions. After the transcription process of the audio recordings was completed, the data obtained were analyzed by the first, second and third authors to determine the themes and codes. The inductive analysis method was used to analyze the data. The analysis process consisted of data transcripts, validity and reliability of the transcripts, listing, eliminating, thematizing, and organizing the themes (Moustakas, 1994). As a result of the analysis, five main and 14 sub-themes were reached.

The main themes of the study are; (a) opinions on the implementation kit, (b) opinions of research assistants on their roles in the implementation process, (c) opinions on the

grading of students, (d) students in the implementation process from the practitioner's perspective and (e) suggestions on the teaching practice process. The theme of opinions on the implementation kit is not divided into sub-themes. The main theme of research assistants' views on the roles they played in the implementation process is broken down into three subthemes: obligation, different practices, and the role's contribution. The theme of opinions on the grading of students is divided into two sub-themes: the grading system of the research assistant and the teacher's grading system. From the practitioner's perspective, the theme of students in the implementation process is divided into three sub-themes: student achievements, material preparation process and instructional technologies and material design course in special education, and opinions on student files. The theme of suggestions regarding the teaching practice process is divided into five sub-themes: suggestions regarding the practice kit and student files, lesson plans, material preparation and the instructional technologies and material design course in special education, suggestions regarding the grading of students, and suggestions of research assistants regarding the conduct of the practice process.

Credibility

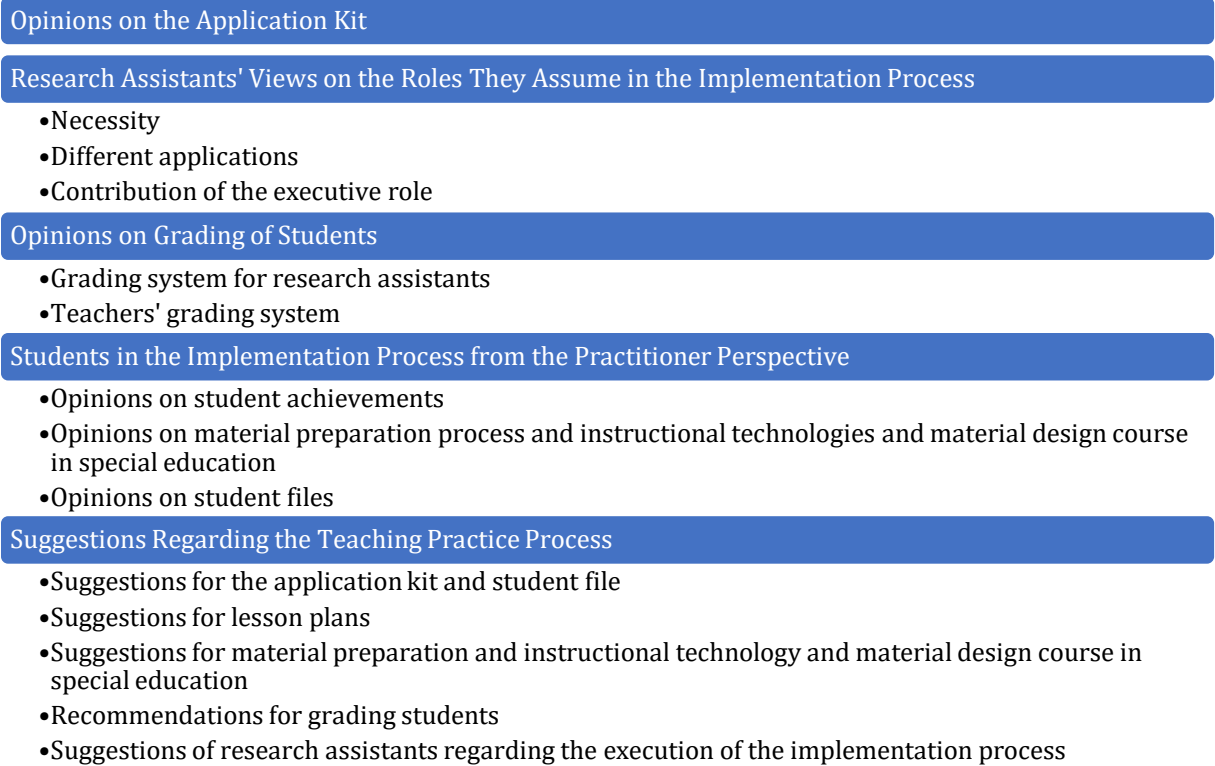
The concept of credibility in qualitative research is related to the accuracy, transferability, reliability and confirmability of the study (Christensen, Johnson, & Turner, 2015; Creswell, 2013; Ekiz, 2015; Yıldırım & Şimşek, 2013). With this perspective, while trying to ensure credibility, data were collected in depth, data triangulation was tried to be utilized (researcher's diary), the researchers regularly audited data, expert opinions working in the field of special education were taken, and consistency was tried to be achieved in all research steps (transcription, analysis, reporting) (Ersoy, 2016; Glesne, 2013; Yıldırım & Şimşek, 2013; Brantlinger et al., 2005). On the other hand, ethical principles including confidentiality, non-harm, non-deception, fidelity to data, honesty and respect for private life (Ekiz, 2015; Creswell, 2013; Bogdan & Biklen, 2007) were followed throughout the research. Research approval was obtained from Anadolu University Scientific Research and Publication Ethics Committee with protocol number 440108.

Findings

Through the analysis of the data obtained after the research, findings were obtained regarding the participants' opinions on the implementation kit, their own roles in the implementation process, the grading system, their views on students during the implementation process and their suggestions regarding the whole process (Figure 1).

Figure 1.

Themes



Opinions on the Application Kit

The practicum kit is a syllabus that includes the weekly tasks/tasks that students should do during the teaching practicum course. In this study, it was found that the research assistants stated that the practice kit enables the students to "plan" the process they will follow during the semester and provides "feedback" about the situations that the students do not understand during the practice process. K3, one of the research assistants, described the planning function of the implementation kit as "...clearly determining what will be done every week paves the way for the student" and K8 said "...it facilitates the process. At least they can see ahead of them; they can do this week, they can make their plans accordingly". K7 expressed the feedback function of the application kit with the words "...if they have any questions about whether this lesson plan will be about a subject or not, they ask us and we give our answers accordingly".

In addition to the toolkit's positive aspects, such as planning and feedback, negative aspects were also mentioned. The research assistants stated that the toolkit was "outdated", that the information in it was too old, that it burdened students with "drudgery" such as just collecting and filing documents such as regulations, evaluation forms, and unnecessary printouts, and that it "encouraged students to lie". They also

stated that the application kit caused a "conflict" between teachers and academics. Research assistant K5 expressed her views on this issue;

"We ask the students to complete the rough evaluation form in the second week. They go two days a week for six hours. In the first lesson, students with intellectual disabilities do not come because of the bus delay. This leaves 2 hours for our students to fill out the form. We ask students to keep ABC and anecdotal records and fill out the rough assessment form. On the one hand, they will fill out the rough assessment form and on the other hand, they will keep records. When will they do all this? I mean, these don't seem realistic to me... The internship practice kit includes a workload beyond what is feasible. Thus, people are forced to pretend"

expressed with these words. Research assistant K6 expressed her views as follows;

"This internship kit, which is prepared based on the principles of one school, is not accepted by teachers graduated from different schools. In this case, the teacher's and the research assistant's expectations of the student may conflict. Since the student feels responsibility towards both authorities, this puts pressure on the student."

Research Assistants' Views on the Roles They Assume in the Implementation Process

This study found that research assistants' perceptions of their roles in the teaching practice process were grouped under three sub-themes: obligation, different practices and contribution of the role.

Necessity

Research assistants perceive their role in the teaching practice process as an obligation. Regarding the necessity of their role, the research assistants stated that "teaching practice was assigned to them as a course without any opinion" and "it was a very serious workload". One of the research assistants, K7;

"I learn that the internship is assigned to me at the beginning of the year when the students are assigned to me from the system. I am not given any explanation in any way. I am only told, "you will carry it out". However, many professors have the right to choose their courses. We do not have such a right. We cannot give an opinion about the school where we will carry out the internship" and emphasized that the internship was assigned as a course without their opinion. K3 said, "The workload of the internship is actually too much. Eight students, two different schools, reading weekly files, giving feedback, when we add all these together, there are times when it takes at least two or even almost three days."

emphasized the workload of the teaching practice.

Different practices

It was found that research assistants used different practices in grading students and establishing relationships with students. The research assistants who participated in the study stated that "some research assistants graded students according to the humanity of the students, while others graded them according to the grading guide, so there were conflicts due to different practices in grading". Regarding the different practices in relations with students, they stated that "some research assistants are very sincere with

students but do not give any feedback to students, in this case, research assistants who are distant with students and give regular feedback to students are not liked". Research assistant K6 said, "Imagine two different students taking an internship in two different groups, and although these two prepare completely equivalent files, the student in one group can get 100 while the other can get 60. It doesn't seem very objective to me, frankly", while K4 said, "sometimes the work can go beyond the limits. Do we grade the work done by the student or do we grade the whole personality of the student? Sometimes things get confused".

Contribution of the executive role

Regarding the contribution of conducting the teaching practicum course, the research assistants stated that they gained experience on how they will conduct the teaching practicum in the future, what the deficiencies in the implementation process are and what needs to be done in the future. K8 mentioned this issue;

"...we will carry out teaching practice in the future, about how we should carry out it, for example, I say, the guide, maybe I will create the guide differently where I go because I can see the deficiencies or the expectations of the students and I can do something accordingly in the future. The teaching practicum has increased my initiative, quick decision-making and implementation skills."

In addition, two research assistants stated that the teaching practice increased their initiative, quick decision-making and implementation skills. Research assistant K2 expressed her views on this issue as follows:

"...conducting the teaching practicum strengthens my ability to take the initiative and make quick decisions. For instance, while the intern student is practicing in the classroom, I may encounter problem behaviors that I have never seen before or that necessitate reflection or lesson objectives may be achieved. Since we have to give instant feedback to students in such situations, I think my initiative and quick decision-making skills have strengthened over time."

Opinions on the Grading of Students

This study determined that research assistants' perceptions about the grading of students were grouped under two sub-themes: the grading system of the research assistant and the grading system of the teachers. The findings related to each sub-theme are presented below.

The grading system of research assistants

The research assistants stated that they followed the scoring guide while grading the students, but they had difficulties in grading the students due to various deficiencies in the guide. The research assistants stated that the deficiencies in the grading guide were that "the items in the guide are not observable and measurable" and "open to interpretation". In addition, they stated that the grading system is generally "unfair" and that "it is difficult to evaluate and put a price on people".

K8 stated that the scoring guide is not observable and measurable and is open to interpretation as follows: "...let me give an example, it says that the student completes their preparations before the lesson, for example, what do we expect them to do? The deficiencies in the guideline led the research assistants to interpret the guideline items according to themselves and give subjective grades to the students. K1 stated this,

"There is a situation like this, there is a completely subjective evaluation, for example, one person evaluates the same child and gives him/her 50, another evaluates him/her and gives him/her 100". K2 stated that the grading system is not distributed fairly, "For example, the grades allocated to lesson plans, file level, behavior change program, skill program are not equal. Why is it not equal? We talk about the whole semester mainly on the daily plan. However, the grade rate allocated for the daily plan constitutes 40% of the total grade rate. This does not provide a fair distribution of grades,"

expressed it with these words. K5 stated that it was difficult to grade students with the words, "I mean, it is really hard to put a price on people. Especially in such practical courses, I don't think everything can be graded according to the items.

Finally, the research assistants stated that the research assistants conducting the practicum in the same school were influenced by each other while grading the students. K1 stated this situation as follows: "Whichever way the tendency in the group is, you are also affected by it or you can affect the others. For example, when I approach the event very positively, you see that the man who is normally torn to pieces while grading is suddenly affected by you and he starts to give high grades ... there is such a strange situation.

Teachers' grading system

It was found that the research assistants had negative perceptions about the grading system of the teachers in the practicum school. The research assistants stated that "teachers use their grading authority as a means of pressure to oppress students and overload them with too much work". K2 expressed this situation as follows: "The teacher comes and tries to crush the trainee strangely because the trainee has come, bring my tea, take this and that, and after a while, we see that the trainee is completely burdened with the work that he has to do, such a thing, that is, some ethical problems...". K4 stated that "for example, something like this happens, children have to put up with bad behaviors, they are oppressed, so we cannot protect them, because in such a situation, the man will open the system in the evening because he can give a low grade there, you have to undercut it, you have to act strategically politically.

In addition to this, the research assistants stated that "teachers grade students subjectively; they do the grading more according to the personality of the students; therefore, teachers and research assistants do not have expectations when grading students.

Students in the Implementation Process from the Practitioner Perspective

This study determined that research assistants' perceptions of the teaching practice process in terms of students were grouped under three sub-themes: student achievements, material preparation process, instructional technologies and material design course in special education, and student files. Findings related to each sub-theme are presented below.

Views on student learning outcomes

Research assistants indicated that students had 'insufficient experience' in the internship practice because they had only worked with students with special needs until the last year and the number of days they practiced was low, that they had 'concerns' about how to work with students with special needs during the internship practice process, and that these concerns led to "negative attitudes" in the intern students towards students with special needs. They also learned "negative behaviors" about the teaching profession from the special education teachers in the class. Regarding students' inadequate experience and anxiety, K7 stated, "Some students see a child with special needs for the first time in the internship practice. In such cases, when they see the intense problem behaviors of students with special needs, they experience anxiety about how to deal with them. Naturally, this situation continues as a source of stress throughout the semester". K6 stated the inadequate experience of the students as follows: "I don't think that the time they go is enough. Therefore, I think this causes them problems acquiring certain teaching skills. They go two days a week for six hours. Four to five weeks of this time is spent getting used to the school". Regarding negative attitudes, K7;

"Students should go to do this job with enthusiasm. Our profession can be exhausting. When students do not do their jobs with enthusiasm, they can develop negative attitudes towards the profession and students at the end of the year and try to avoid direct contact with students such as being an administrator, working in Guidance and Research Centers."

For example, the behavior of a teacher who neglects their job and does not do it properly is added to the intern's repertoire as a negative acquisition. As for the negative teacher behaviors at the practice school, K2 said, "For example, the behaviors of a teacher who neglects his/her job and does not do it properly are added to the intern's repertoire as a negative acquisition. For example, the teacher yells at the students and the intern yells at the students".

According to the research assistants, intern students experience "teaching satisfaction" in teaching skills and behaviors to students with special needs, strengthen their "interaction" skills and gain "self-confidence" that they can teach. For example, K1;

"Students start to feel self-confidence towards the end of the internship practice. In the first weeks, students are very hesitant and do not know how to interact. In the following weeks, they run towards students with special needs, and they have fun...It is very nice for us to see these. In the last weeks, we can see that the students have adapted, and their belief that they can do this job has increased, and the students do not understand what they are doing during the internship."

Finally, the research assistants stated that the rationale for the work such as preparing internship files, lesson plans, etc., during the internship was not explained to the students,

so the students saw such work as drudgery. K5 expressed his opinion on this issue as follows: "If you do not explain the logic of this work, the student will not gain anything. They do it just to do it. When you ask the student why they wrote like this somewhere in the plan, they may answer, "I wrote it because the teacher said so". This situation stems from the fact that we do not explain the reasons for what we do. We are already training technicians, not teachers...".

Opinions on material preparation process and instructional technologies and material design course in special education

The research assistants mentioned the positive and negative aspects of students preparing their own materials during the teaching practice. Regarding the positive aspects, they stated that preparing materials "develops students' ability to produce their own materials" so that they learn how to develop good materials from waste materials even under bad conditions in the places where they are assigned and that they develop "adaptation skills" by learning how to adapt materials according to the characteristics of different disability groups (autism, mental, hearing, etc.). Concerning the negative aspects, they stated that the materials prepared were very "expensive" in terms of obtaining good grades. Nonetheless, the materials were "not functional and original," and they were "thrown away" after being evaluated. In addition, due to the "high expectations" of the research assistants and their constant negative criticism of the materials, preparing materials has become a "torture" for the students over time and they see it as a serious "workload". Finally, the students mentioned that the difference between the research assistants who teach the materials course and the research assistants who carry out the teaching practice "eliminates the possibility of testing the materials prepared in the course in the classroom environment".

Opinions on student files

According to the research assistants, the weekly files prepared by the students allow students to give feedback on what they do right and wrong regularly. In addition, preparing files has an instructive aspect as it increases students' knowledge about special education. K8 explained the feedback function of internship files;

"The file actually provides them with an order. It encourages them to work regularly. We provide feedback to the students on their files, whether it is lesson plans or other things they need to do. Students make corrections accordingly and start to implement the lesson plan. If students consider these feedbacks, it is a great convenience for them,"

We are doing this for a reason. The research assistants stated that although there are benefits of preparing files, these benefits are not transferred to the students. The students constantly ask, "why are we doing this?" during the semester and graduate without knowing why they prepared the files. For example, K5 expressed his views on this situation as follows: "You tell the student to do something and he does it. But to what extent his actions impact his sense of meaning is a serious problem."

Suggestions Regarding the Teaching Practice Process

This study determined that the research assistants' suggestions for the teaching practice process were grouped under five sub-themes: the practice kit and student file, lesson plans, material preparation and material course, grading of students and suggestions for research assistants. Findings related to each sub-theme are presented below.

Suggestions for the application kit and student file

The participants suggested that the content of the toolkit should be prepared by taking the opinions of all the instructors conducting the course and that the items that cannot be implemented should be removed from the toolkit. They suggested that student files should be prepared in a digital environment instead of printouts, thus reducing the cost and time loss.

Suggestions regarding lesson plans

The research assistants stated that the students' lecture plans should be shortened and made more concise, clear, and comprehensible as opposed to lengthy and ineffective. K3 suggested that "we should focus our attention on teaching effectively rather than on the theoretical information in the lesson plans. Short and understandable plans should be prepared to ensure this focus so students do not drown in theoretical information". In addition, they stated that lesson plans should be prepared by using different methods for different lessons and subjects every week. K8 expressed his views on this issue with the following words:

"...for example, if students prepare a plan for academic skills this week, they should prepare plans for different courses and subjects, such as community participation next week, daily life skills the week after that. From the first week to the last week, they carry out their internship practice for 12 weeks with the direct teaching method." Because some students are constantly practicing practising academic skills.

Suggestions on material preparation and instructional technologies and material design course in special education

Research assistants stated that students should prepare low-cost, recyclable, functional materials suitable for different student characteristics that they can use in their teaching life. Regarding the materials course, they stated that it should first be taught theoretically for at least one semester by a lecturer who is expert in preparing materials, and then how to use the materials should be practiced in the second semester. K6 expressed his views on this issue as follows: "For us to have expectations from the students, a theoretical material course should be given as a prerequisite. I don't know if a teacher can give it, I don't know how, I can't, for example. After this theoretical part, students can be expected to practice with materials in the second semester.

Recommendations for grading students

The research assistants mentioned that the grading guide should be improved, the grading system should be fair, and the instructor's opinion grade should be considered in the grading process. Regarding improving the grading guide, the participants suggested that the items in the guide should be observable and measurable and written

more clearly, a systematic reliable scale should be developed, and everyone should grade according to this scale. K8 expressed his opinion on the subject: "the guides I mentioned in the grading system need to be examined in more detail I think a detailed, more systematic and reliable scale can be prepared so that the research assistants can make more accurate decisions." In addition, research assistants suggested that a place should be created for teachers to evaluate students' interpersonal skills on the same scale and that teachers should grade accordingly and academicians should grade professional skills. K7 expressed his views on this issue with the following words:

"I can grade 15 items of the same scoring guide and the teacher can grade 15 items. While I can grade the student's application/assessment methods when I go to observe at work, the teacher can grade more interpersonal skills such as how is the student's relationship with teachers when he/she carries out the teaching profession, do they participate in social activities, or how are his/her communication skills?"

Suggestions of research assistants regarding the conduct of the practicum process

Regarding the research assistants conducting the teaching practice, the research assistants suggested that the research assistants explain to the students the logic of their work (why lesson plans are prepared, how the details in the lesson plans relate to learning the practice better, the benefits of keeping records for the students, and how evaluations are used to set new goals) and discuss the teaching practice by evaluating it in their meetings with the students. Finally, they suggested that the research assistants who will conduct the course should have at least four years of teaching experience and should have been a research assistant for at least three years.

Discussion

This study aimed to examine the perceptions of research assistants in the special education department about the teaching practice course in the VII. and VIII. semester. The findings obtained from the research show that the research assistants have opinions about the practice kit, their own roles in the practice process, the grading system, and the students in the practice process.

According to the research assistants, the practice kit is important for regularly continuing the teaching practice course. In addition, the implementation kit facilitates the planning and follow-up process and provides feedback to students. However, when evaluated in terms of time, it was stated that there were items such as filling out a rough evaluation form, keeping a behavior record, reading all the regulations and preparing a report that were not possible to do during the teaching practice course. In a study examining the opinions of students taking the teaching practice course in the special education department, it was found that the expectations of the students regarding the practice kit were that the practice kit should serve to plan to teach and use teaching methods and techniques effectively. In addition, it was stated by the students that the practice kit used during the special education teaching practice is appropriate in its current form. There were no findings regarding the lack of time (Yücesoy-Özkan et al., 2019). The finding

that the practice kit obtained in this study has planning and feedback functions is similar to the finding of Yücesoy-Özkan et al. (2019) that the practice kit facilitates the planning and implementation of teaching methods and techniques. However, it differs from the finding on time limitation. In special education teaching practice, students are expected to examine and interpret three laws, laws and regulations on special education consisting of 65 pages in total for the first week of teaching practice. In the second and third weeks, they are expected to fill in an average of 200 items for all developmental areas, each requiring special student evaluation. Based on this information, it can be said that although it is generally stated that the application kit is appropriate, it can be said that what the students are expected to do is not realistic in terms of the time given. To summarize, it can be said that the time limitation finding obtained in this study regarding the application kit expands the knowledge in the existing literature.

The findings regarding the roles assumed by the research assistants during the implementation process indicate that there are differences among the research assistants in terms of conducting and grading the teaching practicum and that their opinions were not considered in the creation and execution of the content of the teaching practicum course; however, conducting the course contributed to their professional development by teaching them skills such as making quick decisions, taking the initiative, and collaborating with others. In the literature, the studies on this issue generally focused on the opinions of intern students or teachers and did not include the opinions of the instructors who conducted the teaching practice (Alptekin & Vural, 2014; Doğan & Güven, 2021; Özen et al., 2009; Polat, et al., 2020; Yıldırım-Yakar et al., 2021; Yücesoy-Özkan et al., 2019). In the studies conducted with intern students, it was found that some lecturers have positive characteristics such as being highly communicative, providing feedback, helping and understanding. In contrast, others have negative characteristics such as not guiding students and not following student development, lack of communication, not allocating enough time, and lack of knowledge (Alptekin & Vural, 2014; Doğan & Güven, 2021; Polat et al., 2020; Yıldırım-Yakar et al., 2021; Yücesoy-Özkan et al., 2019). Therefore, the information obtained from the students also shows that there are differences among the instructors in terms of the way they carry out the teaching practice. The finding that there are differences in how instructors conduct the teaching practicum in this study confirms the students' opinions. It strengthens the finding in the literature that instructors do not conduct the teaching practicum consistently. In addition to all these, the finding that the teaching practice course contributes to the professional development of the instructors shows that teaching practice is a useful course not only for students but also for instructors. (Heppner, 1994; Lawson et al., 2015; Speer et al., 2005).

Based on the findings regarding the grading of the students, it can be said that the instructors do not make objective evaluations and especially the practicum teachers who are assigned interns do not have enough knowledge to grade the students and use the grade as a means of sanction. It is a recurring finding in many studies on this subject that instructors cannot make fair and objective evaluations (Alptekin & Vural, 2014; Doğan & Güven, 2021; Polat, et al., 2020; Yıldırım-Yakar et al., 2021; Yücesoy-Özkan

et al., 2019). In contrast to other studies investigating special education teaching practice courses, the finding that teachers cannot conduct objective evaluations stands out. However, the finding that teachers could not make objective evaluations stands out as a finding that differs from other studies examining special education teaching practicum courses. In addition to this, the finding of using the grade as a sanctioning tool draws attention. Studies in the literature show that mentor teachers generally cannot help students with teaching methods and techniques, lack knowledge, and have insufficient communication (Alptekin & Vural, 2014; Baran et al., 2019; Bural & Avşaroğlu, 2012; Özen et al., 2009; Polat, et al., 2020; Yıldırım-Yakar et al., 2021; Yıkılmış et al., 2014). Lack of sufficient knowledge about teaching and assessment is a factor that makes it difficult to make objective evaluations. In the literature, it has been revealed in many studies that teachers are inadequate even in evaluating students with special needs. Therefore, mentor teachers cannot make objective evaluations because of the lack of knowledge about teaching and assessment (Brownell et al., 2005; Mertler, 2009; Nougaret et al., 2005; Stiggins, 1999).

Participant views on how the teaching practice process was shaped for the students show that although the students' teaching experience improved, they did not graduate with sufficient teaching and evaluation knowledge, they could develop anxiety and negative attitudes towards students with special needs, but they generally finished the teaching practice with high self-confidence and interaction skills. In addition, it was found that student files prepared weekly contributed significantly to the professional development of the students. In the studies focusing on the views of intern students on teaching practice, the focus was generally on students' perceptions of the practicum teachers, the practicum school, the instructors and their expectations regarding the teaching practice process (Alptekin & Vural, 2014; Baran et al., 2019; Bural & Avşaroğlu, 2012; Dedeoğlu et al., 2004; Özen et al., 2009; Polat et al., 2020; Yıldırım-Yakar et al., 2021; Yıkılmış et al., 2014; Yücesoy-Özkan et al., 2019). In only one study, newly graduated special education teachers were asked about their own competencies, and it was found that teachers did not leave the teaching practice course with sufficient knowledge and equipment related to the teaching profession (Doğan & Güven, 2021). The basic condition of being a qualified teacher is to receive a qualified education (Dedeoğlu et al., 2004). According to the instructors, intern students do not receive qualified education. This situation limits the ability of graduates to provide quality teaching and assessment to students with special needs in their teaching life (Doğan & Güven, 2021). Therefore, it can be said that the views of the research assistants in this study that intern students may develop negative attitudes and concerns towards students with special needs when they do not graduate with sufficient teaching and assessment knowledge are important in terms of showing that it is necessary to teach planning, teaching and assessment skills effectively in teaching practice.

According to the opinions of the research assistants about material preparation and instructional technologies and material design course in special education, it shows that material preparation improves the intern students' ability to adapt and design materials according to the individual characteristics of students with special needs, but the

materials made in the material course lose their design purpose because they are not used in the classroom environment. Since the material course is not conducted by the instructor from whom the students take the teaching practice course, it is not developed according to the characteristics of the students in the schools where they practice, but only to take notes in the course. This situation causes the prepared materials to lose their value. Studies have found that intern students generally stated that schools are inadequately equipped in terms of teaching materials (Alptekin & Vural, 2014; Bural & Avşaroğlu, 2012; Yıkılmış et al., 2014; Yücesoy-Özkan et al., 2019). Some studies found that teachers of students with intellectual disabilities had difficulty in preparing materials and felt inadequate (Dedeoğlu et al., 2004; Doğan & Güven, 2021). The fact that schools are inadequate in terms of materials increases the importance of preparing and using the right materials in the course of the material. However, the findings obtained from this study show that the participants believe that the instructors who teach the materials course are not equipped to teach this course and, therefore cannot provide the necessary information to the students about material preparation. Pre-service teachers are thought to have problems in this context in their professional lives.

Conclusion and Recommendations

Teaching practice is a critically important course in which planning, teaching and evaluation processes are demonstrated in practice before moving on to the teaching profession, as well as providing students with skills that contribute to personal development such as work ethic, self-confidence, interaction, feeling competent, and positive attitude. Using a practice kit during the teaching practice is important in providing a planned process to the intern students, providing feedback, and monitoring their development of teaching knowledge and skills. Although research assistants have the qualifications to conduct the course, there are differences in their attitudes towards students, the way they conduct the teaching practice and their grading. These differences may lead to negative thoughts about fair evaluation, receiving adequate feedback, providing the right guidance, communicating well, and graduating with the necessary teaching and evaluation knowledge and skills. In particular, the subjective evaluation of practicum teachers in grading and using grades as a means of pressure put intern students between the negative attitudes of two different stakeholders (lecturers and teachers) and lead intern students to anxiety. Nevertheless, despite various negativities, intern students develop their knowledge and skills, albeit limited, regarding teaching practices such as preparing lesson plans, teaching concepts and skills, and changing behaviors during the teaching practice process. At the same time, intern students gain behaviors that contribute to developing their skills such as self-confidence, feeling competent in terms of teaching, and good interaction. When the opinions of the research assistants are evaluated using CEC (2001) criteria, it can be concluded that the current method of conducting teaching practice contributes partially to the quality and development of the students, that the individual learning differences of the intern students are not taken into account, and that the intern students do not develop their planning,

teaching, and evaluation skills to the desired level. As a result of instructors' attitudes toward the course, there are variations in ethical practices and cooperation. In summary, based on the participant opinions, it can be said that the current implementation of the teaching practice is insufficient to reach the professional standards that special education teachers should have.

Based on all these results, the following suggestions can be made regarding the special education teaching practice in line with the opinions of the participants:

1. The practice kit should continue to be used in the teaching practice process. However, the content of the practice kit should be prepared by taking the opinions of all instructors conducting the course. Items that cannot be implemented should be removed from the practice kit. Student files should be prepared in a digital environment instead of being prepared as printouts, thus reducing cost and time loss.
2. Lesson plans should be simplified and short, clear and understandable plans should be prepared instead of long, unusable plans. In addition, lesson plans should be prepared using different methods for different lessons and subjects every week so that students can see different planning, teaching and evaluation processes as much as possible.
3. Trainee students should be taught to prepare low-cost, recyclable, functional materials suitable for different student characteristics they can use in their teaching life. The materials course should be taught theoretically for at least one semester by a lecturer who is really an expert in preparing materials. How to use the materials should be practiced in the second semester.
4. Although the teaching practice process cannot be evaluated objectively due to its nature, to evaluate it as objectively as possible, the scoring guide should be created in an observable and measurable way, it should be turned into a systematic reliable scale and everyone should grade according to this scale. In the same scale, a place should be created for the mentor teachers to evaluate the personal relationship skills of the trainee students. In this way, it should be ensured that teachers evaluate students' personal relationships and instructors grade their professional skills. In addition, since the instructors' impressions of the students are also important in this process, the use of opinion grades should also be allowed in the grading process.
5. Research assistants should explain the logic of all the work done during the teaching practicum process to the intern students; in other words, they should discuss the process by making evaluations about the practice process in the teaching practicum course meetings, and thus, they should conduct the course as objectively as possible by providing justifications to the students. In addition, to show that they have sufficient knowledge about the teaching practice course, the research assistants who will conduct the course should have at least four years of teaching experience and be a research assistant for at least three years.

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Genişletilmiş Türkçe Özet

Bu araştırmanın amacı, özel eğitim bölümü araştırma görevlilerinin, VII. ve VIII. dönem öğretmenlik uygulaması dersine ilişkin algılarının incelenmesidir. Bu amaçla özel eğitim bölümü özel eğitim öğretmenliği programı VII. ve VIII. döneminde yer alan öğretmenlik uygulaması dersini yürüten sekiz araştırma görevlisinin, öğretmenlik uygulaması sürecine ilişkin algılarını derinlemesine incelemek amacıyla nitel araştırma yöntemi tercih edilmiştir. Nitel araştırma desenlerinden ise fenomenolojik yaklaşım kullanılmıştır. Bu çalışmada anlaşılma ve açıklanmaya çalışılan fenomen özel eğitim öğretmenliği öğretmenlik uygulaması dersidir. Bu fenomeni incelemek amacıyla uzun yıllardır öğretmenlik uygulaması yürüten araştırma görevlilerinin öğretmenlik uygulamasına ilişkin yaşam deneyimlerinden yararlanılmıştır.

Araştırma verileri yarı yapılandırılmış görüşmeler yoluyla toplanılmıştır. Bu form, hazırlanırken öncelikli olarak özel eğitim öğretmenliği VII. ve VIII. dönem öğretmenlik uygulaması dersinin içeriğini oluşturan uygulama kiti (öğretmenlik uygulaması dersinde yapılması gerekenleri, günlük plan, beceri öğretimi planı, kavram öğretimi planı, pekiştirme belirleme formu, değerlendirme formları vd. içeren belgeler bütünü), öğrenci dosyaları, materyaller, notlama sistemi ve öğretmenlik uygulaması okullarında öğrencilerin neler yaptıkları incelenmiştir.

Analizler sonucu beş ana 14 alt temaya ulaşılmıştır. Araştırmanın ana temaları; (a) uygulama kitine ilişkin görüşler, (b) araştırma görevlilerinin uygulama sürecinde üstlendikleri rollere ilişkin görüşleri (c) öğrencilerin notlandırılmasına ilişkin görüşler, (d) uygulayıcı bakış açısıyla uygulama sürecinde öğrenciler ve (e) öğretmenlik uygulaması sürecine ilişkin önerilerdir. Uygulama kitine ilişkin görüşler teması kendi içinde alt temalara ayrılmamaktadır. Araştırma görevlilerinin uygulama sürecinde üstlendikleri rollere ilişkin görüşleri teması; zorunluluk, farklı uygulamalar ve rolün katkısı olmak üzere üç alt temaya ayrılmaktadır. Öğrencilerin notlandırılmasına ilişkin görüşler teması; araştırma görevlisinin not verme sistemi ve öğretmenin notlandırma sistemi olmak üzere iki alt temaya ayrılmaktadır. Uygulayıcı bakış açısıyla uygulama sürecinde öğrenciler teması; öğrenci kazanımlarına, Materyal hazırlama sürecine ve özel eğitimde öğretim teknolojileri ve materyal tasarımı dersine ve öğrenci dosyalarına ilişkin görüşler olmak üzere üç alt temaya ayrılmaktadır. Öğretmenlik uygulaması sürecine ilişkin öneriler teması ise uygulama kiti ve öğrenci dosyalarına, ders planlarına, materyal hazırlamaya ve özel eğitimde öğretim teknolojileri ve materyal tasarımı dersine, öğrencilerin notlandırılmasına ilişkin öneriler ve araştırma görevlilerin uygulama sürecinin yürütülmesine ilişkin önerileri olmak üzere beş alt temaya ayrılmaktadır.

Sonuç olarak öğretmenlik uygulaması öğretmenlik mesleğine geçmeden önce planlama, öğretim ve değerlendirme süreçlerinin uygulamalı olarak gösterildiği bunun yanı sıra öğrencilere iş ahlakı, özgüven, etkileşim, yeterli hissetme, olumlu tutum gibi kişisel gelişime katkı sağlayan becerilerin kazandırıldığı kritik öneme sahip bir derstir. Öğretmenlik uygulaması sırasında uygulama kitinin kullanılması stajyer öğrencilere planlı bir süreç sunulması, geri bildirimlerin sağlanması, öğretmenlik bilgi ve beceri

gelişimlerinin takip edilmesi açısından önemlidir. Araştırma görevlileri dersi yürütecek yeterliliklere sahip olsa da öğrencilere karşı tutumlarında, öğretmenlik uygulamasını yürütme biçimlerinde ve notlandırmalarında farklılıklar söz konusudur. Bu farklılıklar öğrencilerde adil değerlendirme, yeterli geri bildirim alma, doğru rehberlik sunma, iyi iletişim kurma, gerekli öğretim ve değerlendirme bilgisi ve becerisiyle mezun olma gibi konularda olumsuz düşüncelere yol açabilmektedir. Özellikle notlandırma konusunda uygulama öğretmenlerinin sübjektif değerlendirme yapması ve notu bir baskı aracı olarak kullanması stajyer öğrencileri iki farklı paydaşın (öğretim elemanları ve öğretmenler) olumsuz tutumları arasında bırakmakta ve stajyer öğrencileri kaygıya sevk etmektedir. Bununla birlikte çeşitli olumsuzluklarına rağmen stajyer öğrenciler öğretmenlik uygulaması sürecinde ders planı hazırlama, kavram, beceri öğretimi sunma, davranış değiştirme gibi öğretim uygulamalarına ilişkin sınırlı da olsa bilgi ve becerilerini geliştirmektedirler. Aynı zamanda stajyer öğrenciler bu süreçte özgüven, öğretim yapma açısından yeterli hissetme, iyi etkileşim kurma gibi kişisel becerilerinin gelişimine katkı sağlayan davranışlarda kazanmaktadırlar. Araştırma görevlilerinin görüşleri CEC (2001) kriterleri açısından değerlendirildiğinde öğretmenlik uygulamasının mevcut yürütülme şeklinin öğrencilerin nitelik ve gelişimlerine kısmen katkı sağladığı, stajyer öğrencilerin bireysel öğrenme farklılıklarının göz önünde bulundurulmadığı, planlama, öğretim ve değerlendirme becerilerini geliştirdiği ancak bu gelişimin istenilen düzeyde olmadığı, etik uygulamalar ve iş birliği konusunda öğretim elemanlarının derse ilişkin tutumlarından kaynaklı farklılıklar olduğu söylenebilir. Özet olarak, katılımcı görüşlerinden hareketle öğretmenlik uygulamasının mevcut uygulanma şeklinin özel eğitim öğretmenlerinin sahip olması gereken mesleki standartlara erişirmede yetersiz kaldığı söylenebilir.

Tüm bu sonuçlardan yola çıkarak katılımcıların görüşleri doğrultusunda özel eğitim öğretmenlik uygulamasına ilişkin şu öneriler getirilebilir:

Uygulama kiti öğretmenlik uygulaması sürecinde kullanılmaya devam edilmelidir. Ancak uygulama kitinin içeriği dersi yürüten tüm öğretim elemanlarının görüşleri alınarak hazırlanmalıdır. Uygulama kitinden uygulanması mümkün olmayan maddeler kaldırılmalıdır. Öğrenci dosyaları ise çıktı olarak hazırlanmak yerine dijital ortamda hazırlanmalı böylelikle maliyet ve zaman kaybı azaltılmalıdır.

Ders planlarında sadeleştirmeye gidilmeli oldukça uzun, kullanılmayacak planlar yerine kısa, açık ve anlaşılır planlar hazırlanmalıdır. Ayrıca ders planları her hafta farklı derse, konuya ilişkin farklı yöntemler kullanarak hazırlanmalı böylelikle öğrencilerin mümkün olduğunca farklı planlama, öğretim ve değerlendirme süreçlerini görmeleri sağlanmalıdır.

Stajyer öğrencilere öğretmenlik hayatında da kullanabilecekleri, düşük maliyetli, geri dönüşürebilir, farklı öğrenci özelliklerine uygun işlevsel materyaller hazırlaması öğretilmelidir. Materyal dersi ise en az bir dönem teorik olarak materyal hazırlama konusunda gerçekten uzman bir öğretim elemanı tarafından öğrencilere anlatılmalı ikinci dönem materyallerin nasıl kullanılacağına uygulanması yapılmalıdır.

Öğretmenlik uygulaması süreci doğası gereği tam olarak nesnel değerlendirilemese de mümkün olduğunca nesnel değerlendirilmesi için puanlama kılavuzu gözlenebilir ve ölçülebilir şekilde oluşturulmalı, sistematik güvenilir bir ölçek haline getirilmeli ve herkes bu ölçeğe göre notlama yapmalıdır. Aynı ölçekte uygulama öğretmenlerinin stajyer öğrencilerin kişisel ilişkiler becerilerini değerlendirebileceği bir yer oluşturulmalıdır. Böylelikle öğretmenlerin, öğrencilerin kişisel ilişkilerini değerlendirmesi öğretim elemanlarının ise mesleki becerilerini notlaması sağlanmalıdır. Ayrıca bu süreçte öğretim elemanlarının öğrencilere ilişkin izlenimleri de önemli olduğundan notlama sürecinde kanaat notunun kullanılmasına da izin verilmelidir.

Araştırma görevlileri stajyer öğrencilere öğretmenlik uygulaması sürecinde yapılan tüm işlerin mantığını başka bir deyişle altında yatan gerçek anlamı anlatmalı, öğretmenlik uygulaması dersi toplantılarında uygulama sürecine ilişkin değerlendirmeler yaparak süreci tartışmalı böylelikle öğrencilere gerekçeler sunarak mümkün olduğunca objektif bir şekilde dersi yürütmelidirler. Ayrıca öğretmenlik uygulaması dersine ilişkin yeterli bilgi birikimine sahip olduklarını göstermek açısından dersi yürütecek araştırma görevlilerinin en az dört yıllık öğretmenlik deneyimine sahip olması ve en az üç yıl gibi bir süreyle araştırma görevliliği yapmış olması gerekmektedir.

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Perspectives of Science and Art Center (BİLSEM) Teachers and Students on Distance Education: The Example of İzmir Province*

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Abstract: The aim of this study is to reveal the perspectives of teachers working in Science and Art Centers (BİLSEM) and elementary-level students attending these schools in İzmir province regarding distance education. The research, which utilized the qualitative research method of phenomenology, was conducted in five Science and Art Centers located in İzmir during the second semester of the 2020-2021 academic year. Thirteen teachers and 35 elementary school students working in these centers participated in the study, which took place in April and May. The data was collected through structured interviews with the teachers and semi-structured and structured interviews with the students, using open-ended questions developed by the researcher. The data was analyzed using a descriptive approach. The findings of the study indicate that teachers employed various online communication tools and different methods and techniques in distance education. It was observed that no quantitative evaluation was conducted in BİLSEM; however, teachers resorted to various methods for tracking what was taught. Based on the findings from the teachers, it was concluded that university education, postgraduate education, and similar factors contributed to gaining technological competence. Although the students had positive feelings toward distance education, it was found that they still preferred face-to-face education.

Keywords: Science and Art Center, qualitative research, distance education.

About the Article

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Introduction

In the present day, in what is referred to as the information age of the 21st century, information technologies are rapidly and continuously advancing. Consequently, applications in distance education have greatly benefited from the development and progress of the universal communication network. Distance education, which was once considered difficult to access, has now become easily implementable as a universal communication network through the use of information technologies. Moreover, the universal communication network serves as the fundamental source for production, research required for science, universal trade, universal differentiation, and universal education. The universal communication network provides educators and teachers with the opportunity to offer distance education activities and applications universally (İşman, 1996).

The emergence and development of the concept of distance or remote education first appeared in the educational catalog of the University of Wisconsin in 1892. Later, in an article published in 1906, William Lighty, who was a member of the university's administration, mentioned the term "remote education" (Freeman et al., 2000). The concept of remote education is known to have gained popularity in Europe, initially in Germany through the efforts of Otto Peters, during the 1960s and 1970s and later in France with the educational institutions established with the main objective of providing education to individuals through various communication channels. These institutions used the term "remote education" in their names (Freeman et al., 2000). Therefore, the term "remote education" has been present in the literature since the beginning of the 1900s and is defined as the implementation of education through various communication channels when the learner and the instructor are not in the same physical environment. Educational activities related to remote education are conducted at different levels ranging from high school to postgraduate programs worldwide (İşman, 2011).

In Turkey, remote/distance education practices were predominantly used as an alternative to traditional education, particularly in higher education fields. With the increasing technological advancements and digitalization of the present day, there has been a growing interest and inclination toward alternative forms of education. Recent global events have signaled the importance of remote education and the need to increase and enhance digital learning and teaching activities for the continuity and improvement of education. Global education provides students with the opportunity to benefit from educational programs offered by universities located in different countries through distance education, enabling them to obtain a master's or doctoral degree from these universities (İşman, 2011).

The COVID-19 virus, which first emerged in the city of Wuhan, China, and rapidly spread to all parts of the world, turning into a pandemic, has significantly impacted the daily lives and work activities of people in many countries, including Turkey. It has had

a notable influence on the functioning and processes of public institutions and private enterprises. One of the areas most affected by this situation is the education system. With the onset of the COVID-19 pandemic, educational institutions initially suspended face-to-face education for a certain period as a precautionary measure. The rapid escalation and spread of the pandemic brought a critical role to the Education Informatics Network (EBA), which had previously been developed to integrate technology into educational environments and compensate for the inability to conduct face-to-face education in primary, middle, and high schools. Similarly, universities in higher education institutions took measures within their stracts to continue education through distance education (online) to cover the instructional gaps during the pandemic. In this process, BİLSEM schools, where gifted students receive supportive education alongside their formal education in regular educational institutions in Turkey, were also affected.

Science and Art Centers (BİLSEM), which were established to provide supportive education in order to enhance the abilities and capacities of exceptional and gifted students who continue their regular education in traditional educational institutions, continued their education through distance education facilitated by subject teachers in the spring semester of the 2019-2020 academic year during the pandemic. . Subsequently, in the 2020-2021 academic year, education was predominantly conducted through distance education. This study aims to reveal the views of gifted BİLSEM students, who are defined as individuals who learn faster than their peers, excel in creativity, art, and leadership, possess special academic talents, comprehend abstract ideas, enjoy independent work in their areas of interest, and demonstrate high levels of performance, and BİLSEM teachers who provide education to these students regarding the distance education process using qualitative methods. Qualitative methods can provide deeper and richer data from a small number of participants. Thus, the experiences of students who are more curious and open to technology compared to their peers, as well as the teachers who educate these students, will be identified to develop recommendations for addressing deficiencies and improving quality in distance education.

It is seen in the history of BİLSEM in Turkey that the foundations of BİLSEM schools were laid through certain stages. In 1992, the Directorate General of Special Education and Guidance Counseling and Consultancy Services was established by the Minister of National Education of the time to provide education for children with special needs. Along with separate branches for various groups with disabilities requiring special education, a branch was established for the education of gifted individuals, and thus, the initiatives were initiated (Baykoç Dönmez, 2011).

In order to ensure reaching a higher number of gifted children with the most suitable model, models implemented in different countries were examined considering Turkey's current economic, social, cultural, and educational conditions, , their applicability was discussed, and a new model suitable for Turkey's conditions was developed based on the previous academic studies of Prof. Dr. Necate Baykoç Dönmez. This model, initially

referred to as the "Additional Course Application School" in Prof. Dr. Necate Baykoç Dönmez's studies and later named Science and Art Center, is a pilot project that started in five provinces (Ankara, Istanbul, Izmir, Bayburt, and Denizli) with student selection, teacher selection and training, parent education, and building preparations. The model has been implemented in over 50 centers (Baykoç Dönmez, 2011). BİLSEM (Science and Art Centers), which is unique to our country in the world, became particularly prominent after Prof. Dr. Necate Baykoç Dönmez was invited as the only foreign representative to the 2006 National Congress on Gifted and Talented Children held in England, following the implementation of the 2005 EU Leonardo da Vinci Project. The effectiveness and significance of the BİLSEM model were emphasized by foreign representatives during the conference, leading to the decision to implement it in the northern region of London (Baykoç Dönmez, 2011).

As of 2020, BİLSEM centers are present in every province of Turkey. Depending on population density and demand, multiple BİLSEM centers can exist in a single province. According to the information published on the official website of the Ministry of National Education, meb.gov.tr, as of 2020, there were 182 BİLSEM centers with approximately 2,300 teachers and around 63,000 students attending these schools. It has been stated that as of 2022, there are 279 BİLSEM centers, and the goal is to increase this number to 350. In 2022, a total of 67,375 students received education in BİLSEM centers, consisting of 12,579 primary school students, 43,954 middle school students, and 10,842 high school students. In the city of Izmir, the number of BİLSEM centers reached 15 in 2022 (2020, 2022 meb.gov.tr).

BİLSEM schools prioritize science and art education and provide face-to-face instruction. Examining their experiences with distance education during the pandemic is believed to have had an impact on the development of distance education. Therefore, this study focuses on BİLSEM schools and primary school-level BİLSEM students. It is observed that our gifted students receiving education in BİLSEM centers, which are increasing in importance and number, will make significant contributions to the future of our country. The aim is for the experiences of these technologically savvy students and their teachers during the distance education process to shed light on future studies and serve as examples for new research.

Several studies have been conducted on distance education during the COVID-19 pandemic. Demirçelik et al. (2021) focused on the problems faced by gifted high school students, while Yabancı et al. (2021) examined the communication methods of high school students. Okan (2020) explored the perception patterns of undergraduate students, and Özcan et al. (2021) analyzed the metaphorical perceptions of BİLSEM (gifted) students regarding the concept of "distance education." Saygı (2021) investigated the classroom teachers, Canpolat and Yıldırım (2021) examined middle school teachers, Türker and Dündar (2020) focused on high school teachers in terms of the problems they encountered. Tümen Akyıldız (2020) studied the challenges faced by English teachers while Bayburtlu (2020) discussed those experienced by Turkish language

teachers. Akgül and Oran (2020) gathered the opinions and thoughts of social studies teachers, middle school students, and parents regarding distance education during the pandemic. In addition, Başaran et al. (2020) examined the effectiveness of distance education as a consequence of the COVID-19 pandemic. Tüzün and Yörük Toraman (2021) investigated the factors influencing satisfaction with distance education during the pandemic. Ayfer Alper (2020) focused on remote education at the K-12 level during the pandemic, while Koçoğlu et al. (2020) studied the impact of COVID-19 on education in Turkey. Duban and Şen (2020), as well as Yolcu (2020), explored the experiences of student teachers during the COVID-19 pandemic. Kara (2020) examined student experiences during the pandemic, while Durak et al. (2020) analyzed the distance education systems of universities in Turkey. Genç et al. (2020) gathered the perspectives of graduate students on distance education practices during the COVID-19 pandemic. Ceviz et al. (2020) conducted an analysis of the variables affecting anxiety levels among university students during the COVID-19 pandemic. Er, Türküresin (2020) gathered the views of teacher candidates on distance education practices during the pandemic. Metin et al. (2021) focused on the opinions of teachers regarding remote education during the COVID-19 pandemic, and Aktan et al. (2021) examined the views of preschool teachers on distance education during the pandemic. Ergüç Şahan and Parlar (2021) investigated the problems faced by elementary school teachers during the pandemic and proposed solutions.

Upon reviewing these studies, it was seen that there was a need for research on distance education in Science and Art Centers, which provide education for gifted students. This study aims to fill this gap and provide guidance for future improvement and development efforts in this field.

Aim of the Research

The objective of the study is to reveal the opinions of elementary-level BİLSEM students and BİLSEM teachers regarding the process of distance education. Due to the pandemic, the scope of the study is limited to the example of Izmir province. The research problem statement is defined as "What are the views of classroom teachers and elementary school students studying at Science and Art Centers in Izmir regarding distance education?" and the following sub-problems are formulated:

1. How do BİLSEM teachers carry out the process of distance education?
2. How do the technological competencies of BİLSEM teachers affect the process of distance education?
3. According to BİLSEM teachers, what are the positive and negative aspects of distance education compared to face-to-face education?
4. According to BİLSEM teachers, what aspects of distance education need to be improved?

5. How do elementary school students at BİLSEM evaluate the process of distance education?

Method

Design

This is a qualitative study aiming to examine and interpret the opinions of primary school teachers and primary school students in BİLSEM (Science and Art Centers) regarding the distance education process. The study intends to explore and describe the views of participating teachers and students about the distance education process.

The present study utilized the phenomenological research method, which provides inductive descriptive research that focuses on the phenomenon of human experience and aims to define the meanings expressed in real-life experiences. It encompasses the study of the phenomenon from a firsthand subjective perspective (Akturan & Esen, 2013; cited in Saban & Ersoy, 2019). Phenomenological research values everyday life and sees it as a source of knowledge, allowing us to gain insights about ourselves and enabling us to analyze how an event unfolds in daily life, thus providing us with foundational perspectives to evaluate events (Beck, 1992; cited in Morrissey & Higgs, 2006).

Phenomenology is both a philosophical stance and a research approach. In other words, phenomenology is a research design that is based on philosophical and psychological perspectives. It has evolved as a movement that seeks reality in individual perspectives and experiences, in contrast to the positivist paradigm. Phenomenology is a research design that emerged following this philosophical debate and introduced a new perspective to the scientific world. Data analysis is one of the most challenging aspects of qualitative and phenomenological studies due to dealing with rich and extensive datasets. It is not easy to analyze and interpret the data to reach the fundamental information and essence about the individual. However, phenomenological analysis procedures can be used for this purpose. Another challenge that can arise during data analysis is comparing and merging data sets if they are composed of interviews, observations, and documents. In this comparison, interview data should be considered as the main data source. Therefore, the interview data should be analyzed first, and then combined with other data, which is quite a time-consuming process. In cases of data inconsistency, there is no single correct approach. The researcher, relying on logical reasoning, is the one who makes decisions in this process (Saban & Ersoy, 2019).

In phenomenological studies, two important processes need to be carried out in the analysis phase to understand the essence of the phenomenon. These processes are phenomenological reduction and creative transformation, which are necessary to extract the essence of the experience from participants' narratives. Phenomenological reduction involves the elimination of data expressed in an insignificant, irrelevant, repetitive, or unconscious manner regarding what the participant's experience is in the data analysis

stage. Creative transformation, on the other hand, is applied during the process of reaching an understanding from participants' experiences and is created to discover the shared meanings formed by all participants' experiences (Moustakas, 1994; cited in Ersoy & Saban, 2019).

Different procedures were implemented to ensure trustworthiness in the research.. These include presenting the data initially without interpretation, adopting the constant comparative method in data analysis, and maintaining adherence to the theoretical framework during data analysis (Freeman, deMarras, Preissle, Roulston, & St. Pierre, 2007; Guba & Lincoln, 1985; cited in Anagün & Ersoy, 2009).

Participants

The participants of the study consist of 13 teachers who work at five science and art centers located in the province of Izmir. The primary school students, on the other hand, are composed of 35 students who are enrolled in the BILSEM program (3rd and 4th-grade students attending each Science and Art Center). Due to the pandemic, BILSEM centers could not admit students for approximately two years during the study period. Consequently, the number of BILSEM students is significantly lower compared to previous years. Additionally, since the scope of the study is at the primary school level, the number of teachers providing education to primary school students has also decreased. The participants were selected by taking the prevailing circumstances into account. Furthermore, BILSEM centers admit students in three different areas: general aptitude, music, and art with the majority of students being enrolled in the general aptitude field. Therefore, it is observed that the voluntary participants mainly come from the general aptitude section.

The personal characteristics of the participating teachers are given in Table 1, while the personal characteristics of the participating students are provided in Table 2.

Table 1.

Personal Characteristics of the Teachers Participating in the Research

Participant	Gender	Education Level	Branch	Professional Experience	School Assigned
Ö1	E	Undergraduate	Informatics	2 years	Aliğa BİLSEM
Ö2	E	Graduate	Mathematics	16 years	Aliğa BİLSEM
Ö3	E	Graduate	Classroom Teacher	18 years	Narlıdere BİLSEM
Ö4	K	Undergraduate	Turkish	16 years	Narlıdere BİLSEM
Ö5	K	Graduate	Music	8 years	Narlıdere BİLSEM
Ö6	K	Undergraduate	Mathematics	6 years	Konak BİLSEM
Ö7	E	Postgraduate	Music	19 years	Konak BİLSEM

Ö8	K		English		Çiğli BİLSEM
Ö9	K	Postgraduate	Turkish	15 years	Çiğli BİLSEM
Ö10	K	Graduate	Mathematics	8 years	Bornova BİLSEM
Ö11	K	Graduate	Informatics	16 years	Bornova BİLSEM
Ö12	K	Graduate	Visual Arts	24 years	Bornova BİLSEM
Ö13	K	Graduate	Mathematics	10 years	Bornova BİLSEM

Table 2.

Personal Characteristics of the Students Participating in the Research

Participant	Gender	Grade	Program	School
T1	K	4	General Ability	Aliğa BİLSEM
T2	E	4	General Ability	Aliğa BİLSEM
T3	K	3	General Ability	Aliğa BİLSEM
T4	K	4	General Ability	Bornova BİLSEM
T5	K	4	General Ability	Bornova BİLSEM
T6	E	4	General Ability	Bornova BİLSEM
T7	K	4	General Ability	Bornova BİLSEM
T8	K	4	General Ability	Çiğli BİLSEM
T9	E	4	General Ability	Çiğli BİLSEM
T10	E	4	General Ability	Çiğli BİLSEM
T11	E	3	General Ability	Çiğli BİLSEM
T12	E	4	General Ability	Çiğli BİLSEM
T13	E	4	General Ability	Çiğli BİLSEM
T14	K	4	General Ability	Çiğli BİLSEM
T15	E	4	General Ability	Çiğli BİLSEM
T16	E	4	General Ability	Çiğli BİLSEM
T17	E	4	General Ability	Konak BİLSEM
T18	K	4	General Ability	Konak BİLSEM
T19	K	4	General Ability	Konak BİLSEM
T20	E	4	General Ability	Konak BİLSEM
T21	K	4	General Ability	Konak BİLSEM
T22	K	4	General Ability	Konak BİLSEM

T23	E	4	General Ability	Konak BİLSEM
T24	K	4	General Ability	Narlıdere BİLSEM
T25	K	4	General Ability	Narlıdere BİLSEM
T26	E	4	General Ability	Narlıdere BİLSEM
T27	E	4	General Ability	Narlıdere BİLSEM
T28	E	4	General Ability	Narlıdere BİLSEM
T29	K	4	General Ability	Narlıdere BİLSEM
T30	K	4	General Ability	Narlıdere BİLSEM
T31	E	3	General Ability	Narlıdere BİLSEM
T32	K	4	General Ability	Narlıdere BİLSEM
T33	K	4	General Ability	Narlıdere BİLSEM
T34	K	4	General Ability	Narlıdere BİLSEM
T35	K	4	General Ability	Narlıdere BİLSEM

Data Collection Tools

The teacher and student interview questions to be used as the data collection tool were prepared by the researcher in collaboration with domain experts after conducting a literature review. In addition to the interview method, online communication tools were also utilized due to the pandemic. The interviews were conducted face-to-face or through online communication and lasted for 10-15 minutes. Online forms were used alongside interview forms for document recording. Participants were informed about the purpose and process of the interviews through the interview forms. The participants were explained that their personal information would be kept confidential, and they could use pseudonyms if they wished. The questions were applied to three voluntary teachers and students through observation to detect any unclear points in the questions, which tested the validity of the prepared questions.

In this study, the following questions were asked to BİLSEM teachers:

- How do you conduct the process of distance education?
- Which teaching methods and techniques do you employ in the distance education process?
- What measurement and evaluation tools do you use?
- How do your technological competencies affect distance education?
- How do you see yourself in terms of using technology?
- How did you acquire your technological competency?
- What impact do you think your professional experience has on technological competence?

- What do you think are the positive aspects of distance learning compared to face-to-face education?
- What do you think are the negative aspects of distance learning compared to face-to-face education?
- According to you, what are the aspects of distance learning that need improvement?

In this study, the following questions were asked to BİLSEM students:

- What would you like to say about distance education??
- How does your teacher conduct distance education?
- How does your teacher evaluate your distance lessons?
- How much do you like distance education lessons?
- What would you like to say if you compare distance education lessons with face-to-face lessons?
- What do you think are the positive aspects of distance education compared to face-to-face education?
- What do you think are the negative aspects of distance education compared to face-to-face education?
- How do you think distance education lessons would be better for you?

Due to the pandemic, the data collection process was conducted through face-to-face communication and online communication methods depending on the conditions. Therefore, the data were collected from teachers through structured interviews and from students through semi-structured and structured interviews.

Data Analysis

In this study, content analysis (Yıldırım and Şimşek, 2018) was performed by utilizing the participants' experiences as depicted in Figure 1:

Figure 1.*Steps Applied to Data Analysis*

According to the steps outlined above, the following procedures have been carried out: In the analysis of the interview forms of the teachers working in BİLSEM (Science and Art Centers) and the students receiving education in these centers, the names of the teachers and students were first encoded. The data in the descriptive index section created in the first stage were grouped and matched under the corresponding interview question. The data obtained from the research questions were considered themes. In the creation of the interview coding key, the descriptive index section containing the answers given by the teachers and students to each question was taken into account. The answers given by the teachers and students to the questions were examined, and similar ideas were brought together to form themes. Then, the data obtained according to thematic frameworks were matched, and the teacher-student opinions were classified. After finalizing the themes and sub-themes, the data were organized by giving them their final forms. After the data classification stage, it was determined which of the opinions coded under specific themes would be directly quoted, and connections were established between teacher and student opinions. Instead of the participants' names, codes were used when directly quoting from the data. Following these procedures, the analysis phase was concluded.

Findings and Interpretation

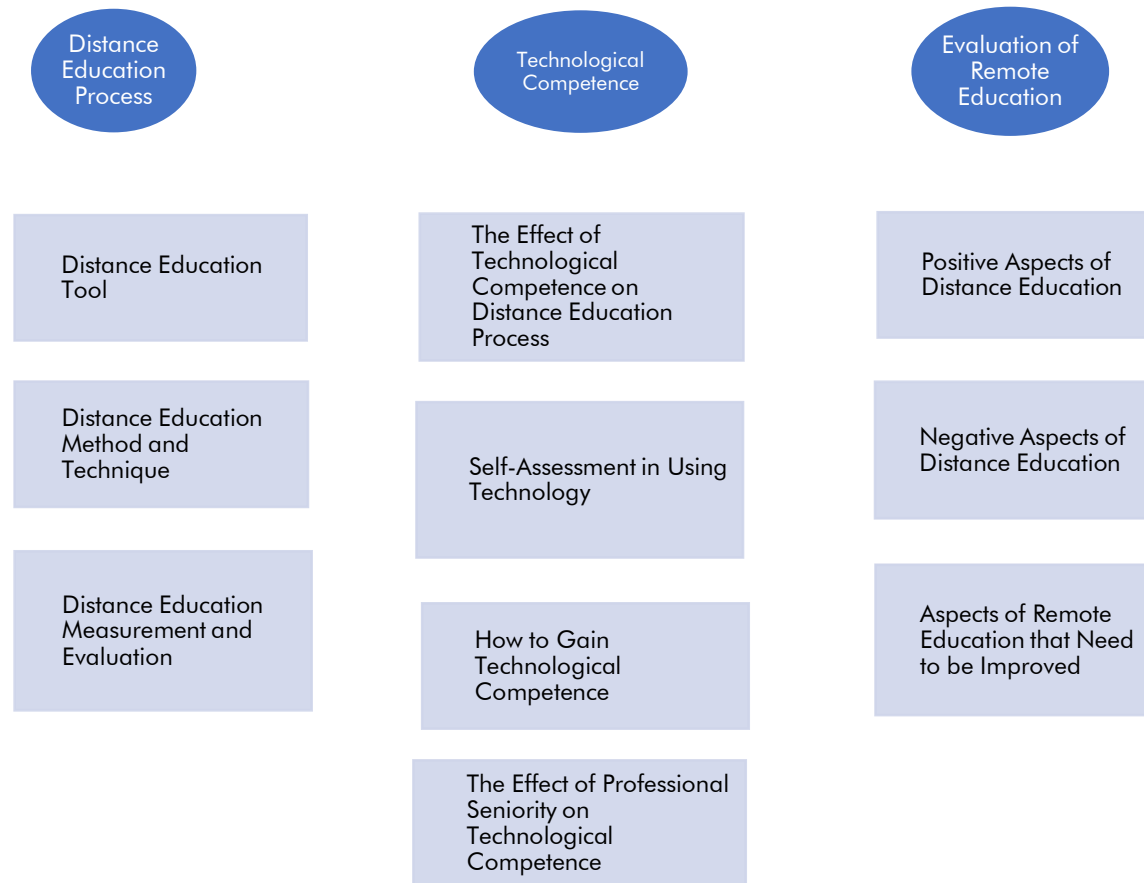
In this section, the findings obtained from the research and the interpretations based on these findings are presented. Since the participants consisted of two groups, the findings and interpretations related to the views of BİLSEM teachers were presented first, followed by the findings and interpretations obtained from the views of elementary-level students studying in BİLSEM.

I. Bilsem Teachers' Views on Distance Education

The analysis of the teachers' views who participated in the research has led to the identification of the themes and sub-themes provided in Figure 2.

Figure 2.

Themes Created According to the Data Obtained from the Research Questions



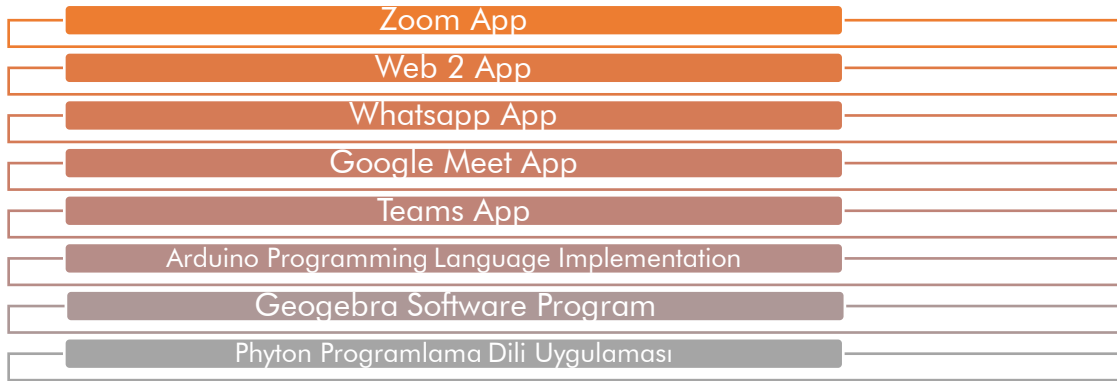
It can be seen in Figure 2 that the views of BİLSEM teachers regarding distance education are addressed under three main themes. Accordingly, the themes are categorized as "Distance Education Process Theme," "Distance Education Tools and Techniques," and "Distance Education Measurement and Evaluation" sub-themes. The theme of Technological Competence is further analyzed under the sub-themes of "The Impact of Technological Competence on the Distance Education Process," "Self-Evaluation in Using Technology," "Methods of Acquiring Technological Competence," and "The Effect of Professional Experience on Technological Competence." The theme of Evaluation of Distance Education is explored under the sub-themes of "Positive Aspects of Distance Education," "Negative Aspects of Distance Education," and "Areas in Need of Improvement in Distance Education."

Distance Education Tool

The majority of teachers have stated that they adhere to the school curriculum program during distance education and utilize online communication tools such as Zoom and Web 2 applications. Additionally, it has been mentioned that applications such as WhatsApp, Google Meet, and Teams are also used. In the process of distance education, the utilization of Arduino (programming language), Geogebra (mathematical software), Python (programming language), and videos related to lesson topics has been reported.

Figure 3.

Some Applications Used by Teachers in Distance Education



Most of the participating teachers have stated that they conduct their classes using the Zoom program. In addition, Ö4, Ö9, and Ö13 have mentioned that they benefit from Web 2 tools. . Some of the participating teachers, specifically Ö6, Ö9, and Ö12, have also stated that they make use of the Whatsapp messaging application. Among the participants, Ö9 mentioned using the Teams application, while Ö13 stated that they use the Google Meets application. Below are some of the related opinions of the teachers:

"We conduct our lessons by first drawing electronic circuit diagrams in the computer environment, and then writing the necessary program with Arduino code and uploading it to the Arduino." Ö1

"I use the Zoom program. I conduct classes through the Zoom application during hours outside of the student's school hours, as per the program prepared by our central administration." Ö3

"I plan the distance education process with pre-determined links through Zoom and Whatsapp programs at specific intervals. My classes usually last for 30-40 minutes in two sessions. Occasionally, I also resort to web2 tools." Ö6

"I conduct my classes through the Zoom application, within the framework of the current curriculum and topics." Ö7

"I carry out the distance education process using applications such as Zoom, WhatsApp, web2 tools, and Teams. Pre-prepared topic videos, documents shared on common platforms with other BILSEM teachers, and various videos, applications, and documents suitable for the content and student level help create our lesson content." Ö9

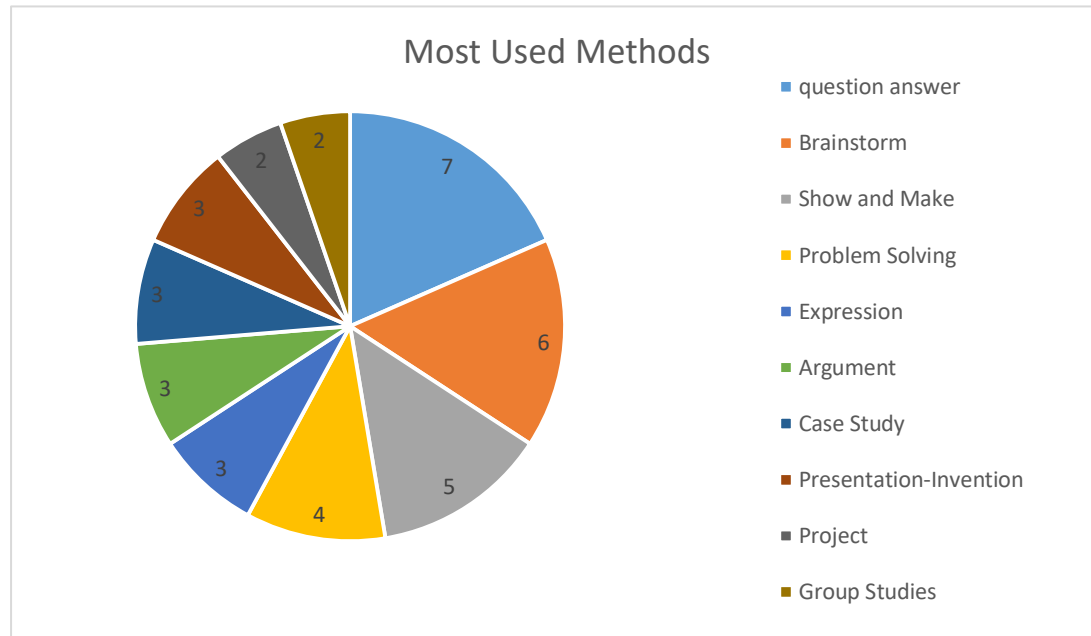
These findings indicate that teachers use various communication tools, applications, and programs during the distance education process.

Methods and Techniques Used in Distance Education

According to the teachers' opinions, the methods and techniques most commonly used by teachers in distance education are shown in Figure 4.

Figure 4.

The Most Used Methods and Techniques in Distance Education According to the Responses of the Teachers



The majority of the participating teachers have mentioned the following methods and techniques as their preferences in distance education: Question-Answer (Ö2, Ö3, Ö6, Ö9, Ö10, Ö12, Ö13), Brainstorming (Ö3, Ö4, Ö6, Ö9, Ö10, Ö13), Show-Do (Ö1, Ö2, Ö3, Ö4, Ö10), Problem-Solving (Ö3, Ö4, Ö6, Ö13), Lecture (Ö3, Ö12, Ö13), Discussion (Ö7, Ö9, Ö10), Case Study (Ö3, Ö9, Ö12), Presentation-Invention (Ö5, Ö6, Ö10), Project (Ö1, Ö8), Discovery Method (Ö2, Ö9), Group Work (Ö3, Ö9). In addition to these methods and techniques, they have also mentioned utilizing the Six Thinking Hats Technique (Ö3), Collaborative Learning (Ö3), Synectics (Ö4), Talking Circle (Ö4), Exhibition Technique (Ö4), Research-Investigation (Ö5, Ö10), Orff and Kodaly Techniques in Music Education (Ö5), Creative Drama (Ö9), Project-Based Learning (Ö8), Creative and Critical Thinking (Ö10), and Web Applications (Ö11).

Below are some opinions of teachers regarding this matter.

"I mostly use the show-do technique, but I also support it with project assignments." Ö1

"I utilize problem-solving, lecture, question-answer, brainstorming, demonstration technique, group work, Six Thinking Hats technique, discussion, case study, and collaborative learning." Ö3

"It varies depending on the students' group level. For example, teaching through presentation, invention, and research-investigation-based instruction. In music education, I use techniques such as developing auditory perception and employing Orff and Kodály methods." Ö5

"I employ brainstorming, question-answer, creative thinking in mathematics, critical thinking questions, large group and small group discussions, show-do applications, invention method, research." Ö10

"Especially in mathematical modeling questions, I naturally utilize brainstorming, problem-solving, and application techniques (usually through coding). Besides modeling, I use methods like question-answer, problem-solving, lecture, and question-answer." Ö13

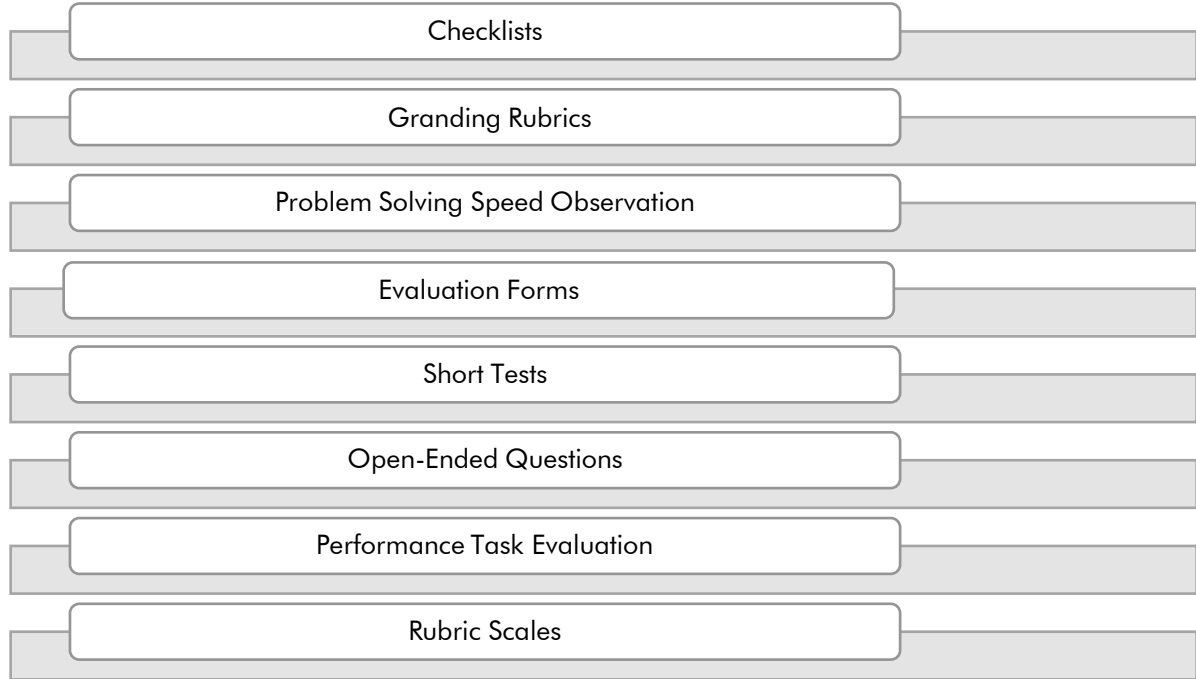
These data show that teachers use a variety of methods and techniques in the distance education process.

Distance Education Measurement and Evaluation

The data obtained from the teachers, demonstrate that quantitative assessment is not conducted in Science and Art Centers. Additionally, it has been stated that during the distance education process, measurement and evaluation are qualitative, observation-based, product-oriented, application-based, and process-based. Despite the absence of quantitative assessment, teachers have mentioned using tracking checklists, graded scoring rubrics, problem-solving speed, assessment forms created by themselves or provided by the institution, short tests, open-ended questions, performance task evaluation, and rubric scales to monitor the materials taught, as shown in Figure 5. Among the participating teachers, Ö1 and Ö2 have expressed that although there is no quantitative assessment in BILSEM, they measure and evaluate the learning outcomes qualitatively through observation. Similarly, Ö3 and Ö12 have stated that despite the absence of quantitative assessment in BILSEM, they determine students' learning through feedback, group work, and performance evaluation. Ö4 has mentioned conducting assessment and evaluation through Web 2 tools. Ö5, Ö8, Ö10, and Ö13 have stated that they use rubric scales, checklists, and assessment forms. Ö6 expressed performing measurement and assessment through problem-solving speed and feedback, while Ö7 mentioned process evaluation. Ö9 conducts measurement and evaluation through short tests, small competitions using the Kahoot application, and open-ended questions. Ö11 has mentioned conducting performance evaluations at the end of each lesson.

Figure 5.

Methods Teachers Use to Observe What is Learned



Concerning views of some of the teachers are given below:

"I don't have a quantitative assessment in BILSEM; I only observe behaviors. I receive feedback based on observation." Ö2

"I mostly use web 2.0 tools for evaluation." Ö4

"I use assessment forms that I have determined myself and those provided by my institution." Ö8

"I frequently utilize performance tasks and evaluations as assessment tools. I give performance assignments to students after each lesson, and we review their work together at the beginning of the next lesson." Ö11

"Generally, there is no quantitative assessment conducted in BILSEM. However, I evaluate students based on their activities and works." Ö12

According to these findings, it can be understood that besides the absence of quantitative assessment in BILSEM under normal circumstances, teachers resort to different measurement and evaluation methods and techniques during distance education to identify learning outcomes and qualitatively evaluate the resulting products.

The technological Competence theme, Effect of Technological Competence on Distance Education Process sub-theme, Self-Evaluation in terms of Using Technology sub-theme,

Technological Competency Acquisition Sub-theme, and Effect of Professional Seniority on Technological Competence sub-themes are given below based on the findings.

The Effect of Technological Competence on the Distance Education Process

According to the data obtained from the teachers, 13 teachers who participated in the study stated that technological competence had a positive effect on the distance education process.

Some of the teacher's views on this subject are given below:

"My good technological skills have a positive impact. We didn't face any problems related to technological inadequacy because our students have a high economic level." Ö3

"There was a period when we realized the importance of being technologically competent. Every day, we added something new to our knowledge. We mutually developed ourselves and the students during this process. It was a period of expanding my technological knowledge." Ö9

"As a computer science teacher, I had the advantage of being in distance education. Despite it being my first time teaching online, I quickly adapted. I believe it made my course materials more accessible online." Ö11

"In this mandatory period, we continue to learn technology ourselves." Ö12

"It has a very positive effect. In face-to-face classes, we had to run applications like Geogebra, Python, and Desmos from a single computer because students didn't have their computers. Now, every student has a computer. They can use these applications and conduct research. When writing a project report, each student can contribute simultaneously." Ö13

It is understood from these findings that technological competence has a positive effect on the distance education process.

Self-Assessment in Using Technology

In line with the answers given by the teachers, 13 teachers who participated in the study also stated that they saw themselves at a sufficient level in terms of using technology. According to the answers given to this question, teachers stated their technological competencies as being at a sufficient level (five teachers: T1, T2, T5, T10, T12), sufficient-good level (four teachers: T3, T7, T8, T9), sufficient-active level (two teachers: T4, T6), sufficient-high level (two teachers: Ö11, Ö13).

Some of the teacher's views on this subject are given below:

"I can evaluate it as good. Especially in distance education, I started using web 2.0 tools more effectively. Throughout the course, I used over 20 web 2.0 tools to increase student participation and ensure their engagement in the next class." Ö3

"There are no limits to learning. However, I actively use many applications that are suitable for my students' level." Ö4

"I can use basic programs. I believe I have developed myself enough to teach my students video editing. However, I wish I had advanced skills in features like advanced audio recording, arrangement, and mixing." Ö5

"While being an intermediate-level technology user, I can say that through the training we received and the experiences we had during this period, I have reached a good level." Ö9

"Since technology is already my field, I had a high level of readiness. When I encounter new applications and programs, I work on them and take extensive notes." Ö11

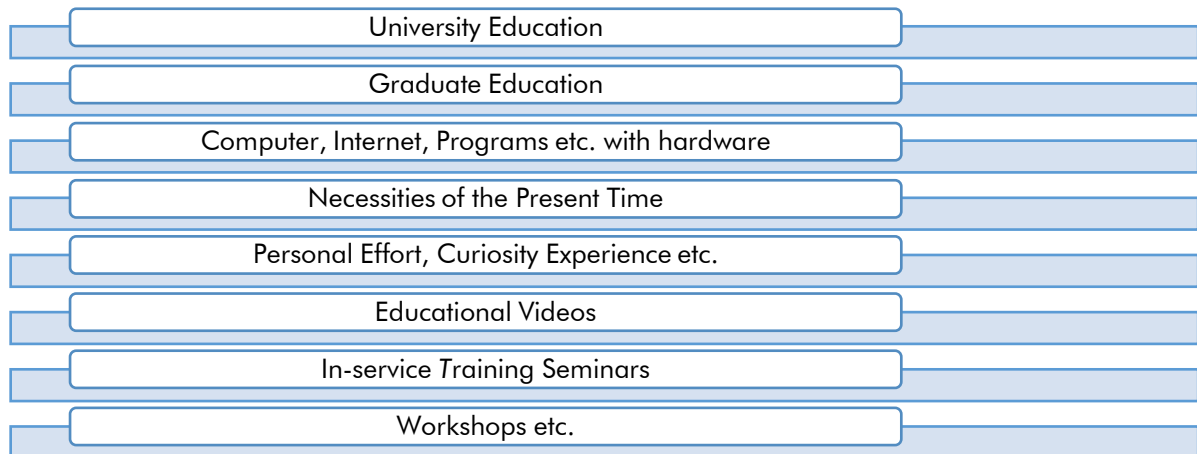
According to these findings, it is understood that teachers find themselves at a sufficient level in terms of technological competence in distance education.

How to Gain Technological Competence

According to the responses of the participating teachers, it is stated that teachers mostly acquire technological competence through education and personal effort. The findings from the teachers' responses indicate that obtaining a university education, postgraduate education; having access to computers, the internet, etc.; the necessity of the current time, training, programs, educational videos, in-service seminars, workshops, etc.; experience gained over time, personal effort, curiosity, and the need for self-improvement play significant roles in acquiring technological competence. Additionally, it is mentioned that students also contribute to their teachers' technological proficiency.

Figure 6.

Teachers' Ways of Gaining Technological Competence



Some of the concerning teacher views are given below:

"Previously, I knew the basics. I learned additional information from the internet and students as well." Ö2

"Having my computer since my student years was the biggest influence on this. In the last year, the E-Twinning platform also enhanced my competence." Ö5

"I acquire it through my 24 years of teaching experience and in-service training. I haven't attended a specific course for this." Ö1

"Through workshops, seminars, videos, and hands-on experience." Ö6

"Since 1997, I have had my personal computer, and starting from 1998, I have been using the Internet. I am a technology enthusiast who can use the computer as needed and perform basic repairs." Ö8

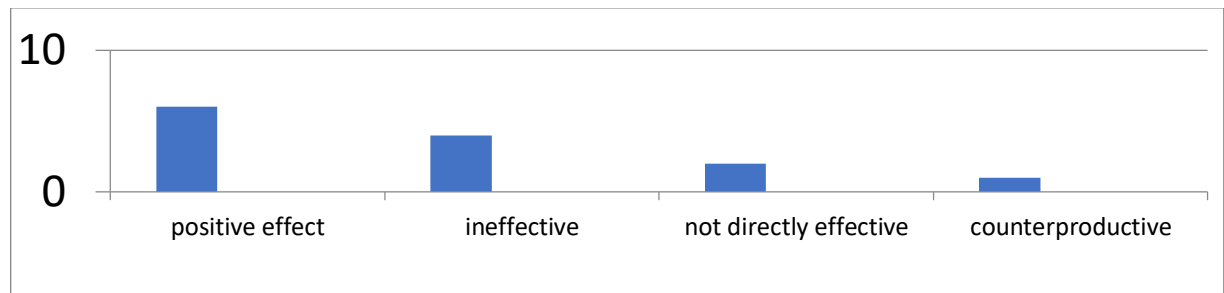
According to these findings obtained from the teachers, it is understood that they have gained these competencies with various pieces of training related to technological competency in line with personal effort and personal development, as in Figure 6.

The Effect of Professional Seniority on Technological Competence

According to the responses provided by the teachers to the interview questions, six teachers (Ö1, Ö2, Ö3, Ö4, Ö10, Ö11) stated that professional experience has a positive impact on technological competence, as depicted in Figure 8. On the other hand, four teachers (Ö6, Ö7, Ö8, Ö9) think that professional experience does not influence technological competence. In addition, two teachers (Ö5, Ö13) believe that professional experience does not directly affect technological competence while one teacher (Ö12) stated that professional experience has an inverse relationship with technological competence.

Figure 7.

The Effect of Professional Seniority on Technological Competence for Teachers



Some of the concerning teacher views are given below:

"Of course, it has a positive impact. Especially in BILSEM, students' ability to manage their time well requires their teachers to keep up with educational developments quickly. My professional experience has helped me understand my students' characteristics accurately. Therefore, I believe that I keep up with educational developments effectively." Ö3

"Being senior does not automatically make you a competent BILSEM teacher. If you don't continuously improve yourself, you cannot be sufficient here. Developing the skill of using technology is one of the most important areas to focus on. In other words, being senior does not have a direct impact." Ö5

"I don't think professional experience has an impact on this, but I can say that academic studies or progress greatly contribute to it." Ö8

"As the years go by, there is a growing need to learn more tools. Therefore, compared to the early years of my teaching career, I am using a much wider range of technological tools. I believe that my competence has improved." Ö10

"Technological competence can be inversely proportional to professional experience. However, conducting classes via Zoom does not require high-level technological knowledge." Ö12

According to the findings obtained from the responses of the participating teachers, the evaluation of distance education reveals the following sub-themes: Positive Aspects of Distance Education, Negative Aspects of Distance Education, and Areas for Improvement in Distance Education.

Positive Aspects of Distance Education

According to the findings obtained from the responses of the teachers, the positive aspects of distance education compared to face-to-face education can be summarized as follows: According to Ö1 and Ö9, distance education provides location independence. According to Ö3, Ö11, and Ö12, distance education reduces expenses for those who have difficulty coming to school due to financial constraints. According to Ö1, Ö2, Ö3, Ö5, Ö6, Ö7, Ö9, Ö10, and Ö13, the use of technology in education is a positive aspect of distance education. According to Ö3 and Ö13, distance education has increased attendance and continuity in certain subjects. Ö3, Ö9, and Ö11 thinks distance education is beneficial in terms of reaching all students. Ö3, Ö6, Ö8, Ö9, and Ö10 see that distance education provides time flexibility. According to Ö13, distance education allows for efficient use of time and Ö3 suggests distance education provides students with the opportunity to use and enjoy technology, and increased motivation in certain subjects is a positive aspect of distance education. According to Ö4, distance education provides an opportunity for active learning through computer and web-supported programs and applications. According to Ö5, distance education promotes the development of information and communication technology skills and contributes to the enhancement of 21st-century skills. It also provides the possibility of reducing or eliminating negative situations such as peer bullying and mobbing. According to Ö6, distance education saves time, space, and energy. According to Ö7, distance education increases the use of media, printed, visual, and auditory resources. It also facilitates the use and development of new teaching methods, techniques, and practices in distance education. According to Ö8, distance education enhances a student's self-control mechanism and ensures accessibility in terms of education for every student. According to Ö10, distance education facilitates the examination of products, assignments, answers, and projects, providing ease of access and review. According to Ö11, information and note exchange speed increases in distance education. Additionally, according to Ö12, in the context of a pandemic or other infectious disease periods,

distance education is necessary to ensure the continuity of education and instruction. Some of the teachers' opinions on this matter are provided below:

"The positive aspects include a decrease in absenteeism, the opportunity to reach all students, the absence of restrictions on time and location, students' ability to use and enjoy technology, increased motivation in classes, and the opportunity to add expert support to lessons without being limited by space and time." Ö3

"The development of ICT skills, the enhancement of 21st-century skills, and the absence of peer bullying and mobbing." Ö5

"We can spend our time more efficiently, minimizing time and energy wastage. The time spent preparing for school is replaced by preparing for lessons at home. With the use of technology and visual aids, children can grasp the content more easily." Ö6

"The absence of limitations on place and time, accessibility for every student with internet access, and the ability to demonstrate technological applications and teach lessons using them have been more beneficial." Ö9

"The positive aspects of distance education are that students have a more comfortable environment at home with their computers. Online information exchange is much faster. The rate of non-participation in class when there are no attendance issues is very low, and students always inform us when they cannot attend. There are no transportation issues. During face-to-face education, many students would arrive late due to traffic." Ö11

According to the findings obtained from the responses of the participating teachers, it is stated that distance education has many positive aspects.

Negative Aspects of Distance Education

According to the findings obtained from the responses of the participating teachers, the negative aspects of distance education compared to face-to-face education are as follows: According to Ö1, distance education is less effective in practical courses compared to face-to-face education. According to Ö2, Ö5, Ö7, Ö10, Ö11, and Ö12, technological inadequacies in distance education have a negative impact. According to Ö3, Ö6, and Ö9, distance education is not conducive to socialization. Ö3 states that the limited social interaction in distance education leads to motivation issues and restricts peer learning; furthermore, instructional activities are limited in distance education. According to Ö3, the potential for screen addiction and resulting health problems in distance education is a negative aspect. According to Ö4, the lack of mandatory camera usage in distance education leads to a lack of control and allows students to engage in non-academic activities due to their lack of self-discipline. According to Ö5, difficulties arise in subjects such as music and practical courses in distance education; synchronization issues come up, and the distance education programs used are inadequate. According to the majority of the participating teachers in the study, distance education is accompanied by problems related to internet and communication issues, as well as technical and financial limitations. Financial constraints in distance education

result in unequal opportunities among students. According to Ö12, parental intervention during lessons negatively affects distance education, and inadequacies are encountered in group work and art education. According to Ö13, the weakening of the teacher-student relationship due to communication issues in distance education is a negative aspect. Here are some of the opinions expressed by the teachers on this matter:

"Instrumental training that enhances performance skills is indispensable in music education alongside theoretical knowledge. At the beginning of distance education, there were synchronization issues. The Zoom program we used has been relatively improved. However, occasional internet inadequacy can create communication difficulties." Ö5

"Children have no breathing space and no opportunity to socialize during breaks. This can lead to a loss of motivation. However, for some students, the situation can be the opposite. It can vary from person to person." Ö6

"The efficiency of lessons can decrease due to the infrastructure issues of teachers or students, and distance education, especially for practical courses, requires more time and provides fewer benefits." Ö7

"Due to the minimal social interaction, minor issues can escalate, and there is less eye contact and interaction, resulting in less learning compared to face-to-face education." Ö9

"There can be difficulties related to the internet. Sound and visual quality (working image) can be insufficient, which unfortunately highlights the inequality in students' opportunities. We cannot prevent parental intervention in student work. We may also encounter unexpected challenges with the chosen technique in online education, such as differences in location, materials, and application areas. During the pandemic, I have tried and seen that a significant portion of the gains can be achieved through online education. Group work holds a significant place in art education. Consequently, some gains are missing." Ö12

Adaptation problem arises due to technical problems in distance education. In addition, the difficulties encountered in receiving feedback are among the findings that emerged as a negative aspect of distance education.

Aspects of Distance Education that Need to be Improved

Based on the answers provided by teachers to interview questions, the areas that need improvement in distance education compared to face-to-face education are as follows: internet infrastructure, technical infrastructure, provision of financial and technical support such as tablets to students in need, increased availability of activities and materials, more organized and structured approach, scheduling of class hours, integration of distance education to support face-to-face education, establishment of criteria regarding mandatory attendance and absenteeism in distance education, emphasis on equal opportunities in distance education, enhancement and development of platforms such as EBA (Education Information Network) TV, increased visual content in theoretical lessons conducted through distance education, increased financial and moral support for teachers in distance education, resolution of technical and technological deficiencies, organization of online competitions in distance education,

creation of activities for distance education, conducting remote education seminars for teachers, improvement of teachers' technological competencies, development of new programs for distance education, soliciting student participation and feedback in distance education, enhancement of student control mechanisms in distance education, establishment of a rich shared archive for distance education, creation of video and lesson presentation repositories for distance education, establishment of online libraries for distance education, development of innovative applications, creation of online platforms, development of practical applications and videos for art education in distance education. These findings are based on teacher opinions, some of which are provided below.

"I believe that the internet infrastructure needs to be improved." Ö1

"There should be more activities, materials, and a more organized approach. The class hours should be reduced, and distance education should support face-to-face education. It should not be solely based on remote learning." Ö3

"There are students who do not have their tablets or computers. If there is equal opportunity, distance education can be implemented. On the other hand, I find EBA TV quite successful. Such platforms should be increased and developed." Ö5

"I think that having a rich shared archive, video and lesson presentation repositories, accessible e-libraries through e-schools, presentations prepared with innovative applications, and a wider range of content would be more effective." Ö9

"The technical deficiencies of students should be addressed. Online competitions and activities can be organized for students on the online platform. Training sessions on distance education can be provided to teachers, parents, and students." Ö11

The teachers who participated in the research primarily expressed views on the development of the technical infrastructure of distance education..

I. BİLSEM Students' Views on Distance Education

Findings and Comments Obtained from Student Interviews

In this section, the answers given by the student group to the questions asked in the interviews were analyzed and the following themes and sub-themes were formed according to the research questions:

1. Thoughts on Distance Education
 - a. The Teacher's Approach to Conducting Distance Education
 - b. The Teacher's Approach to Evaluating Distance Education
2. How Much Do You Enjoy Distance Education Lessons?
3. Comparing Distance Education to Face-to-Face Education

- a. Positive Aspects
- b. Negative Aspects

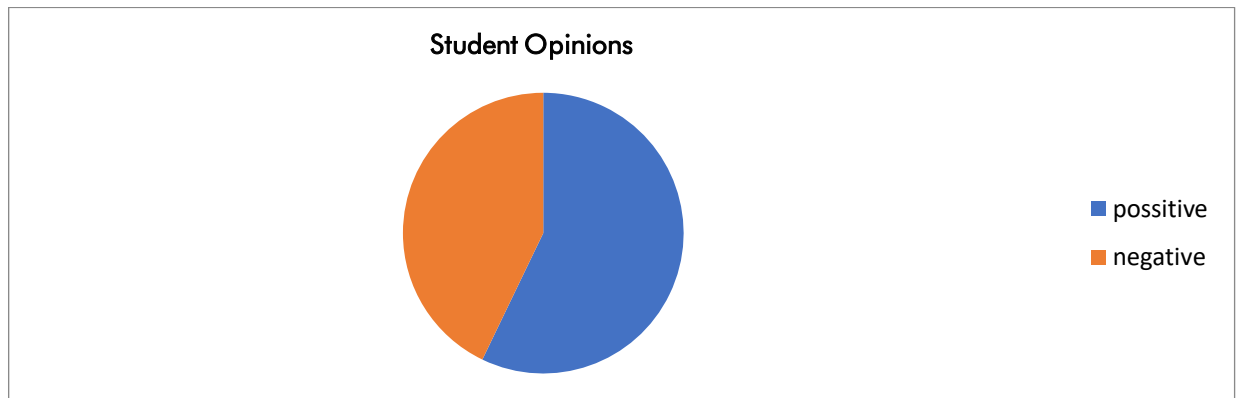
General View on Distance Education from the Perspectives of Students

In this study, questions about remote education were asked of 35 elementary-level students attending BİLSEM (Science and Art Centers) in İzmir province. In this section, the data obtained through the students' responses to the interview questions within the scope of the research are presented. Findings and comments based on the findings are presented in consideration of the order of the questions in the Student Interview Questions Form.

According to the answers given to the Student Interview Questions, out of the 35 participating students, 20 (T1, T2, T3, T5, T6, T7, T8, T9, T12, T14, T15, T16, T20, T24, T25, T26, T27, T28, T30, T35) expressed positive opinions about distance education, while 15 (T4, T10, T11, T13, T17, T18, T19, T21, T22, T23, T29, T31, T32, T33, T34) expressed negative opinions. The findings indicate that there is a close balance between positive and negative views regarding distance education.

Figure 8.

General View on Distance Education from the Perspectives of Students



Some of the student views on this subject are given below:

"For me, teaching in school is more understandable. Distance education is not as fun and instructive as face-to-face education. Despite these drawbacks, I am happy to see my friends and teachers. Even in distance education, my BİLSEM classes are still enjoyable." T3

"I think it's great, I have a lot of fun." T6

"It's good, but face-to-face education is better. In face-to-face education, our teachers teach us new things. I'm always curious about what new things we will learn in each class." T12

"I think it's not sufficient. I think we are falling behind in education. In short, we are not receiving proper education. Sometimes our families don't have the means, and some families do not show enough sensitivity to remote education." T21

"It doesn't replace face-to-face education. Communication is not very effective. In face-to-face education, we understood the topics better, but in remote education, we grasp them, but something feels missing." T23

The sub-theme of "Teacher's Approach to Conducting Distance Education from the Students' Perspective" is presented below based on the findings. It is understood from the student's responses to the interview questions that the classes are generally conducted using the Zoom program. In addition, according to the responses obtained from the 35 participating students, it has been indicated that teachers use various methods to conduct distance education. Based on the findings, these methods include activities, solving tests, mental activities, lectures and discussions, competitions, programs, topic explanations, videos, worksheets, online (live) sessions, software instruction, fun games, drawing pictures, reading, exercises, question-answer sessions, problem-solving, use of internet resources, internet applications, project work, visual materials, and experiments. Some of the students' opinions on this matter are provided below:

"Our teacher conducts our classes through Zoom. With features like screen sharing, screen projection, and whiteboard, we can easily follow our lessons with interactive activities." T5

"Our teacher takes great care of us and assigns us various activities." T7

"In computer science classes, we are asked to install software programs and enter commands based on a specified topic. In each new lesson, we add new commands to the previous one to accomplish the software. It creates a fun class. In English class, we also use applications. After teaching the topic, we engage in practical exercises, which is also very enjoyable." T15

"Even though it's remote education, our teachers at BİLSEM show great interest in us. They engage us in active work and assign projects. They also organize fun games. I enjoy listening to my teachers at BİLSEM." T29

"Our teachers try their best to teach us a lot. We listen to them very carefully. They explain everything and provide links for us to access certain applications. We have good lessons." T31

The sub-theme of 'Teacher's Evaluation Methods in Distance Education from the Students' Perspective' is presented based on the findings. It is evident from the students' responses that teachers use different techniques to assess the knowledge acquired during the lessons. The majority of the 35 students (19 students: T2, T5, T7, T10, T12, T16, T19, T21, T22, T23, T24, T25, T27, T28, T30, T31, T32, T33, T35) mentioned that their teachers evaluate the learned material through question-and-answer sessions. Other students mentioned various methods, including question-and-answer, class participation, activity scoring, homework/activity checks, live exams, experiments or tasks, grading, tests, activity filing, checks, observation, revision, assignment, activity check, Kahoot (a learning-based quiz game used in educational institutions as an educational technology tool), and Evaluation of Assignments.

These findings indicate that teachers employ diverse methods to evaluate the student's learning, as reported by the students. Some of the student opinions on this matter are provided below:

"By conducting experiments or assigning tasks." T6

"Through class participation and documenting the activities." T11

"Using games and computer applications to review what we have learned and test ourselves." T15

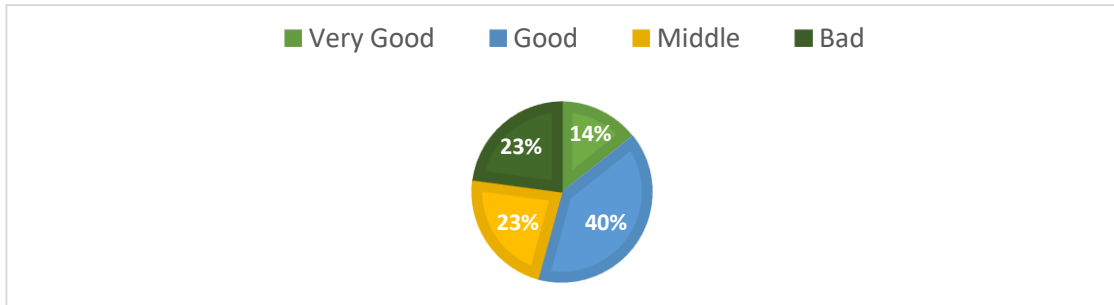
"Asking questions and using the Kahoot application." T28 "We are given activities to complete. The teacher asks questions. We also benefit from certain applications." T33

Students' Enjoyment of Distance Education

In line with the answers given by the students, the question was classified into two themes. These themes are the level of students' enjoyment levels and enjoyment status in distance education. According to the answers received from 35 students who participated in the research, their levels were described as very good, good, medium, and bad. In line with the answers obtained, the levels of enjoyment are as in Figure 9.

Figure 9.

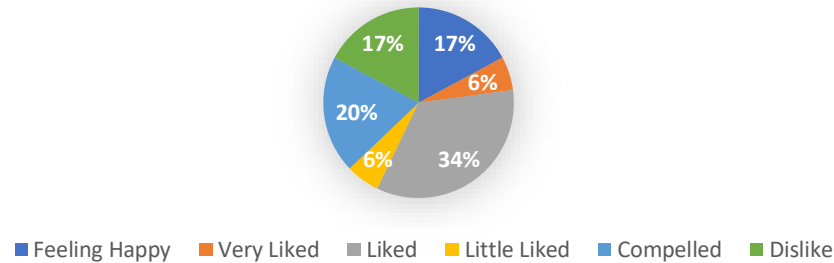
Distribution of Students' Enjoyment Levels



According to the findings obtained from these data, it has been shown that 8 out of 35 students (T10, T13, T17, T18, T21, T29, T32, T33) had negative feelings toward distance education. Another theme derived from the responses to this question is the enjoyment status. Based on the answers obtained from the 35 participating students, their enjoyment statuses have been categorized as shown in Figure 10.

Figure 10.

Distribution of Students' Enjoyment Status



Some students who participated in the research, such as T2, T3, T6, T13, T15, and T24, have expressed that they feel happy during distance education classes. T26 and T28 have mentioned that they enjoy distance education classes a lot, while T4, T5, T7, T8, T9, T12, T14, T16, T25, T27, T30, T35 have stated that they enjoy distance education. T22 and T31 have expressed that they do not enjoy distance education very much. Participants such as T1, T11, T19, T20, T23, and T33, mentioned that although they don't like distance education, they perceive it as a necessity during the pandemic period. Based on these findings, it has been concluded that some students may not enjoy distance education or enjoy it less, but it is considered necessary due to the ongoing pandemic situation. Additionally, one student (T23) who does not enjoy distance education has shown a more tolerant approach towards it for the sake of educational continuity.

The findings indicate that students have varied emotions towards distance education, with some feeling very happy and engaged in the classes, while others feel unhappy and bored. Based on the responses obtained from the students, it can be concluded that distance education is liked by the majority as a preferred form of education. Some student opinions on this matter are provided below:

"I don't think distance education is very effective, but I can still benefit from these classes. We are obliged during the pandemic." T1

"I enjoy seeing the positive side of everything, so I try to enjoy distance education and have a lot of fun in the classes. It's quite funny when our frozen images remain on the screen during internet interruptions." T5

"I like distance education in BILSEM classes, but I prefer face-to-face classes more." T12

"Of course, face-to-face education is better, but I think BILSEM has organized this process very well. They prepared many activities, so I was happy." T24

"Even though my teachers are good and attentive, I don't like distance education. In face-to-face education, we used to do more hands-on activities, which were more effective." T29

Comparison of Distance Education and Face-to-face Education in terms of Students

According to the responses given by the students, 27 students (T1, T3, T4, T5, T7, T9, T10, T11, T12, T13, T15, T16, T17, T18, T19, T20, T21, T22, T23, T24, T25, T29, T31, T32, T33, T34, T35) stated a preference for face-to-face education, five students (T2, T6, T26, T28, T30) preferred distance education, and three students (T8, T14, T27) indicated a preference for both face-to-face and distance education. While in previous questions most students expressed positive thoughts towards distance education and their liking for it, in this question, it was found that the majority preferred face-to-face education. Based on the students' responses, it can be concluded that being away from their teachers and peers, lack of socialization, and inability to spend time and play with friends were the reasons for preferring face-to-face education during the distance education process. Among the reasons for choosing distance education, the possibility of seeing family during breaks and the comfort of the home environment, as well as the flexibility of time, were identified. The findings also indicate that technical issues such as internet disruptions, technical glitches, and limited class duration were reasons for not preferring distance education. It was also mentioned that difficulties in maintaining attention in front of the screen and decreased motivation during interruptions led to a preference for face-to-face education. The preference for face-to-face education was found to be driven by encountering situations of inequality of opportunities during the distance education process. According to the students' responses, issues such as deficiencies in class control, behavioral problems during classes, and decreased importance given to the lessons in distance education were stated as reasons for not preferring distance education, as face-to-face education was perceived to have better class control. While some students found distance education fun, the majority of students indicated that face-to-face education was more enjoyable. Furthermore, based on the responses, it was concluded that due to the difficulties experienced during the pandemic, distance education was deemed necessary for the continuity of education and learning. Some student opinions on this matter are provided below:

"Distance education is convenient. Since everything is within reach at all times, there is no worry about forgetting something." T2

"In distance education, I don't enjoy staring at the computer for long periods. In face-to-face education, we don't have to constantly look at the computer. Going out with friends during breaks, playing and having fun with them, gives more pleasure. After the class ends, nobody can see each other. I end up going through the term without getting to know my friends closely." T15

"Face-to-face education is better. Regardless of how the lessons are conducted, something is missing in distance education. I need to be face-to-face with my teachers and be with my friends." T23

"In distance education, we never get tired, and we stay at home." T30

"In face-to-face education, we learn more and in a more enjoyable way. But in distance education, it's not as fun to go through the lessons. We can't socialize with our friends because we can't see them in person, and we can't interact with our teachers." T31

The Positive Aspects of Distance Education from the Students' Perspective, based on the findings, are presented below. According to the responses of students to this question, the positive aspects of distance education compared to face-to-face education can be categorized into themes such as Pandemic Necessity, Time Saving, Space Saving and Comfort, Technology Usage, Effective Lessons, and Energy (in terms of performance) Saving. Out of the 35 participating students, 17 (T3, T4, T7, T11, T12, T13, T14, T17, T21, T23, T24, T25, T29, T31, T33, T34, T35) identified distance education as a necessity during the pandemic. Thirteen students (T2, T5, T6, T8, T9, T16, T18, T20, T22, T23, T26, T28, T33) mentioned that the positive aspect of distance education compared to face-to-face education is the comfort and ease of being at home, in terms of saving space. Nine students (T1, T2, T3, T10, T19, T22, T27, T28, T32) stated that one of the positive aspects of distance education is time-saving. Three students (T5, T29, T32) expressed that technology usage is a positive aspect of distance education. One student (T15) mentioned that the positive aspect of distance education is the efficient delivery of lessons, while another student (T30) stated that distance education saves energy in terms of performance. Based on all the responses given by the students, it can be concluded that the positive aspects of distance education from the students' perspective are expressed in a very limited manner compared to face-to-face education. These responses, along with the limited expression of the positive aspects of distance education compared to face-to-face education, indicate a preference for face-to-face education. Some student opinions on this matter are provided below:

"I don't see any positive aspect. I can only answer this question when everyone participates in the class without interruptions and with complete equipment. Face-to-face education is a fair system, but there is no justice in distance education, so I can't find a positive side unless it is mandatory during illness." T4

"In distance education, I can do things at home that I couldn't do at BILSEM in various situations." T6

"We grasp the subjects better because we only focus on the teacher. The intensive completion of lessons and covering the topics are positive aspects." T15

"During this pandemic period, it reduces the risk of getting sick. Also, working on the computer is often fun." T29

"For me, not having to wake up at 6:30 am and rush to commute on Saturday mornings was a positive aspect. Additionally, being able to conduct classes by sharing the screen on Zoom is also a positive situation in my opinion." T32

The negative aspects of distance education from the student's perspective, based on the findings, are provided below.

According to the responses given by students to this question, the negative aspects of distance education compared to face-to-face education are categorized thematically as follows: According to T3, T5, T7, T8, T9, T15, T19, T21, T23, T26, T27, T30, T32, T33, and T35, technical problems are encountered in distance education. According to T4,

T6, T12, T13, T14, T16, T22, T23, T24, T25, T27, T28, T33, and T34, distance education is negative in terms of sociability. According to T4, T10, T15, T18, T25, and T31, distance education leads to screen addiction and resulting health problems. According to T12, T17, T22, T32, and T33, the efficiency of distance education is lower compared to face-to-face education. According to T2, T5, T19, and T23, communication is limited in distance education. According to T4, T15, and T21, distance education can cause inequality of opportunities.

According to T10, T20, and T23, there is a distraction of attention in distance education. According to T29, T31, and T34, there are difficulties in implementing practical lessons such as music, art, and laboratory in distance education. According to T1, there are challenges in terms of lesson control in distance education. According to T11, there is a lack of motivation in distance education classes, and the emotional effects of distance education are low. According to T18, distance education requires more tasks and responsibilities. Additionally, according to T21, negative consequences arise when there is no compulsory participation in distance education, as indicated by the findings.

Out of the 35 participating students, 15 responded that technical issues such as internet problems and disruptions in the technical infrastructure were the negative aspects of distance education. 14 students expressed the lack of social interaction as a disadvantage of distance education compared to face-to-face learning, citing the absence of teachers and classmates. Six students mentioned eye strain, screen addiction, and resulting health issues as negative aspects of distance education due to spending excessive time in front of screens. Five students pointed out the decreased efficiency of learning compared to face-to-face education as a drawback of distance education. Four students mentioned communication problems with teachers and peers, highlighting communication as a negative aspect of distance education. Another four students stated that the lack of internet and computer access created inequalities, leading to limited opportunities in distance education. Three students mentioned distractions during distance education due to external factors such as noise pollution and other stimuli at home, resulting in difficulties maintaining focus. Three students expressed that implementation came up as an issue due to the limitations to practical subjects requiring physical activities and in distance education. One student stated that students could easily get distracted and, therefore, lack control over the lesson, and student engagement was a negative aspect of distance education. Another student mentioned low motivation and subsequent unhappiness as negative aspects in terms of motivation and emotional effectiveness in distance education. One student mentioned the increased workload in distance education, requiring more tasks, as a negative aspect. Lastly, one student pointed out the lack of mandatory attendance in distance education, highlighting it as a negative aspect.

Based on the student's responses, it can be concluded that each student expressed individual difficulties experienced during the distance education process as negative aspects compared to face-to-face learning. The findings indicate that one of the most

commonly mentioned negative aspects of distance education is related to technical issues and infrastructure deficiencies. Additionally, it is observed that distance education is generally perceived as lacking in terms of social interaction. Some student opinions on this matter are provided below:

"Sometimes the internet goes out, and I can't connect to the class for a long time. Sometimes our teacher's internet cuts off, and I can't hear them. Power outages can be a problem. Similarly, my friends can have connection issues, and then I can't understand their questions and answers." T3

"I think distance education is nice, but I would have liked to see my teachers in person at least once." T6

"We have to look at the computer for a long time, which makes us physically uncomfortable. Our eyes hurt, and we get headaches from the sound. If there are internet problems, we can miss the class, or our friends who don't have internet access can't join and fall behind." T15

"There are many negative aspects. Not everyone has internet access, and even for those who do, there can be interruptions. Communication is not very good, and I can't play games and have fun with my friends. Since we already have fewer classes at Bilsem, it's difficult to concentrate when it's online." T23

"Being away from my friends, occasional internet disruptions, missing the class, or the tablet/phone breaking." T27

How to Teach Distance Education Lesson According to the Student

In line with the answers given by the students to this question, the following findings were reached: It could be obligatory to open a microphone and camera to increase interest in the lesson. Applications that are not affected by the internet interruption can be developed. Before the lesson, teachers can shoot videos about the subject and send them to the student if there is a disruption in the live lessons. Lessons can be taught in groups of 4 or 5 students to increase efficiency. It would be better if the technical problems with the internet problems are fixed. It would be better if each student had the devices like computers, tablets etc. Lessons can be shorter and individual. Games, more activities, and projects can be applied in the lessons. It would be better if there was no time limit. Lessons can be made more fun. It may be better if the number of daily lessons is reduced and the breaks are longer. More efficient and fun lessons can be taught by using auxiliary course sites. More visual materials can be used. Regular and timely attendance is required. For applied courses, a system can be developed for students to practice. A solution to time and space constraints can be found.

According to the responses given by the students to this question, 13 out of 35 students (T2, T6, T8, T11, T13, T14, T16, T20, T23, T24, T25, T29, T30) expressed that they are quite satisfied with the teaching methods of their teachers in distance education. In addition, the majority of students believe that the aspect that needs improvement in the implementation of distance education classes is the resolution of technical and internet issues. Four students (T4, T10, T15, T35) stated that dividing students into small groups or personalizing the lessons during the distance education process could enhance the

efficiency of teaching. Two students (T12, T32) expressed the opinion that no matter what is done in the implementation of distance education classes, it cannot replace face-to-face education. Based on the findings, it can be understood that there is general satisfaction with the teaching methods in distance education at BILSEM schools. Furthermore, it can be concluded that the internet and technical problems experienced are a nationwide issue. Some student opinions on this matter are provided below:

"It would be better if it could be done with applications that are not affected by internet disruptions. We can also overcome some of the difficulties experienced in live classes if our teachers record lecture videos and send them to us." T3

"At times, I can't make my voice heard by my teacher or express what I want to say clearly. If we were in face-to-face education, my teacher would understand my feelings immediately." T5

"The current teaching methods are quite good." T13

"It would be more enjoyable if the connection was not bad, Zoom didn't kick us out of the class, and we could interact with our friends during breaks." T22

"First and foremost, all of my friends should attend the class regularly and without interruption. Relativity is crucial. Since some lessons require a practical application, there should be a system where students can also practice. Solutions should also be found for time and space constraints." T33

Results and Discussion

The majority of teachers stated that they use online communication tools and applications such as Zoom, developed by "Video Communications" utilizing end-to-end encryption, and Web 2. Additionally, they mentioned the use of Whatsapp, an instant messaging and communication application developed for smartphones with cross-platform functionality, Google Meet, a video conferencing and video calling platform developed by Alphabet and Google, and Teams, a platform combining video conferencing, video calling, workplace chat, meetings, notes, and attachments. It was also mentioned that Arduino (programming language), Geogebra (mathematics software), Python (programming language), and educational videos related to the subjects are utilized during the distance education process. These findings indicate that teachers make use of various online communication tools, applications, and programs during distance education. In other studies conducted in this field, Çok (2021) discussed the use of EBA and Zoom programs in distance education. Another study indicated that distance education was carried out using EBA, Zoom, and Whatsapp applications (Erbil et al., 2021).

The majority of the teachers participating in the research were found to use question-answer, show-do, brainstorming, problem-solving, lecture, discussion, case study, presentation-invention, problem-solving methods, and techniques. In addition to these methods and techniques, the use of project assignments, discovery-based learning, group work, six thinking hats technique, collaborative learning, synectics, speaking

circle, exhibition technique, research-inquiry, Orff and Kodaly techniques in music education, creative drama, project-based learning, as well as creative and critical thinking methods and techniques were also mentioned. These findings indicate that teachers employ various methods and techniques during the process of distance education.

According to the data obtained from the teachers, it was observed that there is no quantitative assessment in BILSEM schools. Additionally, it was stated that during the process of distance education, measurement and evaluation are qualitative, product-based, application-based, and process-oriented. Despite the absence of quantitative assessment, it was found that teachers utilize various assessment methods and techniques for tracking what is taught, such as checklists, graded scoring keys, problem-solving speed, assessment forms created by themselves or provided by the institution, short tests, open-ended questions, performance task evaluation, and rubric scales. These findings indicate that although there is no quantitative assessment in normal circumstances in BILSEM schools, teachers resort to different measurement and evaluation methods and techniques in distance education to identify what has been learned and evaluate the resulting products qualitatively.

According to the findings obtained from the teachers, it is observed that technological competence has a positive impact on the process of distance education. Teachers consider themselves to be sufficiently competent in terms of technological proficiency for delivering distance education. In one of the studies conducted in this field, Ağır (2007) emphasizes the importance of teachers adapting to advancing technology, becoming technologically literate, and accepting the changes in their responsibilities and roles about the evolving technology. Baran and Sadık (2021), in their study on the examination of classroom teachers' experiences and opinions on emergency remote teaching during the Covid-19 process, state that teachers already used technology before the pandemic, indicating that they possess the necessary technical knowledge and skills to carry out distance education even if they had not previously been engaged in it.

Based on the findings obtained from the teachers, it is indicated that acquiring technological proficiency is influenced by factors such as university education, postgraduate education, access to computers, the internet, etc., the demands of the current time, training programs, educational videos, in-service seminars, workshops, etc., experience gained over time, personal effort, curiosity, and the need for self-improvement. Additionally, it is concluded that students also contribute to their teachers' technological knowledge. Studies conducted in this field are examined, it is observed that personal effort and experiences play a significant role in teachers' acquisition of technological proficiency (Çok, 2021). Ağır (2007) stated that in-service training can effectively enhance teachers' technological proficiency for distance education.

Regarding the impact of professional seniority on technological proficiency, teachers hold different opinions. While some teachers believe that professional seniority has a

positive effect on technological proficiency, others think it has no impact. According to some teachers, professional seniority does not directly affect technological proficiency, while another teacher suggests an inverse relationship between professional seniority and technological proficiency. In other words, there is an opinion that technological proficiency decreases as professional seniority increases if individuals do not develop themselves and adapt to the requirements of the time. The teachers' perspectives on the influence of professional seniority on technological proficiency differ based on the obtained findings., Ağır (2007) observed that professional seniority significantly influences teachers' attitudes towards distance education, with teachers having 0-5 years of professional experience demonstrating a positive attitude. Similarly, Ergin (2010) emphasized that teachers with 10-14 years of professional experience have a more positive outlook compared to those with 1-4 and 5-10 years of professional experience. Ülkü (2018) found that while the attitudes of primary school teachers towards distance education vary based on professional seniority, this difference is not statistically significant.

According to the findings obtained from the teachers, the positive aspects of distance education compared to face-to-face education include the independence from physical location, reduction in expenses in terms of material resources, utilization of technology in education, increased attendance in certain subjects, the ability to reach all students despite financial constraints or distance-related issues, time flexibility, efficient use of time, opportunity for students to use and develop technology skills, increased motivation in certain subjects, opportunity for active learning through computer and web-supported programs and applications, improvement of information and communication technology skills, enhancement of 21st-century skills, absence of negative situations such as peer bullying and mobbing, savings in time, space, and energy, increased use of media and visual and auditory resources, utilization and development of new teaching methods, techniques, and practices, improvement of student self-control, accessibility of education to every student, ease of examination and accessibility in reviewing and evaluating products, assignments, responses, and projects, increased speed of information and note exchange, and ensuring the continuity of education and instruction during pandemic periods. When the studies conducted in this field are examined, it is evident that teachers identify similar positive aspects of distance education. Seferoğlu (2015) stated in their study that the practices and resources used in distance education provide equal educational opportunities by reaching many students simultaneously.

According to the findings obtained from the teachers, the negative aspects of distance education compared to face-to-face education include lower efficiency in practical courses, negative impact of technological inadequacies on distance education, lack of socialization opportunities, motivational issues due to reduced social interaction, limitations on peer learning, restricted teaching activities, increased screen addiction and resulting health problems, inadequate control due to the absence of mandatory camera use, potential for students to engage in non-academic activities due to the absence of

mandatory camera use and insufficient self-discipline, challenges in music and other skill-based and practical courses, synchronization issues, insufficiency of the distance education programs used, internet and communication problems, technical and financial constraints, inequality among students due to financial limitations, parental intervention during lessons, weakened teacher-student relationship resulting from communication issues, limitations in group work and art education, adaptation issues arising from technical problems, and difficulties in receiving feedback. Similar studies conducted in this field generally highlight infrastructure problems, internet issues, hardware deficiencies, lack of attention given to distance education, communication, and interaction problems, challenges in practical courses, and low attendance in distance education classes. Keskin and Özer Kaya (2020) reported that students experience communication deficiencies in their studies. The lack of eye contact between teachers and students in distance education and the difficulty in controlling students result in reduced student participation in classes (Gürer, Tekinarslan, & Yavuzalp, 2016). In a study by Akgül (2021), it was found that teachers encounter issues such as infrastructure and internet problems, lack of technological knowledge and hardware, low student attendance, inability to monitor students, parental indifference, lack of importance given to classes, and deficiencies in assessment and evaluation in distance education.

According to the findings obtained from the teachers, the areas that need improvement in distance education are internet infrastructure, technical infrastructure, providing financial and technical support such as tablets to students in need, providing more activities and materials, operating in a more organized and planned manner, scheduling class hours, supporting face-to-face education and integrating it with distance education, establishing criteria regarding compulsory attendance and absenteeism, giving necessary importance to equal opportunities, increasing and enhancing platforms like EBA TV, enhancing visual elements in theoretical lessons, increasing financial and moral support for teachers, addressing technical and technological deficiencies, creating online competitions and activities, conducting distance education seminars for teachers, students, and parents, enhancing teachers' technological competencies, developing new programs, ensuring student participation in feedback collection and class management, improving student monitoring mechanisms, establishing a rich shared archive, creating video and presentation repositories, establishing online libraries, developing innovative applications, and creating online platforms for art education. Similar recommendations for improving distance education and addressing deficiencies have been proposed in other studies (Koyunoğlu, 2008). Additionally, Arık (2020b; 2020c) emphasized the importance of supporting teachers, who are one of the most important factors in both face-to-face and distance education, to develop and improve this process. According to the findings obtained from the students, it is concluded that students have a moderately positive perception of distance education, while a slightly lower proportion of students have a negative perception. The similarity in the proportions indicates that opinions about distance education are on an average level.

Based on students' responses, it is observed that teachers use various methods and techniques in the process of conducting distance education, such as activities, test solving, mental activities, lectures and discussions, competitions, programs, topic presentations, videos, worksheets, online activities, software instruction, educational games and fun activities, drawing, reading, exercises, question and answer sessions, problem-solving, use of internet resources, internet applications, project work, visual information, and experiments.

According to the students, the evaluation methods used by teachers in distance education include a question and answer sessions, class participation, activity scores, assignments, activity control, live exams, experiments or tasks, grading, tests, activity filing, checks, observation, review, assignment submission, activity control, the application of the educational game "Kahoot" (a learning-based quiz game used in educational institutions) (Can, 2020; Erbil et al., 2021), and evaluation of the work conducted. These findings indicate that teachers use various assessment methods based on what students have learned.

Based on the findings obtained from the students, it is concluded that while most students enjoy distance education, a small percentage of the students do not. Additionally, some students feel happy while participating in distance education, while others express unhappiness. However, distance education is perceived as a mandatory form of education during the ongoing pandemic period.

When students were asked to compare face-to-face education and distance education, it is understood that although the majority of students also enjoy distance education, they prefer face-to-face education. The main reason for students' preference for face-to-face education over distance education is generally the fact that they are away from their teachers and friends during the distance education process, the lack of social interaction, and the inability to spend time and play with their friends. In the studies conducted in this field, Akgül (2021) also found that face-to-face education is preferred more and that students miss the school and social environment during the distance education process. Kantos (2020) conducted a study asking primary school teachers which type of education they prefer, face-to-face or distance education, and the results showed that primary school teachers face difficulties in communication with students who have internet and technological infrastructure problems, and that distance education is not suitable for them.

According to the responses given by the students, the reasons for choosing distance education include the possibility of being with family during breaks and the comfort provided by the home environment, as well as the flexibility of time.

According to the students, the reasons for not preferring distance education include problems such as internet disruptions, technical difficulties, and limited class duration. They also mentioned difficulties in focusing on the screen, decreased motivation when experiencing interruptions during lessons, encountering situations of inequality during the distance education process, disruptions in lesson control, behavioral issues during

classes, and a decrease in the importance given to the lessons. It is concluded that face-to-face education provides better control over the lessons. Similar results have been obtained in other studies conducted in this field. Akgül (2021) found that face-to-face education is preferred more and that students miss the school and social environment during the distance education process. Additionally, Ünal (2021) examined the eating habits and weight changes of young people during the pandemic period while receiving distance education and found that on average, students gained weight. This can be seen as a reason for not preferring distance education in terms of physical activity.

While some students find distance education enjoyable, it is understood that the majority of students find face-to-face education more enjoyable. According to students' responses, it is concluded that distance education is considered necessary for the continuity of education and instruction due to the difficulties experienced during the pandemic. In a similar study, Akgül (2021) found that according to student-teacher and parent perspectives, distance education is seen as a necessity during the pandemic period.

The positive aspects of distance education compared to face-to-face education, as perceived by students, are mostly related to the necessity during the pandemic period, time and space savings, convenience of the learning environment, use of technology, more effective lesson delivery according to some students, and energy-saving in terms of performance. These responses indicate that the positive aspects of distance education are seen in a limited number compared to face-to-face education, which is why face-to-face education is preferred more.

The negative aspects of distance education compared to face-to-face education, as perceived by students, include technical problems, lack of social interaction, health issues due to screen dependency, lower efficiency in lesson delivery according to some students, communication problems with teachers and peers, inequality among students due to financial constraints, distraction caused by excessive environmental stimuli, practical application issues in practical lessons, decrease in lesson control due to features such as microphone and camera control, low motivation, emotional dissatisfaction due to the absence of teachers and peers, increased responsibility for studying at home, and the absence of compulsory participation according to some students. In a study conducted by Fidan (2020), it was observed that 74 negative aspects were identified based on the opinions of classroom teachers regarding the negative aspects of distance education.

Based on the findings obtained from students' responses, the results regarding how distance education lessons should be conducted include the possibility of mandatory microphone and camera usage to increase interest in the lesson, the development of applications that are not affected by internet disruptions, teachers recording videos related to the subject before the lesson and sending them to students in case of interruptions during live lessons, conducting lessons in groups of 4 or 5 students to enhance lesson efficiency, resolving internet and technical issues, ensuring that each student has access to a computer, tablet, or similar devices, shorter and more

individualized lessons, implementation of games, more activities, and projects in lessons, putting no time restrictions, making lessons more enjoyable, reducing the number of daily lessons and extending break times, utilizing supplementary educational websites for more effective and enjoyable lessons, using more visual materials, ensuring regular and timely participation in lessons, developing a system for students to practice and apply concepts in practical lessons, and finding solutions to time and space constraints.

Based on the obtained findings, it is understood that there is general satisfaction with the teaching methods in BILSEM (Science and Art Centers) schools during the distance education process. However, it can be concluded that internet and technical issues are nationwide challenges.

Suggestions

Suggestions developed according to the results obtained from the research:

- Considering that Science and Art Centers (BILSEM) are educational institutions focused on art and science, it is understood that technology-based methods should be more integrated into the lessons in these institutions. Therefore, instead of being solely used as an educational method during pandemic periods, distance education can be integrated into the lessons as an alternative to face-to-face education. This way, the use of technology-based methods can increase in BILSEM schools.
- In-service seminars and workshops can be organized for the teachers working in BILSEM schools to increase their awareness and skills regarding the methods and techniques used in distance education.
- Specific distance education programs and applications can be developed and incorporated into the school curriculum to enable BILSEM teachers to use them in distance education lessons.
- Considering the finding that there is no quantitative measurement and evaluation in BILSEM schools, observation-based assessment scales compatible with the school regulations and curriculum can be developed to monitor students' learning, instead of using different applications.
- Engaging and appealing activities can be developed for BILSEM students according to their developmental levels and interests.
- Seminars and training related to distance education can be organized for BILSEM students.
- Practical programs such as simulations can be developed to address the challenges students face in practical lessons during distance education. This can help foster creativity and hands-on learning skills in distance education.
- During the process of distance education, BILSEM students can be grouped individually or in minimum groups to address issues such as attention, motivation,

and low learning efficiency. To enhance the positive aspects of distance education and address its negative aspects, the following actions can be taken:

- Efforts can be made to address technical issues such as internet problems to ensure uninterrupted participation of both teachers and students in distance education.
- Family education seminars can be organized to promote regular and enthusiastic participation of students in distance education. This can help eliminate distractions and low motivation caused by stimuli in the home environment.
- Giving more importance to visual elements in lessons can make distance education more effective and enjoyable.

Suggestions for future research:

- Research can be conducted with BILSEM teachers and students from different levels.
- The research can be expanded by conducting it in different cities.
- The study can include parents as participants as well.
- The research questions can be developed to allow observations from different dimensions.
- The research can be conducted using various methods.

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Genişletilmiş Türkçe Özet

Bu araştırmanın temel amacı, İzmir ilinde bulunan Bilim Sanat Merkezleri'nde görev yapan öğretmenler ile bu okullarda eğitim gören ilkokul düzeyindeki öğrencilerin uzaktan eğitim ile ilgili görüşlerini ortaya koymaktır. Çalışmada nitel araştırma yöntemlerinden fenomenoloji (olgubilim) deseni kullanılmıştır. Araştırma 2020-2021 eğitim öğretim yılının ikinci döneminde gerçekleştirilmiştir. Çalışmanın evrenini ve çalışma grubunu İzmir ilinde bulunan beş bilim ve sanat merkezi (Aliağa ilçesinde bulunan Habaş Mehmet Rüştü Başaran Bilim ve Sanat Merkezi, Bornova ilçesinde bulunan Şehit Fatih Satır Bilim ve Sanat Merkezi, Çiğli ilçesinde bulunan Karşıyaka Aydoğan Yağcı Bilim Sanat Merkezi, Konak ilçesinde bulunan Konak Şehit Ömer Halisdemir Bilim ve Sanat Merkezi, Narlıdere ilçesinde bulunan Narlıdere Sıdika Akdemir Bilim ve Sanat Merkezi) öğretmenleri ve ilkokul düzeyi öğrencileri oluşturmaktadır. Çalışmaya 13 öğretmen ve 35 öğrenci katılmıştır. Çalışma sürecinde pandemiden ötürü yaklaşık iki yıl BİLSEM'lere öğrenci alımı gerçekleşmemiştir. Dolayısıyla BİLSEM öğrenci sayısı diğer yıllara göre oldukça azdır. Ayrıca çalışma kapsamı ilkokul düzeyinde olduğu için, ilkokul düzeyindeki öğrencilere eğitim veren öğretmenlerin sayısı da azalmıştır.

Katılımcıların seçiminde içinde bulunan durum göz önünde bulundurulmuştur. Ayrıca BİLSEM'lere genel yetenek, müzik ve resim grubu olmak üzere 3 farklı alanda öğrenci alınmaktadır. Ama çoğunluk genel yetenek alanındadır. Dolayısıyla gönüllü katılımcıların genel yetenek bölümünden olduğu görülmüştür. Veriler toplanırken pandemi sürecinden kaynaklı olarak bazen yüz yüze iletişim, bazen de online iletişim yollarına başvurulmuştur. Bu nedenle veriler öğretmenler ile yapılandırılmış görüşme yoluyla, öğrenciler ile yarı-yapılandırılmış ve yapılandırılmış görüşme yolu ile toplanmıştır. Döküman kaydı için görüşme formlarının yanısıra online formlardan yararlanılmıştır. Katılımcılara görüşme formları ile görüşmenin amacı ve süreci hakkında bilgilendirme yapılmıştır. Katılımcılara kişisel bilgilerinin gizli kalacağı, isterlerse takma isim kullanabilecekleri bilgisi verilmiştir. Sorular gönüllü üç öğretmen ve üç öğrenciye gözlem yolu ile uygulanarak, sorularda anlaşılabilir bir yer olup olmadığı gözlemlenmiştir. Hazırlanan soruların geçerliliği böylelikle test edilmiştir. Veri toplama aracı olarak kullanılacak öğretmen ve öğrenci görüşme soruları alan yazın taraması yapıldıktan sonra alan uzmanı görüşleri ile araştırmacı tarafından hazırlanmıştır. Veriler katılımcıların deneyimlerinden yararlanılarak içerik analiz işlem basamaklarına göre gerçekleştirilmiştir. Araştırma sonucunda elde edilen bulgulara göre öğretmenlerin uzaktan eğitim sürecinde teknolojiyi verimli bir şekilde kullanarak farklı yöntem-tekniklerle, çeşitli uygulama ve programlarla derslerini yürüttükleri anlaşılmıştır. Öğretmenlerin mesleki kıdemlerinin teknolojik yeterliliklerine katkı sağladığı anlaşılmıştır. Öğretmenlere göre uzaktan eğitimin mekân bağımsızlığı, fırsat eşitliği sunması, ulaşılabilirlik imkânı, teknoloji kullanımının artması gibi olumlu yönleri varken; internet alt yapı sorunları ile teknik sorunlar, maddi imkânsızlıklar yüzünden malzeme eksikliği, sosyalleşme ve iletişimin az olması gibi olumsuz yönleri olduğu görülmüştür.

Ayrıca öğrencilerin çoğunun uzaktan eğitime olumlu yaklaşmasına rağmen sosyallik, iletişim ve manevi açıdan yüz yüze eğitimi daha çok tercih ettikleri sonucuna ulaşılmıştır. Bunun yanı sıra salgın hastalıklar ve pandemi durumunda eğitim-öğretimin devamlılığı ve teknoloji-bilgi çağının gerekliliği açısından uzaktan eğitime ihtiyaç duyulduğu anlaşılmıştır. Araştırmadan elde edilen sonuçlar doğrultusunda çeşitli öneriler geliştirilmiştir. Bilim ve sanat merkezlerinin sanata ve bilime yönelik eğitim kurumları olması sebebiyle teknoloji kullanımının artması için yüz yüze eğitimle uzaktan eğitimin iç içe kullanılabilmesi, uzaktan eğitim program ve uygulamalarının geliştirilebileceği, uzaktan eğitimin olumlu yönlerinin artırılıp olumsuz yönlerini azaltıcı çalışmalar yapılabileceği gibi önerilerde bulunulmuştur. Ayrıca bu çalışmanın ileriki çalışmalara örnek olup; araştırmacının BİLSEM öğretmenleri ve BİLSEM öğrencilerinin farklı kademeleri ile yapılabileceği, farklı illerde yapılarak genişletilebileceği, katılımcılara velilerin de eklenebileceği, sorular geliştirilerek farklı boyutlarda gözlem yapılabileceği ve farklı yöntemler kullanılarak çalışmanın geliştirilebileceği gibi öneriler sunulmuştur.

Ethics Committee Approval: This study constitutes a section of the master's thesis titled "Perspectives of Bilim Sanat Merkezleri (BILSEM) Teachers and Students on Distance Education" conducted by Fatma Törün under the supervision of Assoc. Prof. Aylin Mentiş Köksoy. The research received ethical committee approval with protocol number 822, decision number 04/13, dated 22.02.2021, from the Ethics Committee of Ege University, Faculty of Social Sciences and Humanities.

Informed Consent: Informed consent was obtained from the participants.

Referee evaluation: This study was peer-reviewed.

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Can Education Transform Society? An Inter-Textual Analysis*

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Abstract: The primary objective of this study is to conduct a comprehensive analysis of the inquiry, "Can education transform society?" Specifically, this analysis was drawn upon a collection of memoirs, narratives, and stories authored by esteemed thinkers from diverse countries and historical periods, all of whom have critically examined the intricate interplay between education and society. The research is a qualitative research and was planned in a narrative research pattern. In the research consists of the works named "Türkiye'nin Maarif Davası (Nurettin Topçu), Pedagogy of the Oppressed (Paulo Freire), Society Without School (Ivan Illich), Weapons of Mass Instruction: A Schoolteacher's Journey Through the Dark World of Compulsory Schooling (John Taylor Gatto), Can Education Change Society? (Micheal W. Apple), Finland: The Country of White Lilies (Gregoriy Petrov), and Democracy and Education (John Dewey) are selected by criterion sampling method. The data were collected with the help of document analysis and analyzed with the help of content analysis. The content analysis yielded three overarching themes and a total of nine sub-themes, presenting the outcome of the rigorous analytical examination. Based on the works discussed in the research, it has been determined that there are different perspectives and problem perceptions related to education in each work. However, the proposed solutions also differ. The idea that the active elements in the education system are more effective in the social transformation process is the common view found in the works.

Keywords: Education, Society, Societal Transformation, Narrative Research.

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Introduction

The rapid innovations and advances in science and technology in the 21st century have not only been limited to this field but have brought many changes in social and cultural life, economic structures, lifestyles, and education. These changes and transformations raise the importance of social change (Özdemir, 2011). At the core of education is a creative way of thinking. All societies have the goal of initiating, sustaining, and advancing change in their ideals. Those who take an active role in this change are individuals. The main factor that prepares individuals for change and transformation is education. This constitutes the causality of the need for education (Sağ, 2003). According to Cerit (2008), education is not only about the present, but also about the future.

Russell (1976) stated that the reason for the opposition to education and its fellows is that education cannot achieve the goals it has set. At the same time, he stated that the goals that education wants to achieve should be determined by a common consensus. Rousseau (2011) sees education as a field where personality and society collide, and states that some incompatibilities arise in the psyche of educated individuals. He explains the reason for these incompatibilities by the fact that what is intended to be given through education is not suitable for the human spirit. Education is becoming a more and more discussed phenomenon day by day. Education, with its human-focused structure, is located very close to the centre of all transformations and changes (Tozlu & Erçetin, 2006). In addition, there is confusion about how education should be (Suhomlinski, 1995). Durkheim (2016) stated that education is variable in terms of periods and countries, and that education, which tried to raise unquestioningly obedient slaves in ancient societies, wanted to raise free individuals who could act on their own and be free in today's societies. According to him, education is the effect that society exerts on new generations to grow up in accordance with social life.

Although the exact boundaries of the relationship between education and social change cannot be drawn, it is possible to talk about a mutual relationship (Dinçer, 2003). Expressing that social change is a cultural change, Öztürk (1993) stated that the transition from a primitive culture to an advanced culture is social change and transformation and stated that the cause of this transformation and change process is education. However, it can be stated that changes in society affect education and educational activities affect social transformation (Fidan & Erden, 1999; Tezcan, 1993). It can be said that the ideals of social transformation differ in every period and in every society. According to Topçu (2019), it is education that gives spirit to society and shapes the spirit of the nation. The decline in the quality of education means the end of the nation. The nation proceeds on the path opened by education. Wherever education goes, people follow it. According to Dewey (2004), when the individual begins to exist, he is unaware of and distant from the values, goals, and traditional habits of the social environment he is in. This is what makes the new generation new. Individuals need to be aware of all these, be active, and show interest in these values. The most important power that closes the gap between the individual and the society is education. Are schools needed contrary to this? Illich (2019), who seeks the answer to the question,

talks about the perception that societies need school, that school meets a great need, and even a fanatical attachment to school.

Education turns into an instrumental phenomenon in terms of its functions. A school is an institution belonging to the social structure responsible for fulfilling the educational needs of society (Dönmez, 2001). Although education has a unifying feature for all individuals, norms, principles, values, and traditionalized phenomena cannot be given only under the roof of the school and only by teachers. People acquire basic learning through experience in society (Turna, 2015). The philosophical thought structure that societies have consists of the norms of that society. These norms affect both society's and the individual's view of life and the shaping of their relationships, as well as determining how they should look to the future (Özkan, 2011). These norms, which are effective in the design of society, are given through education or education provides the change of these norms. Ziya Gökalp (2015) expresses the word culture as "hars". Hars is the name given to the form of civilization peculiar to nations. Every individual is obliged to have the functioning characteristics of social structures specific to their culture through education. Education fulfills a guiding function in the acculturation process and social learning stages of the individual (Ültanır, 2003). Education is a device that transmits the culture of the society from generation to generation by protecting, developing, and enriching it (Kızılluluk, 2007). A well and continuously planned education determines the development level and socio-economic structure of a country. The equipment obtained through this training brings with its economic growth, awareness, learning, development and thinking (Çakmak, 2008). In summary, it is seen that there are different opinions about the individual, social and national benefits of education, the functions, aims and results of education.

The effect of education on social transformation is important in that it is a constantly questioned problem. However, it is thought that there is not enough research to fully understand this relationship. In the literature, there is a need for research that deals with the relationship between education and social transformation from different perspectives. In this research, as a function of education and school in general, the answer to the question "Can education transform society?" was tried to be given through the works of "Can education transform society?" Ivan Illich's "Deschooling Society", John Dewey's "Democracy and Education", Nurettin Topçu's "Türkiye'nin Maarif Davası", Paulo Freire's "Pedagogy of the Oppressed", John Taylor Gatto's "Weapons of Mass Instruction: A Schoolteacher's Journey Through the Dark World of Compulsory Schooling" by Michael W. Apple "Can Education Change Society?" and Gregory Petrov's "Finland: the Country of White Lilies". In other words, the works written by different thinkers/authors of education on the axis of the state, society and individual were compared. The thoughts of the authors of these works on education and its elements can be briefly expressed as follows: Ivan Illich (2019) dealt with the relationship between schooling and education in his work entitled *Society Without School*, and explained why he was against schooling society in a broad framework. John Taylor Gatto (2019) advocates an approach that advocates alternative learning to school, is against compulsory education, and focuses on individual education with a libertarian understanding in his work called *Education A*

Weapon of Mass Destruction. He argues that the service provided by the school does not coincide with the realities of life. Paulo Freire (2019) in *Pedagogy of the Oppressed*, while opposing an education system dominated by the oppressors, discussed an understanding that advocates that the oppressed should come together and realize themselves, questioned the education system and opposed the individual being passive. Nurettin Topçu (2019) argues that every nation has a unique school structure in his work called *Turkey's Education Case*, but also discusses the view that change occurs with schools. The question by Michael W. Apple (2019) *Can Education Change Society?* The understanding that education should be included in the change process of the society is discussed with a perspective that questions the place of the school, which is the driving force in the transition to the new social order to be established. American education reformer John Dewey (2004) defends the idea that education puts society ahead of other societies on the way to democratization in his book called *Democracy and Education*. Based on these works, the place of education in social transformation is questioned in the research.

When the literature is examined, it is seen that these works are handled alone (Akyüz, 2019; Altaş, 2017; Dal, 2018; Gökteş, 2019; Karaboğa, 2003; Yayla, 2011; Yılmaz, 2016), while the works written about education in different countries are not considered together. It is thought that the research will contribute to the examination of the role of education in the change and transformation of the society on these works, and the comparison of the educational situations with the works in transforming the society. It is expected that the current research will contribute to the literature in terms of drawing the framework of the relationship between education and social transformation, questioning the effectiveness of school and education, and evaluating the position of education in terms of society. In addition, the research will contribute to the literature in terms of examining different aspects of education from different perspectives, drawing a general framework about education and social transformation phenomena, and forming an opinion on this subject.

Method

Research Pattern

In order to reveal the effect and dimensions of education on social transformation, the research was designed and carried out according to the "narrative research pattern" since the works of different educational thinkers were examined. Narrative research can be applied to reveal the experiences and views of leading thinkers in the field (Beycioğlu, Özer, & Kondakçı, 2018). The main purpose of narrative research is to transfer people's individual experiences to others by filtering them internally (Ersoy & Bozkurt, 2017). In the research, it was accepted and analyzed that the authors critically told their own experiences and thoughts to the reader.

Analyzed Books

The works dealt with in the research constitute the works in which the educational and social phenomena that constitute the problem of the research are processed. While determining the literary works, the fact that the works deal with the phenomenon of education and society was determined as a criterion and the following works were selected:

- Democracy and Education-John Dewey- United States
- Deschooling Society-Ivan Illich- United States
- Türkiye'nin Maarif Davası (Turkey's Education Case)-NurettinTopçu- Turkey
- Weapons of Mass Instruction: A Schoolteacher's Journey Through the Dark World of Compulsory Schooling-John Taylor Gatto- United States
- Pedagogy of the Oppressed- Paulo Freire- Brasil
- Can Education Change Society? - Michael W. Apple- United States
- Finland: The Country of White Lilies- Gregoriy Petrov- Finland

Data Collection

Since the aim of the research is to reveal the existing thought pattern of the works, the data were collected by document analysis method and the data were interpreted with the help of content analysis. Document analysis is a technique that provides information about facts and events by analyzing documents (Karataş, 2015). In the method, which is also mentioned as documentary scanning in the literature, "finding the sources for a certain purpose, reading, taking notes and evaluating" is done (Karasar, 2014). Many documents such as documents, books, photographs and archive files related to the problem can be used as data sources and much information can be accessed in a systematic way. This saves the researcher time and resources (Karataş, 2015).

Analysis of Data

Content analysis was used when analyzing qualitative research data. The works constituting the sample of the research were examined by the content analysis method and themes were created. The data collected in the content analysis are conceptualized and presented in a certain logical order (Yıldırım & Şimsek, 2011). Content analysis is based on the coding and analysis of data in line with the research problem (Berg & Lune, 2015). Robson (2017) listed the features of the analysis of qualitative data as follows.

- Encode stacks of words, sentences, paragraphs
- Interpretation
- Determining the relationship network and themes between the groups formed according to the codes
- Duplication of themes to be able to replicate data
- Reaching generalizations because of data analysis
- Turning these generalizations into knowledge in a conceptual way.

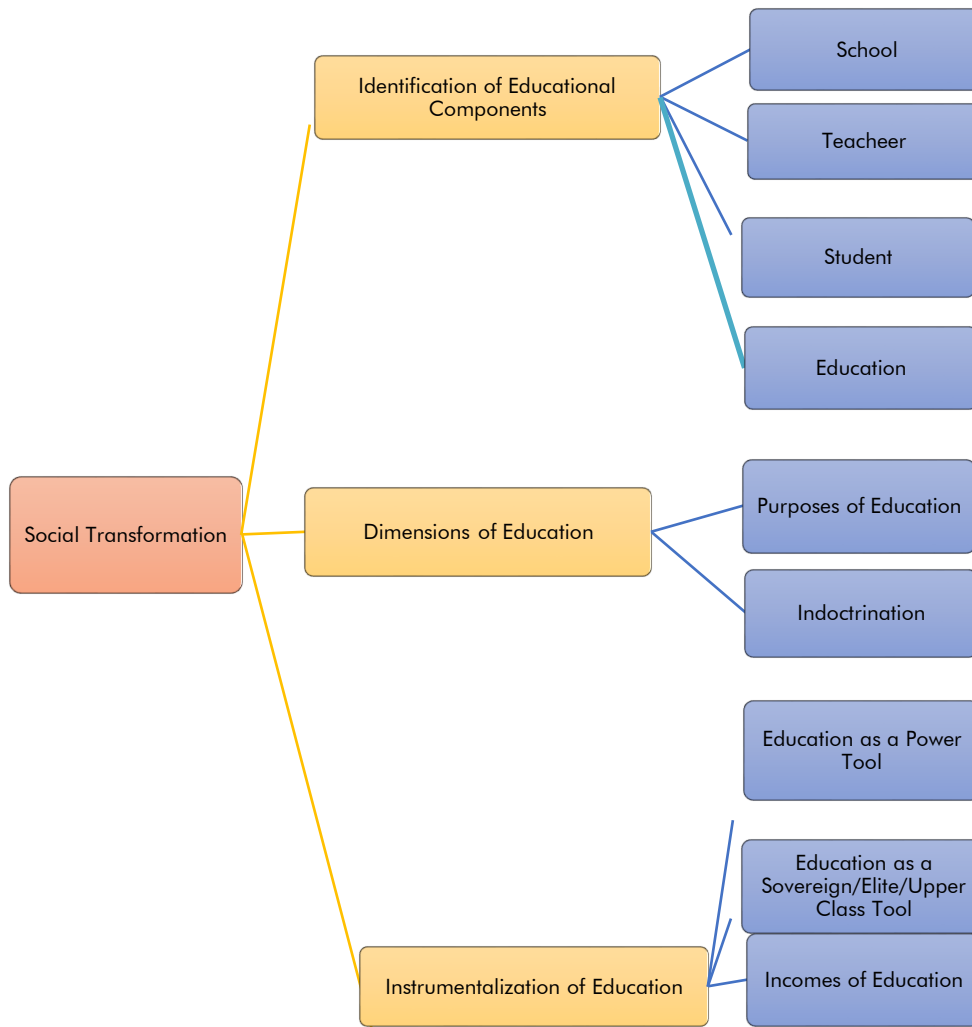
All books were read while creating themes in content analysis. Themes and sub-themes were created to be common to all books. In the content analysis, 3 main themes were determined. These 3 main themes are divided into 9 sub-themes. In the research, the data analyzed by the content analysis were classified and presented to the reader in a meaningful way, and often direct quotations were given.

Results

Can Education Change Society? (Micheal W. Apple), Society Without School (Ivan Illich), Turkey's Education Case (Nurettin Topçu), Democracy and Education (John Dewey), Education: A Weapon of Mass Destruction (John Taylor Gatto), Pedagogy of the Oppressed (Paulo Freire) and the Land of White Lilies (Grigoriy Petrov) were analyzed and content analysis was done. As a result of the analysis, the themes and sub-themes given in Figure 1 were reached.

Figure 1.

Theme and Sub-Themes



As a result of the analysis, 3 themes were determined. These are the themes of Defining Educational Components, Instrumentalization of Education and Dimensions of Education. Themes and sub-themes are given in Table 1.

Table 1:

Themes, Sub-Themes and Codes Reached

Themes	Sub-Themes	Codes
Identification of Educational Components	School	<i>Prison, Bank, Temple, Workbench, Laboratory, Company, Tumor, Parasite, Bubble, Destructive, Factory, Wholesale Process, Workshop, Production Line, Foundry, Sick and Infirm, Warehouse, Clinic, Supervision, Utopia, Basic Institution, Useless Place, Gambling, Social Problem, Sly, Distorted Phenomenon, Communication Method etc.</i>
	Teacher	<i>Servant, Transport Agent, Therapist, Preacher, Guide, Destructive Authority, Clerk, Profane, priest, sophist, Spirit Artisan, etc.</i>
	Student	<i>Container, Listener, Property of the State, etc..</i>
	Definition of Education	<i>Compulsory Education, Sanctity, Social Need, Power, Immunity, Monopoly, Basic Need, Necessity, etc.</i>
Dimensions of Education	Purposes of Education	<i>Sorting, Socializing, Social Roles, Acquisition and Development of Talents, Liberation, Status Gaining, Integration, Communication, Certification, Adaptation, Orientation etc.</i>
	Indoctrination	<i>Infantilization, Stupidization, Passivation, Alienation, Adolescence, Standardization, Inadequacy etc.</i>
Instrumentalization of Education	Education as a Power Tool	<i>Classification, Control, Obedience, Weakening of Spiritual Ties, Protection of Power, etc.</i>
	Education as a Sovereign/Elite/Upper Class Tool	<i>Consumer Society, Economy, Labor, Interest Groups etc.</i>
	Incomes of Education	<i>Liberation, Nationalization, Development, Technology etc.</i>

Identification of the Components of Education

The theme of Defining the Components of Education consists of 4 sub-themes. These are the sub-themes of “School, Teacher, Student and Defining Education”.

School Sub-Theme

School sub-themes consists of codes Prison (f=8), Bank (f=45), Temple (f=3), Laboratory (f=3), Company (f=1), Tumor (f=1), Parasite (f=1), Bubble (f=4),

Disruptive Authority (f=2), Factory (f=1), Wholesale Process (f=1), Workshop (f=2), Production Line (f=1), Foundry (f=2), Sick and Disabled (f=1), Warehouse (f=1), Clinic (f=1), Supervision (f=1), Utopia (f=1), Basic Institution (f=1), Recruitment Naughty Place (f=1), Gambling (f=1), Social Problem (f=1), Sneaky (f=1), Crooked Phenomenon (f=1) etc. Some of the quotations found in the works related to the codes are as follows:

"For this reason, it can be said that **a school is a temple**" (Topçu, 2019).

"School is a **religion**" we created a **foundry** where immature men and women are moulded and produced" (Gatto, 2019).

"School has an anti-educational effect all over the world. The school is defined as a **specialized institution** in education. ... The school has become the **world religion** of the modern proletariat and makes useless promises of salvation for the poor people of the technological age." (Illich, 2019).

"But schools and other educational institutions are also **part of society's cultural tools** in other ways besides constructing (positive or negative) identities." (Apple, 2017).

"The first task of the **social institution** we call the school is to offer a simplified environment." (Dewey, 2004).

"And within structures of domination, they largely function as **carriers** preparing future invaders." (Freire, 2019).

"School is our **main wealth**" (Petrov, 2019).

Teacher Sub-Theme

The teacher sub-theme consists of codes civil servant (f=5), transport vehicle (f=2), therapist (f=8), preacher (f=2), guide (f=1), destructive authority (f=4), clerk (f=1), profiteer (f=1), priest (f=3), sophist (f=1), spirit artist (f=2) etc. The quotations found in the works related to the codes determined after the analysis of the obtained data are as follows:

"the school, by its very nature, makes a claim on the time and energy of the participants. This puts the teacher in the roles of **preacher, guide, watchman, and therapist**, respectively. ... For the child, the teacher dictates like a **mahdi, priest and cleric**, he is also the guide, teacher and administrator of a sacred ritual." (Illich, 2019).

"I was a **clerk** in a giant prison, the rules and procedures were also a warden." (Gatto, 2019).

"Unfortunately, we need to remind teachers today, not the young, that the master of our soul, **the artist of our soul**, the verse of our life, has a high place among us, and that the wide spiritual responsibility of his duty is very heavy." (Topçu, 2019).

"As a result, teachers will have to **determine the criteria expected from the students** through suggestions or different pedagogical tools." (Dewey, 2004).

"They describe themselves as ignorant and say that the **only person with knowledge** is the "teacher" and they should listen to him." (Freire, 2019).

"Teachers are among those who **have to contend with the difficulties** arising from the criticism of the dominant." (Apple, 2017).

"We can't even call these people artists; they are **day laborers** who do not respect the labour of teachers and even curse this profession." (Petrov, 2019).

Student Sub-Theme

Student sub-theme consists of codes container (f=2), a listener (f=1), state property (f=1), seed of the future (f=1), diploma hunter (f=1), vending machine (f=1), lazy (f=2), patient listening object (f=2) etc. Quotations found in works related to codes are as follows:

"A student is a person who takes **the pursuit of truths as a profession**, he is a person of a profession **whose aim is spiritual maturation**, he is not a diploma customer of schools and a beggar of the future." (Topçu, 2019).

"Thus, it ensures that all of them feel themselves as **children of the same state**." (Illich, 2019).

"... transforms it into **"bins", "containers"** that must be filled by the teacher." (Freire, 2019).

"Think about it, how would society soon transform if the 65 million **trapped, learning how to be a consumer** school students suddenly found an independent livelihood and actively set about fulfilling their dreams, thus adding value to the rest of society, becoming producers rather than bored consumers?" (Gatto, 2019).

"Only children seen as **candidates** are placed on a waiting list." (Dewey, 2004).

"Citizenship has eliminated the distinction between those who know school and those who will teach (management) and those **who do not know and those who need to be educated**." (Apple, 2017).

Identification of Education Sub-Theme

Identification of Education Sub-Theme consists of compulsory education (f=32), sanctity (f=21), social need (f=33), power (f=5), systematic education (f=2), immunity (f=4), monopolization (f=16)) etc. Some of the quotations found in the works related to the codes are as follows:

"**Corporate training**, as mentioned earlier, **requires a specially selected environment**." (Dewey, 2004).

"Transformations in the content and structure of this **key organization** have lasting effects on the tendencies and values on which we act or not, and on who we think we are and who we think we might be." (Apple, 2017).

"The law does not sanction anyone for driving but does **necessitate** everyone to go to school." (Illich, 2019).

"The reading generation, on the other hand, has brought every poisonous means that they hold superior to the school through its **sacred walls** and has violated the sanctity of the school." (Topçu, 2019).

"Moreover, this will be done by offering very poorly educated civil servants a real **monopoly** on raising young people." (Gatto, 2019).

"The moment you take our school away from us, **we're done too**" (Petrov, 2019).

"One aspect of the answer must be sought in the distinction between **systematic education**, which can only be changed by political power, and educational projects that must be implemented with the oppressed in the process of organizing the oppressed." (Freire, 2019).

Dimensions of Education Theme

The Dimensions of Education theme consists of 2 sub-themes. These are the sub-themes of "Aims of Education and Indoctrination".

Purposes of Education Sub-Theme

Purposes of Education Sub-Theme consists of sorting (f=5), socialization (f=6), social roles (f=14), acquiring and developing abilities (f=5), liberating (f=47), gaining status (f=3), integrating (f=2), communication (f=42), certification (f=12) etc. Some of the quotations found in the works related to the codes are as follows:

"The continuity of education can only be possible by arranging the forces that provide the **development** of the individual in accordance with this purpose." (Dewey, 2004).

"As educators insist on the **packaging and presenting education with certificates**, neither education nor justice can be improved through schooling." (Illich, 2019).

"Since they broke the dominance of the school and became dominating it, the nation school collapsed, collapsed and became a **diploma distribution office**." (Topçu, 2019).

"No one gave a little thought to the **development of the intelligence of the masses, the training of the will and heart**, and the enlightenment of millions of people, and no one felt any concern or responsibility for improving the material and spiritual life of the peoples." (Petrov, 2019).

"One function of schools is to clearly label those who are unfit for the continuation of society—that is, those with low grades, those in need of treatment, and others—so that they are **effectively prevented from participating in the continuation of the species** by being scorned by their friends." (Gatto, 2019).

"**Organization** is not only directly related to unity; it is also the natural **development** of this unity." (Freire, 2019).

"Here, the struggles over knowledge with an understanding from below undoubtedly aimed at **transforming society**." (Apple, 2019).

Indoctrination Sub-Theme

Indoctrination Sub-Theme consists of from the codes of infantilization (f=26), dehumanization (f=37), stupidization (f=24), pacification (f=8), alienation (f=6), puberty (f=4), standardization (f=11) Some of the quotations found in the works related to the codes are as follows:

*“Compliance with standards envisages **uniformization**” (Dewey, 2004).*

*“As a matter of fact, it is essential for our high schools to be a means of wisdom and **maturation** rather than a burden to our intelligence and spirit, and for our high schools to raise individuals with personality rather than a **herd of heads taken out of a single** machine that knows many things and does not know how to think, and strong souls that can create works by rebelling against injustice and deficiency. It is to try to ensure that it is taught with different methods and with different spirits and purposes than today.” (Topçu, 2019).*

*“Wasn't this simply a process of **brainwashing?**” (Apple, 2017).*

*“The school system in which **childhood is produced** is also a modern phenomenon.” (Illich, 2019).*

*“The **infantilization project** is the tip of the iceberg where people are left to be damned and frozen mentally, psychologically and socially.” (Gatto, 2019).*

*“Such a pedagogy is a tool of **dehumanization.**” (Freire, 2019).*

*“Schools become dark caves that **dull the consciousness** of the new generation and darken their hearts.” (Petrov, 2019).*

*“**Standardizing of the mind** is a big part of this game.” (Gatto, 2019).*

Instrumentalization of Education Theme

The theme of Instrumentalization of Education consists of 3 sub-themes. These are the sub-themes of "instrumentalization of power, the instrumentalization of dominant-elite power groups and the benefits of education".

Instrumentalization of Power Sub-Theme

The instrumentalization of the Power Sub-Theme consists of codes Controlling the society (f=32), ensuring the obedience of the society (f=19), weakening the social ties (f=4) etc. Some of the quotations found in the works related to the codes are as follows:

*“**Control**, on the other hand, is pressure or coercion that requires the individual to act in this direction. **State** systems and state theories are based on this understanding.” (Dewey, 2004).*

*“Realizing that education is not a neutral activity, but that it contains various relations of **exploitation, domination and obedience**, these people struggle to destroy the existing order of relations and build a new one.” (Apple, 2017).*

“Mandatory school laws to **break family ties** were the bulk of the package enacted in Germany, and German magic was spoken of with envy in the halls of cities like New York and Boston.” (Gatto, 2019).

“The fact that most of the people are uneducated is an evil **done by the state.**” (Petrov, 2019).

“Compulsory education inevitably polarizes the society and leads to the formation of a **classification** among the nations of the world according to the international caste system.” (Illich, 2019).

“They will likely tend to continue to manipulate the community more effectively so as not to lose this **leadership status.**” (Freire, 2019).

“Having the children of school age memorize **the refrained odes of the ruling party**, as a result, the faith in the books decreased.” (Topçu, 2019).

Instrumentalization of Sovereign Elite Power Groups Sub-Theme

The instrumentalization of Sovereign Elite Power Groups Sub-Theme consists of codes consumer society (f=32), economy (f=18), labour force (f=10), interest groups (f=10) etc. Some of the quotations found in the works related to the codes are as follows:

“Criticisms of these **replaceable workers**, who are seen only as **profit-making machines** from the point of view of capital, are entirely composed of those later taken from disability rights advocates.” (Apple, 2017).

“Although they may be separated from each other and even occasionally conflict over **group interests**, they are immediately united when their class is threatened.” (Freire, 2019).

“Unless we are aware of the rituals shaped by the school's progressive **consumption** - the main source of the economy - we cannot break the **shell of this economy** and create a new economy.” (Illich, 2019).

“As long as the goods of the world and the machine champions paint our eyes and we take the inner light of our homes from them, the nation's education weakens next to the **economic power** and voluntarily abandons its weapons to **economic domination** in a society that has broken off from its roots.” (Topçu, 2019).

“Compulsory education is an **extraordinary job creation** project that is almost infinitely flexible, constricting and expanding according to employment needs.” (Gatto, 2019).

“Also, compare the cost of those **who consume without producing**, drunks and parasites. If our people were educated, each of them would be a source of power that works and produces for the nation.” (Petrov, 2019).

“These two different kinds of occupations, based on the distinction between the **activities of the slaves** and the activities of the free people, entail two different educations.” (Dewey, 2004).

Conclusion and Discussion

In the research, a framework has been drawn in the form of themes and sub-themes so that the relationship between education and social transformation can be understood in the context of the works. In the theme of the components of education, sub-themes of school, teacher and student were determined. These elements, which form the basis of education in the transformation of society, have been examined. Many definitions of the school have been made in the works. Some of those are prison, bank, temple, laboratory, home, monastery, asylum, method of communication, hearth, tumor, parasite, factory, etc. These definitions appear in both positive and negative dimensions. Topçu (2019), Dewey (2004) and Petrov (2019) can be expressed as thinkers who approach school positively. In addition, Gatto (2019), Illich (2019), Freire (2019) and Apple (2017) described the school negatively.

According to Gatto (2019), school is not a structure designed for transformation and development. On the contrary, it is a structure that prevents the development and transformation of society by processing the individuals who make up the future of the society and standing in front of their development. Gatto thinks that the mission of the school is not random, it is consciously designed by the rulers. Unless there is a common view and understanding about the school, which has many alternatives, the place of the school in the social transformation will be constantly questioned.

In the context of social transformation, Illich (2019) states that the concept of school itself is perceived directly negatively. It is stated that the school is expressed as a concept opposite to education and that the school has failed in the transformation of society. According to Apple (2017), schools that include people from all strata of society cannot be separated from society. These people, who came together for different purposes, transformed the school phenomenon into a large-scale social structure. A society that comes together with a collective understanding can transform and schools can be a place of organization for social transformation. Freire (2019) states that schools are born out of necessity. Schools are concrete elements designed as the transmitter of mythical values. Freire, who does not attribute an abstract meaning to the school, states that the school prepares society for the future. Freire thinks that this system of school will not be effective in the transformation of society. According to him, this understanding of school is an understanding that completely by passes people, renders them dysfunctional and eliminates them. Freire thinks that the emancipation of his thought, that is, the transformation and development of society, will not be possible with such a system. According to Topçu (2019), a school is a place where education is given for certain purposes. It is a purposeful and guiding transformation tool in which minds are trained to form a meaningful unity, rather than haphazard learning in life. The school, which cannot form an identity, is useless, takes up space in our consciousness and steals our energy, and gives a rote-based education, causing great harm to the individual and the society. According to Dewey (2004), society and the environment are extremely complex. In particular, there is a situation where society transforms the individual and therefore itself. Social life, in which interactions are very intense, cannot replace a purposeful

education. Likewise, when we think of it the other way around, it is stated that interaction and communication are very important in social life. The place that undertakes this task is the school. According to Dewey, school is the place where social transformation can take place consciously. Petrov (2019) pointed out the indispensable position of the school in the transformation and progress of society. It expresses that societies that do not give the necessary importance to the school regress and the necessary changes and transformations in the society cannot be achieved. The most important task in reshaping society falls on the school. The first conclusion that can be reached based on the findings expressed is that the school is a necessary institution for social transformation. The important thing is that the school is designed for this function.

Although there are negative opinions about the school in the works discussed in the research, the common view is that the school should serve the right/ basic purpose. Russell (1976) argues that educated people can be raised without a school. Rauter (1999) argues that education and schools are created to produce people. Schools are places where human life is shaped. He stated that almost everything in daily life can have the characteristic of being a school. In this manufacturing process, it is important which knowledge will be used to produce the desired type of person. Rauter defends the view that the essential thing in education is processes that can serve its purpose. Schools want to undertake the transformation, but it is debatable whether they are talented in this regard (Schlechty, 2014). He stated that although the quality of education given in schools has increased compared to the past years, today's citizens cannot assume the roles and responsibilities expected by society compared to the past, and therefore there is a general dissatisfaction with the schools. However, he states that schools are a basic need in the construction and structuring of society (Schlechty, 2014). Another reason why schools are criticized is that they fail to adopt values (Casewit, 2016). At this point, it can be stated that the school is a necessary institution for transformation, but that the school has not been able to achieve this as of the point it has reached today and has been criticized for this reason.

In the research, teachers are defined as ideal man, gardener, day labourer, wise man, priest, guide, scribe, destructive authority, profiteer, guide of spirits, a narrator, means of transport, guard. According to Illich (2019), besides the fact that the education given in schools is not transformative for the society and the individual, teachers are assigned to manage it with strict authority. Teachers do not exercise this authority constructively. Schools have turned into brainwashing centers under the name of discipline. While Illich questions its educational activities, it holds all the values of this institution responsible. Teachers stand in the way of development and transformation by inhibiting educational activities. Illich thinks that the dominant power in schools is the teachers, and that teachers who act as referees abuse this duty by acting like the state or the creator. According to Gatto (2019), teachers are the strongest pillar of the system. In fact, it is the only element that keeps the system alive. These duties, which are carried out without questioning the correctness of the education system and without internalizing its place in the social transformation, cause the wrong to continue. This was Gatto's greatest criticism of teachers. Teachers are consciously tasked with regressing society. They were made to

believe that they were doing this duty for a lofty purpose by attributing holiness. Topçu (2019) is one of the thinkers who attaches the most importance to the teacher in the context of social transformation. It deals with the teacher with a very broad perspective under the name of the teacher. Teachers are the managers of transformation, development, progress, that is, all social movements. It is the teacher who idealizes society. According to Freire (2019), teachers and the society should not be in the opposite position. These two values are side by side and must act together for social transformation, that is, for the liberation of the oppressed. In the work called *Pedagogy of the Oppressed*, the teacher fulfills a mission that transfers the existing rather than a transformative task, does not create an ordinary and new feeling, and distances students from reality. According to Apple (2017), no definite conclusion has been reached about whether teachers can fulfill the roles assigned to them in the transformation of society. It is not possible to talk about a common teaching approach all over the world. Apple states that many thinkers have pondered on this issue but have not been able to reach a consensus. When we look at Petrov's (2019) thoughts, it has been determined that they are in parallel with Topçu (2019). The importance attributed to the sanctity of teaching is at the forefront. Teachers, who assume the leadership of the society, should act according to the sanctity of this duty, and play an active role in determining the ideals of the society.

Based on the context of the works in the teacher sub-theme in the research, it was concluded that teachers were sometimes seen as the initiator of transformation movements and sometimes as an obstacle to transformation. In fact, based on these ideas of thinkers in the works, it can be interpreted that the teacher is seen as an important figure for social transformation. It has been stated that teachers have duties and responsibilities such as idealizing society, liberating society, and initiating the transformation in society. In addition, there are negative criticisms such as abusing one's duty and keeping the system that hinders social transformation alive. Locke (2004) stated that it is very difficult for teachers to deal with many students in the same place, and careful and long-term work on the student is required for a radical mental change. Suhomlinski (1995) talked about teaching as an art and stated that the basic condition of being a good teacher is to be a good educator. Russell (1976) stated that if teachers are not talented, they focus on the social qualities of the students rather than their personal qualities. Durkheim (2016) said that teachers should set an example for students and be moral authority figures. In other words, the teacher should be an authority figure with a sincere belief in the students. Schlechty (2014), on the other hand, stated that the teachers, whom he mentioned as one of the pioneers of change, are effective if they show leadership characteristics that can make students accept education. Rousseau (2011) also states that the educator should be cautious and have a reputation. Based on these views, an important figure of change and transformation in education is the teacher. The main idea emphasized in the studies discussed in the research is to what extent teachers are able to fulfill this key role.

In the study, it was seen that many metaphors were used to describe students in the student sub-theme, the other component of education. Some of these are codes and

definitions such as pot-drum, state property, immature, trapped, lazy, automaton, wimp, diploma merchant, truant, victim, active pioneer, and candidate. Dewey (2004) sees students as individuals who need to adapt and mature into society. Every student is a candidate waiting to join society. The capacity of the student is not enough to prepare his/her own future. For this reason, education does this for the student. Freire (2019) stated that students are objectified and stated that students are ineffective and subject to this process. Gatto (2019) stated that students turn into a disrespectful audience that acts with grade anxiety and their potential is not evaluated. He stated that active participation in this pacified mass should be ensured for social transformation. Illich (2019) advocates a similar view. He stated that he was in schools for the interests of students, that they bowed because they were afraid of punishment, and that schools were worthless for students. In Topçu's (2019) dream, the student is now a diploma hunter. In this respect, he does not have a student qualification. Talking about being a student as a profession, Topçu stated that students should seek knowledge and truth, but that they were distracted by nonsense in schools and that students were given a scholastic mindset with exams and modern methods. Petrov (2019) talked about the drawbacks of students' unidirectional development and stated that the students should improve themselves in all aspects. Apple (2017) speaks of the student as an individual who does not know and needs to be educated. It can be said that the ideas about the student sub-theme are similar in the works examined in the research. In the works, there are thoughts that students are included in education for commodified values, do not have the student characteristics required for development and change, and act with individual concerns, not social concerns. As a result of the findings determined in the works, it was concluded that there were negative opinions about the student sub-theme. Russell (1976) states that students are more interested in concrete facts and events. Students are not very interested in abstract things. For development and transformation, students are either subject to compulsory education or are deceived. Dewey (2004) stated that societies shape their own futures through education and at this point drew attention to the importance of the role of students in social transformation. Rousseau (2011) states that first of all, children should be raised as human beings and it will be more effective if they are freed in terms of education, in terms of revealing their potential. Schlechty (2014) states that nowadays it is easier to access information, and this situation undermines the trust of students in school and teachers. Although school was a place for students to gain experience in the past, today this is changing. Schools cannot compete with many elements emerging in the information society and therefore lose their attractiveness to students. As a result, the active role of the student in the social transformation can be achieved by making educational institutions age-appropriate attraction centres.

Education in the works is defined with the concepts of "compulsory education, systematic education, general education, institutional education, need, maturation, monopoly, immunity, enemy, development process, restructuring, key organization". Dewey (2004) states that education creates an organic bond between generations in the continuity of life and the transformation of society. Education also creates a social environment for the individuals receiving education. Dewey generally refers to education as a development, maturation, and communication activity. He states that education is

necessary for change and transformation. Apple (2017) places education at the centre of social transformation. It considers the school as the only institution that can fulfill this key role. Education either initiates the transformation or is involved in the transformation and becomes its continuation. In addition, education, which provides the appropriate environment for change and transformation, provides society with an opportunity to manoeuvre. Illich (2019) talked about the harms of compulsory education and mentioned schooling as an obstacle to real transformation. Today's understanding of education is an obstacle to the transformation of society. Gatto (2019) pointed out that education and school are separate things and stated that school has gained immunity today and harms society by monopolizing it. Gatto thinks that education is shaped in the hands of the dominant powers according to their wishes and cannot provide a real transformation as such. Topçu (2019) states that education is important for social transformation and that this can be achieved through a national education, not an education imported from the West. He stated that imported education ideas cause a negative transformation in society. Freire (2019) emphasized the phenomenon of emancipation while defining education. In other words, education that can realize a transformation that enables the liberation of society is real education. Petrov (2019), on the other hand, argues that the salvation of society can be achieved through education. Although there are different definitions of the phenomenon of education, it can be said that all definitions point to the same thing. Every development and transformation, which we can express as development, transformation, or progress, for the benefit of society and the individual, can be attributed to education. The most general conclusion that can be made regarding the definition of education is that people's worldviews and ideologies also shape the definition of education. Durkheim (2016) uses the expression "something social" when describing education. He defines education as bringing the student together with a determined community, not with society. However, according to Durkheim, education can vary infinitely according to time and countries, and a single, general, universal definition cannot be made. Russell (1976) also thinks that education can have different definitions according to the aims. Suhomlinski also states that there are no clear and unequivocal opinions on this subject (1995). Schlechty (2014) emphasized the necessity of constructing education as a means of change. As a result of these thoughts, more than one and different definitions of education can be made. We can state that purpose-oriented definitions are guiding, and it is difficult to make a concrete and universal definition of education. It has been concluded that there are different perspectives and different definitions of the definition of education in the works we discussed in the research. As a result, the transformation and change of the individual and society have an important place in the definitions of education.

Another theme determined in the research is the Dimensions of Education. The following conclusions were reached regarding the Aims of Education theme, which is the first sub-theme of the dimensions of education: As a result of the content analysis in the sub-theme of the aims of education in the works, as a result of the content analysis, socialization, social roles, liberation, gaining status, integration, adaptation, communication, dialogue, certification, renewal, social organization, purposes such as social transformation were determined. Dewey (2004) stated that education is based on

the ideas of adaptation and development. It is aimed to continue social progress with education, which acts as a balance between generations. Illich (2019) says that the primary purpose of education is to divide individuals into roles and classes through certification. Individuals establish a relationship of interest with education with the concern of status, profession, and future. Gatto (2019) talked about the selection function of education and stated that the purpose of education is to continue the social processes of useful individuals through selection and selection. It is a control mechanism of education. Topçu (2019) argues that the aims of education should be related to society and the activities of the society should be related to education. It has been stated that one of the primary purposes of education is to bring an ideal and spirit to the individual. However, educational institutions have turned into concrete institutions where diplomas and certificates are distributed, and they have moved away from the purpose of bringing ideals to society. Petrov (2019) thinks like Topçu and states that society and educational activities are related, and that education ensures the continuity of society and the state. Freire (2019) states that educational activities serve wrong purposes in the wrong hands, and that a dominant mass that oppresses the people uses education to achieve its goals. According to him, the main purpose of education is the liberation of the oppressed people. He does not find the traditional education and its aims, which he calls the banker education system, correct. Apple (2017) sees education and its goals as a controversial area. The importance of what is intended to be given by education changes the objectives for whom and in what respect. For this reason, Apple does not mention a single educational purpose. Instead, he argues that education can only find its true aims through democratic methods. Schlechty (2014) states that the most important aim of education is change. In all periods of history, two general aims of education can be mentioned: To gain good behaviour and to teach. Although these two aims appear in every period, there are good behaviour and teaching understandings that change according to the periods (Russell, 1976). In other words, although the aims of education seem to be the same on paper in principle, they differ according to conditions and periods. Durkheim (2016) expresses a similar view. Stating that societies have a different human ideal in every period, the thinker stated that it is aimed to raise ideal human beings according to the periods and understandings of societies through education, and that this is the main purpose and basis of education. The first conclusion reached in the sub-theme of the aims of education is that the aims of education vary according to societies, periods, states, or individuals. Regardless of the purpose, it can be said that almost all the goals determined in education aim at a change and transformation.

As a result of the content analysis in the sub-theme of indoctrination in the works, codes, and definitions of stupefying, infantilization, dehumanization, pacification, alienation, inadequacy, and uniformization were determined. Dewey (2004), Topçu (2019) and Gatto (2019) standardize education, Illich (2019) alienate the individual from everything and weaken social bonds, Petrov (2019) unconscious and numb education, and Apple (2017) education a brain. He mentions that there is a washing activity. Dewey (2004) thinks that non-educational factors are effective in trying to eliminate individual differences as if they are negative features. Illich (2019) states that school isolates individuals from daily life, prevents mental maturation, and that this is an indoctrination

activity. Topçu (2019) states that students are deliberately given a scholastic mindset and maturation is prevented. Gatto (2019) also argues that individuals receive a conscious infantilization education and are mentally retarded. In the works discussed, there is the idea that all these indoctrination activities are done consciously. The differences between individuals are reduced and they become more harmonious. In addition, individuals are left behind mentally with extended childhood periods, they are encouraged to consume with the feeling of inadequacy, and collective threats are prevented in society by alienating them from society. Considering the contrary, according to Petrov (2019), the positive mindset that enables the change and transformation of people has been gained through education. Rousseau (2011) argues that students are alienated because of educators who do not care about the character of the student. Durkheim (2016) states that human nature does not have tendencies such as submission to authority, adopting moral principles, or devotion for the sake of an ideal. The way to gain these tendencies is through education. Russell (1976) states that students' desire to learn is destroyed by coercion in education. Based on the works discussed in the research, it can be concluded that indoctrination activities are purposeful.

As a result of the content analysis, the codes and definitions of controlling the society, classifying the society, ensuring social obedience, the continuity of power, bureaucracy and weakening of social ties have been determined in the sub-theme of Instrumentalization of Education in the works. Dewey (2004) claims that states use education as a mechanism to control societies. At the same time, the state is the determinant of its aims in education. The establishment of authority, obedience to laws and orders, domination of individuals for purposes appear as the instrumentalization of education by governments. Gatto (2019) emphasizes the creation of the working class through educational institutions. Individuals with a weak attachment to values such as family, religion, homeland, and flag are transformed into a mass that is easy to control. This shows that education serves the government. Illich (2019) stated that school exists for the direct control of society. By acting as a barrier between classes, major movements that may pose a threat to society are prevented through education. States divide and polarize society through compulsory education and make it easier to control societies. Freire (2019) argues that the government establishes an exploitation system in society through education and divides the people to ensure its continuity. By using bureaucracy and other means of oppression, the people are subjugated. Apple (2017) states that societies are enslaved through education. He stated that the governments subdued and exploited society by using education as a tool. Petrov (2019) states that all nations are trying to protect their power. The way to do this is through education. However, he argues that this effort should be put forward by the people, not the state. According to Topçu (2019), governments make their ideological propaganda through education. In this way, they ensure the continuity of their power. Schlechty (2016) stated that schools are also questioned because they have ceased to be social institutions and have become an institution of power. He speaks of alienation and distrust towards educational institutions, which are accused of being government schools. In order to ensure the continuation of the status quo, governments want to educate the masses for this purpose only (Russell, 1976). Durkheim (2016) stated that today's modern and individualistic education will

not be valid for the past, the education that protects the state and status quo that existed in the past, and that the educational understandings that existed in the past and that ensure the continuation of the status quo have an important role in laying the foundations of today's civilization. It is a known fact that education serves governments and ideologies (Giroux et al., 2009).

In the works we have discussed, there is a consensus that education is used as an ideological device and a tool of power. We can say that all institutions that make up states affect each other. It is natural for states to have a say in the field of education as in other fields. Casewit (2016) stated that both the East and the West, especially totalitarian regimes, included mass education in their programs in order to control large masses of people. There are opinions expressing that education policies are shaped by 3-4 groups that do not represent the public and are called consensus in the society and are imposed on the society (Giroux, 2009). Rauter (1999) points out that the culture of obedience is taught to the masses through schools to use when the time comes. It can be said that education is an effective tool for transformation. What needs to be considered here is who wants the transformation and for what. Locke (2004) stated that authority and obedience are important, but a completely silenced mass cannot show the characteristics of a society. It can be concluded that education should be a social tool used for transformations for the benefit of society.

As a result of the content analysis, under the theme of Instrumentalization of Education in the Works, in the sub-theme of Instrumentalization of Sovereign Elite Power Groups, the creation of a consumer society, economic benefit, shaping of the workforce, interest groups, colonization codes and definitions were determined. Apple (2017) talks about schools as a complement to the economy. The individuals bred here are like profit-oriented machines put at the disposal of the capitalists. Gatto (2019) stated that the changing world and economic order also affect education, and that the continuation of the production economy depends on the consumer mass. At this point, schools serve the dominant elite power groups. Illich (2019) stated that creating a consumer society is thanks to schools. Schools serve capital owners. Petrov (2019) stated that the elite, which is called the upper class, deems rich and prosperous life worthy of them and withholds it from the public. In this matter, the people have as much a share as the sovereign powers. Topçu (2019) argues that economic activities dominate education. He drew attention to an understanding of education that was wasted for the sake of the economy. Freire (2019) stated that the sovereigns keep the people under their yoke in many ways, and they achieve this through education. Dewey (2004) states that education raises individuals who are competitive in terms of economy and workforce. He added that this was due to inequalities in economic life. McLaren stated that especially in the last century, economic capital owners have become more and more ruthless. Overproduction policies colonize people by the state and sovereign powers with capital. This exploitation exists in the cultural and military fields as well as in the economic field (Giroux et al., 2009). Rauter (1999) argues that although the main mass-producing capital is workers and civil servants, capitalists continue to exploit this mass by holding economic power and instrumentalizing education. Russell (1976) speaks of the formation of new classes

through education. These are the boss class and the working class that dominate capital. The nobles, who were the rulers of wealth in the past, have been replaced by this elite class today. Capital owners also have an influence on the design of schools. For this reason, schools are often compared to factories (Schlechty, 2016). The influence of the ruling classes on society and its institutions is undeniable. One of the most important social developments that have come to the fore in the last century is the need to create a consumer mass due to the increased production after the industrial revolution. Due to the ability of education to appeal to large masses, there are efforts of the elite class to instrumentalize education. This is the most important point that draws attention to the works discussed in the research. It is important that education reacts to efforts to transform society for economic domination and creates a conscious consumer society.

In the "Instrumentalization of Education" theme, the definitions of nationalization, development, awareness, democratization, and technological development were determined in the sub-theme of Education's Income. Topçu (2019) stated that the way to nationalization is through education, that nations that do not value education lose their nationality and are erased from the stage of history. Illich (2019) argues that the relationship between education and technological development is important. Freire (2019) stated that one of the benefits of education is technological development, the power and the sovereigns maintain their position by using technology, and the people can use technology in the process of liberation and humanization. Petrov (2019) states that the condition of democratic life is education. Likewise, awareness and enlightenment can be achieved through education. Dewey (2004) emphasizes democracy in education and draws attention to the fact that a democratic life can be achieved through education. Education that brings society together and democratizes is the education approach designed by Dewey (2004). Apple (2017) states that politically and economically conscious generations can be raised through education. As stated by other thinkers, ensuring democratization and awareness is one of the benefits of education. Today, the economic benefits of educational activities come to the fore. It can be said that education is used effectively for states to achieve their economic goals. In addition to the development of education, it can also be mentioned that it provides a balanced distribution of national income (Türkmen, 2002). Another reason for states' efforts to shape education activities is to prevent reductions in the general welfare level of society. This is one of the social benefits of education. At this point, the interventions of the states in education are understandable (Şişman, 2011). The realization of an uninterrupted and good education provides significant national benefits. Providing an effective workforce and making it productive, raising the socio-economic level, preparing, and maintaining change and development are among the benefits of education. In addition to gaining basic skills through education in the 21st century, raising creative, enterprising individuals who can compete and adapt to the changing, transforming, and globalizing world are just some of the important benefits of education (Çakmak, 2008). It can be stated that one of the most important benefits of education is change and transformation, and this can be achieved through educational organizations that interact with other countries (Hesapcioğlu & İnandı, 2004). When the works are considered, it can be said that these benefits of education are ignored and not emphasized enough. When the

views on the benefits of education in the works are examined, it can be said that the benefits of education are abstractly glorified or criticized negatively with an idealistic mindset. The outputs and returns of education have an important place in expressing the power of education to transform society more clearly. It is important to examine education at the national, social, and individual levels.

Can Education Transform Society? In this study, in which the question of the effect of education, which is a multidimensional phenomenon, on transformations is an undeniable fact. However, education cannot be expected to be effective alone in social processes. It is quite common to discuss education, which can make transformations and changes in line with certain goals, in terms of appealing to the whole society. It can be stated that the focus of these discussions is related to the deviation of education from its goals. In addition, it can be said that education is effective in determining targets, making plans, and reaching the determined targets faster with less cost and saving time. Of course, it cannot be expected that general society will have the same opinions about education. In fact, it is clear that the criticisms made about the school and the system seriously affect the educators in the works we have discussed. From this point of view, it can be thought that the thoughts about education and school are justified. It can be stated that many negative thoughts such as instrumentalizing education, controlling the masses, creating a consumer society, using education as a weapon inherit, and the efforts of the elite-dominant classes, especially those who hold the economic power, to direct education contradicts the interests of the society. However, evaluating education and school only through these criticisms may not yield correct results in general. Generalizations can be made from negative examples, but it should be discussed how much this meets the reality in the field. Considering the power of education on society, it is necessary to use it for positive transformations. Currently, there are no large-scale planned organizations that can replace education. It takes a great deal of effort for large masses to adapt to the globalizing and changing world dynamics, and one of the institutions that can do this for the benefit of societies is the school. When the works are examined, it seems very difficult for the solution proposals that can replace the school to cover the whole society and adapt to the dynamics of the age. Expressing only the deficiencies of education, school and other stakeholders in education and evaluating them from these perspectives lead to sterile results. It would not be wrong to say that education, which is very effective in the development of the individual and society in a positive sense, protects the public interest, and has the power to change the present and future of states and societies, can transform society. Criticisms towards education are necessary, and these criticisms also increase the transformative power of education and shape it as a tool for positive transformation. It is an education that provides transformations for the benefit of society. It is everyone's duty to ensure this understanding of education. Achieving a comprehensive understanding and establishing this understanding of education is possible with future plans, which are determined by common views and democratic attitudes, and which are realized in an academic and scientific manner, with targets for the benefit of the individual-society.

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Genişletilmiş Türkçe Özet

Bilimde ve teknoloji alanlarında yaşanan hızlı değişim, yenilik ve ilerlemeler sadece bu alanla sınırlı kalmamış sosyal ve kültürel hayatta, ekonomik yapılarda, yaşam şekillerinde ve eğitimde birçok değişikliği beraberinde getirmiştir. Bu gelişmeler eğitimin toplumsal değişimin önemini gündeme getirmiştir. Eğitim ve toplumsal değişim arasındaki ilişkinin kesin sınırları çizilememekle beraber, karşılıklı bir ilişkiden bahsetmek mümkündür. Eğitim, insanı odağa alan yapısıyla bütün dönüşüm ve değişimlerin merkezine oldukça yakın konumlanmaktadır. Eğitim, toplumun kültürünü nesilden nesile koruyarak geliştirerek ve zenginleştirerek aktaran bir araç olarak kabul edilmektedir. Bir ülkenin gelişme düzeyini ve sosyo-ekonomik yapısını nitelikli ve sürekli olarak geliştirilmeye açık bir eğitim belirler. Bu eğitimle elde edilen kazanımlar ekonomik büyümeyi, bilinçlenmeyi, öğrenme, gelişme ve düşünme girişimini beraberinde getirir. Özetle, eğitimin bireysel, toplumsal ve ulusal getirileri, eğitimin işlevleri, amaçları ve sonuçları konusunda farklı görüşler ortaya çıktığı görülmektedir. Bu nedenle eğitim her geçen gün daha çok tartışılan bir olgu haline dönüşmektedir. Bu çalışmada, eğitim ve toplum ilişkisini irdeleyen düşünürlere ait eserlerden yola çıkarak “eğitim toplumu dönüştürebilir mi?” sorusu cevaplanmaya çalışılmıştır. Eğitimin birey ve toplum üzerindeki etkileri irdelenmiştir. Araştırmada, “Türkiye’nin Maarif Davası (Nurettin Topçu), Ezilenlerin Pedagojisi (Paulo Freire), Okulsuz Toplum (İvan İllich), Eğitim: Bir Kitle İmha Silahı (John Taylor Gatto), Eğitim Toplumu Değiştirebilir mi? (Michael W. Apple), Beyaz Zambaklar Ülkesinde (Gregoriy Petrov) ve Demokrasi ve Eğitim (John Dewey)” adlı eserler ele alınmıştır. Araştırma nitel bir araştırma olup, “anlatı araştırması desenine” göre tasarlanmış ve gerçekleştirilmiştir. Araştırmada eserlerde var olan düşünce örüntüsünün ortaya çıkarılması amaçlandığından, veriler doküman incelemesi yöntemiyle ele alınmış ve veriler içerik analizi yardımıyla çözümlenmiştir. Eserlerde temalara kodlama yapılarak ulaşılmış ve tematik bir çerçevede içerisinde anlamlı bir bütün oluşturacak şekilde betimlenerek yorumlanmıştır. İçerik analizi neticesinde 3 tema ve 9 alt tema belirlenmiştir. Belirlenen 3 tema Eğitim Bileşenlerinin Tanımlanması, Eğitimin Araçsallaştırılması ve Eğitimin Boyutları temalarıdır. Eğitimin Bileşenlerinin Tanımlanması teması 4 alt temadan oluşmaktadır. Bunlar “Okul, Öğretmen, Öğrenci ve Eğitimin Tanımlanması” alt temalarıdır. Eğitimin Boyutları teması 2 alt temadan oluşmaktadır. Bunlar “Eğitimin Amaçları ve Endoktrinasyon” alt temalarıdır. Eğitimin Araçsallaştırılması teması 3 alt temadan oluşmaktadır. Bunlar “İktidarın araçsallaştırılması, egemen-elit güç gruplarının araçsallaştırılması ve eğitimin getirileri” alt temalarıdır.

Araştırmada ele alınan eserlerden yola çıkarak her eserde eğitim ile ilgili farklı bakış açıları olduğu ve toplumsal dönüşüm ideallerinin her dönemde ve her toplumda farklılaştığı söylenebilir. Topçu’ya (2019) göre topluma ruh veren, milletin ruhunu şekillendiren maariftir/eğitimdir. Maarifin niteliğinin düşmesi demek, milletin sonunun gelmesi demektir. Millet eğitimin açtığı yolda ilerler. Eğitim hangi yöne giderse millet onun peşinden gider. Birey var olmaya başladığında içinde bulunduğu sosyal ortamın değerlerinden, hedeflerinden ve gelenekselleşen alışkanlıklarından habersiz ve uzaktır. Yeni nesli, yeni yapan da budur. Bireylerin tüm bunlardan haberdar olup etkin olması,

bu değerlere ilgi göstermesi gereklidir. Birey ve toplumun arasındaki mesafeyi kapatan en önemli güç eğitimidir (Dewey, 2004). İllich (2019) toplumların okula muhtaç olduğu algısının yaratıldığından, okula karşı fanatik bir bağlanma anlayışından bahsetmektedir. Söz konusu eserlerin yazarlarının eğitime ve onun unsurlarına dair düşünceleri kısaca şöyle ifade edilebilir: İvan İllich (2019) Okulsuz Toplum adlı eserinde okullaşma ile eğitim arasındaki ilişkiyi ele almış, okullaşan topluma neden karşı olduğunu geniş bir çerçevede anlatmıştır. John Taylor Gatto (2019) Eğitim Bir Kitle İmha Silahı adlı eserinde okula alternative öğrenmeleri savunan, zorunlu eğitimin karşısında olan ve özgürlükçü bir anlayışla bireysel eğitimi savunmaktadır. Okulun verdiği hizmetin hayatın gerçekleriyle örtüşmediğini savunur. Paulo Freire (2019) Ezilenlerin Pedagojisi eserinde ezenlerin hakim olduğu bir eğitim sistemine karşı olmakla birlikte, ezilenlerin bir araya gelerek kendini gerçekleştirme gerektiğini savunan bir anlayışı ele almış, eğitim sistemini sorgulamış, bireyin pasif olmasına karşı çıkmıştır. Nurettin Topçu (2019) Türkiye'nin Maarif Davası adlı eserinde her milletin kendine özgü bir okul yapısı olduğunu savunmakla birlikte, değişimin okullarla gerçekleştiği görüşünü ele almıştır. Michael W. Apple (2019) Eğitim Toplumunu Değiştirebilir mi? adlı eserinde eğitimin toplumun değişim sürecine dahil olması gerektiği anlayışı, kurulacak yeni toplumsal düzene geçişte itici güç olan okulun yerini sorgulayan bir bakış açısıyla ele alınmıştır. Amerikalı eğitim reformisti John Dewey (2004), Demokrasi ve Eğitim adlı kitabında demokratikleşme yolunda eğitimin toplumu diğer toplumların önüne geçirdiği düşüncesini savunmaktadır.

Çok boyutlu bir olgu olan eğitimin dönüşümler üzerindeki etkisi yadsınamaz bir gerçektir. Ancak eğitimin toplumsal süreçlerde tek başına etkili olması beklenemez. Belirli hedefler doğrultusunda dönüşüm ve değişimler gerçekleştirebilen eğitimin toplumun tamamına hitap etmesi yönüyle tartışılması gayet olağandır. Bu tartışmaların odaklandığı noktanın eğitimin amaçlarından sapmasıyla ilişkili olduğu ifade edilebilir. Bunun yanında eğitimin hedeflerin belirlenmesinde, planlanmaların yapılmasında ve daha az maliyetle ve zamandan da tasarruf ederek belirlenen hedeflere daha çabuk ulaşılmasında etkili olduğu söylenebilir. Toplumun genelinin elbette eğitimle ilgili aynı kanılara sahip olması beklenemez. Hatta ele aldığımız eserlerde ciddi anlamda okul ve sistem üzerinden yapılan eleştirilerin eğitimcileri etkilediği de açıktır. Ancak eğitimi ve okulu yalnızca bu eleştiriler üzerinden değerlendirmek genel anlamda doğru sonuçlar vermeyebilir. Olumsuz örneklerden genellemelere ulaşılabilir, ancak bunun sahadaki gerçekliği ne kadar karşıladığı tartışılmalıdır. Eğitimin toplum üzerindeki gücüne bakıldığında bunu olumlu dönüşümler için kullanmak gerekmektedir. Hali hazırda eğitimin yerini alabilecek büyük ölçekte planlı örgütler bulunmamaktadır. Büyük kitlelerin küreselleşen ve değişen dünya dinamiklerine uyum sağlaması oldukça büyük emek istemektedir ve bunu toplumların yararına yapabilecek kurumlardan birisi okuldur. Eserler incelendiğinde okulun yerini alabilecek çözüm önerilerinin toplumun genelini kapsamaması ve çağın dinamiklerine uyum sağlaması oldukça zor görünmektedir. 21. yüzyılın okul ve eğitim sistemine yöneltilen eleştirilerin, bu çözüm önerilerine de yöneltilebileceği gözardı edilmemelidir. Eğitime yöneltilen eleştiriler gereklidir ve bu eleştiriler aynı zamanda eğitimin dönüştürme gücünü de artırmakta ve olumlu bir dönüşüm sağlama aracı olarak şekillenmesi sağlamaktadır. Aslolan toplumun yararına olan dönüşümler sağlayan bir eğitimidir. Kapsamlı bir eğitim anlayışına ulaşmak ve bu anlayışı yerleştirmek, ortak

görüşler ve demokratik tutumlarla belirlenen, akademik ve bilimsel bir biçimde gerçekleştirilen, birey-toplum yararının temel alındığı gelecek planları ile mümkündür.

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