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Examining the Situations Experienced by University Students After Covid-19 Pandemic

 Vedat Aktepe, Assoc. Prof. Dr., Corresponding Author
Nevşehir Hacı Bektaş Veli University, Türkiye
vedat.aktepe@hotmail.com
Orcid ID: 0000-0001-5259-9340

 Hayrettin İnan, Manager
Ministry of National Education, Türkiye
hayrettin4033@gmail.com
Orcid ID: 0000-0003-4078-5925

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Abstract

In this research, it is aimed to reveal the situations experienced by university students regarding Covid-19 pandemic and its aftermath. The research was conducted by a qualitative research design, and data were collected using a semi-structured interview form from 31 junior students attending a Faculty of Education. The collected data were analysed by content analysis. As a result of the research, it is understood that the students are satisfied to have returned to face-to-face education. Overcrowded school and dormitory make it difficult to comply with the measures taken, and cause problems related to cleaning. It has been found that the rate of compliance of students with pandemic measures at school is higher than in dormitories. The majority of students identified having problems with wearing masks, obeying social distancing and following hygiene rules. It is understood that Covid-19 pandemic has made life difficult and people unhappy and hopeless. It is found that people have been bored with the pandemic, they have been worried about the risk of infections, so they socialize and communicate less and treat each other more coldly.

Keywords: Post Covid-19 pandemic, university, student, their experiences.

Introduction

The Novel Coronavirus Disease [Covid-19], which appeared in December 2019 in Wuhan, China, caused acute respiratory tract illness in humans and turned into a pandemic affecting the whole world in a short time (Lu, Wu, Wan, Li, Zuo, Qin, & Zhang, 2020). In Türkiye, where the first case was observed in March 2020, nearly 17 million cases were detected and more than 100 thousand people lost their lives (Buluk & Eşitti 2020). In this context, measures such as quarantine, lockdown, travel restrictions, social distance were taken; entertainment, collective organizations, festivals, weddings, trainings, congresses, culture, art and sports events were banned or cancelled (Aktaş, Büyükaş, Gülle, & Yıldız, 2020). Due to these measures, business life was also affected, economic recession and job losses were experienced. As people could not leave their homes, the pandemic affected people socially and psychologically. People became more stressed, anxious, unhappy and hopeless during the pandemic process (Karataş, 2020). Covid-19 pandemic has also changed people's daily life practices, indoor and outdoor habits. The way people communicate and interact has changed or become more restricted (Koca and Tural, 2021) and it has changed the value judgments and ethical approaches of society (Çobanoğlu, 2020).

One of the areas primarily affected by Covid-19 pandemic was education (Aral, Fındık, Öz, Karataş, Güneş, & Kadan, 2021). Globally, schools were closed all over the world, distance education was applied, and the education sector was seriously affected (Wong & Tang, 2021). Due to reasons such as technological impossibilities, infrastructure inadequacies, lack of distance education experience of teachers and students, inequality between students, characteristic features of distance education, sufficient efficiency could not be obtained from distance education (Yurtbakan & Akyıldız, 2020; Ramos-Morcillo, Leal-Costa, Moral-Garcia, & Ruzafa-Martinez, 2020; Avcı & Akdeniz, 2021; Metin, Gürbey, & Çevik, 2021). In this regard, the inequality that existed between students who had the necessary equipment for distance education and students who did not have this equipment showed itself more in this process. In this connection, students who were disadvantaged in terms of their location, in places where the communication infrastructure was not sufficient were not able to get expected efficiency from distance education. Measures such as lockdown restriction, social distancing rule and closing of schools had an impact on the socialization, character, social relations and psychology of students (Aral et al., 2021). In addition, it was determined that there were an increase in aggression, stress, anxiety, fear, depression, insomnia, lack of motivation, and anorexia levels of students during the pandemic period.

In addition, the social life habits of the students also changed and caused many psycho-social problems (Çiçek, Tanhan, & Tanrıverdi, 2020; Duan & Zhu, 2020; Huang, Han, Luo, Ren, & Zhou, 2020; Lin, 2020). Besides these short-term consequences, it can be said that the pandemic will have long-term effects on education, educational problems during the pandemic period will negatively affect the futures of students, the generation educated during the pandemic period will not reach its real potential, will suffer from educational deprivation, and lifelong productivity will decrease. Increasing in unhappiness, uneasiness, poverty and crime rates among the young population were also expressed as other possible long-term consequences of the pandemic (Balci, 2020).

When the literature is examined, it will be seen that there are a large number of domestic and foreign researches on the effects of Covid-19 pandemic on education (Aktan Acar, Erbaş, & Eryaman, 2021; Aruta, Balingit, & De Vera, 2022; Bozkurt, 2020; Daniel, 2020; Demir, Dağ, Çelik, Gürsoy, & Temur, 2022; Gökmenoğlu & Doğan, 2022; Livari, Sharma, & Venta Olkkonen, 2020; Pressley, 2021; Sarışık, Gürel, Uslu, & Dönmez, 2022; Saygi, 2021; Tarkar, 2020). The majority of these studies periodically covered the period when the pandemic first appeared and spread all over the world, and when face-to-face education was paused. On the other hand, it can be said that the pandemic measures were partially abolished and the number of scientific studies investigating the effects of the pandemic on education decreased after the transition to face-to-face education. In addition, research on the effects of Covid-19 pandemic on education has mainly focused on the effects of distance education. In this research, answers to questions such as the effects of the pandemic in the dormitory, apartment, family, school and environment after the Covid-19 pandemic, how students met their post-pandemic measures, how students evaluated the transition process to face-to-face education were searched for. Due to the Covid-19 pandemic, face-to-face education put on hold for a year and a half. At the beginning of the 2021-2022 academic year, face-to-face education started again at all levels of education. How students perceive the post of the Covid-19 pandemic, how they evaluate the transition process in the family, lodging, dormitory, school and environment is not yet sufficiently known, as it is not the subject of scientific research yet. For these reasons, this research is considered important. In the research, within the scope of the return to face-to-face education, it is aimed to reveal the situations that university students have experienced after the Covid-19 pandemic. In this regard, the study tries to reveal situations experienced by university students in the transition to return to face-to-face education after Covid-19 pandemic. In this context, in this research, the conditions at university, at their house, dormitory (affiliated to Higher Education Credit and Dormitories Institution [HECDI]) or lodging they reside and their observation in family environments and in relationships with friends were determined based on teacher candidates' opinions.

Method

Research Model

This research was carried out by using the explanatory/descriptive case study model from qualitative research approaches. Since the research aims to evaluate the Covid-19 pandemic process and the face-to-face return to education of prospective teachers studying at the university, to reveal the situations they experienced during this process in detail and as a whole, the explanatory/descriptive case study model was preferred. In the descriptive/descriptive situation study, the situation is explained and defined by providing descriptive information about a situation (Davey, 1990). An in-depth analysis of the situations/s is carried out within the framework of the purpose of the research (Creswell, 2007).

During the analysis, systematic information and data are collected and examined thoroughly (Chmiliar, 2010), and it is important to investigate a current and real phenomenon, which specific in itself, so the results are not generalized (Stake, 1995).

Study Group

The study group consisted of a total of 31 voluntary junior students studying at the department of Primary Education at Nevşehir Hacı Bektaş Veli University at the beginning of 2021-2022 academic year. Since one of the researchers works at the department of Primary Education at Education Faculty, it was easier to reach the participants, so the research was conducted by this study group. The working group of the research was determined by the purposeful sampling method. Purposeful sampling is a method that is used a lot in qualitative research; it is very useful in terms of labor, time and material (Patton, 2002). In addition, in line with the purpose of the research, it was considered that the purposeful sampling method would be appropriate in terms of providing rich information content about the situation and providing an opportunity for in-depth examination (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz, & Demirel, 2020). The demographic information of the study group is indicated in Table 1.

Table 1. *Demographic information of the study group*

| Prospective Teachers | | n | % |
|----------------------|-----------------|----|------|
| Gender | Female | 25 | 81% |
| | Male | 6 | 19% |
| Residence Situation | HECDI Dormitory | 25 | 81% |
| | Lodging | 3 | 9,5% |
| | House | 3 | 9,5% |

When Table 1 is examined, while 6 participants were male (19%), 25 of them were female (81%). Among the participants, 25 participants stayed in HECDI dormitories (81%), 3 participants lived in lodgings (9.5%) and 3 participants (9.5%) lived at home.

Data Collection Tool

The data of the research were collected through a semi-structured interview form consisting of 5 open-ended questions. While preparing the questions in the interview form, the literature was reviewed, the prepared interview questions were asked to three academicians and their opinions were taken to make the questions clear and understandable. The questions prepared in advance by the researchers in a certain order give them the opportunity to answer the necessary questions by preventing both the researchers and the participants from turning to other areas (Büyüköztürk et al., 2020). The interview form was applied to 3 prospective teachers, and in the light of the feedback, the interview form consisting of 4 questions was increased to 5 questions and the interview form was finalized. In this context, answers to the following questions were sought in the interview form: With the transition of universities to face-to-face education, regarding post Covid-19 pandemic;

1. What are your observations at school?
2. What are your observations about the house, lodging or dormitory you are staying in?
3. What are your observations in your family?
4. What are your observations in your friends?
5. What are your observations around you?

Data Collection and Analysis

38 junior students, prospective classroom teachers, were given information about the research during the lesson, and the interview form was mentioned. Within the scope of the research, it was stated that the names would be kept confidential and those who volunteered would participate, they were told to answer the questions in the interview form sincerely. Since it was thought that it would take time to answer the questions in the interview form, it was not applied during the lesson, so the interview form was sent to 38 students on the class list via e-mail. A total of 31 teacher candidates (82%) participated in the research voluntarily. They sent the interview form via e-mail within about 2 weeks. The interview forms were printed, and each interview form was numbered and coded as (Participant1: P1, Participant2: P2,, Participant31: P31). Thus, the confidentiality of the participants was protected. The data of the research were analysed with the content analysis technique. In content analysis, data were processed deeper than descriptive analysis, and some unnoticed concepts and themes can be discovered. The collected data can be conceptualized logically and themes can be created as a result of the organization (Şimşek, 2009). The content analysis technique which is frequently used and benefitted from in qualitative research and social sciences, is one of the most commonly used (Hsieh and Shannon, 2005) and is a repeatable systematic method in which encodings are made according to certain rules and expressions are summarized with categories (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz, & Demirel, 2020). The interview forms of each participant were examined in detail, the data were analysed one by one and divided into determined themes, categories and codes. Thus, the information obtained was analysed deeply, and the data were explained and interpreted in the tables by taking the frequencies (f) into account. In addition, giving direct coverage to the opinions of teacher candidates participating in the research, comprehensive analysis of the findings, the credibility of research questions, answers and results (Streubert and Carpenter, 2011) are important for the reliability of the research. Moreover, questioning whether the findings reflect the truth during the data analysis process, auditing and confirming them through the participants supports the validity of the research (Yıldırım & Şimşek, 2018). Conducting content analysis is a scientific approach that aims to provide scientific information by allowing systematic and objective/impartial examination of written materials (Holsti 1969; Tavşancıl & Aslan, 2001). In order to ensure the consistency of the research, all types of operations performed from the beginning to the end of the study were explained in detail, and so as to ensure consistency between coders, errors detected were corrected by obtaining expert opinions from three academicians during the analysis of the data. Finally, to ensure internal validity and reliability, the results obtained from the participants were coded by three expert academicians. As a result, Miles and Huberman's (1994) reliability consistence between encoders was calculated as 89%. According to Miles, Huberman and Saldana (2014), it is stated that the coders should be in the range of 85% to 90%.

Ethical Permits of Research

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

Ethics Committee Permission Information:

Name of the committee that made the ethical evaluation = Nevşehir Hacı Bektaş Veli University Scientific Research and Publication Ethics Committee

Date of ethical review decision= 30.11.2022

Ethics assessment document issue number= 2100146913

Findings

In this part of the research, the findings obtained for the research questions were examined in the order and explained in tables.

1. Findings on Students' Observations about School in Post Covid-19 Pandemic

All of the participants shared their observations about school after switching to face-to-face education again. It has been found that they have both positive and negative observations about the measures taken at the university and its environment. The results are given in Table 2.

Table 2. Findings on students' observations about school in post Covid-19 pandemic

| Theme | Category | Code | f |
|---------------------------------------|---|---|----|
| Positive | Pandemic Measures Taken at University | P5., P7., P12., P16. The measures taken are gratifying | 4 |
| | | P1., P15., P17., P20., P24., P26., P28., P29., P30. Care is being taken against the virus and precautions are being followed. | 9 |
| | | P2., P7., P15., P24., P26., P28. Classes are divided into groups to prevent crowdedness | 6 |
| | | P2., P7. There is a disinfectant for use in different parts of the building | 2 |
| | | P1. Those who do not follow the rules are warned | 1 |
| | | P2., P26. Fever is measured at the entrance to the school | 2 |
| | Return to Face-to-Face Education | P5., P13., P18., P24., P31. I realized that I miss school. | 5 |
| | | P5., P6., P9., P20., P23., P24. The value and importance of face-to-face education was understood | 6 |
| | | P23., P27., P31. It's nice to be able to communicate with friends face to face again | 3 |
| | | P12., P17., P27., P30. The school environment is nice, the people are respectful, understanding, and helpful | 4 |
| Negative | Failure to Comply with Pandemic Measures at University | P4., P9., P11., P15., P21., P25., P26. The environment is crowded (library, dining hall, canteen) | 7 |
| | | P3., P10., P21., P25., P26. Social distancing is not observed | 5 |
| | | P1., P2., P3., P8., P9., P10., P11., P13., P21., P25. The mask is not worn | 10 |
| | | P2., P10., P19., P21., P28. Areas of use (floors, toilets, etc.) are not clean enough | 5 |
| | | P2. Everyone swipes cards in the same place | 1 |
| | | P9., P11. Vaccination is not given importance | 2 |
| | | P11., P16. Even if they have symptoms, students do not take tests to avoid being quarantined | 2 |
| | The Impact of the Pandemic on Social Relations | P13., P21., P24., P30. People treat each other coldly and distantly | 4 |
| | | P13., P19. Because the mask hides facial expressions, it becomes difficult to communicate healthily | 2 |
| | | P6., P14., P21., P24. It has been difficult to get used to face-to-face education and communication again | 4 |
| The Impact of the Pandemic on Classes | P19., P28. The lessons in pandemic conditions cannot be processed efficiently enough | 2 | |
| | P13., P28. It is very difficult to process lessons for hours with a mask | 2 | |
| | P15. Integrity cannot be achieved between the two classes because the classes are divided | 1 | |
| The Impact of Pandemic on Daily Life | P3., P24., P26. Half of the classes continue online | 3 | |
| | P21., P22. The measures taken make life difficult | 2 | |
| | P12. The lack of social events due to measures makes life more boring | 1 | |
| | | P8., P10. Repairs to be made during the non-educational period at the building have started after students arrived | 2 |

When Table 2 was examined, the observations of the participants about school were divided into 2 themes: positive and negative. Positive opinions were collected in 2 categories. According to the data obtained from the findings, it was understood that the participants were satisfied with having returned to face-to-face education again, eliminating school longing and respectful school environment. In the meantime, it seems that they are also satisfied with the pandemic measures taken at the school. In this context, they are satisfied with the students' careful attitude towards the coronavirus, the processing of lessons by dividing to prevent overcrowding in classrooms, and the measurement of fever at school entrance. Negative opinions were collected in 4 categories. These are: the effect of the pandemic on the measures taken at school, the effect on social relations, the effect on lessons and the effect on daily life. Some participants believe that the measures taken at school are not sufficient, mask, distance and hygiene rules are not followed. Another finding is that even after the pandemic, people have cold and distant behaviors towards each other. In addition to this, some participants stated that the courses could not be processed efficiently enough, some courses were conducted online, and they could not get enough benefit from the training provided. Due to the concerns felt after the pandemic, not performing activities for precautionary purposes also negatively affects daily life. The direct statements of the participants about their observations in their school after Covid-19 pandemic process are as follows:

“There are constant signs of illness at school. But there are no test cases or controls. The reason most people do not get tested is because they do not want to be quarantined. There is no vaccine control situation at the school. In addition, the situation of wearing a mask at school is very neglected. There is serious accumulation in the library and dining halls. In this case, it is impossible not to capture the corona in these environments, which are both stuffy and crowded.” (Participant 11). “With the opening of the schools, I started going to school two days a week, and in the observations, I made during this process, I saw that most people had difficulty adapting to the school and classroom environment. As a result of being away from formal education for a long time, it has caused problems such as inability to express oneself, especially in students, and not focusing on the lesson for a long time.” (Participant 14). “I have noticed that the number of students is less. Compared to the first year I came, the student density in the building is less. I also observed that the majority of students at school follow the mask rule.” (Participant 30).

2. Findings on Students' Observations About House, Lodging or Dormitory They Stayed in Post Covid-19 Pandemic

The participants who stayed in lodgings or dormitories shared their observations. It was determined that the students who stayed at home did not express an opinion. It can be said that the opinions of the participants who stayed in the lodgings were generally positive, while those who stayed in the dormitories were generally negative. The findings of the participants' observations about house, lodging or dormitory are given in Table 3.

Table 3. Findings on students' observations about house, lodging or dormitory they stayed in post Covid-19 pandemic

| Theme | Category | Code | f | |
|---|--|--|--|----|
| Positive | Pandemic Measures Taken in the Dormitory | P12. The measures taken are gratifying | 1 | |
| | | P12. The rooms are cleaned 2-3 times a week | 1 | |
| | | P27. Dormitory services are sufficient | 1 | |
| | | P4., P12. The Internet quota and speed are sufficient | 2 | |
| | | P16. Those who do not wear masks in the dormitory are warned | 1 | |
| | Dormitory Environment | P12., P17. The dormitory environment is good, the people are respectful, understanding and helpful | 2 | |
| | | P27. It's nice to be back in dormitory after locked in the houses | 1 | |
| | Lodgings | P7., P10., P25. I am comfortable in the apartment; the services are enough | 3 | |
| | Negative | Failure to Comply with Pandemic Measures in Dormitory | P1., P2., P3., P8., P9., P10., P11., P20., P22., P24. The queues in the dining halls are very long and crowded | 10 |
| | | | P9., P10., P11. The rooms are crowded | 3 |
| P2., P10., P15., P19., P21., P26. The rooms are not cleaned enough. | | | 6 | |
| P2., P18., P19., P22., P24. There is a cleaning problem in the dormitory. | | | 5 | |
| P21. The situation in the dormitory is worse than before. | | | 1 | |
| P9., P11. There is no HES code and test requirement in dormitories | | | 2 | |
| P1. Staying too much in closed environments | | | 1 | |
| P2., P9., P11. It is unhygienic for everyone to be fingerprinted at the same point at the entrance to the dormitory | | | 3 | |
| P2., P15., P22. Cutlery is not cleaned enough | | | 3 | |
| P2. Bread is given without bags as done before | | | 1 | |
| P2. Old linens continue to be used | | 1 | | |
| P2., P17., P18., P20., P21., P22., P31. Students do not comply with the measures | | 7 | | |
| Problems in Dormitory | | P1., P2., P3., P8., P11., P15., P20., P21., P22., P24., P28., P31. The mask is not worn | 12 | |
| | | P2., P3., P8., P10., P21., P22., P31. Social distancing is not observed | 7 | |
| | | P1., P2., P21., P22., P26. More than four people get on the elevator | 5 | |
| | | P9., P19., P24., P30. Because the food is bad, we can't eat enough, which makes us vulnerable to the virus | 4 | |
| | | P16., P19., P24., P26., P30. Food prices are high. | 5 | |
| | | P3., P8., P10., P26., P30. Internet is not enough in the dormitory for online classes. | 5 | |
| | | P9., P11. It is depressing that an ambulance comes to the dormitory 2-3 times every day. | 2 | |
| | | P2., P10. Repairs to be made during the non-educational period started to be made when the student arrived | 2 | |
| | Problems in Lodging | P6. Lodging fees are high | 1 | |

When Table 3 was examined, the participants who stayed in the lodgings or dormitories shared their observations. It was determined that the students who stayed at home did not express an opinion. It can be said that the opinions of the participants who stayed in the lodgings were generally positive, while those who stayed in the dormitories were generally negative. In this context, the observations of the participants about the house, lodging or dormitory are given in 2 themes: positive and negative. Positive opinions were collected in 3 categories. It was understood that some participants considered the pandemic measures taken in the dormitory adequate and appropriate, they liked their dormitories and were happy to stay there. Negative opinions were collected in 3 categories. Some participants did not find the pandemic measures taken in the dormitory sufficient and thought that students did not comply with these measures adequately. Another finding is that some participants stated that they were

bothered by different kinds of problems in the dormitory, that the services of the lodgings were adequate and that the fees were expensive. The direct statements of the participants about their observations in house, lodging or dormitory where they resided after Covid-19 pandemic are as follows:

“During this process, I noticed that although cleaning, distance, and masks should be paid more attention, especially in places like dormitories, most people do not wear masks. Especially during the mealtime in the dormitory, I noticed that a lot of people were waiting in line to form a queue. There was not so much intensity before. At the same time, I have seen that no one cares about the crowd when getting on elevators. Even if it is very crowded, they try to get into it. The dangers of having everyone finger-pointing at the same place in and out of dormitories and refectory have not been considered. As in the past, bread is given in the refectory without bags. While cutlery should be washed well in the refectory, sometimes used forks are given only by hand through water in cases there are not enough forks. During the time the schools were closed, no deficiencies were corrected in the dormitory. The washing machines that used to be broken are still broken, the places that need to be repaired are still not repaired. In addition, when we came to the dormitory, they had to give us new linens, but the linens that had been used before was given after washed. Even in the past, a new linen with its package was always given every year. In short, there has been no good change in the dormitory in any way, and measures have not been tried to be taken.” (Participant 2). “I'm staying in the dorm. I have troubles from time to time. This is about food and cleaning the room. The taste of the dishes can be better, and the prices can be reduced. Food is provided with money, yes, but this amount can be increased. I think the importance that should be given to cleaning the dormitories due to the pandemic is not enough.” (Participant 19). “Everyone in the room is very respectful to each other, there is no one doing distractions while studying or dealing with something. Everyone uses the common area very well and carefully. This allows everyone to wake up cheerful and start a good day instead of seeing glum faces when we wake up. I do not see as many big problems in dorm as everyone says. Our room is cleaned 2 times a week, and if it is not enough, we also do a little cleaning. The Internet speed is enough in most parts of the dorm, it never affects someone who takes an online class, because the Internet connection is good in the study rooms. There is a great improvement in the food of the dormitory compared to the first week. And I want to add this: It is very difficult to please everyone where 700-800 people stay.” (Participant 12).

3. Findings on Students' Observations about Their Family in Post Covid-19 Pandemic

The findings regarding the observations of the participants about their family are given in Table 4.

Table 4. Findings on students' observations about their family in post Covid-19 pandemic

| Theme | Category | Code | f |
|---|---|--|----|
| Positive | Satisfaction with the return to face-to-face education | P5., P6., P7., P13., P18., P30., P31. The family is pleased that face-to-face education has begun | 7 |
| | | P5., P13. The problems between siblings got better when they left the house | 2 |
| | Compliance with pandemic measures | P12., P14., P15., P29. Family members are wary of the risk of infection | 4 |
| | No change | P2., P23. No differences were observed in the family | 2 |
| Negative | Concern about the risk of infection | P3., P7., P8., P10., P15., P19., P20., P21., P22., P24., P25., P26., P27., P28., P30., P31. The family is worried about the risk of infections | 16 |
| | | P9., P11. No face-to-face meeting with the family because of the concern that the virus can be transferred from school to the family | 2 |
| | The costs of face-to-face education | P3. It upsets the family that only half of the lessons are face-to-face, and it costs so much | 1 |
| | | P19. Family is struggling because face-to-face education is more expensive | 1 |
| The difficulty of separating from their child | P7., P10., P15. Leaving home after 2 years was difficult for the family and the student | 3 | |

When Table 4 was examined, the observations of the participants about the families were divided into 2 themes: positive and negative. Positive opinions were collected in 3 categories. Participants generally stated that their families were satisfied with the return to face-to-face education, that family members acted carefully against the risk of transmission, and there was no difference in their family's behaviours before and after the pandemic. Negative opinions were collected in 3 categories. Some participants stated that families were concerned about the risk of transmission and that they were concerned about the risk of their children being infected at university, in the dormitory or in other social areas. Another finding is that the participants stated that with face-to-face education, costs increased and families were experiencing economic difficulties. The direct statements of the participants about their observations in their families after Covid-19 pandemic process are as follows:

"My parents are more curious about me than before the pandemic, and I am always on their minds. We talk twice a day and they usually want to know about my health status. My family is very worried about situations such as disease infection and quarantine here." (Participant 21). "For about two years, being with my siblings constantly at home was becoming very tiring, especially for my mother. She did not have time for herself. I can say that with the start of school, my parents pulled an 'oh'" (Participant 18). "My parents are happy that I'm back at school, just like me. Because as much as the place of the family is separate and special, I think that psychologically we are all a little more relaxed." (Participant 6). "Mom and dad are happy that the school has begun. It was a little boring for them that we were with them all the time. While I was constantly fighting with my siblings at home, our relationship got better since the schools started. Being together constantly was causing controversy. Our social activities had come to a standstill. With coming back to the schools, we returned to our social life." (Participant 13).

4. Findings on Students' Observations about Their Friends in Post Covid-19 Pandemic

It was observed that most of the participants expressed both positive and negative opinions at the same time. The results of the participants' observations about their friends are given in Table 5.

Table 5. Findings on students' observations about their friends in post Covid-19 pandemic

| Theme | Category | Code | f |
|--|--|--|---|
| Positive | Compliance with pandemic measures | P1., P25. In general, they follow the pandemic rules | 2 |
| | | P2., P25. They are more sensitive about hygiene than before | 2 |
| | | P29. They don't touch things; they clean their hands immediately when they touch | 1 |
| | Returning to face-to-face education | P5., P23., P24., P26. Face-to-face communication is better than online communication | 4 |
| | | P6., P7., P18., P20., P24., P26., P30. They are pleased to have returned to face-to-face education | 7 |
| | Coming together with friends | P5., P8., P17., P18., P20., P25. It's nice to get friends back and socialize | 6 |
| P5., P6. It was easy to reconnect with friends after distance learning | | 2 | |
| Negative | Failure to comply with pandemic measures | P15., P29. They act imprudently and fearlessly | 2 |
| | | P3., P9., P11., P15., P29. They do not wear masks | 5 |
| | | P9., P11., P15. They do not adhere to social distancing | 3 |
| | | P15., P25., P29., P30. Socialization effort gets in the way of measures | 4 |
| | Effects of the Pandemic | P7. Precautions are forgotten because of the closeness between friends | 1 |
| | | P3., P6., P13., P14., P24. They are nervous about the risk of infection | 5 |
| | | P10., P13., P15. They are stagnant due to the pandemic, their vital energy has been extinguished | 3 |
| | | P6., P20. We miss having fun | 2 |
| | | P11., P15. Opening schools to face-to-face education is a risk for us. | 2 |
| | | P10., P13., P21., P22., P24., P28. Due to the pandemic, people cannot behave warmly to each other | 6 |
| | | P18., P24. Communication skills are atrophied | 2 |
| | | P19. The mask prevents communication with friends | 1 |

When Table 5 was examined, it was observed that most of the participants expressed both positive and negative opinions at the same time. In this context, the observations of the participants about their friends were divided into 2 themes: positive and negative. Positive opinions were collected in 3 categories. Some participants stated that their friends generally complied with pandemic measures and were more sensitive about hygiene and cleanliness. In addition to this, it was understood that some participants were happy to have returned to face-to-face education, to be with friends and to socialize. Negative opinions, on the other hand, were collected in 2 categories. Some participants stated that their friends acted imprudently and fearlessly, did not wear masks, did not adhere to social distancing, were nervous about the risk of transmission of their friends. Another finding is that some participants thought that the life energies of friends were extinguished, the intimacy between friends was reduced, communication skills were atrophied, and the mask prevented communication. The direct statements of the participants about their observations in friends after Covid-19 pandemic are as follows:

"Getting together with our friends after a long time seems to have made everyone happy. I realized that we really miss traveling and having fun together. We are trying to spend these days as fully as possible."

(Participant 20). "Since we used to communicate with our friends digitally before, we were only getting information against the other person with a half-recognition, which we can call some prejudice or hunch. What we think about some of our friends were right, but most of them have turned out to be different. It was a cohesive environment faster than I expected, and I think it will be even better in the future." (Participant 5). "People have become stagnant, as if their life energy has been extinguished. When I observe the friends in my class, I see a little concern on their faces. We have a concern because of the distance education process we have left in the past. There is a candid sincerity towards each other, but unfortunately, we cannot show it. The act of hugging or shaking hands was compulsorily abandoned." (Participant 10).

5. Findings on Students' Observations about Their Environment in Post Covid-19 Pandemic

It was found that the opinions of the participants about their environment were generally negative, and some participants had both positive and negative opinions at the same time. The findings of the participants' observations about their environment are given in Table 6.

Table 6. Findings on students' observations about their environment in post Covid-19 pandemic

| Theme | Category | Code | f |
|---|---|---|---|
| Positive | Compliance with Pandemic Measures | P1., P6. In general, the pandemic rules are followed | 2 |
| | | P17., P30. The environment is cleaner | 2 |
| | Satisfaction with the partial abolishing of measures | P6. The streets are full, people are chirping | 1 |
| | | P6. Shopkeepers are happier now | 1 |
| No change | P5., P6. I did not observe any noticeable change in my surroundings | 2 | |
| Negative | Failure to comply with pandemic measures | P9., P11., P15., P21., P31. They act imprudently and fearlessly | 5 |
| | | P2., P3., P8., P21., P28. People are not wearing masks | 5 |
| | | P2., P13., P21., P28. They do not obey social distancing | 4 |
| | | P3., P13., P21., P25., P28. There is a comfort of being vaccinated | 5 |
| | | P13. There are some people who resist not to be vaccinated | 1 |
| | Psychological effects of the pandemic | P6., P13., P31. People are tired of the pandemic | 3 |
| | | P7., P11., P20., P22., P24., P25., P31. People are nervous and unhappy | 7 |
| | | P7., P21., P22. People treat each other more coldly now | 3 |
| | Social effects of the pandemic | P12., P21. Individualization increased | 2 |
| | | P7. Behind the masks, people's faces cannot be seen | 1 |
| | | P10., P23., P26. Roads and sidewalks that need to be done on time are being made, construction is disturbing | 3 |
| | | P14. After staying at homes for a long time, it is difficult for people who are used to indiscipline to return to social life | 1 |
| | Economic effects of the pandemic | P7., P10., P15., P20., P22. There is indifference, no matter what will happen | 5 |
| P15., P25. Shopkeepers are trying to take their losses revenge during the pandemic period from the students | | 2 | |
| | | P4., P25. Life is more expensive now | 2 |

When Table 6 was examined, the observations of the participants about their environment were divided into 2 themes: positive and negative. Positive opinions were collected in 2 categories. Some participants stated that the people around them complied with the pandemic measures, the environment was cleaner than before, they were happy that the streets were full of people and the shopkeepers were able to earn money again. On the other hand, there are participants who indicate that

there is no change in their surroundings. Negative opinions were collected in 4 categories. Some of the participants stated that the people acted imprudently and casually, the people did not wear masks, they did not obey social distancing, it was wrong to repair things when students arrived. Some participants stated that it was a comfort to be vaccinated in people, while some people resisted not to be vaccinated. In addition, some participants thought that the pandemic had psychological effects, people were tired of the pandemic, they were nervous and unhappy, people treated each other more coldly, and individualization increased. Another finding is that some participants were negatively affected by the social effects of the pandemic, and people had difficulty getting used to life again after staying at homes for a long time. Some participants, on the other hand, stated that some tradesmen were trying to take the losses of Covid-19 pandemic revenge from the students and life was more expensive than before. The direct statements of the participants about their observations in the environment after Covid-19 pandemic are as follows:

“When I look around, people are generally on their own. In this situation, in fact, people have become afraid of each other. When I came in the first year, I met more friendly people. Everyone was smiling at each other, saying “hello.” Now, we can no longer see them through the masks either.” (Participant 7). “When I observe my environment, many people say that the starting of schools has caused the problem of indiscipline in students to arise. They express that most of the negative behaviours of the students who are closed in the houses for a long time, which are ignored in this process, reflect negatively on the school. It seems that it will take a long time for students who have been provided with everything they want in the home environment and who do not feel responsible for it to adapt to the school environment again.” (Participant 14). “During this period, when people should pay more attention to cleanliness, they do not even wear masks, relying on the vaccine. I am afraid that this will lead to very big problems in the future. I do not want to go back to the house again. I want to continue my schooling face to face.” (Participant 21).

Discussion and Conclusion

According to the results obtained from the findings of the research, it can be said that during the normalization process, students' observations about school after Covid-19 pandemic were partially positive and mostly negative. Similar to the results of the research, students evaluated both positive and negative changes in school after returning to face-to-face education (Demir Öztürk, et al., 2020), research highlighting the positive and negative aspects of university students (Han and Demirbilek, 2021), school principals and teachers (Han, Demirbilek, and Demirtaş, 2021) in the distance-education process during the Covid-19 pandemic has been identified. As a result of the research, when looking at the positive situations related to the school, students are satisfied with the measures taken at school, that students behave carefully and comply with the measures, and that the hours of classes are divided and taken to classes as groups. Prospective teachers consider it positive to have fulfilled their aspirations for school by returning to face-to-face education and to perform in a respectful way of dealing with an orderly and regularly understanding of the school environment. It has been stated that the longings of students to school have increased (Karaboğa and Güloğlu, 2022) and the number of students should be reduced (Korkut and Memişoğlu, 2021; Özdoğan and Berkant, 2020; Toptaş and Öztop, 2021) in a way that supports the research results. Regardless of the research results, when we look at the research that emphasizes the positive aspects of the distance education process also provides flexibility related to space, time and transportation (Almaghaslah and Alsayari, 2020; Alanoğlu and

Doğan Atalan, 2021; Özdoğan and Berkant, 2020; Purwanto, Asbari, Fahlevi, Mufid, Agistiawati, Cahyono, and Suryani, 2020) have been identified.

Looking at the negative situations related to school after the Covid-19 pandemic, university students stated that Covid-19 pandemic precautions were not followed, masks were not worn, crowded environments and areas such as shared toilets were not cleaned adequately. Again, from the statements of the students, it is understood that human relations have weakened during this coronavirus process, they treat each other coldly, people are negatively affected in a social sense because there is almost no communication. It is observed that there are many studies in the literature that coincide with the research finding. Kara, and Bozkurt (2021) drew attention to the fact that the mask, distance and cleaning rules were not followed in schools during the Covid-19 pandemic, and cleaning and hygiene problems were experienced. Yolcu (2020), on the other hand, found that there was a lack of social interaction and difficulties in communication. According to the research conducted by Zhang, Wang, Yang, and Wang (2020), it was found that job motivation has decreased. It is understood that teachers feel inadequate due to lack of knowledge, difficulties in reaching students (Kaden, 2020), students are psychologically negatively affected and have difficulty focusing on the lesson (Wang, Cheng, Yue, & McAleer, 2020). Although there are advantages of distance education applied, it has been shown that face-to-face education is more efficient (Adnan & Anwar, 2020; Bozkurt & Aktaş, 2022; Çiçek et. al., 2020; Kedraka & Kaltsidis, 2020). As a result, it is consistent with other research findings that the Covid-19 pandemic has a negative impact on classes, and students understand the value of face-to-face education at school. After the Covid-19 pandemic, it can be said that not enough efficiency can be obtained from the lessons because the lessons are taught with a mask for hours, half of the lessons continue online remotely, and the continuation of repairs at school negatively affects the lessons.

The findings obtained from the observations of the students about the dormitory where they are residing after the Covid-19 pandemic are mostly negative. Students staying in dormitories are not satisfied with the situations they are living in. They stated that pandemic precautions were not followed in the dormitory, masks were not worn and social distancing was not observed. It is also understood that the food queues are long and crowded, they cannot eat enough due to the bad food, their dorm rooms are crowded, the rooms are not cleaned enough, they have problems with the Internet, more people than the specified number of people get on the elevator, and repairs that need to be made have not been made in advance. When the literature was examined, there were no research results related to the situations experienced in dormitories and lodgings after Covid-19. However, similar to the research results, it has been found that there are limited Internet access opportunities and data support problems in the Covid-19 process (Dutta & Smita, 2020; Er Türküresin, 2020; Kürtüncü & Kurt, 2020; Wang et al., 2020; Arıkan & AYTEKİN, 2022). It may be that students who stay at home do not express opinions, do not have any problems related to the Covid-19 pandemic, or do not want to provide information about the home environment. It is understood that the students staying in the lodging are satisfied with their situation and find the apartment prices expensive. When the literature was examined, Turgut's (2022) research was found in parallel with the research finding. In this study, it was found that students who returned home within the scope of health measures during the Covid-19 pandemic usually did not like food in the dormitory environment and had to consume a lot of packaged food, and as a result, their health deteriorated. It has also been determined that they returned home to avoid paying the rent of the dormitory, apartment or house. As a result, it is observed that students staying in crowded environments such as dormitories have difficulty complying with the pandemic rules. It is understood

that students staying in dormitories after the Covid-19 pandemic face much more problems than students staying in lodgings. It can be said that the lodging and home environment is more comfortable and reliable compared to dormitories.

It is observed that the students' observations about the family after Covid-19 pandemic were partly positive and mostly negative. Some students are satisfied with the fact that their families pay attention to the risk of infections and their families are happy that they have returned to face-to-face education. Similar to the research results of Talidong and Toquero (2020), family support generates positive emotions on teachers and students. In this sense, families provide all kinds of support to their children. Erbaş (2021) and Özyürek and Çetinkaya (2021) found out that the return of students to school after the pandemic made families happy despite all the concerns. As a result, after the Covid-19 pandemic, it seems that students are satisfied with the compliance and support of families with the measures taken.

From the statements of students who mostly expressed negative opinions in their observations about the students' family after the Covid-19 pandemic, it is understood that families are worried about the risk of transmitting the Covid-19 virus to their children at home and at school and are dissatisfied with the face-to-face education because of costs. Considering that the effects of the Covid-19 pandemic have not fully passed, it is normal for families to be concerned about transmitting the virus to their children. It is observed that there are many studies in the literature that reveal the direct or indirect relationship of the research finding. Karataş (2020) found that the feelings of family members are more important in the Covid-19 pandemic. Turgut (2022), on the other hand, found that university students are worried about infecting their families with diseases. Another result of the research is that families are worried because face-to-face education is expensive. Arıkan and AYTEKİN (2022) found in their research that people are afraid of losing their jobs during the Covid-19 pandemic. When the literature was examined in the context of the research results, Arıkan and AYTEKİN (2022) found that people are afraid of losing their jobs during the Covid-19 pandemic. For this reason, people are nervous when coming to and going to work and experience some economic concerns. This situation negatively affects people in society from social, educational and economic points of view (Çakın, Külekçi, & Akyavuz, 2020). In another study, it is also observed that the functionality of the family and the child decreases with the poor families facing problems such as access to health services and distance from the social environment during the pandemic (Cibir, 2022). In addition, it has been determined that individuals with low socioeconomic levels experience more conflicts than individuals with medium socioeconomic levels (Kayak, Uğurlu, & Çetinkaya Büyükbodur, 2022). This may have made the life of children of low-income families, in particular, even more difficult due to pandemic conditions (Chabbott & Sinclair, 2020; Kaden, 2020; Lancker & Parolin, 2020; Masonbrink & Hurley, 2020).

Students' observations about their friends after Covid-19 pandemic are both positive and negative. When the literature is examined, it shows similarities with the researches that reveal the positive or negative aspects related to the psychological and social effects of the pandemic (İnce & Yılmaz, 2021; Koca & Tural, 2021). Among the positive opinions, students are satisfied with the presence of friends who follow the pandemic rules, pay attention to hygiene as well as having switched from online education to face-to-face education, reuniting with friends and socializing. Other researches related to the research result were examined. In this context, Koca and Tural (2021) in the Covid-19 process, while it is considered positive that people can access socializing areas in multiple virtual

environments on online platforms, the lack of social interaction can also be considered a negative situation due to the fact that a person is a social being. İnce, and Yılmaz (2021), on the other hand, along with physical and social isolation, it is quite natural for people to show behavior aimed at protecting themselves from the epidemic by not shaking hands, hugging or making face-to-face meetings. This result coincides with the research result.

Among the negative opinions about friends are that their friends behave fearlessly and imprudently, do not conform to social distance and are in an effort to socialize. Students are uncomfortable with these situations. When the research in the literature is examined, it supports the research results. Restricted movement and peer interaction, difficult social distance measures cause the teaching activities of the courses to decrease (Küçükakın, Göloğlu Demir, & Gökmenoğlu, 2022). In another finding, it was found that students experience psychological anxiety in order to protect themselves during the pandemic (Cao, Fang, Hou, Han, Xu, Dong, and Zheng, 2020), and the pandemic process significantly affects the students' circle of friends (Cantekin & Arpacı, 2020). As a result, it is understood that the Covid-19 pandemic precautions are largely not followed between friends, they are nervous about the risk of transmission even through contact with friends and they cannot show intimacy to each other.

Students mostly expressed negative opinions in their observations about the environment after Covid-19 pandemic. They think that people are tired of the pandemic, they treat each other coldly, they are nervous and unhappy, and individualization has increased. The results of the research conducted also support the results of the research. The transition to distance education causes anxiety in teachers (Talidong and Toquero, 2020), they are worried about the future of the teaching profession (Kaden, 2020; Alves, Lopes, and Precioso, 2021), and teachers working in schools where job security is low have high levels of anxiety, stress and depression during the pandemic (Aruta et al., 2022) has been determined. Many universities around the world have switched to emergency distance education through online platforms during the Covid-19 pandemic. This has caused more anxiety among university students (Sundarasan, Chinna, Kamaludin, Nurunnabi, Baloch, Khoshaim, Hossain, & Sukayt, 2020). In his research, Demir et al. (2022) determined that the negative behaviors of the students caused by the increase in Internet games and social media usage in the distance education process continue in the face-to-face education process, they experience difficulties in complying with school and classroom rules, communication.

As a result, with the decrement of interaction between people and the increase of individualization in the Covid-19 pandemic, it can be said that it brings with it some negative psychological and social consequences. From the observations of university students, it is understood that those who are vaccinated behave comfortably, and other people are uncomfortable with this situation. It has been determined that social communication difficulties are experienced because people's faces are not visible due to masks, and signs of indiscipline are seen in people due to staying at home for a long time. Similar to the results of the research, İnce and Yılmaz (2021) stated that wearing a mask in a pandemic negatively affects the interaction because it covers the face and prevents the appearance of gestures and facial expressions. In studies (Kılıç, 2020; Yurtsever, 2020; Küçükakın, Göloğlu Demir, and Gökmenoğlu, 2022) stated that interaction opportunities decreased during the transition to distance education during the pandemic and almost ended social interaction. In addition, it can be said from the research results that teachers' motivation decreases, and their anxiety increases

with the use of digital tools. As a result, after the Covid-19 pandemic, university students stated that the effects of the pandemic have generally left negative effects, life has become expensive, and people's economic concerns have increased. On the other hand, it can be said that shopkeepers are trying to eliminate their economic losses and are happy to have people around.

Recommendations

Based on the results of the research, the following recommendations can be made:

Measures aimed at post-Covid-19 pandemic can be taken, supervised and controlled in universities and dormitories. It is recommended to pay attention to the seating arrangement in closed environments such as classrooms for the Covid-19 pandemic at universities, and teachers and students should be sensitive about this issue.

It is necessary to warn those who do not comply with masks, social distancing and hygiene in dormitories and lodgings, and to apply the necessary sanctions to those who do not comply. It is expected that measures will be taken in the dining hall to prevent queues from forming during the meal of students and to ensure social distancing. It is recommended to pay attention to the high level of cleanliness of the rooms in the dormitories and to constantly ventilate them. It is necessary to solve the Internet problem in dormitories and to implement applications that will overcome the problem of socialization in online courses conducted through distance education.

The necessary supports may be provided to bring university students deprived of social life during the Covid-19 pandemic into social life during the normalization process. Considering that life has become expensive during the Covid-19 pandemic, when the economy has been negatively affected, supporting students and the entire community in an economic sense will contribute to people's relief. Anxious people who are tired of the Covid-19 pandemic may be provided with the social, affective, psychological and economic supports necessary for them to be happy.

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Author 2: 50%

The first author contributed to the creation of the research idea, the planning of the theoretical part, the determination of the method, the collection of data, the evaluation and conclusion of the article. The second author, on the other hand, contributed to the article in writing process with literature review, data analysis, findings, conclusion and discussion.

Conflict Statement

There is no conflict of interest that the authors will declare in the research.



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Üniversite Öğrencilerinin Covid-19 Pandemi Sonrasına Yönelik Yaşadıkları Durumların İncelenmesi

Giriş

Covid-19 pandemisinin eğitim üzerine etkilerini konu alan çok sayıda yerli ve yabancı araştırmaların (Bozkurt, 2020; Daniel, 2020; Livari, Sharma ve Venta Olkkonen, 2020; Tarkar, 2020; Aktan Acar, Erbaş ve Eryaman, 2021; Pressley, 2021; Saygı, 2021; Aruta, Balingit ve De Vera, 2022; Demir, Dağ, Çelik, Gürsoy ve Temur, 2022; Gökmenoğlu ve Doğan, 2022; Sarışık, Gürel, Uslu ve Dönmez, 2022) olduğu görülmektedir. Bu araştırmaların çoğunluğu dönemselsel olarak pandeminin ilk ortaya çıktığı ve tüm dünyada yaygınlaştığı ve yüz yüze eğitime ara verildiği dönemi kapsamaktadır. Buna karşın pandemi tedbirlerinin kısmen kaldırıldığı ve yüz yüze eğitime geçildikten sonra pandeminin eğitim üzerine etkilerini araştıran bilimsel çalışmaların sayısının azaldığı söylenebilir. Ayrıca Covid-19 pandemisinin eğitim üzerine etkilerini konu alan araştırmalar ağırlıklı olarak uzaktan eğitimin etkileri üzerine yoğunlaşmıştır.

Covid-19 pandemisi nedeniyle bir buçuk sene yüz yüze eğitime ara verilmiştir. 2021-2022 eğitim ve öğretim yılının başında, tüm eğitim kademelerinde yeniden yüz yüze eğitime başlanmıştır. Covid-19 pandemi sonrasını öğrencilerin nasıl algıladığı, ailede, apartta, yurttta, okulda ve çevrede geçiş sürecini nasıl değerlendirdiği henüz bilimsel araştırmaların konusu olmadığından yeterince bilinmemektedir. Bu nedenle bu araştırma önemlidir. Araştırmada, yüz yüze eğitime dönüş kapsamında üniversite öğrencilerinin Covid-19 pandemi sonrasına yönelik yaşadıkları durumların ortaya konulması amaçlanmaktadır. Bu kapsamda üniversite öğrencilerinin Covid-19 pandemisi sonrasında, yeniden yüz yüze eğitime geçişteki yaşadıkları durumlar ortaya çıkarılmaya çalışılmıştır. Bu bağlamda araştırmada, üniversite öğrencilerinin öğrenim gördükleri okulda; ikamet ettikleri evde, yurttta, apartta; aile ortamlarında, arkadaşlarıyla ilişkilerinde ve çevrelerinde gözlemledikleri durumlar, üniversitede öğrenci olan öğretmen adaylarının görüşlerine dayalı olarak belirlenmeye çalışılmıştır.

Yöntem

Bu araştırma nitel araştırma yaklaşımlarından açıklayıcı/ tanımlayıcı durum çalışması modelinden yararlanılarak gerçekleştirilmiştir. Araştırmada, üniversitede okuyan öğretmen adaylarının Covid-19 pandemi sonrasında yüz yüze eğitime dönüş sürecini değerlendirmeleri, onların bu süreçte yaşadıkları durumları detaylıca ve bir bütün olarak ortaya koymaları amaçlanmıştır. Araştırmanın çalışma grubunu Nevşehir Hacı Bektaş Veli Üniversitesi'nde öğrenim gören gönüllü toplam 31 üniversite öğrencisi oluşturmaktadır. Araştırmanın verileri 5 adet açık uçlu sorudan oluşan yarı yapılandırılmış görüşme formu aracılığıyla toplanmıştır. Görüşme formundaki sorular hazırlanırken alanyazından yararlanılmış, hazırlanan görüşme soruları üç akademisyene sorulmuş ve görüşleri alınarak, soruların açık ve anlaşılır olmasına özen gösterilmiştir. Bu bağlamda görüşme formunda şu sorulara cevaplar aranmıştır: Okuldaki gözlemlerinizi nelerdir? Kaldığınız Ev, Apart veya Yurtla ilgili gözlemlerinizi nelerdir? Ailenizdeki gözlemlerinizi nelerdir? Arkadaşlarınızdaki gözlemlerinizi nelerdir? Çevrenizdeki gözlemlerinizi nelerdir?

Çalışma grubundaki katılımcılardan gelen görüşme formları yazıcıdan çıktıları alınmış, her bir görüşme formu (K1, K2, K3,....., K31) şeklinde numaralandırılarak kodlama yapılmıştır. Böylece katılımcıların gizliliğini korunmuştur. Sosyal bilimlerde ve nitel araştırmalarda sıklıkla kullanılan ve yararlanan içerik analizi tekniği kullanılmıştır (Hsieh & Shannon, 2005). İçerik analizi, belli kurallara göre kodlamaların yapıldığı ve sözcüklerin kategoriler ile özetlendiği yinelenebilir sistematik bir yöntemdir (Büyüköztürk vd., 2020). Her bir katılımcının görüşme formları detaylı olarak incelenmiş, veriler tek tek analiz edilmiş, belirlenen tema, kategori ve kodlara ayrılmıştır. Böylece elde edilen bilgiler derinlemesine analiz edilmiş ve araştırmanın bulgularında verilerin sıklık durumunu gösteren frekansları (f) da dikkate alınarak veriler tablolarda açıklanmış ve yorumlanmıştır. Veriler içerik analiziyle detaylı olarak açıklanmış; iç geçerlilik ve güvenilirliğin sağlanması için katılımcılardan elde edilen sonuçlar üç akademisyen uzman tarafından kodlanmıştır. Sonuç olarak, Miles ve Huberman'ın (1994) kodlayıcılar arası güvenilirlik uyumu .89 olarak hesaplanmıştır.

Bulgular

Öğrencilerin Covid-19 pandemisi sonrasında ilişkin okulla ilgili gözlemlerine yönelik bulgular incelendiğinde, katılımcıların okul ile ilgili gözlemleri olumlu ve olumsuz 2 tema altında toplanmıştır. Bu bağlamda olumlu görüşler 2 kategoride ele alınmıştır. Bulgulardan elde edilen verilere göre, katılımcıların yeniden yüz yüze eğitime dönmüş olmaktan, okul özlemini gidermekten ve saygılı okul ortamından memnun oldukları anlaşılmaktadır. Bununla birlikte okulda alınan pandemi tedbirlerinden de memnun oldukları görülmektedir. Bu bağlamda, öğrencilerin koronavirüse karşı dikkatli davranmalarından, sınıflarda kalabık olmayı önlemek için bölünerek derslerin işlenmesinden ve okula girişte ateş ölçümünün yapılmasından memnundurlar. Olumsuz görüşler ise 4 kategoride ele alınmıştır. Bunlar: Pandeminin okulda alınan tedbirlere yönelik etkisi, sosyal ilişkilere yönelik etkisi, derslere yönelik etkisi ve günlük hayata yönelik etkisidir. Bazı katılımcılar, okulda alınan tedbirlerin yeterli olmadığını, maske, mesafe ve hijyen kurallarına riayet edilmediğini düşünmektedir. Bir diğer bulgu ise pandemi sonrasında bile insanların birbirine soğuk ve mesafeli davranışlarının olduğunu belirtmişlerdir. Bununla birlikte bazı katılımcılar, derslerin yeterince verimli işlenemediğini, bazı derslerin çevrimiçi uzaktan devam ettiğini ve verilen eğitimden yeterli faydayı elde edemediklerini ifade etmişlerdir. Pandemi sonrasında duyulan endişelerden kaynaklı tedbir amaçlı etkinliklerin yapılmaması da günlük hayatı olumsuz etkilemektedir.

Covid-19 pandemisi sonrasında ilişkin apart veya yurttan kalan öğrenciler gözlemlerini paylaşmışlardır. Evde kalan öğrencilerin görüş beyan etmediği belirlenmiştir. Apartlarda kalan katılımcıların görüşlerinin genelde olumlu olduğu, yurtlarda kanların ise genelde olumsuz olduğu söylenebilir. Bu bağlamda katılımcıların ev, apart veya yurt ile ilgili gözlemleri olumlu ve olumsuz görüşler altında 2 temada toplanmıştır. Olumlu görüşler 3 kategoride analiz edilmiştir. Bazı katılımcıların yurttan alınan pandemi tedbirlerini yeterli ve yerinde gördükleri, yurtlarını beğendikleri ve burada kalmaktan memnun oldukları anlaşılmaktadır. Olumsuz görüşler ise 3 kategoride analiz edilmiştir. Bazı katılımcılar, yurttan alınan pandemi tedbirlerini yeterli bulmamaktadır ve öğrencilerin bu tedbirlere yeterince uymadıklarını düşünmektedir. Bir diğer bulgu ise bazı katılımcılar yurttaki farklı tür sorunlardan rahatsız olduğunu, apartların hizmetlerinin yeterli olduğu ve ücretlerinin de pahalı olduğunu belirtmiştir.

Öğrencilerin Covid-19 pandemisi sonrasında ilişkin ailesiyle ilgili gözlemlerine yönelik bulgulara bakıldığında, katılımcıların aileler ile ilgili gözlemleri olumlu ve olumsuz görüşler şeklinde 2 temada toplanmaktadır. Bu bağlamda olumlu görüşler 3 kategoride incelenmiştir. Katılımcılar genel olarak yüz yüze eğitime dönüşten ailelerinin memnuniyet duyduğunu, aile üyelerinin bulaş riskine karşı dikkatli davrandığını, ailesinin davranışlarında pandemi öncesi ve sonrasında bir farklılık olmadığını belirtmişlerdir. Olumsuz görüşler ise 3 kategoride incelenmiştir. Bazı katılımcılar bulaş riskinden dolayı ailelerin endişe duydukları, çocuklarının okulda, yurttan veya diğer sosyal alanlarda virüs bulaş riskine karşı endişe içinde oldukları belirtilmiştir. Bir diğer bulgu ise, katılımcılar yüz yüze eğitimle birlikte masraflarının arttığını ve ailelerin ekonomik olarak zorlandıklarını ifade etmişlerdir.

Covid-19 pandemisi sonrasında ilişkin arkadaşlarıyla ilgili gözlemlerine bulgular incelendiğinde, katılımcıların çoğunun aynı anda hem olumlu hem de olumsuz görüşler beyan ettiği gözlemlenmiştir. Bu bağlamda katılımcıların arkadaşları ile ilgili gözlemleri olumlu ve olumsuz 2 tema altında toplanmıştır. Olumlu görüşler 3 kategoride ele alınmıştır. Bazı katılımcılar, arkadaşlarının genel olarak pandemi tedbirlerine uyduklarını, hijyen ve temizlik konusunda daha hassas davrandıklarını ifade etmişlerdir. Bununla birlikte bazı katılımcıların yüz yüze eğitime dönmüş olmaktan memnun oldukları, arkadaşlarıyla kavuşmuş olmaktan ve sosyalleşmekten memnun oldukları anlaşılmaktadır. Olumsuz görüşler ise, 2 kategoride ele alınmıştır. Bazı katılımcılar, arkadaşlarının tedbirsiz ve rahat hareket ettiklerini, maske takmadıklarını, sosyal mesafeye uymadıklarını, arkadaşlarının bulaş riskine karşı tedirgin olduklarını belirtmişlerdir. Bir diğer bulgu ise bazı katılımcılar arkadaşların hayat enerjilerinin sönmüş olduğunu, arkadaşlar arasındaki samimiyetin azaldığını, iletişim becerilerinin körelmiş olduğunu ve maskenin iletişimi engellediğini düşünmektedir.

Öğrencilerin Covid-19 pandemisi sonrasında ilişkin çevresiyle ilgili gözlemlerine yönelik bulgulara bakıldığında, katılımcıların çevresi ile ilgili gözlemleri olumlu ve olumsuz 2 temada toplanmıştır. Bu bağlamda olumlu görüşler 2 kategoride analiz edilmiştir. Bazı katılımcılar, çevresindeki insanların pandemi tedbirlerine uyduklarını, çevrenin eskisine göre daha temiz olduğunu, sokakların insanlarla dolu olmasından ve esnafın yeniden para kazanabildiklerinden dolayı mutlu olduklarını ifade etmişlerdir. Diğer taraftan çevresinde herhangi bir değişimin olmadığını belirten katılımcılarda vardır. Olumsuz görüşler ise 4 kategoride analiz edilmiştir. Katılımcılardan bir kısmı, çevredeki insanların tedbirsiz ve rahat hareket ettiklerini, çevredeki insanların maske takmadıklarını, sosyal mesafeye uymadıklarını, çevre düzenlemesi için öğrencilerin geldiği zamanın seçilmesinin yanlış olduğunu belirtmiştir. Bazı katılımcılar, insanlarda aşı olmanın verdiği bir rahatlık olduğunu, bazı

insanların ise aşı olmamak için direndiğini ifade etmiştir. Bununla birlikte bazı katılımcılar, pandeminin psikolojik etkilerinin olduğunu, insanların pandemiden bıkmış olduğunu, tedirgin ve mutsuz olduğunu, insanların birbirlerine daha soğuk davrandıklarını ve bireyselleşmenin arttığını düşünmektedir. Bir diğer bulgu ise, bazı katılımcıların pandeminin sosyal etkilerinden olumsuz etkilendiği, insanların uzun süre evlerde kaldıktan sonra yeniden hayata alışmakta zorlandığı anlaşılmaktadır. Bazı katılımcılar ise, Covid-19 pandemisinin kapanma dönemindeki zararlarını bazı esnafların öğrenciden çıkartmaya çalıştığını ve hayatın eskiye nazaran daha pahalı olduğunu ifade etmişlerdir.

Tartışma ve Sonuç

Araştırmanın bulgularından elde edilen sonuçlara göre, normalleşme sürecinde *öğrencilerin Covid-19 pandemi sonrasında ilişkin okulla ilgili gözlemlerinin* kısmen olumlu ve çoğunlukla da olumsuz yönde olduğu söylenebilir. *Olumlu olan* durumlara bakıldığında, öğrenciler okulda alınan tedbirlerden, öğrencilerin dikkatli davranıp tedbirlere uyduğundan ve ders saatlerinin bölünerek, sınıflara gruplar olarak alınmasından memnundurlar. Öğretmen adayları yüz yüze eğitime dönerek, okula olan özlemlerini gidermiş olmayı ve okul ortamının düzenli ve kurallı bir anlayışla saygılı yürümesini olumlu olarak görmektedir. Araştırma sonuçlarını destekler şekilde yapılan araştırmalarda da öğrencilerin okula olan özlemlerinin arttığı (Karaboğa ve Güloğlu, 2022), öğrenci sayılarının azaltılması gerektiği (Korkut ve Memişoğlu, 2021; Özdoğan ve Berkant, 2020; Toptaş ve Öztop, 2021) belirtilmiştir.

Öğrencilerin pandemi sonrası okulda yaşadıkları olumsuz durumlar ise üniversite öğrencileri, Covid-19 pandemi tedbirlerine uyulmadığını, maske takılmadığını, kalabalık ortamların olmasını ve ortak kullanılan tuvalet gibi alanların yeterince temizlenmediğini belirtmişlerdir. Yine öğrencilerin ifadelerinden bu koronavirüs sürecinde insan ilişkilerinin zayıflamış olduğu, birbirine soğuk davrandığı, iletişimin neredeyse olmadığı için insanların sosyal anlamda olumsuz etkilendikleri anlaşılmaktadır. Covid-19 pandemi sonrasında, saatlerce maskeyle ders işlendiği için derslerden yeterince verim alınmadığı, derslerin yarısının çevrimiçi uzaktan devam ettiği, okulda tamiratların devam etmesinin derslerini olumsuz etkilediği, günlük hayatın da sıkıcı ve zor bir hale geldiği tespit edilmiştir. Literatürde araştırma bulgusu ile örtüşen araştırmaların olduğu görülmektedir. Kara ve Bozkurt (2021) Covid-19 pandemisinde okullarda maske, mesafe, temizlik kuralına uyulmadığını; temizlik ve hijyen sorunlarının yaşandığını, Yolcu (2020) ise, sosyal etkileşim eksikliği ve iletişimde zorluklar yaşandığını saptamıştır. Öğretmenlerin öğrencilere ulaşmada zorluk yaşadıkları (Kaden, 2020); öğrencilerin ise derse odaklanmada zorlandıkları (Wang, Cheng, Yue ve McAleer, 2020) anlaşılmaktadır.

Öğrencilerin Covid-19 pandemi sonrasında ilişkin ikamet ettiği yurtla ilgili gözlemlerinden elde edilen bulgular çoğunlukla olumsuz yöndedir. Yurtlarda kalan öğrenciler yaşadıkları durumlardan memnun değillerdir. Yurtta pandemi tedbirlerine uyulmadığını, maske takılmadığını ve sosyal mesafeye uyulmadığını belirtmişlerdir. Ayrıca yemek kuyruklarının uzun ve kalabalık olduğu, yemeklerin kötü olmasından dolayı yeterli beslenemedikleri, yurttaki odalarının kalabalık olması, odaların yeterince temizlenmediği, internette sorun yaşadıkları, asansöre belirtilen kişi sayısından fazla kişinin bindiği ve yapılması gereken tamiratların önceden yapılmadığı anlaşılmaktadır. Evde kalan öğrencilerin görüş beyan etmemeleri, Covid-19 pandemisiyle ilgili herhangi bir sorun yaşamamalarından veya ev ortamıyla ilgili bilgi vermek istememelerinden kaynaklanıyor olabilir. Covid-19 sonrası yurt ve apartlarda yaşanan durumlarla ilgili araştırma sonuçlarına rastlanmamıştır. Apartta kalan öğrencilerin durumlarından memnun olduğu, apart fiyatlarını da pahalı buldukları anlaşılmaktadır. Bu bulgulardan hareketle özellikle yurtlar gibi kalabalık ortamlarda kalan öğrencilerin Covid-19 pandemi kurallarına

uymakta zorlandıkları, apartlarda kalan öğrencilere göre çok daha fazla sorunla karşı karşıya oldukları söylenebilir.

Öğrencilerin Covid-19 pandemi sonrasına ilişkin ailesiyle ilgili gözlemlerinin kısmen olumlu çoğunlukla da olumsuz olduğu görülmektedir. Olumlu yönde görüş bildiren öğrenciler, bulaş riskine ailelerin dikkat etmesinden ve yüz yüze eğitime dönmüş olmaktan dolayı ailelerin memnun olduğu tespit edilmiştir. Araştırma sonuçlarına benzer şekilde Talidong ve Toquero (2020) aile desteği, öğretmen ve öğrenciler üzerinde olumlu duygular oluşturmaktadır. Bu anlamda aileler çocuklarına her türlü desteği sağlamaktadırlar. Erbaş (2021) ve Özyürek ve Çetinkaya'nın (2021) çalışmalarında pandemi sonrasında öğrencilerin okula dönmelerinin tüm endişelere rağmen aileleri mutlu ettiği sonucu bulunmuştur. Öğrencilerin Covid-19 pandemi sonrasına ilişkin ailesiyle ilgili gözlemlerinde çoğunlukla olumsuz görüş bildiren öğrencilerin ifadelerinden yurttan ve okulda Covid-19 virüsünün çocuklarına bulaşma riski nedeniyle ailelerin endişelendikleri ve yüz yüze eğitimin masraflı olması nedeniyle memnun olmadıkları anlaşılmaktadır. Covid-19 pandemi etkilerinin tam olarak geçmediği düşünüldüğünde, ailelerin çocuklarına virüs bulaşma endişesi taşımaları normaldir. Literatürde araştırma bulgusun doğrudan veya dolaylı ilişkisini ortaya koyan pek çok araştırmanın olduğu görülmektedir. Karataş (2020) Covid-19 pandemisinde aile üyelerinin duygularının daha fazla önemsendiğini saptamıştır. Turgut (2022) ise, üniversite öğrencilerinin ailelerine hastalık bulaştırma endişesi taşıdıklarını tespit etmiştir.

Öğrencilerin Covid-19 pandemi sonrasına ilişkin arkadaşlarıyla ilgili gözlemleri hem olumlu hem de olumsuz yöndedir. Alanyazın incelendiğinde pandeminin psikolojik ve sosyal etkileriyle ilgili olumlu veya olumsuz yönlerini ortaya koyan araştırmalarla (İnce ve Yılmaz, 2021; Koca ve Tural, 2021) benzerlik göstermektedir. Olumlu görüşler arasında pandemi kurallarına uyan, hijyene dikkat eden arkadaşlarının varlığından, çevrimiçi eğitimden yüz yüze eğitime geçilmiş olmasından, arkadaşlarıyla yeniden kavuşmaktan ve sosyalleşmekten dolayı memnun oldukları anlaşılmaktadır. Olumsuz görüşler arasında arkadaşlarının rahat ve tedbirsiz davranmaları, sosyal mesafeye uymamaları ve sosyalleşme çabası içinde olmalarıdır. Bu durumlardan öğrenciler rahatsız olmaktadır. Ayrıca arkadaşlarıyla yaşayacağı bir temasla bile bulaş riskinin olmasından tedirgin oldukları ve birbirlerine samimiyet gösteremedikleri anlaşılmaktadır. Alan yazındaki araştırmalarda, pandemi sürecinde öğrencilerin kendini korumak amaçlı psikolojik kaygı yaşadıkları (Cao, Fang, Hou, Han, Xu, Dong ve Zheng, 2020), pandemi sürecinin öğrencilerin arkadaş çevresini önemli ölçüde etkilediği (Cantekin ve Arpacı, 2020) saptanmıştır.

Öğrencilerin Covid-19 pandemi sonrasına ilişkin çevresiyle ilgili gözlemlerinde çoğunlukla olumsuz görüş bildirdikleri belirlenmiştir. Olumsuz görüşlere bakıldığında, insanların pandemiden bıkmış oldukları, birbirine soğuk davrandıkları, tedirgin ve mutsuz oldukları, bireyselleşmenin arttığı tespit edilmiştir. Sonuç olarak Covid-19 salgınında insanlar arasındaki etkileşimin azalması ve bireyselleşmenin artmasıyla beraber, psikolojik ve sosyal anlamda bazı olumsuzlukları beraberinde getirdiği söylenebilir. Üniversite öğrencilerinin gözlemlerinden, aşı olanların rahat davrandıkları ve diğer insanların bu durumdan rahatsızlık duyduğu anlaşılmaktadır. Maskelerden dolayı insanların yüzleri görülmediğinden sosyal yönden iletişim güçlüğü yaşandığı, uzun süre evde kalmanın etkisiyle insanlarda disiplinsizlik emarelerinin görüldüğü belirlenmiştir. Ayrıca araştırma sonuçlarından dijital araçların kullanılmasıyla öğretmenlerin motivasyonunun azaldığı ve kaygılarının arttığı söylenebilir. Ayrıca Covid-19 pandemi sonrasında üniversite öğrencileri, pandemi etkilerinin genellikle olumsuz etkiler bıraktığını, hayatın pahalılaşmasını, insanların ekonomik kaygılarının arttığını ifade etmişlerdir.

Esnafın ise, ekonomik kayıplarını gidermeye çalıştıkları ve çevrede insanların olmasından mutlu oldukları söylenebilir.

Öneriler

Üniversitelerde ve yurtlarda Covid-19 pandemi sonrasına yönelik tedbirler alınabilir, denetlenebilir ve kontrol edilebilir. Öğretmen ve öğrencilerin pandemi sonrası tedbirlerine duyarlı olması önerilir. Yurtlarda ve apartlarda maske, sosyal mesafe ve hijyene riayet etmeyenlerin uyarılması, uymayanlara da gerekli olan yaptırımların uygulanması gerekmektedir. Öğrencilerin yemek sırasında oluşan kuyrukların oluşmasını engellemek için yemekhanede tedbirlerin alınması ve sosyal mesafenin sağlanması beklenmektedir. Yurtlardaki odaların üst seviyede temizliğine özen gösterilmesi ve sürekli havalandırılması önerilir. Yurtlarda internet sorununun çözülmesi ve uzaktan eğitim yoluyla yapılan çevrimiçi derslerdeki sosyalleşme sorununu açacak uygulamalar gerekmektedir.


Covid-19 pandemi sürecinde sosyal hayattan yoksun kalan üniversite öğrencileri normalleşme sürecinde sosyal hayata kazandırılması için gerekli olan destekler sağlanabilir. Covid-19 pandemi sürecinde ekonominin olumsuz anlamda etkilendiği hayatın pahalı bir hal aldığı düşünülürse, öğrencilerin ve tüm toplumun ekonomik anlamda desteklenmesi, insanların rahatlamasına katkı sağlayacaktır. Covid-19 salgınından bıkmış olan tedirgin insanların, mutlu olabilmeler için gerekli olan sosyal, duyuşsal, psikolojik ve ekonomik destekler sağlanabilir.




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Determination of Four Operation Symbol Errors of Primary School Students and Solution Suggestions*

 Halil Önal, Assist. Prof. Dr., Corresponding Author
Burdur Mehmet Akif Ersoy University, Türkiye
halional@mehmetakif.edu.tr
Orcid ID: 0000-0001-6983-3842

 Oktay Aydın, Assist. Prof. Dr.
Marmara University, Türkiye
oaydin@marmara.edu.tr
Orcid ID: 0000-0003-4927-7708

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Abstract

The aim of this study is to determine the symbol errors made by primary school first and second grade students in four operations content. The model of the research is a case study, one of the qualitative research methods. Study group, the sample consists of 327 students studying at the first and second grade levels of primary school, selected through criterion sampling, one of the purposive sampling methods. As a result of the analysis, within the category of symbol errors; "perceiving the minus (-) sign as a plus (+) sign", "perceiving the plus (+) sign as a minus (-) sign", "mistaking the equal (=) sign", "writing number symbols incorrectly", "using the operation line in the wrong place", "not using the operation line", "not using the operation symbol", "confusing the places of the operation symbols", "perceiving the multiplication (x) sign as a plus (+) sign", "perceiving the division (÷) sign as a minus (-) sign", "perceiving the plus (+) sign as a multiplication (x) sign", "perceiving the multiplication (x) sign as a division (÷) sign", "perceiving the minus (-) sign as a division (÷) sign" error types determined. Among these symbols errors, it was determined that the error of perceiving the minus (-) sign as plus (+) was made by the first-grade students at the highest rate. By the second-grade students, it was concluded that the error of perceiving the multiplication (x) sign as a plus (+) sign was made at the highest rate.

Keywords: Primary school, mathematics teaching, four operations, symbol, error.

Introduction

At an early age, learning mathematics requires children to establish and recreate mathematical relationships in their own minds. Children need direct and concrete interaction with mathematical ideas. Continuous interaction is required between the child's mind and concrete experiences in the real world (Cockburn, 2005; Burns, 2007).

Children have a range of experiences that require them to use mathematical concepts before they start school. Activities and experiences, such as saying numbers in rhymes, forming patterns with objects, are clearly mathematical. Some mathematical concepts are more ingenious, such as sorting the washed laundry and setting the table (Mooney, Briggs, Fletcher, Hansen, & McCulloch, 2009). Children's early mathematical experiences are very important in terms of presenting images that they will carry with them as they grow up (Cotton, 2010, p.193). Primary school years are the years in which the foundations of many mathematical concepts are laid. Mathematical concepts are constructed as symbolic relational structures and encoded through signs and symbols that can be logically combined in mathematical operations (Steinbring, 2006). The results of teaching mathematics in the school years are fundamental and twofold. When using mathematical symbols first, it is important that they become confident users. Secondly, these symbols must be meaningful and integrated into mathematical knowledge (Anghileri, 2005).

Symbols have an important place in mathematics and generally provide order and management (National Council of Teachers of Mathematics [NCTM], 2000; Adams, 2003; Esty, 2011; Bardini & Pierce, 2015). Symbols provide an extremely easy method to deal with quantities in calculation and problem solving in mathematics and give an opportunity to think about mathematical operations (Tall et al., 2001). Mathematical concepts are tightly bound to symbols that represent them. Mathematical symbols (1,2,3, +,-, x, ÷, <, >, %, etc.) are important tools used to convey mathematical knowledge. Children cannot begin to use symbols directly when learning math. The first use of the symbol begins after the discovery of the mathematical concept or relationship represented by this symbol. For example, people use the "+" symbol to represent addition and the "-" symbol to represent subtraction (Olkun & Toluk Uçar, 2012, p.9). Mathematical symbols (+, -, x, ÷, =, etc.) provide brevity in communication by providing

a 'shorthand' for written work and then provide a form of representation that provides an algorithmic (pen and paper calculation) approach to written work (Anghileri, 2005). A symbol can represent a complex network of many links. Symbols for numbers, the symbol for addition, and the equals symbol have different meanings depending on the situation and shape in which they are used. To be suitable for these different contexts, many and extensive language support is needed. Such as; adding, counting, adding, decreasing (Haylock & Cockburn, 2014, pp.14-15).

The first years of primary school usually consist of natural numbers and four operation questions with these numbers. Since mathematical concepts encountered in the set of natural numbers and other numbers are also encountered, teaching natural numbers and four operations with natural numbers are considered the basis for teaching other number sets (Olkun & Toluk Uçar, 2012, p.66). There are many children who can count flawlessly to 10, 50 or even 100 at an early age. In adults, for such a child, "This child is ready to add and subtract." thought appears. Many studies have shown that this is wrong and that counting and processing requires more talent and skill (Altun, 2014, p.23). Understanding a mathematical subject is not a sudden event. It is a constantly evolving process that is reached at the end of the learning programme. Mathematics is a different process from perception in that it is about right and wrong answers. It is certain that wrong answers are a known difficulty (Barmby, Harries & Higgins, 2010, p.48).

Student errors indicate "individual difficulties". Errors: It shows that the student does not understand certain concepts, techniques, problems, and does not grasp it as "scientific" or "adult". Students learn erroneous concepts and processes in a similar way. Students look for commonalities between their first contact with a concept or process. With these they form an abstraction with certain common properties. They shape concepts and algorithms (Ashlock, 2002, p.9). Errors made by students are not random, except for basic facts and carelessness. The errors made are extremely consistent. Teachers see the same errors over and over for years. In most cases, children's errors are the result of applying an incorrect operation rather than a rule-based, correct algorithm. However, these wrong actions may make sense to the child, even if the logic is wrong (Burns, 2007, p.10). According to Leinwand (2009), almost all students make mathematical errors. Frequent logically based errors are commonly due to misunderstandings. Students may experience confusion in their efforts to understand new materials and concepts. Teachers should know that errors and confusion are a powerful learning opportunity. For the most part, teachers tend to focus on the correct answer in their math lessons. Instead of identifying the reasons that cause errors to occur, wrong answers are simply countered. Wrong answers are simply crossed out.

In mathematics, there is extensive use of keywords denoting the four operations (addition, subtraction, multiplication, division, equals) and mathematical symbols (+, -, x, ÷, =) which are representations of these words. As a result of this intensive use, the inability to distinguish between symbols can prevent learning (Baroody & Standifer, 1993; Patkin, 2011; Hansen, 2014). Students often have difficulties in attributing meaning to mathematical symbols (Adams, 2003; Anghileri, 2005; Powell, 2015; Powell & Driver, 2015). As a result, errors may occur. Errors also negatively affect students' next learning (Engelhardt, 1977; Ashlock, 2002; Spooner, 2002; Hansen, 2014; Ojose, 2015). When it comes to student error, knowing the situations that cause and produce that error is very important in terms of making sense of the error. To examine the errors of children performing mathematical operations; understanding their thoughts can contribute to teaching problems caused by teachers. If children are to

understand the relationships that exist between numbers and the operations we use on numbers, it is essential that they understand what the teacher is saying and how this relates to the symbols they see on a page and use for calculations. It is important to identify the errors made by children to be able to overcome such difficulties and to provide appropriate assistance to children. Analysing student errors gives information about faulty problem-solving process, mathematical understanding and attitudes. If the errors are determined and the necessary feedback is not given to the students, the students' understanding of their errors may not emerge within the system and the students may not have the opportunity to correct their errors. For these reasons, it is thought that it is important to determine the symbol errors made by students especially in primary schools where the foundation of four operations is laid. The aim of this research is to determine the symbol errors made by primary school 1st and 2nd grade students in four operations.

Method

Research Model

The model of the research, in which it is aimed to determine the symbol errors made by primary school 1st and 2nd grade students in four operations, is a case study from qualitative research approaches. Qualitative research deals with how and why behaviour occurs. It describes how people interpret what they experience (Merriam, 2013, p. 14). According to Creswell (2016), case study; it is a qualitative research approach in which the researcher examines one or more limited cases over time, using data collection tools containing multiple sources (observations, interviews, audio-visual, documents, reports) that define situations and themes depending on the situation. According to Yıldırım and Şimşek (2021), qualitative research is a type of research in which qualitative data collection methods such as observation, interview and document analysis are used, perceptions and events are monitored in the natural environment. Document analysis is also defined as the examination of written materials containing information about the case or cases that are aimed to be investigated. Document analysis was used as a data collection method in the research.

Study Group

The study group of the research was selected by criterion sampling, one of the purposeful sampling methods; in the 2015-2016 academic year, 162 students, 83 girls and 79 boys, are studying at the primary school first-grade level, and 84 girls and 81 boys are total 165 students studying at the second-grade level in primary school. According to Yıldırım and Şimşek (2021), the basic understanding in criterion sampling method is to study the situations that meet a predetermined set of criteria. As a criterion in the research, to be able to identify the different errors made by the students and to make an in-depth analysis, the students who make up the study group are in heterogeneous classes (good, medium, weak) in terms of mathematics achievement level, and the students are at different socio-economic (low, medium, high) levels instead of students with similar status. The schools to which the application will be made have been determined according to these criteria.

Data Collection Tool

In this research, mathematics textbooks of primary school 1st and 2nd grade students were used as data collection tool and document analysis was carried out. Primary school mathematics curriculum, teacher's guidebooks, student textbooks, supplementary workbooks, related literature were examined and the concepts in the four-operation symbols were tried to be determined. A data source has been

created on how to evaluate student errors. The data source (symbol errors form) was created by obtaining expert opinions from 3 mathematics education experts and 3 classroom teachers, and the creation of categories and codes was ensured.

Data Collection Process

The research data were collected after obtaining the necessary permissions from the Istanbul Governorship Provincial Directorate of National Education. School administrators and teachers working in the schools where the application will be made by the researcher were informed about the right to study and process. The notebooks used by the students in the mathematics lesson were collected from the classes by the researcher in the lessons outside the mathematics lesson, photocopies and photographs were taken and distributed to the students in the classes again. In addition, the previous notebooks of the students who started to use the second notebook were requested by the classroom teachers and the data were collected.

Data Analysis

In the research, the data collected from the student notebook were analysed with the content analysis technique. Data analysis in qualitative research involves the preparation and organization of data for analysis, then coding the data and categorizing it by assembling the codes, and finally presenting the data in figures, tables or discussion (Creswell, 2016, p. 180). Content analysis is defined as a systematic, repeatable technique in which some words of a text are summarized with smaller content categories with coding based on certain rules (Büyüköztürk et al., 2012, p. 240). Coding and analysing data is an analytical step. Organizing the coding hierarchically is part of the analysis process (Glesne, 2012). Frequency and percentage are generally used in the interpretation of the data obtained because of content analysis (Büyüköztürk et al., 2012, p. 243). The analysed data were shown and interpreted by giving frequency and percentage values. While creating the categories and codes, the opinions of national and international literature, experts in the field of mathematics education and primary school first and second grade teachers were used. The number of students who made an error and the number of times the error was made were calculated and the percentage values were found. To ensure reliability, randomly selected samples from the student notebooks were analysed at different times and the same results were obtained.

The most useful method to increase reliability in qualitative research is member control (McMillan, 2000; Glesne, 2012). In this study, a second researcher was provided to encode the data and examine the encodings to ensure the reliability of the encoder while performing the content analysis. The data were re-coded by the second researcher independently of the first researcher, and the coding consistency value was determined as 91.33. As a result of the analysis, categories and codes were created for the four operation symbol errors, and the analysed data were digitized and tabulated. In addition, all the data obtained at the end of the research were reviewed by external controllers who were not familiar with the study and an objective evaluation was tried to be made.

Ethical Permits of Research

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

Ethics Committee Permission Information:

Name of the committee that made the ethical evaluation = Istanbul Governorship Provincial Directorate of National Education Ethics Commission

Date of ethical review decision= 21.05.2015

Ethics assessment document issue number= 5252701

Findings

In this part of the study, in line with the data obtained by examining the student notebooks, the error types in the four operation symbol errors category of primary school first and second grade students; the frequency, percentage table and student error examples of how many students made the errors are presented. The frequency and percentage distribution of symbol errors of primary school first and second grade students is given in Table 1.

Table 1. *Frequency and percentage distribution of primary school 1st and 2nd grade students regarding symbol errors*

| Symbol Errors | f1 | % | f2 | % |
|---|----|-------|----|-------|
| Perceiving the minus (-) sign as a plus (+) sign | 26 | 16,05 | 9 | 5,45 |
| Perceiving the plus (+) sign as a minus (-) sign | 19 | 11,73 | 7 | 4,24 |
| Mistaking the equal (=) sign | 15 | 9,26 | 7 | 4,24 |
| Writing number symbols incorrectly | 14 | 8,64 | 6 | 3,64 |
| Using the operation line in the wrong place | 13 | 8,02 | 5 | 3,03 |
| Not using the operation line | 12 | 7,41 | 5 | 3,03 |
| Not using the operation symbol | 11 | 6,79 | 4 | 2,42 |
| Confusing the places of the operation symbols | 8 | 4,94 | 3 | 1,82 |
| Perceiving the multiplication (x) sign as a plus (+) sign | 0 | 0,00 | 22 | 13,33 |
| Perceiving the division (÷) sign as a minus (-) sign | 0 | 0,00 | 17 | 10,30 |
| Perceiving the plus (+) sign as a multiplication (x) sign | 0 | 0,00 | 5 | 3,03 |
| Perceiving the multiplication (x) sign as a division (÷) sign | 0 | 0,00 | 8 | 4,85 |
| Perceiving the minus (-) sign as a division (÷) sign | 0 | 0,00 | 6 | 3,64 |

When Table 1 is examined, there are error types related to the symbol errors made by primary school first and second grade students in four operations. It is seen that the error type "perceiving the minus (-) sign as a plus (+) sign", which is included in the category of symbol errors, is the error type made with the highest rate by 26 first-grade students, 9 second-grade students and 35 students in total. At the same time, it is seen that the error type "perceiving the minus (-) sign as a plus (+) sign" is the error type with the highest load value among the first classes. This type of error was "perceiving the plus (+) sign as a minus (-) sign" by 19 students, "mistaking the equal (=) sign" by 15 students, "writing number symbols incorrectly" by 14 students, "using the operation line in the wrong place" by 13 students, "not using the operation line" made by 12 students, and "not using the operation symbol" made by 11 students are followed. Considering the error frequencies made by 2nd grade students; it is seen that the error type "perceiving the multiplication (x) sign as a plus (+) sign" is the error with the highest load value made by 22 second-grade students. This error type is respectively; "perceiving the division (÷) sign as a minus (-) sign" made by 17 students, "perceiving the minus (-) sign as a plus (+) sign" made by 9 students, "perceiving the multiplication (x) sign as a division (÷) sign" made by 8 students, made by 7 students each; "perceiving the plus (+) sign as a minus (-) sign" and "mistaking the equal (=) sign" were done by 6 students each; "writing number symbols incorrectly" and "perceiving the minus (-) sign as a division (÷) sign", done by 5 students each; the error of "using the operation line in the wrong place", "not using the operation line" and "perceiving the plus (+) sign as a multiplication (x) sign", "confusing the places of the operation symbols" made by 3 students and having the lowest load value among the

second-grade students species are observed. Below, the error types included in the symbol errors category are explained in detail with examples.

It is seen that the error type "perceiving the minus (-) sign as a plus (+) sign" in the category of symbol errors was made by 26 first-grade students, 9 second-grade students and a total of 35 students, with the highest rate of error in the category of symbol errors. Children perform addition in operations where the minus (-) sign, which represents subtraction, is used. It can be said that such a misunderstanding occurred because the teaching of four operations in children started with the teaching of addition. This type of error is encountered in second-grade students as the addition operation in subtraction operations that require decimal decay. Examples of errors made by students and visuals of student answers are given in Figure 1.

Figure 1 shows handwritten student work. On the left, there are two vertical subtraction problems: $\begin{array}{r} 6 \\ -3 \\ \hline 9 \end{array}$ and $\begin{array}{r} 22 \\ -7 \\ \hline 29 \end{array}$. In the middle, there are two simple subtraction equations: $5 - 2 = 7$ and $13 - 5 = 18$. On the right, there are two more complex subtraction problems with borrowing: $\begin{array}{r} 64 \\ -8 \\ \hline 72 \end{array}$ and $\begin{array}{r} 27 \\ -14 \\ \hline 41 \end{array}$.

Figure 1. Error examples of student perceiving minus (-) sign as plus (+) sign

It is seen that the error type "perceiving the plus (+) sign as a minus (-) sign", which is included in the category of symbol errors, was made by 26 students in total, 19 first-grade and 7 second-grade students. In addition, operations where the plus sign is used, the child perceives the plus (+) sign as a (-) sign and performs subtraction. It can be said that one of the reasons why first-grade students make this error may be that they have just started teaching subtraction. This type of error made by second grade students is usually encountered in the operations that will occur in the hand and that the child must carry the hand. The child may have preferred the easier process to lighten the processing load. Examples of errors made by students and visuals of student answers are given in Figure 2.

Figure 2 shows handwritten student work. On the left, there are two vertical addition problems: $\begin{array}{r} 8 \\ +3 \\ \hline 5 \end{array}$ and $\begin{array}{r} 17 \\ +4 \\ \hline 13 \end{array}$. In the middle, there are two simple addition equations: $5 + 3 = 2$ and $26 + 4 = 22$. On the right, there are two equations that have been crossed out with a large 'X': $9 + 9 = 0$ and $\begin{array}{r} 1 \\ +5 \\ \hline 4 \end{array}$.

Figure 2. Error examples of student perceiving plus (+) sign as minus (-) sign

It is seen that the error type "perceiving the multiplication (x) sign as a plus (+) sign" in the category of symbol errors was made by 22 second-grade students. At the same time, it is seen that this type of error has the highest load value among the second-grade students in the category of symbol errors. The child performs addition in operations in which the multiplication (x) sign, which represents multiplication, is used. This error may have been made because of the repeated addition of multiplication. Students may have made this error because the teachers emphasized the repetitive addition of multiplication during the lesson. Examples of errors made by students and visuals of student answers are given in Figure 3.

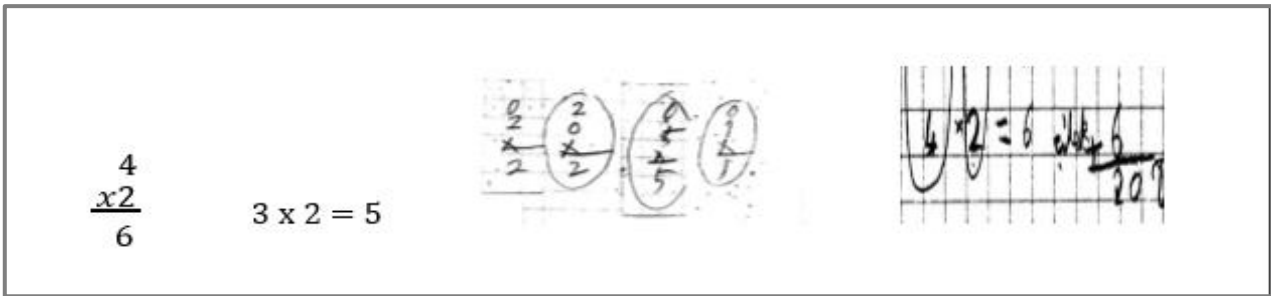


Figure 3. Error examples of student perceiving multiplication (x) sign as plus (+) sign

It is seen that the error code of “mistaking the equal (=) sign” in the category of symbol errors was made by 15 first-grade and 7 second-grade students. Students have difficulties when they use the equal sign in horizontal operations. The child who writes the result of the operation under the operation line in vertical operations cannot understand the equal sign in horizontal operations. Especially not given in the transaction; students make errors when they are added, subtracted, multiplied or divided. Examples of errors made by students and visuals of student answers are given in Figure 4.

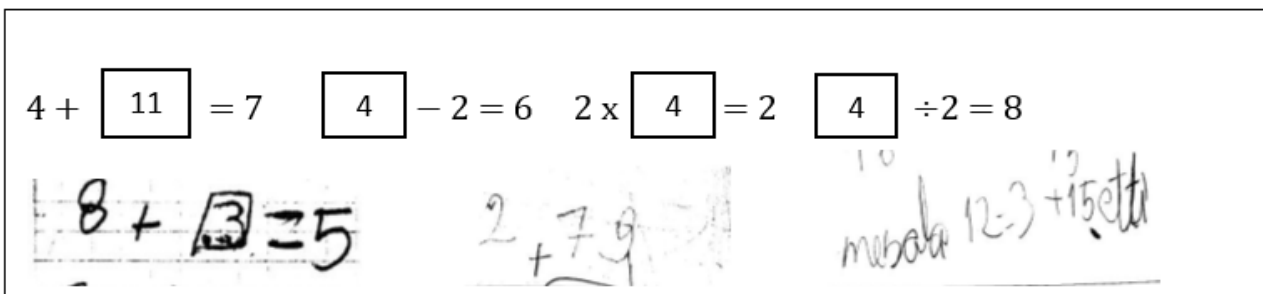


Figure 4. Error examples of student mistaking the equal (=) sign

It was determined that 13 first-grade and 5 second-grade students made the error type "using the operation line in the wrong place", which is included in the category of symbol errors. While students should write the process line on the result section in vertical operations; it is placed between the numbers, below the result. Examples of errors made by students and visuals of student answers are given in Figure 5.

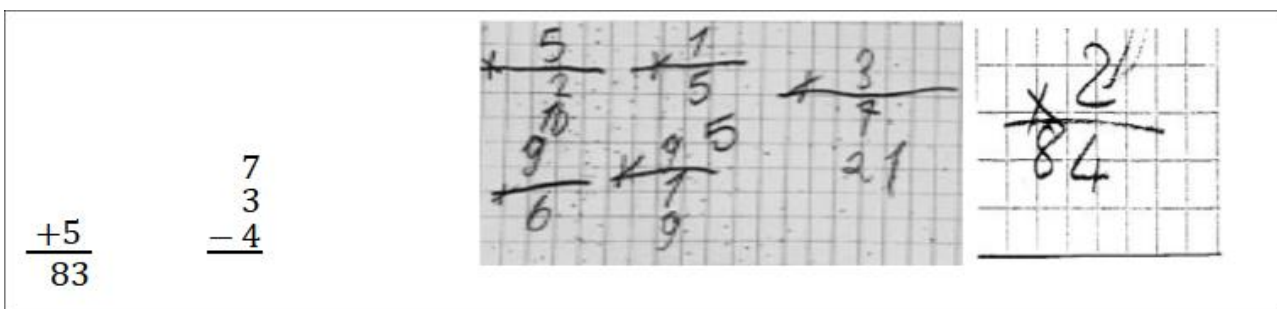


Figure 5. Error examples of students using the operation line in the wrong place

It is seen that the error code of "confusing the places of the operation symbols", which is included in the category of symbol errors, was made by 8 first-grade students and 3 second-grade students. While students should place the trade symbol in the upper left corner of the action line, they can place the trade symbol on the top right of the action line or below the action line. Examples of errors made by students and visuals of student answers are given in Figure 6.

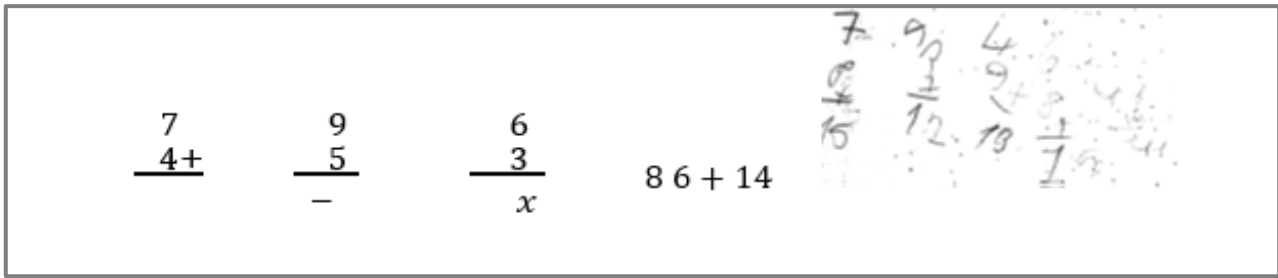


Figure 6. Error examples of students confusing the places of the operation symbols

Another type of error made by students is "writing number symbols incorrectly", which is in the category of symbol errors. It is seen that this type of error was made by 14 first-grade and 6 second-grade students. Students who make such errors write the number symbols in reverse and confuse the numbers with each other. In particular, the numbers 2 and 5, 3 and 8, 1 and 7, 6 and 9 are confused with each other. Examples of errors made by students and visuals of student answers are given in Figure 7.

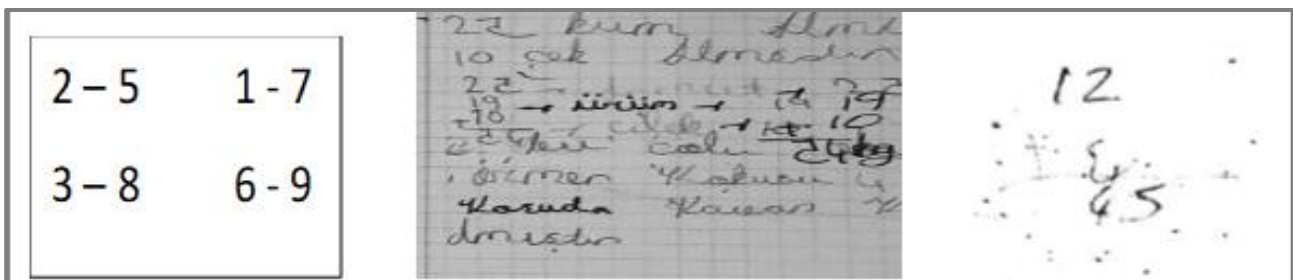


Figure 7. Error examples of students writing number symbols incorrectly

It was determined that the "not using the operation line" error type in the category of symbol errors was made by 12 first-grade students. Students who make such errors cannot use the operation line, but they can only use the operation symbol. Examples of errors made by students and visuals of student answers are given in Figure 8.

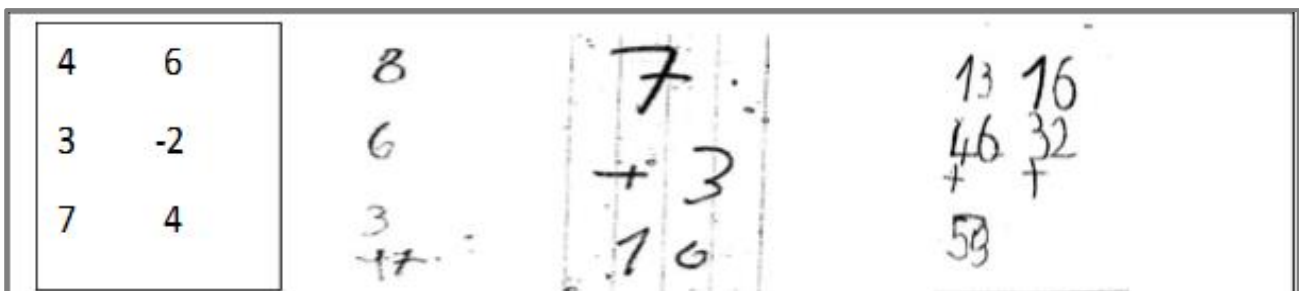


Figure 8. Error examples of students not using the operation line

It is seen that the error type "not using the operation symbol" in the category of symbol errors was made by 11 first-grade and 4 second-grade students. Students perform operations without writing the operation symbol. In sequential calculations that require the same operation, students may be ignoring the operation symbol after a certain point in time. Examples of errors made by students and visuals of student answers are given in Figure 9.

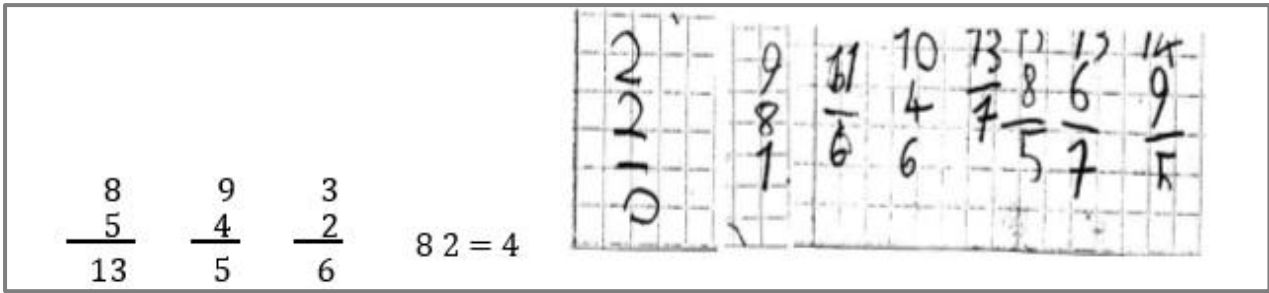


Figure 9. Error examples of students not using the operation symbol

It is seen that the error type "perceiving the plus (+) sign as a multiplication (x) sign" in the category of symbol errors was made by 5 second grade students. Children perceive the (+) sign, which represents addition, as a multiplication sign (x), and perform multiplication. Instead of addition, it performs multiplication. Examples of errors made by students and visuals of student answers are given in Figure 10.

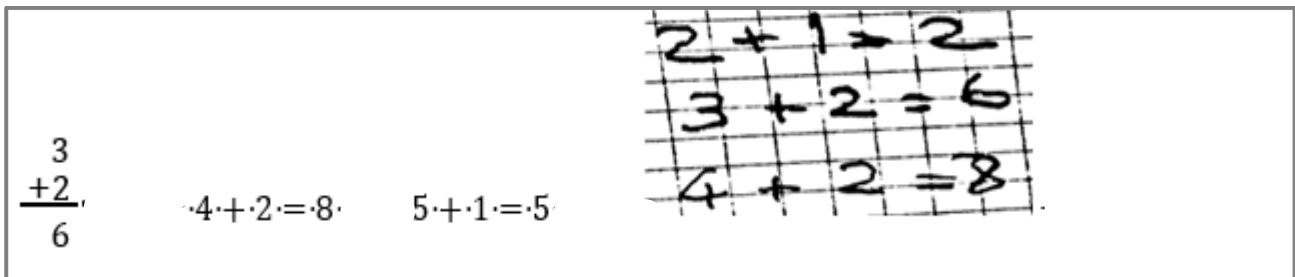


Figure 10. Error examples of students perceiving the plus (+) sign as a multiplication (x) sign

It was determined that the error type "perceiving the multiplication (x) sign as a division (÷) sign" in the category of symbol errors was made by 8 second grade students. Students who made errors in this code performed division in operations with the multiplication (x) sign representing the multiplication operation. Examples of errors made by students and visuals of student answers are given in Figure 11.

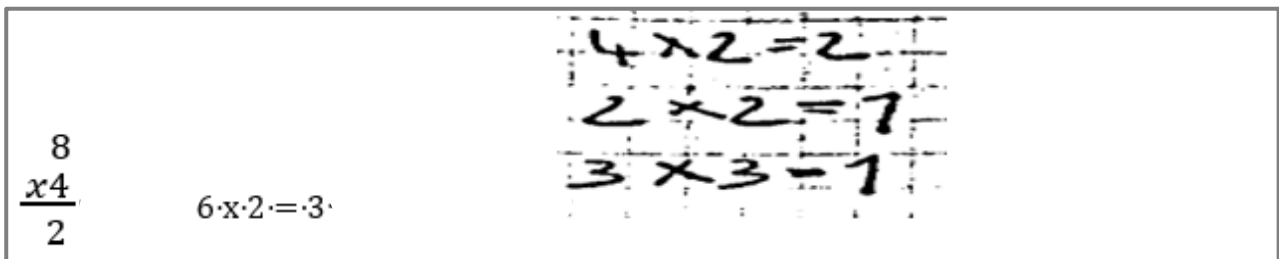


Figure 11. Error examples of students perceiving the multiplication (x) sign as a division (÷) sign

It is seen that the error type "perceiving the minus (-) sign as a division (÷) sign" in the category of symbol errors was made by 6 second grade students. Children perceive the (-) sign as (÷) in operations that represent the subtraction in which the minus (-) sign is used, and they perform division instead of subtraction. This type of error occurs mostly in horizontal transactions. Examples of errors made by students and visuals of student answers are given in Figure 12.

Figure 12. Error examples of students perceiving the minus (-) sign as a division (÷) sign

It was determined that the error code of “perceiving the division (÷) sign as a minus (-) sign”, which is included in the category of symbol errors, was made by 13 second grade students. Especially in horizontal division operations, the student perceives the (÷) sign as minus (-) subtraction instead of division. Examples of errors made by students and visuals of student answers are given in Figure 13.

Figure 13. Error examples of students perceiving the division (÷) sign as a minus (-) sign

Discussion and Conclusion

Unaware of the complexities of early number understanding, it is easy to assume that children who can count are ready to add and subtract. Considered in this way, since mathematics teaching and learning is not built on solid foundations, children do not feel safe in their next education and may go backwards (Williams, 2008). Mathematical concepts are tightly bound to symbols that represent them. The use and interpretation of mathematical symbols begins very early in school life with mathematical symbols, which form the basis of mathematics teaching (Anghileri, 2005). Using the symbols and terms of mathematics effectively and correctly is indispensable for an effective mathematics teaching. Considering the research results it was determined that the error type "perceiving the minus (-) sign as a plus (+) sign" in the category of symbol errors was the type of error made with the highest rate by primary school 1st grade students. At the same time, it was determined that this type of error was also made at the 2nd grade level. It can be said that such a misunderstanding occurs because the first-grade children's teaching of four operations begins with the teaching of addition. This type of error is encountered in second-grade students as the addition operation in subtraction operations that require decimal decay. Cockburn (2005) stated that the child's addition rather than subtraction, as in the $6-4=10$ operation, is the problem of not knowing the meaning of the sign. At the same time, we can say that students do not fully understand the concepts of addition and subtraction as the reason for this type of error.

As a result of the research, it was determined that the error type of perceiving the plus (+) sign as a minus (-) sign was made by 19 first-grade students and 7 second-grade students. According to Roberts (1968), the student should first recognize the relevant numbers. Then it must distinguish the trading symbol (+) from other symbols (-), (x) or (÷). After making this distinction, he should reach the

result by choosing the appropriate steps $8 + 3 = ?$ (11). When it is determined that students have answered 5 to this question, the ability to distinguish between appropriate and inappropriate answers should be determined. Some of these errors may be due to the over-generalization process from previous learning. Here the child may have produced an automatic reaction to the stimulus strong enough to affect his attention on the whole picture (the stimulus picture) rather than focusing on the action cue. To overcome the difficulties shown in this subject, more importance should be given to training on differentiation of answers in distinguishing stimuli and teaching arithmetic operations ($8 - 3 = 5$, $8 + 3 = 11$). Another recommendation is to avoid questions based on incomplete and superficial stimuli in problem solving sets ($8 - 3 = ?$). According to Bamberger, Oberdorf, and Schultz Ferrell (2010), students answering $14 = \square + 7$ as 21 is due to students' misinterpretation of the two numbers in the process and the plus sign in between. It is a common problem for students who have not seen such a structured statement. Students have overgeneralized their limited understanding of addition and subtraction.

According to another result of the research, 13,33% of the second-grade students of the error type "perceiving the multiplication (\times) sign as a plus ($+$) sign", and the error type of "perceiving the division (\div) sign as a minus ($-$) sign" error type was the second-grade students. It was concluded that it was done by 10.3% of the students. Hansen (2014) stated that in ($5 \times 4 = 9$, $6 \div 3 = 3$), children confuse the \times symbol with the $+$ symbol, and the \div symbol with the $-$ symbol. Addition and multiplication symbols; likewise, the subtraction and division symbols are visually similar to each other. It can be difficult for children to distinguish each pair of symbols, moreover, if the child has a poor conceptual understanding of multiplication and division, he will turn to the concepts of addition and subtraction that he encounters more. Kubanç (2012) concluded that the students generalized the rules of addition to subtraction, multiplication and division, the rules of subtraction to addition, multiplication and division, the rules of multiplication to addition, subtraction and division, and the rules of division to addition, subtraction and multiplication. reached. According to Devlin (2000), when children are seven years old, they start making careless errors when multiplication tables are introduced. Children who confidently say $2 + 3 = 5$ can answer $2 + 3 = 6$, rarely $2 + 3 = 7$. The operations of addition and multiplication are confused with each other. It was determined that at the second-grade level, students also made the type of error "perceiving the multiplication (\times) sign as a division (\div) sign". According to Hansen (2014), there may be several reasons why children make these errors in operations $3 \times 8 = 24$, $8 \times 3 = 24$, $3 \div 8 = 24$, $8 \div 3 = 24$. It can be said that they are trying to create a pattern that they see to create a pattern, and they are trying to do the operations without considering whether what they wrote is logical or not. They may also not know what the division sign means, or they may not understand the difference between multiplication and division.

According to the results of the research, it was concluded that the "mistaking the equal ($=$) sign" error type, which is in the category of symbol errors, was made by 9.26% of primary school first grade students and 4.24% of second grade students. It was concluded that the students focused on the interpretational symbol instead of the equality symbol. Yaman, Toluk, and Olkun (2003) in their research examining how primary school 2nd, 3rd, 4th, 5th and 6th grade students perceive the concept of equality and the equal sign. They concluded that students perceive the equal sign not as a "relational symbol" but rather as an "operation sign". This result is like the research Carpenter and Levi (2000); Falkener, Levi, and Carpenter (1999) concluded that students have misconceptions about calculating the equal sign, the numbers to be processed on the left side of the equal sign and finding the result of

the operation on the right side. According to Van de Walle, Karp, and Bay-Williams (2014), the equal sign should be given special attention. The equal sign means “same as ...”. When most students see this symbol, they think of the message “the answer will come out”. This symbol is treated in the same sense as the = key in the calculator. It is a key that must be pressed to get the answer. The equation $4+8 = 3+9$ has no answer; but it represents the same multiplicity on both sides. The construct “same as ...” can be used in place of “equals” when dealing with equations with students. According to Ryan and Williams (2007), children's first understanding of the equal sign is often in the context of instruction to perform an arithmetic operation. For example, $3 + 5 = ?$ for the most part, how much does this 'operation' view of the sign make if we add 5 to 3, or how many more to 3, 5? displayed as read. When this process is then understood as a number clause, the equality sign acquires an additional meaning, such as 'is the same' or 'equals'. Total $3 + 5 = 8$ would be a sentence that could be read equally as “3 and 5” 8’ or “8” 3 and 5’. This is an important conceptual change. According to Olkun and Toluk Uçar (2012), if the meaning of the “=” sign is not emphasized at the conceptual level, students develop ideas based on their own experiences. It should not be attempted to give operational information devoid of conceptual knowledge.

According to the results of the research, it was determined that students at both grade levels made errors such as "using the operation line in the wrong place", "not using the operation line", "confusing the places of the operation symbols", "not using the operation symbols". According to Engelhardt (1977), several procedures can be applied to assist children who show mechanical errors. One of them is lined notebooks, which can be turned sideways and used. Vertical lines and columns can be provided to help align the number columns. Special applications can be made for separating and formatting symbols. Pre-made calculations can be given. After the child has calculated on his own understanding, he can be allowed to use a calculator. Physical examination may be ordered for vision and neuro-motor function. According to Harris (2000), after the child learns a rule, model or method, he applies it to inappropriate situations. Therefore, it is important not only to learn the mechanics of a procedure, but also to make sense of it.

Recommendations

It is necessary to be aware that children need to have a solid understanding of the meanings as well as recognizing symbols. Teachers need to teach their students accurate definitions of symbols and provide opportunities for them to practice understanding of symbols in a variety of contexts. Teachers can explain and model symbols using concrete examples; they can then ask students to give and explain their own examples. Students can create their own mathematical dictionaries to represent symbols. Teachers need to know that some children will inevitably make some of these errors.

When teachers detect errors in their students, they should intervene immediately. Otherwise, errors made by students negatively affect their further learning in mathematics teaching, where teaching one subject is a prerequisite for teaching another subject. Appropriate teaching methods should be applied to correct the detected errors. Class discussions can be used to identify potential errors.

In addition, one-on-one interviews with a certain number of students can be made to further elaborate the study and help determine the causes of these errors. An extra worksheet can be prepared to measure the knowledge of students about symbols and thus enrich the data.

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BIOGRAPHICAL NOTES

Contribution Rate of Researchers

Author 1: 50%

Author 2: 50%

Conflict Statement

There is no material or individual organic connection with the people or institutions involved in the research and there is no conflict of interest in the research.



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İlkokul Öğrencilerinin Dört İşlem Sembol Hatalarının Belirlenmesi ve Çözüm Önerileri

Giriş

İlkokul yılları birçok matematiksel kavramın temelini atıldığı yıllardır. Matematiksel kavramlar, sembolik ilişkisel yapılar olarak inşa edilir ve matematiksel işlemlerde mantıksal olarak birleştirilebilen işaretler ve semboller aracılığıyla kodlanır (Steinbring, 2006). Semboller matematikte önemli yer tutmakta ve genellikle düzen ve yönetim sağlamaktadır (NCTM, 2000; Adams, 2003; Esty, 2011; Bardini & Pierce, 2015). Semboller matematikte hesaplama ve problem çözmede niceliklerle meşgul olmak açısından son derece kolay bir yöntem sunmakta, matematiksel işlemler üzerinde düşünme fırsatı vermektedir (Tall vd, 2001). Matematiksel kavramlar kendilerinin gösterimi olan sembollere sıkıca bağlıdır. Matematiksel semboller (1,2,3, +, -, x, ÷, <, >, %, vb.) matematiksel bilginin iletilmesinde kullanılan önemli araçlardır (Olkun & Toluk Uçar, 2012, s. 9). Bir sembol birçok bağlantıdan oluşan komplike (karmaşık) bir ağı temsil edebilir. Sayılar için kullanılan semboller, toplama için kullanılan sembol ve eşittir sembolü kullanıldıkları durum ve şekle bağlı olarak farklı anlamlara sahiptir (Haylock & Cockburn, 2014, s. 14-15).

Öğrenci hataları “bireysel zorlukları” gösterir. Hatalar; öğrencinin belli kavramları, teknikleri, problemleri anlamadığını, “bilimsel” veya “yetişkin” olarak kavramamış olduğunu gösterir. Hatalı kavramları ve süreçleri öğrenciler benzer şekilde öğrenirler. Öğrenciler, bir kavram veya işlemle ilgili ilk temasları arasında ortak noktalar ararlar. Bunlarla belirli ortak özelliklere sahip bir soyutlama oluştururlar. Kavramları ve algoritmalarını şekillendirirler (Aschlock, 2002, s. 9). Öğrencilerin yaptıkları hatalar, temel gerçekler ve dikkatsizlik sonucu kaynaklanan hatalar hariç olmak üzere rastgele değildir. Yapılan hatalar son derece tutarlıdır. Öğretmenler yıllarca aynı hataları tekrar tekrar görürler. Çoğu durumda, çocukların hataları kurallara bağlı, doğru bir algoritma yerine yanlış bir işlemin uygulanmasının sonucudur. Ancak bu yanlış işlemler de mantık yanlış olsa dahi, çocuğa mantıklı

gelebilir (Burns, 2007, s.10). Matematikte, dört işlemi (toplama, çıkarma, çarpma, eşittir) ifade eden anahtar kelimelerin ve bu kelimelerin gösterimi olan (+, -, x, ÷, =) matematiksel sembollerin yoğun kullanımı vardır. Bu yoğun kullanım sonucu, sembollerin aralarında ayırt edilememesi öğrenmeyi engelleyebilir (Baroody & Standifer, 1993; Patkın, 2011; Hansen, 2014). Öğrenciler genellikle matematik sembollerine anlam yüklemeye zorluk yaşarlar (Adams, 2003; Anghileri, 2005; Powell, 2015; Powell & Driver, 2015). Bunun sonucunda ise hatalar oluşabilir. Hatalar öğrencilerin bir sonraki öğrenmeleri de olumsuz etkiler (Engelhardt, 1977; Ashlock, 2002; Spooner, 2002; Hansen, 2014; Ojose, 2015).

Öğrenci hatası söz konusu olduğunda o hatayı ortaya çıkaran ve üreten durumların bilinmesi yapılan hatanın anlamlandırılması açısından oldukça önemlidir. Matematiksel işlem yapan çocukların hatalarını incelemek; onların düşüncelerini anlama, öğretmenlerden kaynaklı öğretim problemlerine katkılar sağlayabilir. Çocuklar sayılar arasında var olan ilişkileri ve sayılar üzerinde kullandığımız işlemleri anlayacaklarsa, öğretmenin ne dediğini ve bunun bir sayfada gördükleri ve hesaplamalar için kullandıkları sembollerle nasıl ilişkili olduğunu anlayabilmeleri çok önemlidir. Bu tür zorlukların üstesinden gelebilmek ve çocuklara sunulacak yardımın uygun olabilmesi için çocuklar tarafından yapılan hataların belirlenmesi önemlidir. Öğrenci hatalarını analiz etmek hatalı problem çözme süreci, matematiksel anlayış ve tutumlar hakkında bilgi verir. Hatalar belirlenerek öğrencilere gerekli dönütler verilmezse, öğrencilerin hatalarını anlamaları, sistem içerisinde ortaya çıkamayabilir ve öğrenciler de yanlışlarını düzeltme fırsatı bulamayabilir. Bu nedenlerden dolayı özellikle dört işlemin temelini atıldığı ilkokullarda öğrenciler tarafından yapılan sembol hatalarını belirlemenin önemli olduğu düşünülmektedir. Bu araştırmanın amacı ilkokul 1. ve 2. sınıf öğrencilerinin dört işlemde yaptıkları sembol hatalarını belirlemeye yöneliktir.

Yöntem

İlkokul 1. ve 2 sınıf öğrencilerinin dört işlemde yaptıkları sembol hatalarının belirlenmesinin amaçlandığı, araştırmanın modelini, nitel araştırma yaklaşımlarından durum çalışması oluşturmaktadır. Araştırmada veri toplama yöntemi olarak doküman analizi kullanılmıştır. Bu araştırmanın çalışma grubunu amaçlı örnekleme yöntemlerinden ölçüt örnekleme yoluyla seçilen 2015-2016 eğitim-öğretim yılında İstanbul ilindeki ilkokul birinci sınıf düzeyinde öğrenim gören 83 kız ve 79 erkek toplam 162 öğrenci, ikinci sınıf düzeyinde öğrenim gören 84 kız ve 81 erkek toplam 165 öğrenci oluşturmaktadır. Bu araştırmada veri toplama aracı olarak ilkokul 1. sınıf ve 2. sınıf öğrencilerinin matematik ders defterleri kullanılmış doküman analizi yapılmıştır. Araştırmacı tarafından uygulama yapılacak okullarda görevli okul yöneticileri ve öğretmenler çalışma ve süreç hakkına bilgilendirilmiştir. Öğrencilerin matematik dersinde kullandıkları defterler matematik ders saati dışındaki derslerde araştırmacı tarafından sınıflardan toplanarak fotokopileri ve fotoğrafları çekilerek tekrar sınıflardaki öğrencilere dağıtılmıştır. Ayrıca ikinci defteri kullanmaya başlayan öğrencilerin önceki defterleri sınıf öğretmenleri tarafından istenerek verilerin toplanması sağlanmıştır.

Araştırmada öğrenci defterinden toplanan veriler içerik analizi tekniği ile analiz edilmiştir. Analiz edilen veriler frekans ve yüzde değerleri verilerek gösterilmiş ve yorumlanmıştır. Kategori ve kodlar oluşturulurken ulusal ve uluslararası literatür, matematik eğitimi alanında uzman kişiler ve ilkokul birinci ve ikinci sınıf öğretmenlerinin görüşlerinden yararlanılmıştır. Hata yapan öğrenci sayısı ile hatanın kaç kez yapıldığı hesaplanmış ve yüzde değerleri bulunmuştur. Güvenirliği sağlamak için,

öğrenci defterlerinden rastgele seçilen örnekler farklı zamanlarda analiz edilerek aynı sonuçlar elde edilmiştir.

Bulgular

İlkokul birinci ve ikinci sınıf öğrencilerinin dört işlemde yaptıkları sembol hatalarına ilişkin olarak; “eksi (-) işaretini artı (+) işareti olarak algılama” hata türünün 26 birinci sınıf öğrencisi, 9 ikinci sınıf öğrencisi toplamda ise 35 öğrenci tarafından en yüksek oranda yapılan hata türü olduğu belirlenmiştir. Aynı zamanda “eksi (-) işaretini artı (+) işareti olarak algılama” hata türünün birinci sınıflar içerisinde yapılan en yüksek yük değerine sahip hata türü olduğu tespit edilmiştir. Bu hata türünü sırasıyla 19 öğrenci tarafından yapılan “artı (+) işaretini eksi (-) işareti olarak algılama”, 15 öğrenci tarafından yapılan “eşit (=) işaretini yanlış algılama”, 14 öğrenci tarafından yapılan “sayı sembollerini yanlış yazma”, 13 öğrenci tarafından yapılan “işlem çizgisini yanlış yerde kullanma”, 12 öğrenci tarafından yapılan “işlem çizgisini kullanmama”, 11 öğrenci tarafından yapılan “işlem sembolü kullanmama” hatalarının izlediği görülmüştür. “Çarpma (x) işaretini artı (+) işareti olarak algılama”, “bölme (÷) işaretini eksi (-) işareti olarak algılama”, “artı (+) işaretini çarpma (x) işareti olarak algılama”, “çarpma (x) işaretini bölme (÷) işareti olarak algılama”, “eksi (-) işaretini bölme (÷) işareti olarak algılama” hata türlerinin ise hiçbir birinci sınıf öğrencisi tarafından yapılmadığı belirlenmiştir. İkinci sınıf öğrencileri tarafından yapılan hata frekanslarına bakıldığında ise; “çarpma (x) işaretini artı (+) işareti olarak algılama” hata türünün 22 ikinci sınıf öğrencisi tarafından yapılan en yüksek yük değerine sahip hata olduğu tespit edilmiştir. Bu hata türünü sırasıyla; 17 öğrenci tarafından yapılan “bölme (÷) işaretini eksi (-) işareti olarak algılama”, 9 öğrenci tarafından yapılan “eksi (-) işaretini artı (+) işareti olarak algılama” 8 öğrenci tarafından yapılan “çarpma (x) işaretini bölme (÷) işareti olarak algılama”, 7’şer öğrenci tarafından yapılan; “artı (+) işaretini eksi (-) işareti olarak algılama” ve “eşit (=) işaretini yanlış algılama”, 6’şar öğrenci tarafından yapılan; “sayı sembollerini yanlış yazma” ve “eksi (-) işaretini bölme (÷) işareti olarak algılama”, 5’er öğrenci tarafından yapılan; “işlem çizgisini yanlış yerde kullanma”, “işlem çizgisini kullanmama” ve “artı (+) işaretini çarpma (x) işareti olarak algılama”, 3 öğrenci tarafından yapılan ve ikinci sınıf öğrencileri içerisinde en düşük yük değerine sahip “işlem sembollerinin yerlerini karıştırma” hata türlerinin izlediği belirlenmiştir.

Tartışma ve Sonuç

Araştırma sonuçlarına bakıldığında, sembol hataları kategorisinde yer alan “eksi (-) işaretini artı (+) işareti olarak algılama” hata türünün ilkökul 1. sınıf öğrencileri tarafından en yüksek oranda yapılan hata türü olduğu belirlenmiştir. Aynı zamanda bu hata türünün 2. sınıf seviyesinde de yapıldığı tespit edilmiştir. Birinci sınıf seviyesinde çocukların dört işlem öğretimine ilk olarak toplama işleminin öğretilmesinden başlanmasından dolayı böyle bir yanlış anlamının oluşması söylenebilir. Bu hata türü ikinci sınıf öğrencilerinde ise daha çok onluk bozma gerektiren çıkarma işlemlerinde toplama işleminin yapılması olarak karşımıza çıkmaktadır. Cockburn (2005), $6 - 4 = 10$ işleminde olduğu gibi çocuğun çıkarma yerine toplama işlemi yapmasını işaretin anlamını bilememe sorunu olarak belirtmiştir. Aynı zamanda bu tür hata nedeni olarak, öğrencilerin toplama ve çıkarma kavramlarını tam olarak anlayamadıklarını söyleyebiliriz. Araştırmanın bir diğer sonucunda artı (+) işaretini eksi (-) işareti olarak algılama hata türünün ise 19 birinci sınıf öğrencisi, 7 ikinci sınıf öğrencisi tarafından yapıldığı tespit edilmiştir.

Araştırmanın bir diğer sonucuna göre “çarpma (x) işaretini artı (+) işareti olarak algılama” hata türünün ikinci sınıf öğrencilerinin % 13,33’ü, “bölme (÷) işaretini eksi (-) işareti olarak algılama” hata türünün ise ikinci sınıf öğrencilerinin % 10,3’ü tarafından yapıldığı sonucuna ulaşılmıştır. Hansen (2014) ($7 \times 3 = 10$, $8 \div 4 = 4$) işlemlerinde çocukların x sembolünü + sembolüyle, ÷ sembolünü - sembolüyle karıştırdıklarını belirtmiştir. Toplama ve çarpma sembolleri; aynı şekilde çıkarma ve bölme sembolleri görsel olarak birbirlerine benzemektedir. Çocuklar için her sembol çiftini ayırt etmek zor olabilir, ayrıca çocuk çarpma ve bölme konusunda zayıf bir kavramsal anlayışa sahipse, daha fazla karşılaştığı toplama ve çıkarma kavramlarına yönelir. Araştırma sonucuna göre sembol hataları kategorisinde yer alan “eşit (=) işaretini yanlış kullanma” hata türünün ilkökul birinci sınıf öğrencilerinin % 9,26’sı, ikinci sınıf öğrencilerinin ise % 4,24’ü tarafından yapıldığı sonucuna ulaşılmıştır. Öğrencilerin eşitlik sembolü yerine işlemler arası sembole odaklandıkları sonucuna ulaşılmıştır. Carpenter ve Levi (2000), Falkener, Levi ve Carpenter (1999) öğrencilerin eşit işaretini işlem yapma, eşit işaretinin sol tarafında işlem yapılacak sayıların olması, sağ tarafında ise işlem sonucunun bulunmasına yönelik yanlış anlamalara sahip oldukları sonucuna ulaşmışlardır.

Araştırma sonuçlarına göre her iki sınıf seviyesinde de öğrencilerin “işlem çizgisini yanlış yerde kullanma”, “işlem çizgisini kullanmama”, “işlem sembollerinin yerlerini karıştırma”, “işlem sembolü kullanmama” hata türlerini yaptıkları belirlenmiştir. Engelhardt’a (1977) göre, mekanik hatalar gösteren çocuklara yardımcı olmak için birkaç prosedür uygulanabilir. Bunlardan biri çizgili defterler yan çevrilip kullanılabilir. Rakam sütunlarının hizalanmasına yardımcı olacak dikey çizgiler ve sütunlar sağlanabilir. Sembolleri ayırma ve biçimlenmesine ilişkin özel uygulamalar yapılabilir. Önceden yapılmış hesaplamalar verilebilir. Çocuk kendi anlayışıyla hesaplama yaptıktan sonra, hesap makinesi kullanmasına izin verilebilir. Görme ve nöro-motor işlev için fizik muayene istenebilir. Harris’e (2000) göre, çocuk bir kural, model ya da yöntem öğrendikten sonra onu uygun olmayan durumlara uygulamaktadır. Dolayısıyla bir prosedürün mekanik öğrenimi değil, aynı zamanda anlamlandırılması da önemlidir.

Öneriler

Çocukların, sembolleri tanımlarının yanı sıra anlamları konusunda da sağlam bir anlayışa sahip olmaları gerektiğinin farkında olmak gerekmektedir. Öğretmenlerin öğrencilerine sembollerin doğru tanımlarını öğretmeleri ve çeşitli bağlamlarda sembol anlayışını uygulamaları için fırsatlar sağlaması gerekir. Öğretmenler, somut örnekler kullanarak sembolleri açıklayabilirler ve modelleyebilirler; daha sonra öğrencilerden kendi örneklerini vermelerini ve açıklamalarını isteyebilirler. Öğrenciler sembolleri göstermek için kendi matematiksel sözlüklerini oluşturabilirler. Öğretmenler, öğrencilerinde var olan hataları tespit ettiğinde anında müdahale etmelidir. Aksi takdirde, öğrencilerin yaptığı hatalar, bir konunun öğretiminin diğer konunun öğretimi için ön şart niteliği taşıdığı matematik öğretimde sonraki öğrenmelerini olumsuz etkiler. Tespit edilen hataların düzeltilmesi için uygun öğretim yöntemleri uygulanmalıdır. Sınıf tartışmaları olası hataları belirlemek için kullanılabilir.



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ChatGPT in Education

id Sayım Aktay, Assoc. Prof. Dr., Corresponding Author
Muğla Sıtkı Koçman University, Türkiye
sayimaktay@gmail.com
Orcid ID: 0000-0002-5301-0099

id Seçkin Gök, PhD Student
Muğla Sıtkı Koçman University, Türkiye
seckingok@posta.mu.edu.tr
Orcid ID: 0000-0001-6095-9828

id Dilşat Uzunoğlu, PhD Student
Muğla Sıtkı Koçman University, Türkiye
dilsatuzunoglu@gmail.com
Orcid ID: 0000-0003-2591-3159

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Abstract

The aim of this study is to reveal students' thoughts on the use of ChatGPT in education. Therefore, the study was designed and conducted according to a qualitative research method. Data was collected through semi-structured interviews. The study group of the research consisted of voluntary students from one of the 4th grade classes of a public school in Türkiye. An interview form was developed and used as the data collection tool. The obtained data was analyzed using the content analysis method. Based on the results, it was observed that the students found the use of ChatGPT in teaching to be engaging and enjoyable. Moreover, incorporating artificial intelligence in teaching was found to promote academic achievement and offer a greater amount of information compared to conventional printed resources such as textbooks. Additionally, ChatGPT was perceived to provide accurate, prompt, and clear responses to queries posed by students. The students expressed their recommendation to use ChatGPT in studying other subjects like social studies, mathematics, and Turkish, as it is a valuable tool for enhancing academic success and expanding access to information.

Keywords: Education, artificial intelligence (ai), ChatGPT.

Introduction

Technological developments have brought many new dimensions to the field of education. At this point, educational environments have also undergone changes from a technological perspective. Children born in this era are referred to as the digital generation and their immediate surroundings are surrounded by technological tools. In this context, it is observed that learning environments are affected by studies in the field of artificial intelligence (Kayahan, 2018). Artificial intelligence [AI] is a field of study that aims to produce computers and machines (Coppin, 2004) with human-like intelligence and the resulting innovations and developments (Chen et al., 2020). Intelligence in humans can be defined as the ability to think, reason, judge, and draw conclusions. Artificial intelligence emerged as a result of studies aimed at enabling machines to perform these abilities. In other words, artificial intelligence aims to mimic the mental skills of the human brain, such as problem-solving, decision-making, prediction, and inference (Arslan, 2020; Drigas et al., 2009; Kış, 2019). Although it is known that artificial intelligence is a product of human intelligence and human intelligence is still superior to artificial intelligence in many aspects (Teng, 2019), there are differences in favor of artificial intelligence in terms of speed, accuracy, decision-making, adaptation, energy consumption, function, awareness level, and interaction points (Aksut, 2021). AI provides opportunities to improve the teaching environment with technologies such as the Internet of Things [IoT], virtual reality [VR], and augmented reality [AR] (Vincent-Lancrin & van der Vlies, 2020).

The term artificial intelligence was first used by John McCarthy at a workshop held at Dartmouth College in 1956 (Arslan, 2020; Coşkun & Gülleroğlu, 2021). In the same year, Allen Newell, Herbert A. Simon, and Cliff Shaw presented and discussed the Logic Theorist, which is considered the first artificial intelligence program (Fadel et al., 2019). Artificial intelligence algorithms are artificial neural networks produced by taking inspiration from the brain's neural networks. At this point, artificial intelligence requires dense and high-quality data. The abilities of artificial intelligence programs increase as a result of dense and high-quality data (Kış, 2019; Kolchenko, 2018).

The use of artificial intelligence in education has a relatively short history. The first examples of AI in education emerged in the 1960s and 1970s with the goal of personalizing education. Then, in the 1980s and 1990s, the proliferation of personal computers and the internet facilitated the development

of more complex educational software and online learning platforms. Since the 2000s, developments in machine learning and natural language processing have led to the emergence of more advanced education tools supported by artificial intelligence (Zhai, 2022). In parallel with the increase in the use of the Internet in daily life, the use of artificial intelligence in education has also gained increasing momentum. In this context, intelligent tools have been developed in many fields, such as natural language processing, inference, intelligent agents, the semantic web, ontology, and speech recognition (Drigas et al., 2009). The techniques used in education with artificial intelligence can be listed as chatbots, expert systems, and intelligent tutoring systems (Meço & Coştu, 2022). Artificial intelligence in education is part of the concept of advanced learning technologies, which refers to intelligent tutoring systems that leverage artificial intelligence to determine what, how, and to whom to teach. In other words, intelligent tutoring systems are software programs that teach complex subjects by modeling a human teacher and offering one-on-one teaching opportunities (Akdeniz & Özdiñç, 2021; Bahçeci & Gürol, 2010; Kayahan, 2018; Keleş & Aytürk Keleş, 2002). Intelligent tutoring systems are the most common application of AI in education. In these systems, as the student progresses, the system automatically adjusts the level of difficulty (Fadel et al., 2019). Examples of AI-based intelligent education systems include platforms such as Carnegie Learning, Jill Watson, EBA ADES, and iTalk2Learn (Çetin & Aktaş, 2021).

The use of artificial intelligence in education is accepted that gaining benefits for students such as monitoring educational progress, providing continuous access to education, and developing the ability to use digital assistants. On the other hand, using AI is beneficial for teachers, managing student populations, analyzing and evaluating learning outcomes, and providing feedback (Osetsyki et al., 2020). Kış (2019) claims that AI-based instruction increases student engagement, motivation, and independence. In addition, AI has improved the effectiveness, efficiency, and quality of work done by AI teachers. In this context, productivity has been considered in terms of presenting relevant content in accordance with the curriculum, retaining information in students' minds, and taking into account students' abilities and interests (Chen et al., 2020; Joseph, 2019). AI contributes to the personalization of learning materials. Personalized learning is an approach that aims to customize learning according to students' individual needs and strengths (Vincent-Lancrin & Van der Vlies, 2020). Furthermore, teachers spend 20 to 40% of their hours on activities that can be automated using current technology. However, teachers can allocate this time to activities that support students. Additionally, the areas with the greatest potential for automation are preparation, management, evaluation, and feedback (Bryant et al., 2020). The use of artificial intelligence (AI) in education has progressed from the use of computers and related technologies to web-based and online intelligent learning systems, and finally to humanoid robots and web-based chatbots (Chen et al., 2020). Chatbots are generally AI software that provides information or performs a task through text-based dialogue with the user (Meço & Coştu, 2022; Özkol et al., 2019). Some chatbots are rule-based, while others are AI-based. It is claimed that AI-based chatbots are more useful in education (Palasundram et al., 2019). Chatbots are considered to be one of the most suitable ways for students to study (Kasthuri & Boloji, 2021). Furthermore, chatbots provide the opportunity for students to ask questions at any time of the day, particularly in situations where the teacher is unavailable due to the limited duration of the lesson or psychological reasons (Deveci Topal et al., 2021). Chatbots equipped with reasoning and knowledge perform exemplification much faster than humans and use natural language. In this respect, the use of chatbots can be seen as a tool for the constructivist learning approach (Palasundram et al., 2019).

Chatbots that contribute to the individual development of students have begun to spread in the field of education (Arruda et al., 2019; Deveci Topal et al., 2021; Nghi et al., 2019). Chatbots such as Alex, ELIZA, megaHAL, PARRY, ANTswers, A.L.I.C.E., and GPT-3 have been developed (Kane, 2016; Osetskiy, 2020; Özkol et al., 2019). One of the developed chatbots is ChatGPT. One of the most important features that distinguishes ChatGPT from other AI-based chatbots is that it is more successful in activities that require creativity. ChatGPT is a general-purpose chatbot developed by OpenAI. The effects of this chatbot on education are not known. It is thought that the impact of ChatGPT on learning goals, learning activities, and measurement and evaluation practices will be very significant as it may lead to changes in these areas (Zhai, 2022).

AI is being applied in different ways in educational institutions, including the automation of administrative processes, curriculum and content development, and instruction (Chen et al., 2020). However, it is seen that AI-based applications in education are not sufficient. AI applications are generally used for data storage and constitute a small part of classroom activities (İşler & Kılıç, 2021). However, AI applications can enhance the quality of education in personalized education programs, performance monitoring, and preparation of course content (Meço & Coştu, 2022). When the literature is examined, it can be seen that there are many studies on the use of artificial intelligence in education (Aygün, 2019; Kabiljagić et al., 2022; Kim & Han, 2021; Kim & Park, 2017; Ottenbreit-Leftwich et al., 2021; & 2017; Shin, 2020; Shin et al., 2018; Shin & Shin, 2020; Son, 2020). However, it can be said that there is a lack of studies on the use of AI-based chatbots in education. Studies have been conducted with undergraduate students (Essel et al., 2022; Mokmin, and Ibrahim, 2021), middle school students (Deveci Topal, 2021), elementary school students (Kabiljagic et al., 2022), and foreign language education (Yıldız, 2022). However, no study has been found in which ChatGPT chatbot is used in teaching.

The aim of this study is to reveal students' thoughts on the use of ChatGPT in education. It is believed that this study will contribute to teachers in terms of implementing artificial intelligence in the classroom, raise awareness about the use of AI in education, provide researchers with a new perspective on the use of AI-based chatbots, and present a positive example to education officials about the use of chatbots in the classroom.

Method

Study Design and Participants

This research was designed and conducted with the Natural analysis approach, which is a qualitative research method. It has gained an important place in scientific research by combining both natural examination, research and examination (Calhoun et al., 2007). In the natural analysis approach, the researcher does not interact with the individuals involved in the application and examines the application in its purely natural environment. While avoiding interaction in this approach, the researcher can also use data collection tools such as interview and product analysis (Lindlof & Taylor, 2002). The study group of the research consists of 15 4th grade students studying in a public school in Türkiye in the 2022-2023 academic year. The study group of the research was determined by convenient sampling method. Convenient sampling is a fast and convenient sampling strategy (Patton, 2014/2018). Therefore, a 4th grade class was determined as the study group in the primary school where the researcher worked. In addition, there is only one 4th grade class in the school.

Table 1. Demographic information of the study group

| | Age | Gender | Knowledge of ChatGPT | Previous Teaching Experience with ChatGPT |
|----------------|-----|--------|----------------------|---|
| Participant 1 | 9 | F | Few | No |
| Participant 2 | 9 | F | Few | No |
| Participant 3 | 9 | F | Few | No |
| Participant 4 | 9 | M | Few | No |
| Participant 5 | 10 | F | Few | No |
| Participant 6 | 9 | F | Few | No |
| Participant 7 | 10 | F | Few | No |
| Participant 8 | 10 | F | Few | No |
| Participant 9 | 10 | M | Few | No |
| Participant 10 | 9 | M | Few | No |
| Participant 11 | 9 | M | Few | No |
| Participant 12 | 10 | F | Few | No |
| Participant 13 | 9 | F | Few | No |
| Participant 14 | 9 | M | Few | No |
| Participant 15 | 10 | M | Few | No |

Measurement Tools

In qualitative research, data is collected through interviews, observations and documents (Creswell, 2013/2021; Patton, 2014/2018). For this reason, the data in the research were obtained through semi-structured interviews. The interview form was developed by the researchers and the form was finalized by making corrections in line with the opinions of two experts from the field of basic education. The interview form consists of two parts. The first part includes demographic information. The second part includes interview questions. In the demographic information section, students were also asked about their knowledge of ChatGPT and their previous teaching experience with ChatGPT.

This form consists of open-ended questions aiming to reveal students' thoughts, experiences and needs regarding the process of teaching through ChatGPT intelligence. In form; (a) What do you think about ChatGPT? (b) What do you think about learning with ChatGPT? (c) What did you like about learning with ChatGPT? (d) What did you dislike about learning with ChatGPT? (d) How can lessons be better with ChatGPT? questions are included.

Reliability of The Research

The research process has not been strictly guided by the personal judgments of the researchers. In line with the purpose of the research, semi-structured interviews were conducted with the students. Questions were prepared to make the students participating in the practical interviews more sensitive. In Interviewing process, It was tried to create an interview environment in which they could freely express their ideas, compatible with their questions. In addition, the real names of the students were not expressed in the research and were encrypted (P1, P2...etc.). Accordingly, in the session, the participants were given the freedom to leave the study at any point in the interviewing process. The information obtained during the semi-structured interviews was not used by any researchers other than the researchers in the sessions.

Participants were informed by the researcher leading the discussion that no one other than the researchers and participants was allowed to attend the interview sessions. Again, the participants were convinced that the obtained material would be presented in an encrypted form in the research presentations to be made about the study in the future. Before the semi-structured interviews, an

informed consent form was obtained from each parent stating that they allowed their child to participate in the study. In order to support the results reached by the researchers and to reflect the perspectives of the students, sample quotations from the interview texts are included. On the other hand, in order to ensure validity in the study, detailed descriptions through direct quotations were also included (Lincoln & Guba, 1985).

Procedure

In the research, the subject of recycling, which is included in the primary school 4th grade Science program, was handled for three weeks, two hours a week, through an artificial intelligence software, ChatGPT.

The procedures for the implementation process are listed below:

1. Before the application, four recycling-oriented images were created in different themes through another artificial intelligence software, DALL-E, and presented to the students. These pictures were discussed with the students. In addition, a brief information about the DALL-E software was given to the students. In addition, these pictures were hung on the classroom boards by the students.

2. ChatGPT was introduced to the students with the help of the smart board in the classroom. Then, brief information about ChatGPT is given.

3. The students were informed that the recycling issue will be handled via ChatGPT.

4. ChatGPT was asked what the concept of recycling is. ChatGPT's answer is voiced via the ReadAloud plugin. In addition, ReadAloud plugin was used in all answers given by ChatGPT.

5. ChatGPT was asked to write a story about recycling, suitable for the level of 4th grade primary school students. It was ensured that the story written by ChatGPT was read aloud by all students. The story was then discussed in class.

6. The question of which wastes can be recycled was asked to ChatGPT and an answer was received. It was ensured that the answer was read by all students.

7. A blank sheet of paper was distributed to the students. Students were asked to write two questions each to be asked to ChatGPT about recycling. Students who wanted to write more questions were not prevented. The questions were collected and the same questions were separated.

8. The questions written by the students were put in an empty box. Each student was allowed to choose a question from the box. Students read aloud the questions on the paper they drew. Each question was directed to ChatGPT.

9. Volunteer students wrote down the questions answered by ChatGPT in their notebooks.

10. Some examples of questions asked by students to ChatGPT are given below.

Q1. What is the purpose of recycling?

Q2. Where does the garbage we throw in the trash go?

Q3. What are the benefits of recycling?

Q4. How are metals recycled?

Q5. How is waste glass recycled?

Q6. How are plastics recycled?

11. Students were asked to produce slogans about recycling. The slogans created by the students were read aloud in the classroom.

12. ChatGPT was asked to write a poem about recycling appropriate for the level of 4th grade students in primary school. This poem was read by each student. Then the students wrote this poem in their notebooks.

13. ChatGPT was asked to prepare 10 questions in the context of the studies. It was ensured that these questions were appropriate to the level of the students. Students gave written or oral answers to these assessment questions.

Data Collection

After the application via ChatGPT, appointments were made to interview the volunteer participants. The interviews were conducted face-to-face in a quiet room (Parent meeting room) allocated by the school administrators on dates agreed with the participants. In addition, a voice recorder was used during the interview. Approval was obtained from the parents of the students regarding the audio recording of the interview. All of the data obtained at the end of the interviews were transcribed and transferred to Microsoft Word.

Data Analysis

The audio recordings of the semi-structured interviews conducted in this study were transcribed using the Microsoft Word program. After this stage, the transcribed data were read and preliminary exploration was made by taking notes. The content analysis method was used when analyzing the data obtained from the qualitative phase of this study (Patton, 2018; Saldana, 2015/2019). An inductive approach was adopted in the data analysis process and the analysis process was carried out accordingly (Lincoln & Guba, 1985). First of all, the data obtained were coded separately by the researcher, and then themes related to these codes were created. This whole process was carried out with qualitative research analysis software called "Nvivo for Windows".

Ethical Permits of Research

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

Ethics Committee Permission Information:

Name of the committee that made the ethical evaluation = Muğla Sıtkı Koçman University Social and Human Studies Ethics Committee

Date of ethical review decision = 21.02.2023

Ethics assessment document issue number= 28

Findings

The participants' opinions obtained through semi-structured interviews in the research were subjected to content analysis, and as a result of this analysis, 5 themes and codes related to these themes were identified. The themes reached are (1) General thoughts regarding teaching with ChatGPT, (2) Positive aspects of teaching with ChatGPT, (3) Negative aspects of teaching with ChatGPT, (4) Recommendations for teaching with ChatGPT, and (5) Applications of ChatGPT for students.

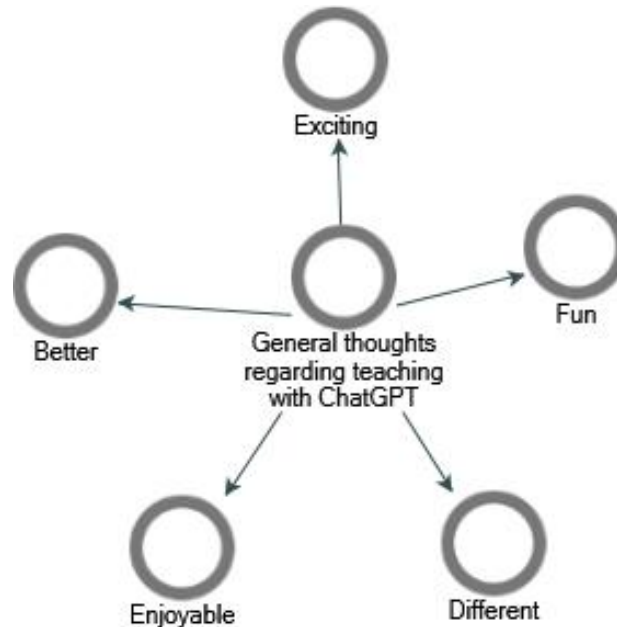


Figure 1. General thoughts regarding teaching with ChatGPT

When the theme of students' attitudes towards teaching with ChatGPT was examined, opinions such as liking teaching with ChatGPT, finding teaching with ChatGPT more beautiful, finding teaching with ChatGPT fun, making students happy, being different with teaching with ChatGPT, and finding teaching with ChatGPT exciting were expressed. All students stated that they liked teaching with ChatGPT. In this context, one student expressed their opinion as *"I liked everything, actually"* [P5]. Nearly half of the students expressed that teaching with ChatGPT was more beautiful, and one student expressed this as *"It's becoming more beautiful"* [P2]. Additionally, one student emphasized that teaching with ChatGPT was fun by stating *"It's really fun"* [P8], while another student expressed that teaching with ChatGPT made them happy by saying *"I was happy"* [P11]. Furthermore, one student mentioned that teaching with ChatGPT was different by stating *"It seemed different"* [P1]. Another student emphasized the excitement of teaching with ChatGPT by stating *"I was excited at first, then it turned out to be very good"* [P23].

Based on the above views, it can be said that students appreciate and find it enjoyable to engage in the course process using ChatGPT, one of the artificial intelligence-based software. In addition, the artificial intelligence course process has made students happy.

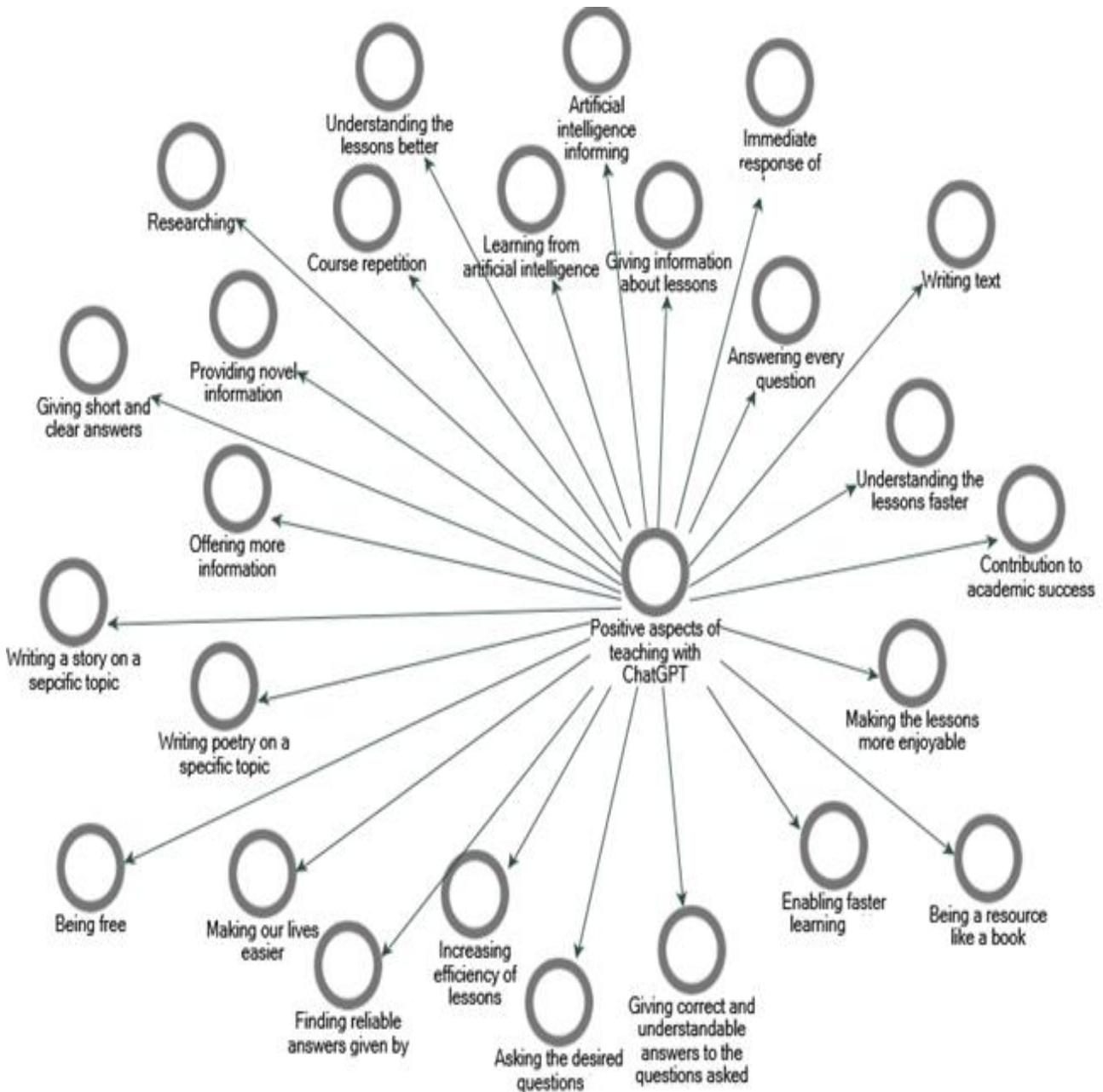


Figure 2. Positive aspects of teaching with artificial intelligence

When examining the positive aspects of teaching with ChatGPT, it is evident that teaching with ChatGPT contributes to academic success, provides more information, gives accurate and understandable answers to questions, provides short and concise answers, allows for knowledge acquisition, enables the asking of desired questions, writes text, responds promptly, makes the lesson more enjoyable, provides knowledge, composes poems on specific subjects, allows open access to everyone, responds in writing, writes stories on desired subjects, can answer any question, simplifies our lives, facilitates learning of different information, includes visuals in the teaching process, enables research with ChatGPT, and leads to effective teaching outcomes.

All of the students have stated that processing lessons with ChatGPT contributes to academic success. In this context, two student views were expressed as "Because it can provide a good contribution to us in our lessons" [P12] and "It does provide and has provided a little bit" [P6]. More than half of the

students emphasized that ChatGPT provides more information compared to textbooks and other sources. Some of these students expressed their thoughts on this topic as *"I also learn other things while working with ChatGPT"* [P3], *"There is more information beyond the book"* [P11], and *"We obtain more in-depth knowledge about ChatGPT than a normal science lesson"* [P6]. While nearly half of the students highlighted that ChatGPT provides accurate and understandable answers to the questions asked, one student mentioned this topic as *"ChatGPT gives correct and understandable answers"* [P2]. While it is observed that some students express their thoughts on ChatGPT giving short and clear answers, one student mentioned this topic as *"Max (the name given by the students to ChatGPT) explains briefly to us"* [P8]. One of the students emphasized the aspect of acquiring knowledge from ChatGPT as *"We can ask questions about things we have mixed up in our lessons and acquire knowledge"* [P11], and another student expressed the aspect of being able to ask desired questions to ChatGPT as *"We can ask what we want"* [P6]. Additionally, one student elaborated on the ability of ChatGPT to write text as *"We cannot write text when we cannot see something or imagine it. But ChatGPT, in other words, can write a text for us, like creating nature"* [P12]. Furthermore, one student highlighted the aspect of ChatGPT providing immediate answers to the questions asked as *"Because you receive an answer. You get the answer the moment you ask it"* [P2]. Some students have found classes that are taught using ChatGPT to be more fun. One student expressed their thoughts on this matter by stating, *"I find the class both entertaining and more informative, which is why I want to attend it"* [P6]. Another student commented on the ability of AI to provide information by stating, *"It provides very good information"* [P11]. Yet another student mentioned the ability of AI to write original poetry by saying, *"For example, it writes a poem when we tell it to"* [P2]. Additionally, one student emphasized the importance of AI being open source, stating, *"For instance, textbooks are written for one person, for children. AI is written for everyone"* [P9]. One student mentioned the ability of AI to respond in writing, saying, *"...and it also writes to us"* [P1], while another student highlighted the ability of AI to write stories, saying, *"It can write stories"* [P2]. One of the positive aspects of AI mentioned by the students is its ability to provide answers to any question. One student remarked on this by saying, *"It answered the questions I asked"* [P11]. Another positive aspect mentioned is the fact that AI makes life easier for humans. One student summarized this idea by stating, *"AI makes people's work easier"* [P1]. Additionally, one student mentioned the ability of AI to facilitate learning, saying, *"We can study by asking something we don't know"* [P8], and another student elaborated on this idea by saying, *"With AI, we can research things we don't know, even in our classes or in school, and find the meaning or something else"* [P12]. Based on these opinions, it is believed that ChatGPT is used as an effective and efficient research method in both classes and other disciplines, although it may not be prevalent. Finally, one student expressed their belief that classes are more efficient with the use of AI by stating, *"It helps us become more aware, which is why it is more efficient"* [P6].

Based on the opinions above, it can be said that students liked and found the process of teaching with ChatGPT, one of the artificial intelligence-based software, enjoyable. In addition, it is observed that teaching with artificial intelligence contributes to academic success and provides more information than printed sources such as textbooks. Furthermore, ChatGPT provides accurate, clear, and instant answers to the questions asked. In short, from the perspective of students, artificial intelligence is a quality that will make their lives easier.

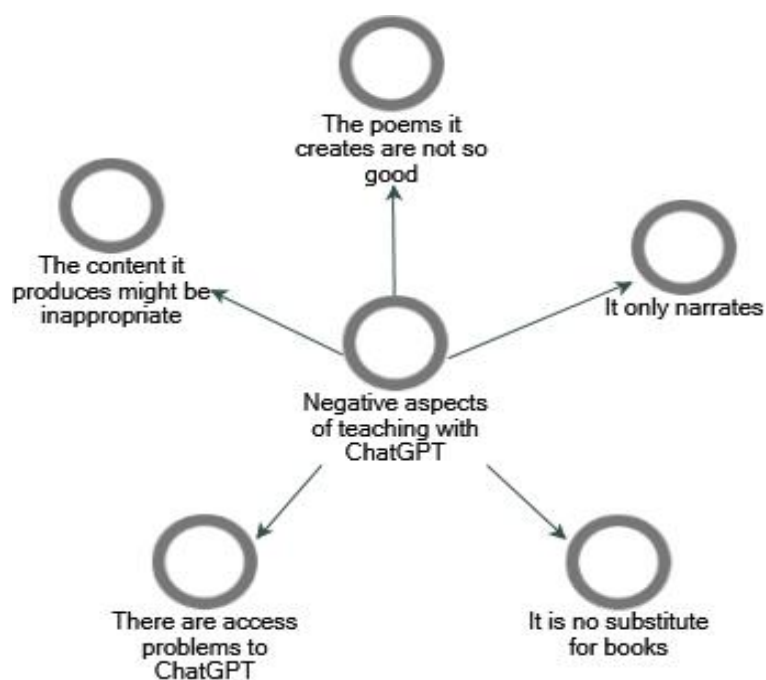


Figure 3. Negative aspects of teaching with ChatGPT

When examining the negative aspects of teaching with ChatGPT (AI), several issues have emerged, including limited access to AI, AI's limited ability to provide instruction, the potential for inappropriate content generated by AI, the lack of any significant difference in AI-assisted instruction compared to other forms of instruction, unfavorable views towards AI-generated poetry, the inability of AI to replace books, and the potential for increased exposure to radiation.

Students commonly express difficulties in accessing AI. Two students stated, "It could be an internet problem, that's why we couldn't get in" [24], and "It gives us an error message when we try to ask questions" [20]. In contrast, other views were expressed less frequently ($f=1$). For example, one student commented on the limited ability of AI to provide instruction, stating, "AI only explains. But normal classes both explain and..." [22], while another student highlighted the potential for inappropriate content generated by AI, stating, "While browsing through AI, we may come across scary things and the like" [15]. Another student mentioned that there was no significant difference between AI-assisted instruction and other forms of instruction, stating, "There was no difference between this and other classes" [19]. Furthermore, one student did not appreciate the poetry generated by AI, stating, "The poems it wrote weren't really like poetry" [18]. Only one student expressed the view that AI could not replace books, stating, "Can it replace books? No, it can't" [13]. Additionally, one student's concern about increased radiation exposure due to the use of AI is noteworthy. The student stated, "That's why we were exposed to more radiation" [12]. In summary, students emphasize the access problem as the most fundamental problem related to learning with ChatGPT.

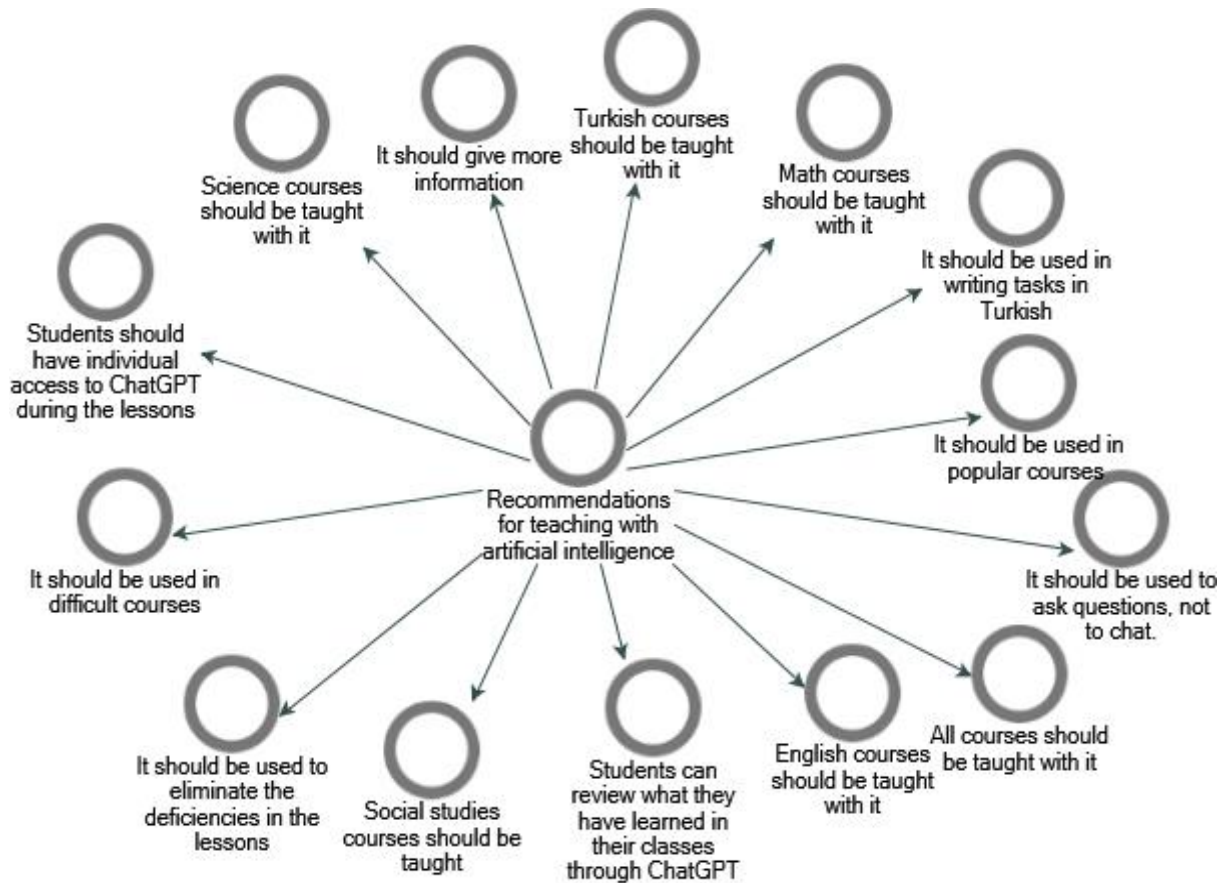


Figure 4. Recommendations for teaching with ChatGPT

When examining the theme of suggestions for teaching with ChatGPT, several recommendations have emerged. These include using ChatGPT for repeating science courses, processing social studies courses with ChatGPT, teaching mathematics with ChatGPT, teaching Turkish with ChatGPT, using ChatGPT for favored courses, processing all courses with ChatGPT, using ChatGPT for difficult courses, excluding those who do not require it from application, using ChatGPT to remedy deficiencies in courses, teaching English courses with ChatGPT, utilizing ChatGPT for mathematical operations, utilizing ChatGPT for writing tasks in Turkish, providing personalized answers based on user age, using ChatGPT for course repetition, enabling students to access ChatGPT individually during class for the purpose of asking questions rather than chatting, providing more information in processed courses, and being able to ask more unknown questions.

Most of the students have expressed their interest in revising their science lessons with ChatGPT. In this context, one student expressed their opinion as *"I want to revise my science lessons"* [P3]. Almost half of the students have expressed their interest in processing social studies, mathematics, and Turkish lessons with ChatGPT. The students listed their suggestions as *"Social studies, for example..."* [P7], *"Mathematics, and something else"* [P12], and *"I want to process Turkish"* [P1]. One student expressed their suggestion about using ChatGPT in the students' favorite courses as *"I like mathematics. I have some difficulty with Turkish"* [P5], while another student expressed the suggestion of using ChatGPT in all courses as *"Mathematics, social studies, everything"* [P14]. Some students have expressed their opinions about using ChatGPT in the courses that students find challenging, and one student emphasized this issue as *"English, as my English is not good"* [P6]. One student's suggestion stands out, which argues that *"Even those who do not need it can access it. They hinder those who need it. I don't think such a thing should*

be done" [P7], based on the fact that access to ChatGPT is not provided due to density. Additionally, it has been seen that using ChatGPT to eliminate deficiencies in courses has been presented as a suggestion. One student emphasized this issue as "Sometimes I can make mistakes in exams. It should be used to correct these deficiencies" [P11]. The suggestion of processing English lessons with ChatGPT has been expressed much less ($f=1$) than other courses. It was observed that one student expressed this suggestion as "English lessons should be processed". Additionally, it has been seen that all other suggestions were expressed by only one student. The suggestion of using ChatGPT in mathematics operations was expressed as "We can do such an operation in mathematics" [P1], the suggestion of using ChatGPT in Turkish writing tasks was expressed as "For example, we write something in Turkish" [P2], the suggestion of using ChatGPT to revise the courses was expressed as "For example, if we don't understand this subject, we can review it better on this smart board or TV, phone" [P12], the suggestion of having individual access to ChatGPT during courses was expressed as "If everyone had a tablet or something similar... Everyone could ask and answer questions themselves" [P3], the suggestion of using ChatGPT for asking questions instead of chatting was expressed as "Well... If there is something to ask a question about, it is used not in a conversation or in a ranking format" [P8], the suggestion of providing more information during the course by researching more was expressed as "Gaining more information by researching more" [P1], and the suggestion of asking more unknown questions was expressed as "Well... Asking more questions about something we don't know frequently" [P9]. In summary, students have expressed various suggestions about using ChatGPT in courses, ranging from revising courses to writing tasks and asking questions. From another perspective, a suggestion regarding the provision of responses by ChatGPT based on the user's age was elaborated by one of the students as follows: "So, if there was such a thing in ChatGPT, wouldn't it be necessary to categorize it for children aged 7-11, 11-18 years old, etc.?" [P4].

Based on the above opinions, it can be seen that students suggest processing not only science courses but also social studies, mathematics, and Turkish courses with ChatGPT. In addition, students recommend the use of ChatGPT in reviewing lessons and completing academic deficiencies.

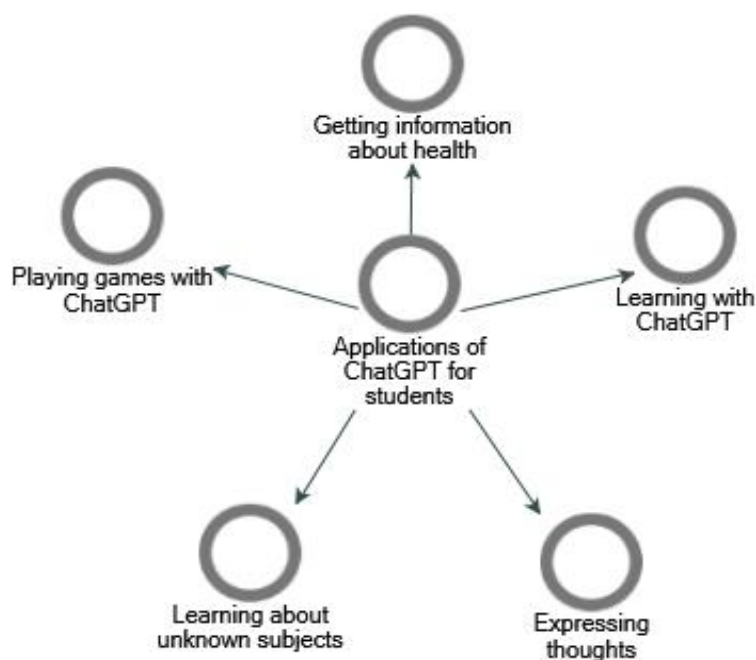


Figure 5. Applications of ChatGPT for students

When examining the theme of the applications of ChatGPT for students from the perspective of students, it is observed that usage areas such as acquiring information on unknown topics, processing lessons with ChatGPT, playing games with ChatGPT, obtaining information on health, and expressing thoughts have emerged. From the perspective of students, ChatGPT is primarily used to acquire knowledge on unknown topics and to process lessons. Students expressed these topics as *"For us to learn, to learn something that nobody knows" [P8]* and *"It can be used for teaching" [P6]*. Additionally, playing games with ChatGPT was also mentioned as one of the areas of usage. One of the students mentioned this topic as *"New games can be played" [P3]*. Furthermore, while one student expressed the area of obtaining health-related information as *"In subjects like health" [P1]*, another student emphasized the area of expressing thoughts as *"For example, we can express our thoughts" [P10]*.

In summary, students listed acquiring knowledge, studying, playing games, and healthcare as the areas of application for ChatGPT. It can be seen that students have limited knowledge about the areas of application of ChatGPT. The most important reason for this may be insufficient knowledge and experience in this context.

Discussion and Conclusion

The present study found that students enjoyed and found it fun to learn science through ChatGPT. However, students found learning with an AI-based software like ChatGPT to be different experience. These findings are similar to the results of many studies focusing on the use of chatbots in education, in terms of students' emotional responses (Chen et al., 2020; Devenci Topal et al., 2021; Essel et al., 2022; Fryer & Carpenter, 2006; Liu et al., 2022). When examining the results of these studies, it can be seen that students liked, found interesting, and enjoyed the teaching processes that were designed and implemented interactively with chatbots. Additionally, the chatbot named "Jill Watson," developed by the University of Georgia, was used in computer science classes, and students expressed more interest in the course. In Yıldız's (2022) study, students preferred using chatbots as a resource that provided feedback. Similarly, in Nghi et al.'s (2019) study on English language education, students found chatbots to be fun and exciting. From another perspective, Ryu and Han (2017) examined the images of artificial intelligence in students' minds and found that students described AI as innovative and unprecedented. In some studies, the use of artificial intelligence in the education of children has been evaluated as an interesting and motivating experience for researchers and teachers (Akdeniz, 2019; Kamite et al., 2019; Jia & Chen, 2009; Keleş & Aytürk Keleş, 2002; Kolchenko, 2018). Furthermore, it can be seen that children are positively affected by the process, particularly when chatbots are used in education. Students support the educational use of chatbots both inside and outside the classroom, a view that is consistent with general approaches in the literature. In this context, the use of artificial intelligence in education has been noted to have features such as personalized learning, encouraging student participation, and stimulating student interest (Ryu & Han, 2017). However, in a study aimed at revealing the opinions of elementary school students regarding artificial intelligence, Shin, and others (2018) found that students metaphorically described artificial intelligence as a servant, friend, and enemy. For this reason, artificial intelligence programs should be designed considering that some students may be adversely affected. This study also highlights that children have pointed out that artificial intelligence can generate inappropriate content.

In this study, students expressed their belief that using ChatGPT in teaching would contribute to their academic success. This finding is consistent with many studies conducted with chatbots. For

example, a chatbot developed by Lin, and Chang (2020) to facilitate psychology students' thesis writing had a significant impact on their success. Chen et al. (2020) found that a chatbot designed for foreign language learning significantly improved student achievement. Essel et al. (2022) conducted a study showing that interacting with a chatbot as a teaching assistant positively affected students' academic performance. However, Yin et al. (2020) determined in their study with university students that chatbot applications had positive effects on the experimental group's intrinsic motivation, but there was not much difference between the performance of the experimental and control groups. Overall, it has been stated that the use of artificial intelligence in education contributes to students' academic success (Grudin & Jacques, 2019; İşler & Kılıç, 2021; Kim & Han, 2021; Meço & Coştu, 2022; Pokrivcakova, 2019).

The use of chatbots in education has many positive aspects from the perspective of students. For instance, ChatGPT provides accurate, understandable, concise, and clear answers. This is due to ChatGPT's ability to process information in a correct, efficient, systematic, and informative manner (Zhai, 2022). According to Kasturi and Balaji (2021), chatbots can accurately answer user questions. Additionally, in the study conducted by Deveci Topal et al. (2021), using a chatbot application specifically programmed for the "States of Matter" unit of the 5th-grade Science course, students were able to ask the chatbot any question, and the chatbot was able to answer all of their questions and write text. In this study, students reported that they could acquire knowledge related to the lessons and other areas from ChatGPT. This finding is consistent with the results of Brandtzaeg and Folstad's (2017) study, which aimed to identify why people use chatbots. According to Brandtzaeg, and Folstad (2017), one reason people (aged 16-55) prefer chatbots is to acquire knowledge. In short, chatbots are mostly used to provide information to users and to answer their questions quickly (Uzun et al., 2021). Chen et al. (2020) also stated that chatbots increase students' knowledge. In this context, obtaining reliable information is crucial. Chatbots are an artificial intelligence-based technological product that can provide students with reliable information (Deveci Topal et al., 2021). Students believe that ChatGPT's ability to respond quickly is one of its positive aspects. In line with the results of Essel et al.'s (2022) study, students expressed satisfaction with using chatbots and emphasized that chatbots provide instant feedback. One of the findings of this study is that students emphasized the importance of open-source artificial intelligence. Open-source AI-based programs are important in terms of providing global access to education (Mikropoulos & Natsis, 2019). However, it should not be overlooked that open-source AI may cause access issues, as expressed by the students in this study. In this context, Muramatsu and Wangmo (2020) stated that students experienced stress due to network interruptions during online education.

In this study, students have expressed multiple suggestions for the use of chatbots in education as a result of their experiences processing science lessons with ChatGPT. For example, the students have indicated that they would like to repeat science lessons using ChatGPT. Furthermore, the students have expressed a desire to use this method to process other subjects, including Turkish, mathematics, English, and social studies. In Deveci Topal et al.'s (2021) study, which was conducted using chatbots, students also expressed a desire to use chatbots in different subjects besides science. This result is consistent with the findings of Lipko's (2016) study, in which students expressed a desire to use chatbots in subjects other than computer science. Additionally, chatbots have been used in teaching English (Yıldız, 2022), mathematics (Aygün, 2019; Kabiljagić et al., 2022), and social studies (Son, 2020), as well as in science instruction (Deveci Topal et al., 2021; Shin & Shin, 2020). It can be assumed that this situation is parallel to the opinions of the students who participated in the study. In this study, students have also

suggested using artificial intelligence to fill in gaps in the lessons and to review lessons. According to Alanoğlu and Karabatak (2020), AI-based systems can be used to improve students' areas of need. In other words, students can complete their gaps in the learned topic (Deveci-Topal et al., 2021). Furthermore, Grudin and Jacques (2019) have indicated that students can review previous topics through chatbots.

In this study, it was observed that students emphasized acquiring knowledge and processing lessons as the areas where artificial intelligence can be used. This can be explained by the students' lack of knowledge and experience in the field of artificial intelligence, which formed the study group. Additionally, in this study, students identified healthcare as another area where artificial intelligence can be utilized. According to the students, playing games is also one of the potential uses of artificial intelligence. In the study conducted by Çam et al. (2021), prospective teachers ranked medical and educational fields as the areas where artificial intelligence can be used. It is also known that chatbots are used in the marketing industry (Pokrivcakova, 2019). In addition to these, artificial intelligence is used in almost every aspect of our lives, such as communication, location finding, accessing information quickly, entertainment, storage, banking, finance, social media, healthcare, and ensuring institutional and national security (Çetin & Aktaş, 2021). In light of all these, the use of artificial intelligence in education has the potential to greatly enhance the effectiveness of education (Zhai, 2022).

Recommendations

Based on this study, some recommendations can be provided for teachers, academics, and officials from the Turkish Republic Ministry of National Education (MoNE) who will use chatbots in education and teaching processes. These recommendations are listed below:

1. Technological awareness should be developed in children from an early age.
2. The use of artificial intelligence in education should be expanded.
3. An education program depending on artificial intelligence should be prepared for children.
4. In-service training should be given to teachers at the point of teaching lessons through artificial intelligence.
5. It should be ensured that children use some artificial intelligence software such as chatbots in the presence of their parents or teachers.
6. The use of chatbots in lessons should be promoted.

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There is no material or individual organic connection with the people or institutions involved in the research and there is no conflict of interest in the research.

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Eğitimde ChatGPT

Giriş

İçinde bulunduğumuz çağ hız ve değişim çağı olarak nitelendirilebilir. Bu hız ve değişim en çok teknolojik gelişmelerde kendini göstermektedir. Teknolojik gelişmeler eğitim alanına da birçok yeni boyut kazandırmaktadır. Bu bağlamda öğrenme ortamlarının yapay zeka alanında yapılan çalışmalardan etkilendiği görülmektedir (Kayahan, 2018). Yapay zeka, insan benzeri zekaya sahip bilgisayar ve makineler (Coppin, 2004) üretmeyi amaçlayan bir çalışma alanı ve bunun sonucunda ortaya çıkan yenilik ve gelişmelerdir (Chen vd., 2020). İnsanda zeka, düşünme, akıl yürütme, yargılama ve sonuç çıkarma yeteneklerinin tamamı olarak tanımlanabilir. Bu yeteneklerin makinelerce yapılabilmesine yönelik çalışmaların bir ürünü olarak yapay zeka ortaya çıkmıştır. Başka bir söylemle yapay zeka insan beyninin problem çözme, karar verme tahmin ve çıkarım yapma gibi zihinsel becerilerini taklit etmeyi amaçlamıştır (Arslan, 2020; Drigas vd., 2009; Kış, 2019).

Yapay zekanın eğitimde kullanılan teknikleri ise chatbot (sohbet robotu), uzman sistemler ve akıllı öğretim sistemleri olarak sıralanmaktadır (Meço, & Coştu, 2022). Eğitimde yapay zeka ileri öğrenme teknolojileri kavramının altında yer alan akıllı öğretim sistemlerinin bir parçasıdır. Akıllı öğretim sistemleri neyi, nasıl ve kime öğreteceğini bilen, yapay zeka teknolojilerinden yararlanan bilgisayar programları olarak tanımlanabilir. Başka bir söylemle akıllı öğretim sistemleri karmaşık konuları bir insan öğreticiyi model alarak öğreten ve bire bir öğretim fırsatı sunan yazılım programlarıdır (Akdeniz & Özdiç, 2021; Bahçeci & Gürol, 2010; Kayahan, 2018; Keleş, 2002). Akıllı öğretim sistemleri yapay zekanın eğitimdeki en yaygın uygulamasıdır. Bu sistemde öğrenci ilerledikçe sistem otomatik olarak zorluk seviyesini ayarlamaktadır (Fadel vd., 2019). Bu bağlamda Carnegie Learning, Jill Watson, EBA ADES, iTalk2Learn gibi platformlar yapay zeka tabanlı akıllı eğitim sistemlerine örnek olarak verilebilir (Çetin & Aktaş, 2021).

Öğrencilerin bireysel gelişimine katkı sağlayan sohbet robotları da eğitim alanında yaygınlaşmaya başlamıştır (Arruda vd., 2019; Deveci Topal vd., 2021; Nghi vd., 2019). Alex, ELIZA, megaHAL, PARRY, ANTsvers, A.L.I.C.E. ve GPT-3 gibi sohbet robotları geliştirilmiştir (Kane, 2016; Osetskyi, 2020; Özkol vd., 2019). Geliştirilen sohbet robotlarından biri de ChatGPT'dir. ChatGPT'yi diğer yapay zeka tabanlı sohbet robotlarından ayıran en önemli özelliklerden biri yaratıcılık gerektiren aktivitelerde daha başarılı olmasıdır. ChatGPT, openAI tarafından geliştirilen genel amaçlı bir sohbet robotudur. Bu robotun eğitim üzerindeki etkileri bilinmemektedir. ChatGPT'nin kapasitesi öğrenme hedefleri, öğrenme etkinlikleri ve ölçme değerlendirme uygulamalarında değişikliklere yol açabileceğinden bu alanlardaki etkisinin çok büyük olacağı düşünülmektedir (Zhai, 2022).

Alanyazın incelendiğinde yapay zekanın eğitimde kullanımını konu alan birçok çalışmanın (Aygün, 2019; Kabiljagic vd., 2022; Kim ve Han, 2021; Kim ve Park, 2017; Ottenbreit- Leftwich vd., 2021; Ryu, & Han, 2017; Shin, 2020; Shin ve Shin, 2020; Shin vd., 2018; Son, 2020) olduğu görülse de yapay zeka tabanlı sohbet robotlarının eğitimde kullanımını konu alan çalışmaların yeterli olmadığı söylenebilir. Bu noktada lisans öğrencileriyle (Essel vd., 2022; Mokmin ve Ibrahim, 2021), ortaokul öğrencileriyle (Deveci Topal, 2021), ilkokul öğrencileriyle (Kabiljagic vd., 2022) ve yabancı dil eğitiminde (Yıldız, 2022) çalışmalar yapılmıştır. Ancak ChatGPT sohbet robotunun öğretimde kullanıldığı herhangi bir çalışmaya rastlanmamıştır.

ChatGPT'nin eğitimde kullanımını ortaya koymayı amaçlayan bu çalışmanın öğretmenlere yapay zekanın sınıfta uygulanması noktasında katkı sağlayacağı, eğitimde yapay zeka kullanımına ilişkin farkındalık kazandıracığı, araştırmacılara yapay zeka tabanlı sohbet robotunun kullanımına yönelik yeni bir bakış kazandıracığı, MEB yetkililerine sohbet robotlarının sınıf içinde kullanılabilmesine ilişkin olumlu bir örnek sunacağı düşünülmektedir.

Yöntem

Araştırma nitel bir araştırma olarak tasarlanmış ve yürütülmüştür. Nitel araştırma, bireylerin veya grupların sosyal veya bireysel sorunlarına ilişkin araştırma sorularının incelenmesini içeren yorumlayıcı çerçevelerin kullanıldığı bir araştırma yöntemidir (Creswell, 2013/2021). Araştırmanın çalışma grubu, 2022-2023 eğitim-öğretim yılında Aydın ili Köşk ilçesindeki bir devlet okulunda okuyan 15 4. sınıf öğrencisinden oluşmaktadır. Araştırmanın çalışma grubu uygun örnekleme yöntemi ile belirlenmiştir. Uygun örnekleme hızlı ve kullanışlı bir örnekleme stratejisidir (Patton, 2014/2018). Bu nedenle çalışma grubu ikinci araştırmacının çalıştığı devlet ilkokulundaki öğrenciler arasından belirlenmiştir.

Nitel araştırmalarda veriler görüşmeler, gözlemler ve belgelerle toplanmaktadır (Creswell, 2013/2021; Patton, 2014/2018). Bu nedenle, araştırmadaki veriler yarı yapılandırılmış görüşmelerle elde edilmiştir. Görüşme formu araştırmacılar tarafından geliştirilmiş ve form, temel eğitim alanındaki iki uzmanın görüşleri doğrultusunda düzeltmeler yapılarak tamamlanmıştır.

Katılımcılar, araştırmacı ve katılımcılardan başka kimsenin görüşme oturumlarına katılmasına izin verilmeyeceği konusunda bilgilendirilmiştir. Yine katılımcılar, elde edilen materyalin gelecekte yapılacak araştırmalarda şifrelenmiş bir biçimde sunulacağına ikna edilmiştir. Yarı yapılandırılmış görüşmelerden önce, her ebeveyn, çocuğunun çalışmaya katılmalarına izin verdiklerini belirten bilgilendirilmiş bir onay formu alınmıştır. Araştırmacıların ulaştığı sonuçları desteklemek ve

öğrencilerin bakış açılarını yansıtmak için görüşme metinlerinden örnek alıntılar da çalışmaya dahil edilmiştir (Lincoln & Guba, 1985).

Araştırmada, ilkokul 4. sınıf Fen Bilimleri programına dahil olan geri dönüşüm konusu, yapay zeka temelli bir yazılım olan ChatGPT aracılığıyla haftada iki saat, üç hafta boyunca ele alınmıştır. ChatGPT'nin uygulam sürecinden sonra gönüllü katılımcılarla görüşmek için randevular düzenlenmiştir. Görüşmeler, katılımcılarla kararlaştırılan tarihlerde okul yöneticileri tarafından tahsis edilen sessiz bir odada (veli toplantı odası) yüz yüze gerçekleştirilmiştir. Ayrıca, görüşme sırasında ses kaydedici cihaz kullanılmıştır. Görüşmelerin kaydedileceğine ilişkin öğrenci velilerinden onay alınmıştır. Bu çalışmada yapılan yarı yapılandırılmış görüşmelerin ses kayıtları Microsoft Word ortamına aktarılmıştır. Bu aşamadan sonra, transkript edilen veriler okunmuş ve not alınarak ön keşif yapılmıştır. Sonra elde edilen veriler içerik analizi yöntemi ile çözümlenmiştir (Patton, 2014/2018; Saldana, 2015/2019). Yine veriler araştırmacı tarafından ayrı ayrı kodlanmıştır ve daha sonra bu kodlarla ilgili temalar oluşturulmuştur. Tüm bu süreç " NVIVO for Windows " adı verilen nitel araştırma analiz yazılımı ile gerçekleştirilmiştir. Veri analizi sürecinde endüktif bir yaklaşım benimsenmiştir ve analiz süreci buna göre gerçekleştirilmiştir (Lincoln ve Guba, 1985).

Bulgular

Bu çalışmada, yarı yapılandırılmış görüşmeler yoluyla elde edilen veriler üzerinde içerik analizi yapılmış ve bu analiz sonucunda 5 tema ve bu temalara ilişkin kodlara ulaşılmıştır. Ulaşılan temalar (1) ChatGPT'ye yönelik genel düşünceler, (2) ChatGPT ile yapılan öğretimin olumlu yönleri, (3) ChatGPT ile yapılan öğretimin olumsuz yönleri, (4) ChatGPT ile yapılan öğretime yönelik öneriler ve (5) Öğrenciler perspektifinden ChatGPT'nin kullanım alanlarıdır.

ChatGPT'ye yönelik genel düşünceler teması incelendiğinde, öğrencilerin ChatGPT ile ders işlemeyi beğendiği ve farklı bulduğu görülmüştür. Bununla birlikte ChatGPT ile Fen dersi işleme süreci öğrencileri mutlu etmiştir. Ayrıca bu öğretim süreci öğrenciler açısından eğlenceli bulunmuştur. ChatGPT ile yapılan öğretimin olumlu yönleri teması incelendiğinde öğrencilerin çoğunun bu yöntemle yürütülen derslerin akademik başarılarına olumlu yönde etki edeceğini ifade ettiği görülmüştür. Öğrenciler ChatGPT'den doğru, anlaşılır, kısa ve net cevaplar alınabildiğini belirtmiştir. Ek olarak öğrenciler ChatGPT'den bilgi edinmelerini bu sohbet robotunun olumlu özelliklerinden biri olarak vurgulamıştır. Öğrenciler ChatGPT'nin metin yazabilmesini, şiir yazabilmesini, istenilen her soruya cevap verebilmesini, sorulara hemen yanıt vermesini ve açık kaynak kodlu olmasını da bu yapay zeka temelli yazılımın olumlu özellikleri olarak sıralamıştır.

ChatGPT ile yapılan öğretimin olumsuz yönleri teması incelendiğinde, öğrencilerin çoğunun erişim sorununa dikkat çektiği görülmüştür. Ek olarak öğrenciler, ChatGPT'nin uygunsuz içerik oluşturabileceği, kitapların yerini alamayacağı, radyasyona maruz kalınması ve sadece anlatım yapması gibi olumsuz yönlerini de ifade etmiştir. ChatGPT ile yapılan öğretime yönelik öneriler teması incelendiğinde ise öğrencilerin çoğunun tekrar ChatGPT ile Fen dersi işlemeyi önerdiği görülmüştür. Ayrıca öğrenciler Fen dersinin yanı sıra Sosyal Bilgiler, Matematik, Türkçe ve İngilizce derslerinde de ChatGPT 'yi kullanmayı önermiştir. Öğrenciler açısından ChatGPT sadece ders işleme amacıyla değil derslerdeki eksiklerin tamalanması ve işlenen konuların tekrarında da kullanılmalıdır. Başka bir açıdan öğrenciler, ChatGPT'nin ihtiyaç harici kullanılmaması gerektiği üzerinde durmuştur. ChatGPT'ye yönelik

önerilerden biri de sohbet robotlarının kullanıcıların yaşını dikkate alarak yanıtlarını gözden geçirmesidir.

Öğrenciler perspektifinden yapay zekanın kullanım alanları teması incelendiğinde, öğrenciler deneyimlerine ve yapay zekaya ilişkin bilgi düzeylerine paralel olarak yapay zekanın ders işleme ve bilgi edinmek amacıyla kullanıldığını ifade etmiştir. Ek olarak öğrenciler yapay zekanın oyun oynamak ve düşünceleri ifade etmek amacıyla da kullanıldığını belirtmiştir. Öğrencilerin az bir kısmının yapay zekanın sağlık alanında kullanıldığını ifade etmesi gözden kaçırılmamalıdır.

Tartışma ve Sonuç

Bu çalışmada öğrenciler ChatGPT ile Fen dersi işlemeyi beğenmiş ve bu süreci eğlenceli bulmuştur. Ek olarak ChatGPT'yi Fen öğretimi için kullanmak öğrencileri mutlu etmiştir. Ayrıca öğrenciler, ChatGPT gibi yapay zeka tabanlı bir yazılımla öğrenmenin farklı olduğunu ifade etmiştir. Bu bulgular, eğitimde sohbet robotu kullanımına odaklanan birçok çalışmanın sonuçlarıyla örtüşmektedir (Chen vd., 2020; Deveci-Topal vd., 2021; Essel vd., 2022; Fryer ve Carpenter, 2006; Liu vd., 2022). Bu çalışmaların sonuçları incelendiğinde, öğrencilerin sohbet robotları ile etkileşimli olarak tasarlanan ve uygulanan öğretim süreçlerini beğendikleri, ilginç buldukları ve keyif aldıkları görülmektedir. Benzer şekilde, Nghi ve diğerlerinin (2019) İngilizce eğitimi üzerine yaptığı çalışmada, öğrenciler chatbotları eğlenceli ve heyecan verici bulmuşlardır. Başka bir bakış açısıyla, Ryu ve Han (2017), öğrencilerin zihnindeki yapay zeka imajlarını incelemiş ve öğrencilerin yapay zekayı yeni ve heyecan verici olarak tanımladıklarını bulmuştur. Araştırmacılar ve öğretmenler için yapay zekanın çocuk eğitiminde kullanılması ilgi çekici ve motive edicidir (Akdeniz, 2019; Kamite vd., 2019; Jia & Chen, 2009; Keleş & Aytürk Keleş, 2002; Kolchenko, 2018). Ayrıca özellikle eğitimde sohbet robotları kullanıldığında çocukların süreçten olumlu etkilendikleri görülmektedir.

Bu çalışmada öğrenciler ChatGPT'yi öğretimde kullanmanın akademik başarılarına katkı sağlayacağına inandıklarını ifade etmişlerdir. Bu bulgu, chatbotlarla yapılan birçok çalışma ile tutarlıdır. Örneğin, Lin ve Chang (2020) tarafından psikoloji öğrencilerinin tez yazmalarını kolaylaştırmak için geliştirilen birsohbet robotu, öğrencilerin tez yazma yerliliklerini önemli ölçüde arttırmıştır. Chen ve diğerleri (2020) ise yabancı dil öğrenimi için tasarlanmış bir sohbet robotunun öğrenci başarısını önemli ölçüde artırdığı sonucuna ulaşmıştır. Essel ve diğerleri (2022) de öğretim asistanı olarak bir chatbot ile etkileşim kurmanın öğrencilerin akademik performansını olumlu yönde etkilediğini gösteren bir çalışma yürütmüştür. Ancak, Yin ve diğerleri (2020), üniversite öğrencileriyle yaptıkları çalışmada, chatbot uygulamalarının deney grubunun içsel motivasyonuna olumlu etkilerinin olduğunu ancak deney ve kontrol gruplarının performansları arasında çok fazla fark olmadığını belirlemiştir. Genel olarak eğitimde yapay zeka kullanımının öğrencilerin akademik başarılarına katkı sağladığı belirtilmiştir (Grudin & Jacques, 2019; İşler & Kılıç, 2021; Kim & Han, 2021; Meço & Coştu, 2022; Pokrivcakova, 2019). Sohbet robotlarının eğitimde kullanılmasının öğrenciler açısından birçok olumlu yönü bulunmaktadır. Örneğin, ChatGPT doğru, anlaşılır, özlü ve net yanıtlar sağlar. Bunun nedeni, ChatGPT'nin bilgileri doğru, verimli, sistematik ve bilgilendirici bir şekilde işleme yeteneğidir (Zhai, 2022). Kasturi ve Balaji'ye (2021) göre, sohbet robotları kullanıcı sorularını doğru bir şekilde yanıtlayabilmektedir. Ayrıca Deveci Topal ve diğerleri (2021), 5. sınıf Fen Bilimleri dersinin "Maddenin Halleri" ünitesi için özel olarak programlanmış bir sohbet robotu uygulaması kullandıkları çalışmalarında, öğrenciler sohbet robotuna her türlü soruyu sorabilmiş ve sohbet robotu da öğrencilerin tüm sorularını cevaplamıştır. Bu çalışmada öğrenciler ChatGPT'den derslere ve diğer alanlara ilişkin

bilgiler edinebileceklerini belirtmişlerdir. Bu bulgu, Brandtzaeg ve Folstad'ın (2017) insanların neden sohbet robotu kullandığını belirlemeyi amaçlayan çalışmasının sonuçlarıyla tutarlılık göstermektedir. Brandtzaeg ve Folstad'a (2017) göre insanların (16-55 yaş arası) sohbet robotlarını tercih etme sebeplerinden biri bilgi edinmektir. Kısacası chatbotlar çoğunlukla kullanıcılara bilgi sağlamak ve sorularını hızlı bir şekilde cevaplamak için kullanılmaktadır (Uzun vd., 2021).

Bu çalışmada öğrenciler, ChatGPT ile Fen dersi işleme deneyimleri sonucunda, eğitimde sohbet robotu kullanımına yönelik birçok öneride bulunmuşlardır. Örneğin, öğrenciler Fen derslerini tekrar ChatGPT kullanarak işlemek istediklerini belirtmiştir. Ayrıca öğrenciler bu yöntemi Türkçe, matematik, İngilizce ve sosyal bilgiler gibi diğer dersleri işlemek için de kullanmak istediklerini ifade etmiştir. Devenci Topal ve diğerlerinin (2021) çalışmasında öğrenciler, sohbet robotlarını Fen dersi dışında farklı konularda da kullanmak istediklerini belirtmiştir. Bu sonuç, Lipko'nun (2016) öğrencilerin bilgisayar bilimi dışındaki konularda da sohbet robotlarını kullanmak isteklerini ifade ettiği çalışmanın bulgularıyla da tutarlıdır. Ayrıca sohbet robotlarının Fen öğretiminde (Devenci Topal vd., 2021; Shin ve Shin, 2020), İngilizce öğretiminde (Yıldız, 2022), matematik öğretiminde (Aygün, 2019; Kabiljagić vd., 2022) ve Sosyal Bilgiler (Son, 2020) öğretiminde kullanıldığı görülmektedir. Bu durumun araştırmaya katılan öğrencilerin görüşleri ile paralellik gösterdiği düşünülebilir. Ayrıca bu çalışmada öğrenciler yapay zekanın derslerdeki boşlukları doldurmak ve dersleri gözden geçirmek için kullanılmasını da önermiştir.

Bu çalışmada öğrencilerin yapay zekanın kullanılabilmesi için alanlar olarak bilgi edinme ve dersleri işleme konularına vurgu yaptıkları görülmüştür. Bu durum çalışma grubunu oluşturan öğrencilerin yapay zeka alanındaki bilgi ve deneyim eksiklikleri ile açıklanabilir. Ayrıca bu çalışmada öğrenciler sağlık hizmetlerini yapay zekanın kullanılabilmesi için bir diğer alan olarak tanımlamışlardır. Öğrencilere göre oyun oynamak da yapay zekanın potansiyel kullanım alanlarından biridir. Çam ve diğerlerinin (2021) yürüttüğü çalışmada öğretmen adayları, yapay zekanın kullanılabilmesi için alanlar olarak tıp ve eğitimi işaretlemiştir. Sohbet robotlarının pazarlama sektöründe de kullanıldığı bilinmektedir (Pokrivcakova, 2019). Bunların yanı sıra iletişim, yer bulma, bilgiye hızlı erişim, eğlence, depolama, bankacılık, finans, sosyal medya, sağlık, kurumsal ve ulusal güvenliğin sağlanması gibi hayatımızın hemen her alanında yapay zeka kullanılmaktadır (Çetin & Aktaş, 2021). Tüm bunların ışığında eğitimde yapay zeka kullanımı, eğitimin etkinliğini büyük ölçüde artırma potansiyeline sahiptir (Zhai, 2022).

Öneriler

Bu çalışmadan hareketle sohbet robotlarını öğretim süreçlerinde kullanacak öğretmenlere, akademisyenlere ve Türkiye Cumhuriyeti Milli Eğitim Bakanlığı [MEB] yetkililerine bazı önerilerde bulunulabilir. Bu öneriler aşağıda sıralanmıştır:

1. Çocuklarda küçük yaşlardan itibaren teknolojik farkındalık geliştirilmelidir.
2. Yapay zekanın eğitimde kullanımı yaygınlaştırılmalıdır.
3. Çocuklar için yapay zeka konusunda bir eğitim programı hazırlanmalıdır.
4. Öğretmenlere derslerin yapay zeka ile işlenmesi noktasında hizmet içi eğitimler verilmelidir.
5. Çocukların, ebeveynlerinin veya öğretmenlerinin rehberliğinde yapay zeka yazılımlarını kullanmaları sağlanmalıdır.
6. Derslerde sohbet robotlarının kullanımı teşvik edilmelidir.

APPENDIX 1.

Photos of The Application Process

ayrıştırılır. Bu, plastiklerin farklı polimerlerden oluştuğu için önemlidir, çünkü farklı polimerler farklı şekillerde işlenebilir. Plastik atıkları, çeşitli toplama kutularına atılır veya özel geri dönüşüm merkezlerine götürülür.

2. Plastiklerin parçalanması: Plastik atıkları, daha küçük parçalara ayrıştırılır. Bu süreç, plastiğin kırılması, doğrayıp rendelenmesi gibi adımları içerir. Bu adımlar, plastiğin daha sonraki işlemlerde daha kolay işlenebilmesini sağlar.
3. Plastiklerin içindeki katı maddelerin ayrıştırılması: Plastik atıklarının içindeki katı maddeler, plastiğin geri dönüştürülmesine engel olabilir. Bu nedenle, bu maddeler plastikten ayrıştırılır.
4. Plastiklerin yeniden şekillendirilmesi: Plastik parçaları, yeniden şekillendirilerek, farklı ürünlerin üretimine kullanılır. Bu süreç, sıcaklık ve basınç kullanılarak gerçekleştirilir. Örneğin, plastik parçaları, yeniden şekillendirilerek, yeni plastik şişeler veya poşetler üretebilir.

Plastik geri dönüşümü, çevre ve doğal kaynakları koruma açısından önemlidir, çünkü plastiklerin üretimi yeni hammadde kullanımını



piller ve atık yağlar geri dönüştürülebilir mi?



Evet, pil ve atık yağlar geri dönüştürülebilir. Pil ve atık yağların geri dönüştürülmesi, doğayı kirleten ve zararlı atıkların birikmesini önleyen bir yöntemdir. Geri dönüştürülmüş pil ve atık yağlar, yeniden kullanılabilir hale getirilerek tekrar kullanılabilir veya başka amaçlar için işlenebilir. Geri dönüştürme işlemi, doğaya ve insan sağlığına zarar vermeyen bir yöntemdir ve dünyamızın geleceği için önemlidir.



geri dönüşüm yapılmazsa dünyamıza ne olur



Eğer geri dönüşüm yapılmazsa, atıklar doğada birikmeye devam eder ve bu birikim doğaya ve insan sağlığına zararlı olabilir. Atıkların birikmesi, hava kirliliğine, su kirliliğine ve toprağın zehirlenmesine neden olabilir. Ayrıca, geri dönüşüm yapılmaması nedeniyle kaynakların tasarruflu kullanılmaması sonucu, dünyamızda kaynakların tükenmesine de neden olabilir. Geri dönüşüm yapılması, doğal kaynakların tasarruflu kullanılmasını sağlar ve bu sayede dünyamızın geleceğini korur.



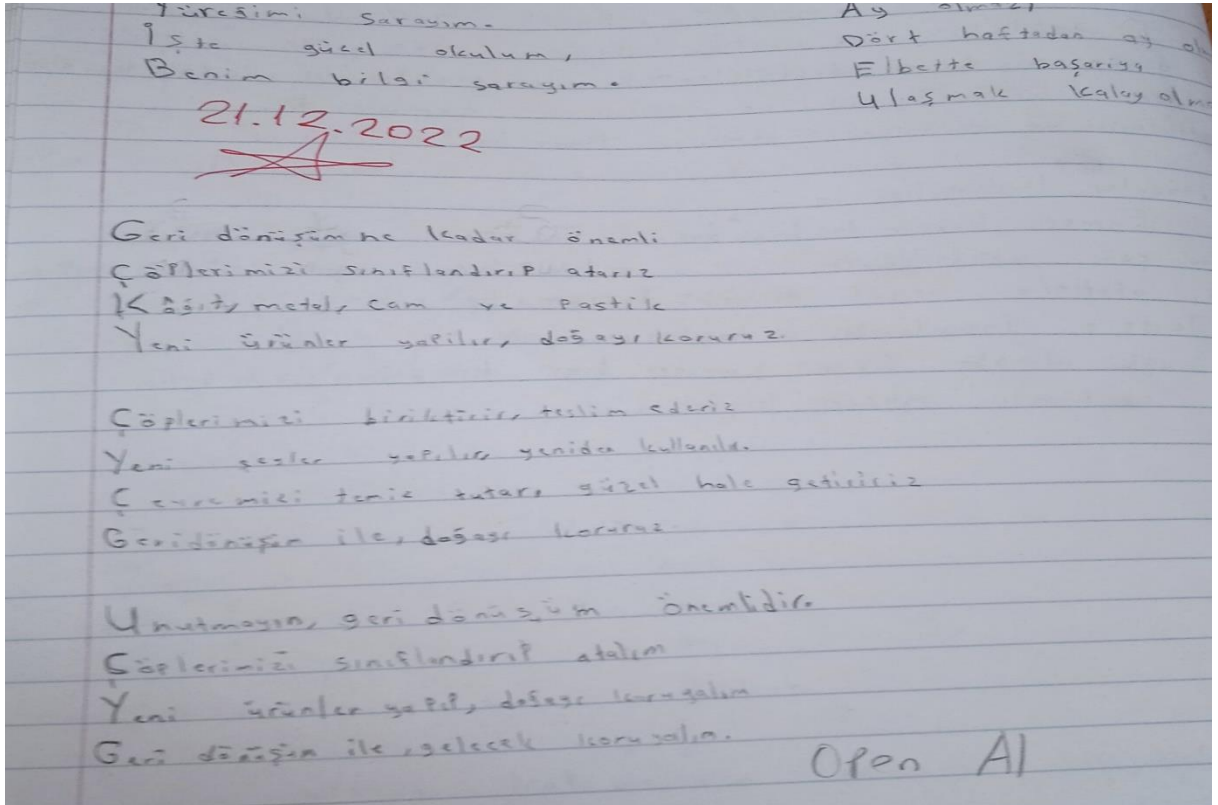


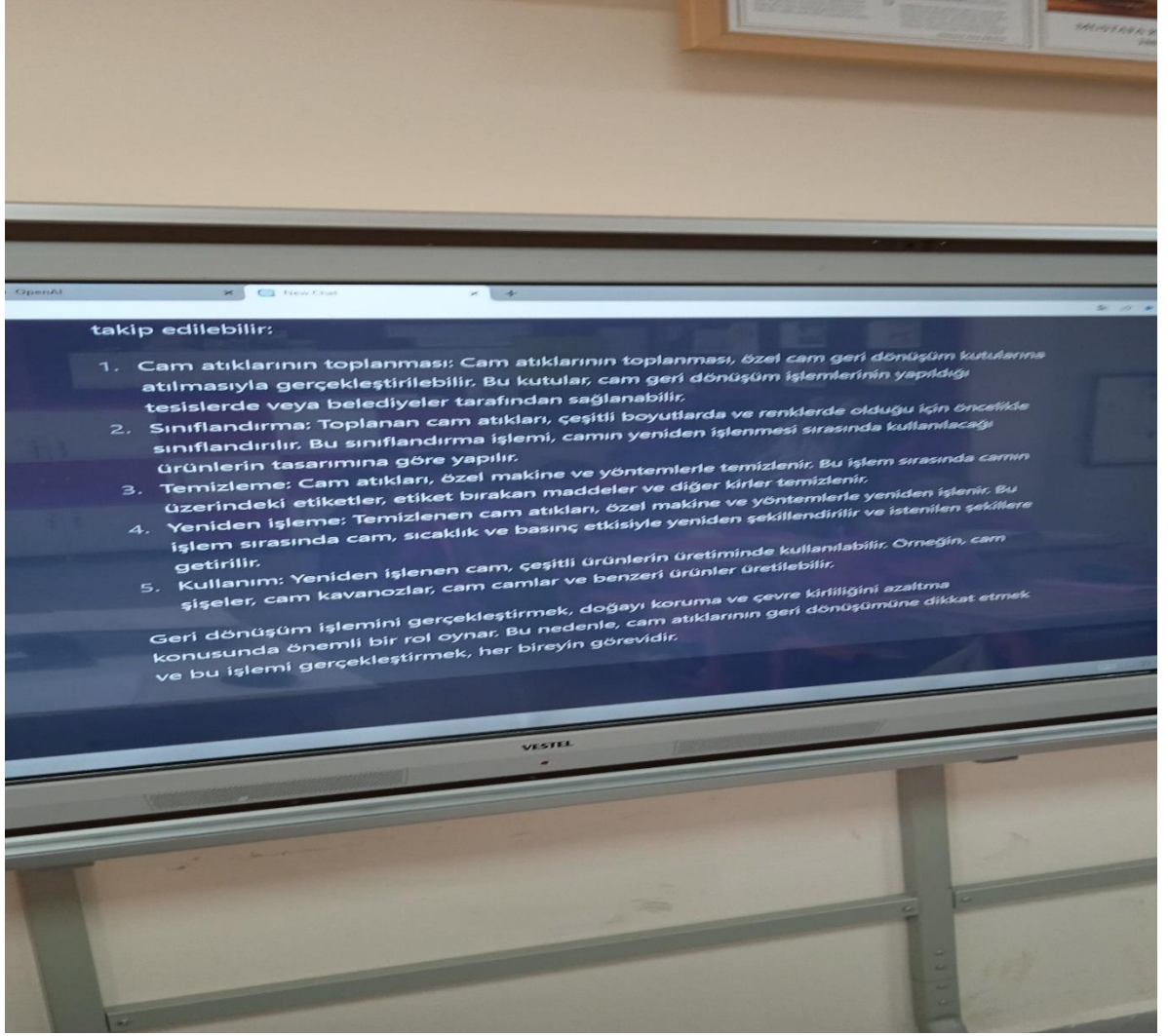
Tabii! İşte başka bir geri dönüşüm şiiri:

Atıkları toplamak bizim görevimiz,
Geri dönüşüm sayesinde dünyamız korunur.
Cam, metal, kağıt ve plastik,
Hepsi geri dönüşür, yeniden kullanılır.

Çöp yığını azaltırız bu şekilde,
Dünyamızı temiz tutarız.
Her gün geri dönüştürmeyi unutmayalım,
Dünyamızı daha iyi bir yer yapalım.

Çevremizi koruyalım, atıkları toplayalım,
Geri dönüşüm sayesinde dünyamızı koruyalım.
Gelecek kuşaklara temiz bir dünya bırakalım,
Geri dönüşümü unutmayalım hiçbir zaman.







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Content Analysis of Postgraduate Theses on Formative Assessment and Education in Turkey

Burcu Torun, Phd Student, Corresponding Author
Kastamonu University, Türkiye
burcu.torun1@gmail.com
Orcid ID: 0000-0002- 7295-5565

Murat Pektaş, Prof. Dr.
Kastamonu University, Türkiye
pektasenator@gmail.com
Orcid ID: 0000-0002-7205-6279

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Abstract

The aim of this study was to examine the postgraduate papers on formative assessment in Turkey from a thematic perspective. The thematic content analysis method was used in the study. The study group consisted of 38 (27 master's theses and 11 doctoral theses) approved doctoral theses. These dissertations were classified under 5 main themes (studies describing formative assessment competencies of teachers or pre-service teachers, studies planning the development of formative assessment components of teachers or pre-service teachers, studies examining the effects of formative assessment on student outcomes, studies on factors influencing formative assessment practices, other studies on formative assessment) were analyzed in terms of different variables. Analyzing these works according to the main topics, it was found that the studies describing the formative assessment competencies of teachers or prospective teachers and the studies planning to improve the formative assessment components of teachers or prospective teachers were the least in number. It was found that most of the studies on formative assessment were studies that examined the effects of formative assessment on student outcomes, and that these effects were mostly performance on cognitive characteristics and attitudes on affective characteristics. The most commonly used method in the studies was mixed methods, and the least used method was action research. While interviews and scales were mostly used as data collection instruments in the studies, content analysis, descriptive analysis, and t-test were frequently preferred among the data analysis methods. Suggestions for future research on formative assessment were presented at the end of the study.

Keywords: Formative assessment, content analysis, postgraduate thesis studies.

Introduction

In recent years, the importance of assessment in the classroom has increased (Shepard, 2000). Looking at the important components that impact assessment in the classroom, one finds that a global understanding and perspective is prevalent, encompassing knowledge, skills, and attitudes such as problem solving, decision making, critical thinking, creativity, and innovative thinking (Marzano, 2006). The goal of these knowledge, skills, and dispositions is to improve students' knowledge in daily life and their ability and cognition to become effective individuals (McMillan, 2017). In classroom assessment, it is the teachers' responsibility to assess the development of these knowledge, skills, and dispositions in the classroom, not just the content taught in the classroom (William, 2007).

Good teaching should be designed so that students can participate in effective teaching (Demirel, 2004). Student involvement in the process is only possible when teachers continuously assess their students in line with their learning goals and provide effective feedback (Hattie & Timperley, 2007). Feedback encourages students to organize their learning. This makes students aware that they are taking responsibility for their own learning. This increases students' self-efficacy and confidence (Brookhart, 2008). These studies can be done through assessment activities that enhance learning and formative assessment activities, also called assessment for learning (Cornelius, 2013).

According to Gipps (1994), formative assessment is the development and shaping of student competencies through the evaluation of student work and performance. In order for student competencies to develop, the feedback given to students should be detailed and encouraging so that students can improve their performance (Brookhart, 2008). The formative

assessment approach, which helps create effective and efficient classroom dialog, allows for timely feedback to be given and received in the classroom (Fluckiger et al., 2010). In this way, both students and teachers are actively engaged in the process of formative assessment (Bell & Cowie, 2001).

Bell and Cowie (2002) define formative assessment as the process of obtaining, interpreting, and implementing assessment information based on teacher-student interaction. In formative assessment, it is important to ensure effective and efficient interaction between teacher and student. In fact, teacher-student interaction is the most effective way for the teacher to use the information gathered after observing students' knowledge, skills, and performance (McMillan, 2017). Therefore, the nature and content of student-teacher interaction are important for effective feedback.

According to Black and William (1998), formative assessment is the use of data obtained as a result of teacher and student evaluation of teaching activities to change and improve teaching activities. Here, assessment is viewed as a collection of evidence. It should be tailored to the needs of the students. In this respect, formative assessment differs from summative assessment. While the data on student learning obtained as a result of formative assessment activities are used to redesign instruction, the information obtained in summative assessment is used to document or grade student knowledge, skills, and performance in the subject (Carless, 2012).

A review of the literature reveals three dimensions used in the formative assessment process. These dimensions are: 1) What are we going to learn (where are we going)?, 2) What is the current state of learning (where are we now), 3) How can the gap between the current situation and the learning goals be closed (what strategy or strategies can help me reach my goal?) (Hattie & Timperley, 2007; Keeley, 2008; Moss & Brookhart, 2009; Wiliam & Thompson, 2007). In the process of formative assessment, both teachers and students use these three questions to determine the current situation in relation to the learning goals and success criteria and to work on closing the gap between the current situation and the expected goal. To effectively carry out the process of formative assessment, components of formative assessment are used within these three dimensions. These components are sharing learning goals and success criteria with students, question types/collection of data about student progress, information gathering strategies, feedback, self- and peer-assessment, and planning the next step of instruction (Buck & Trauth-Nare, 2009; Hattie & Timperley, 2007; Keeley, 2008; Moss & Brookhart, 2009; Wiliam & Thompson, 2007). Within this study, the main themes identified were studies that describe and develop teachers' use of components of formative assessment.

In examining studies of formative assessment practices, it appears that they generally lead to improvements in student learning and the quality of instruction (Bala, 2013; Black et al., 2003; Buck & Trauth-Nare, 2009; Boz & Boz, 2005; Buldur, 2014; Cheng, 2006; DeNome, 2015; Furtak et al., 2016; Heritage, 2008; Metin & Birişçi, 2009; Shepard, 2000; Wiliam et al., 2004). Formative assessment can impact student achievement (Ruiz-Primo and Furtak, 2007; Wiliam et al., 2004), learning, and behavior (Black et al., 2003). These studies have led many countries to include formative assessments in science curricula (European Commission, 2011; Ministry of National Education [MoNE], 2018a; Organization for Economic Co-operation and Development [OECD], 2005; The Australian Institute for Teaching and School Leadership Limited [AITSL], 2011).

In 2005, the OECD report highlighted the widespread use of formative assessments. In its report entitled "Science Education in Europe", the European Commission (2011) mentioned the need for formative assessment in achieving the goals of science education and stated that formative assessment is very useful in both curriculum design and learning and teaching activities. In Turkey, the importance of "formative assessment" was highlighted in the science curriculum, which was created in light of these developments to achieve the goals of science education (MoNE, 2018a).

İnaltun and Ateş (2018) provided a literature review on formative assessment focusing on international research. İnaltun and Ateş (2018) selected the categories "Education, Educational Research, Education Scientific Disciplines, Computer Science Interdisciplinary Applications, Psychology Educational" in the Web of Science database to show the trends of studies on formative assessment, and found studies with the word "formative assessment" in the title conducted between 2001 and 2017, studies conducted in primary and secondary science and physics, biology, and chemistry, and studies conducted with science teachers or Pre-service teachers (science, physics, biology, chemistry) and with teachers who teach science in their classes. Similarly, Atasoy and Kaya (2022) conducted a metasynthesis study in which they examined qualitative research on formative assessment in science education according to specific criteria. They sought to determine how science teachers' formative assessment practices are supported and how science teachers benefit from formative assessment in their teaching practices. The studies examined were conducted using articles from the international field, but the fact that the current study was conducted using theses in Turkey distinguishes the current study from these studies.

Parallel to the increasing use of formative assessment in teaching, it can be noted that the number of studies on formative assessment in Turkey is increasing every year. In this context, an analysis of dissertation studies on formative assessment can provide detailed information about the variables and situations that researchers focus on. Analyzing the dissertation studies on this topic in the literature can provide a holistic perspective on the topic as well as determine the trends of the researches and guide the researchers in future studies. In this regard, the collection of studies on this topic in a single source can be effective and useful.

In reviewing the literature, there were no studies that analyzed theses on formative assessment during the period in question. Therefore, it is believed that this study will provide guidance to researchers by identifying thesis trends in the area of formative assessment. To this end, a total of 38 studies (Appendix 1) were reviewed and a thematic content analysis was conducted to determine the trend of dissertations on formative assessment. Dissertations were categorized by major topic and the following problems were sought for dissertations under each major topic:

- 1) What is the nature, year, and language of the formative assessment studies?
- 2) What methods were used in the dissertation studies for formative assessment?
- 3) Who are the study groups of the degree studies on formative assessment?
- 4) What is the distribution of degree studies on formative assessment across types of colleges and disciplines?

5) What data collection instruments were used in the degree studies on formative assessment?

6) What methods of data analysis were used in the final papers on formative assessment?

7) What are the findings and conclusions of the theses on formative assessment?

Method

Research Model

In this study, the method of thematic content analysis was used because the objective was to examine the dissertations scanned at the National Thesis Center of the Council of Higher Education [CHE] on the topic of formative assessment and education and training and to identify the trends in this area. Thematic content analysis is the synthesis of the results and trends of the studies conducted in a field with a critical perspective according to the established themes or templates to determine the results and trends (Au, 2007; Çalık & Sözbilir, 2014; Finfgeld, 2003). For this reason, thematic content analysis provides researchers working in the field with rich content about the studies that have been and are being conducted (Çalık et al., 2005; Ueltay & Çalık, 2012).

Data Collection

In this study, the "Thesis Review Form" prepared by the researchers was used to conduct a content analysis of theses in the field of formative assessment accessible at the CHE National Thesis Center. A total of 38 approved doctoral theses were accessed in the Thesis Search Center with the keyword "formative assessment" and the topic "education and training". These dissertations were recorded in the "Thesis Review Form" using the excell program in the form of name of dissertation, type of dissertation, language of dissertation, year of dissertation, type of college where the dissertation was conducted, discipline, study group of dissertations, method of dissertation, data collection instruments, method of data analysis, results, and conclusions. These studies were then classified according to the categories established in the study conducted by İnaltun and Ateş (2018) to show the trends of formative assessment studies in science education. These categories are: Studies describing teachers' or prospective teachers' formative assessment skills, studies planning to improve teachers' or prospective teachers' formative assessment skills related to the components of formative assessment, studies investigating the impact of formative assessment on student outcomes, studies on the factors affecting the implementation of formative assessment, and studies outside these four categories. Studies belonging to each category were analyzed using the established criteria. The researchers and a practitioner expert collaborated in the classification of the theses. This was done to increase the reliability of the study.

Data Analysis

For the thematic content analysis in the study, the doctoral theses were analyzed according to the criteria established by 5 predefined categories. Table 1 shows the main themes, main theme codes, and main theme indicators.

Table 1. Main themes, main theme codes and main theme indicators of the theses

| Main Themes | Main Theme Codes | Main Theme Indicators |
|---|------------------|--|
| Studies describing teachers' or pre-service teachers' formative assessment skills | SDFAS | Aiming to determine the use of formative assessment by teachers or prospective teachers |
| Studies that plan to improve the skills of teachers or prospective teachers in the components of formative assessment | SİFAS | Planning various processes (in-service training, university methods courses, collaborative action research, etc.) for the development of formative assessment practices and skills of teachers or prospective teachers |
| Studies examining the impact of formative assessment on student outcomes | SEİFA | Examining the effect of formative assessment on students' cognitive (achievement, conceptual understanding, etc.) and affective (attitude, motivation, self-confidence, etc.) characteristics |
| Studies on factors affecting formative assessment practice | SFFAP | Various variables affecting the perception of formative assessment by teachers and its implementation in classrooms (subject area knowledge, pedagogical content knowledge, professional experience, personal assessment theory, etc.), variables affecting its implementation by students (students' learning development, etc.) and various classroom processes (classroom climate, classroom management, etc.). |
| Other studies on formative assessment | OSFA | Studies outside the four categories |

The dissertations included in the thematic content analysis of the study were classified into 5 main themes by code, type, year, language, university, study group, method, and data collection instruments and data analysis methods. In coding the dissertations, considering the disciplines and related fields in which they were published, those from the field of biology were coded as "B", those from the field of computer and instructional technologies were coded as "CIT", those from the field of educational technologies were coded as "ET", and those from the field of natural sciences were coded as "S", those from the field of physics were classified with the code "Phy", those from the field of English education were classified with the code "Eng", those from the field of mathematics were classified with the code "M", those from the field of preschool education were classified with the code "PS", those from the field of teaching were classified with the code "C", and those from the field of social studies were classified with the code "SS". When classifying the dissertations according to their type, the code "MA" was used for master's theses and the code "PhD" for doctoral theses. Dissertations were classified according to the languages in which they were published by using the code "T." for Turkish and the code "Eng." for English. The types of universities where the dissertations were carried out were classified as "public" and "private." In the subject matter of the study groups, the dissertations classify 1st-4th grade as "elementary school," 5th-8th grade as "secondary school," 8th-12th grade as "high school," university students as "students," teachers working at the school as "teachers," and faculty working at the university as "lecturers." The methods used in the dissertations were classified as descriptive or correlative surveys (Survey), quasi-experimental and weakly experimental research (Experimental), dissertations that used both qualitative and quantitative research

methods (Mixed), case studies (Case), phenomenological research (Phenomenology), and action research (Action). Data collection instruments were categorised as "field notes," "diary," "observation," "interview," "questionnaire," "test," "scale," "open-ended question," "inventory," "audio-video recording," and "other" (formative test questions, reflection papers, online recordings, rubrics, information and review forms, etc.). "Other" (descriptive and statistical methods, descriptive statistics, correlation, correlation analysis, single case analysis) were also added to the categories during data analysis. The findings and results of each major theme were categorised within themselves. In the classification of theses, the symbol "***" was used for studies belonging to more than one main topic.

Validity and Reliability Studies

The analyzed papers were coded according to the established criteria to avoid data loss. Before the investigation of one study was completed, the other study was not started to reduce the margin of error. To ensure reliability of coding, all studies were coded separately by the study authors. As a result of the coding, the Miles and Huberman (1994) [agreement (agreement disagreement)] agreement rate was calculated and set at 0.92. To ensure consensus among coders, each study in which disagreement occurred was reexamined and a common consensus was reached. Because of the high inter-coder reliability, it was decided to code the studies to be analyzed according to the identified codes. In addition, the coding and topic generation process was submitted to a content analysis expert to check validity and reliability.

Ethical Permits of Research

In this study, all the rules within the scope of the "Higher Education Institutions Scientific Research and Publication Ethics Directive" were followed. None of the actions specified under the heading "Actions Contrary to Scientific Research and Publication Ethics", which is the second part of the directive, were performed.

Ethics Committee Permission Information:

This study is within the scope of activities that do not require ethical permission.

Findings

In this study, in which the thematic content analysis of dissertations on the topic of formative assessment was conducted, the dissertations were examined according to the subthemes that were determined under 5 main themes. The subtopics were determined as follows: Dissertation code, type of dissertation, language of dissertation, year of dissertation, type of university where dissertation was conducted, discipline, study group of dissertations, method of dissertation, data collection instruments, data analysis method, results, and conclusions. In this section, the results under each main topic are presented.

The studies belonging to the main theme of studies describing teachers' or pre-service teachers' formative assessment skills (SDFAS) are presented in Table 2.

Table 2. Studies on the main theme of SDFAS

| Code/Type | | M4/MA | **PS1/MA | **S3/MA | Total | |
|--|--|--|----------|---------|-------|---|
| Year/Language | | 2015/Eng. | 2019/T. | 2021/T. | | |
| University | State | ✓ | - | ✓ | 2 | |
| | Private | - | ✓ | - | 1 | |
| Working Group | Primary School | - | - | - | 0 | |
| | Secondary School | - | - | - | 0 | |
| | High School | - | - | - | 0 | |
| | Undergraduate | ✓ | - | - | 1 | |
| | Teacher | - | ✓ | ✓ | 2 | |
| Method | Lecturer | - | - | - | 0 | |
| | Survey | - | - | ✓ | 1 | |
| | Experimental | - | - | - | 0 | |
| | Mixed | - | - | - | 0 | |
| | Case | ✓ | - | - | 1 | |
| | Phenomenology | - | ✓ | - | 1 | |
| | Action | - | - | - | 0 | |
| | Speech A. | - | - | - | 0 | |
| | Field notes | - | - | - | 0 | |
| | Daily | - | - | - | 0 | |
| Data Collection Tools | Observation | - | - | - | 0 | |
| | Interview | ✓ | ✓ | - | 2 | |
| | Questionnaire | - | - | - | 0 | |
| | Test | - | - | - | 0 | |
| | Scale | - | - | ✓ | 1 | |
| | Open-ended question | - | - | - | 0 | |
| | Inventory | - | - | - | 0 | |
| | Audio-video recording | - | - | - | 0 | |
| | Other | ✓ | - | - | 0 | |
| | Data Analysis Methods | Content A. | ✓ | ✓ | - | 2 |
| | | Descriptive A. | - | - | - | 0 |
| | | t-test | - | - | - | 0 |
| | | Kruskal Wallis T. | - | - | - | 0 |
| | | Mann Whitney U. | - | - | - | 0 |
| | | ANCOVA/MANCOVA | - | - | - | 0 |
| | | ANOVA/MANOVA | - | - | - | 0 |
| | | Wilcoxon I.S.T. | - | - | - | 0 |
| Other | | - | - | ✓ | 1 | |
| Formative Assessment Components Analyzed | | Sharing learning objectives and success criteria | - | - | ✓ | 1 |
| | Obtaining information about student learning | ✓ | ✓ | ✓ | 3 | |
| | Feedback loops | - | ✓ | ✓ | 2 | |
| | Self-assessment | - | - | ✓ | 1 | |
| | Peer assessment | - | - | ✓ | 1 | |
| | Instructional decisions | - | - | ✓ | 1 | |

Examination of Table 2 shows that 3 master's theses were conducted in preschool, mathematics, and science. When examining the study groups, it was found that 2 of the studies were conducted with teachers and 1 with prospective teachers. The qualitative method was used in two of the studies and the quantitative method was used in one of the studies. It is revealed that interviews and scales were preferred as data collection instruments. Content analysis and other analyses (confirmatory factor analysis and exploratory factor analysis) were used in the analysis of the data. Among the studies analysed, it is seen that the study conducted in the field of natural

sciences is a scale development study. Looking at the components of formative assessment examined in the studies, it is understood that only one study examined teachers' use of all components of formative assessment. The most commonly examined component in the studies is "obtaining information about student learning."

The studies belonging to the main theme of studies that plan to improve the skills of teachers or pre-service teachers in formative assessment components (SİFAS) are presented in Table 3.

Table 3. *Studies belonging to the main theme of the SİFAS*

| Code/Type | | S4/PhD | M1/PhD | Total | |
|--|--|--|---------|-------|---|
| Year/Language | | 2019/T. | 2021/T. | | |
| University | State | ✓ | ✓ | 2 | |
| | Private | - | - | 0 | |
| Working group | Primary School | - | - | 0 | |
| | Secondary School | - | - | 0 | |
| | High School | - | - | 0 | |
| | Undergraduate | - | ✓ | 1 | |
| | Teacher | ✓ | - | 1 | |
| Method | Lecturer | - | - | 0 | |
| | Survey | - | - | 0 | |
| | Experimental | - | - | 0 | |
| | Mixed | ✓ | ✓ | 2 | |
| | Case | - | - | 0 | |
| | Phenomenology | - | - | 0 | |
| Data Collection | Action | - | - | 0 | |
| | Field notes | - | - | 0 | |
| Tools | Daily | - | - | 0 | |
| | Observation | - | ✓ | 1 | |
| | Interview | ✓ | ✓ | 2 | |
| | Questionnaire | - | - | 0 | |
| | Test | ✓ | - | 1 | |
| | Scale | ✓ | ✓ | 2 | |
| | Open-ended question | - | - | 0 | |
| | Inventory | - | - | 0 | |
| | Audio-video recording | ✓ | - | 1 | |
| | Other | - | - | 0 | |
| | Data Analysis Methods | Content A. | ✓ | ✓ | 2 |
| | | Descriptive A. | ✓ | ✓ | 2 |
| | | t-test | ✓ | ✓ | 2 |
| | | Kruskal Wallis T. | - | ✓ | 1 |
| | | Mann Whitney U. | - | ✓ | 1 |
| ANCOVA/MANCOVA | | - | - | 0 | |
| ANOVA/MANOVA | | ✓ | ✓ | 2 | |
| Wilcoxon I.S.T. | | - | ✓ | 1 | |
| Other | | - | - | 0 | |
| Developed Components of Formative Assessment | | Sharing learning objectives and success criteria | ✓ | ✓ | 2 |
| | Obtaining information about student learning | ✓ | ✓ | 2 | |
| | Feedback loops | ✓ | ✓ | 2 | |
| | Self-assessment | ✓ | ✓ | 2 | |
| | Peer assessment | - | ✓ | 1 | |
| | Instructional decisions | ✓ | ✓ | 2 | |

Table 3 shows that there are two doctoral studies that were conducted in mathematics and science. One of the studies was conducted with prospective teachers and the other with teachers. It is found that mixed methods were used in the studies and interviews, scales, questionnaires, tests, observations, audio-video recordings, and field notes were used as data collection instruments. Looking at the formative assessment components developed, it is noted that both studies examined other components except for the peer assessment component. As a result of the studies, it was highlighted that factors such as pedagogical knowledge, pedagogical content knowledge, expertise, time, and experience enhanced teachers' use of these components.

The studies belonging to the main theme of studies on the factors affecting formative assessment practice (SFFAP) are presented in Table 4.

Table 4. Studies belonging to the main theme of SFFAP

| Code/Type | | Eng11/MA | Eng3/MA | CIT4/MA | **PS1/MA | Eng1/MA | Eng2/PhD | **Eng5/MA | **S3/MA | Total | |
|--|-----------------------------|---|-----------|-----------|----------|-----------|-----------|-----------|---------|-------|---|
| Year/Language | | 2014/Eng. | 2020/Eng. | 2013/Eng. | 2019/T. | 2022/Eng. | 2021/Eng. | 2018/Eng. | 2021/T. | | |
| University | State | - | - | ✓ | - | - | ✓ | - | ✓ | 3 | |
| | Private | ✓ | ✓ | - | ✓ | ✓ | - | ✓ | - | 5 | |
| Working group | Primary School | - | - | - | - | - | - | - | - | 0 | |
| | Secondary School | - | - | - | - | - | - | - | - | 0 | |
| | High School | - | - | - | - | - | - | - | - | 0 | |
| | Undergraduate | - | - | ✓ | - | - | ✓ | ✓ | - | 3 | |
| | Teacher | ✓ | - | - | ✓ | - | - | - | ✓ | 3 | |
| Method | Lecturer | - | ✓ | - | - | ✓ | - | - | - | 2 | |
| | Survey | - | ✓ | - | - | - | - | - | ✓ | 2 | |
| | Experimental | - | - | - | - | - | - | - | - | 0 | |
| | Mixed | ✓ | - | ✓ | - | ✓ | - | - | - | 3 | |
| | Case study | - | - | - | - | - | ✓ | - | - | 1 | |
| Data Collection Tools | Phenomenology | - | - | - | ✓ | - | - | ✓ | - | 2 | |
| | Action | - | - | - | - | - | - | - | - | 0 | |
| | Field notes | - | - | - | - | - | - | - | - | 0 | |
| | Daily | - | - | - | - | - | - | - | - | 0 | |
| | Observation | - | - | - | - | - | ✓ | - | - | 1 | |
| | Interview | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | - | 5 | |
| | Questionnaire | ✓ | ✓ | ✓ | - | ✓ | - | ✓ | - | 5 | |
| | Test | - | - | - | - | - | - | - | - | 0 | |
| | Scale | - | - | - | - | - | - | - | ✓ | 1 | |
| | Open-ended question | ✓ | - | - | - | - | - | - | - | 1 | |
| Data Analysis Methods | Inventory | - | - | - | - | - | - | - | - | 0 | |
| | Other | - | - | - | - | - | ✓ | - | - | 1 | |
| | Content A. | ✓ | - | - | ✓ | ✓ | ✓ | ✓ | - | 5 | |
| | Descriptive A. | - | - | ✓ | - | - | - | - | - | 1 | |
| | t-test | ✓ | - | - | - | - | - | ✓ | - | 2 | |
| | Kruskal Wallis T. | - | ✓ | - | - | - | - | - | - | 1 | |
| | Mann Whitney U. | - | ✓ | - | - | - | - | - | - | 1 | |
| | ANCOVA/MANCOVA | - | - | - | - | - | - | - | - | 0 | |
| | ANOVA/MANOVA | - | - | - | - | - | - | - | - | 0 | |
| | Wilcoxon I.S.T. | - | - | - | - | - | - | - | - | 0 | |
| Factors affecting formative assessment | Other | - | ✓ | ✓ | - | ✓ | ✓ | ✓ | ✓ | 6 | |
| | Professional experience/age | - | ✓ | - | - | - | ✓ | - | ✓ | 3 | |
| | Faith | ✓ | - | - | - | - | ✓ | - | - | 2 | |
| | Self-efficacy | - | ✓ | - | - | - | - | - | - | 1 | |
| | Teacher | Approaches to learning | - | - | - | - | - | ✓ | - | - | 1 |
| | | Pedagogical content knowledge/content knowledge | - | ✓ | - | - | - | ✓ | - | - | 2 |
| | | Number of lesson hours | - | ✓ | - | - | - | - | - | - | 1 |
| | | Gender | - | ✓ | - | - | - | - | - | ✓ | 2 |
| | | Learning development/approach | - | - | ✓ | - | ✓ | - | ✓ | - | 3 |
| | Student | Class participation | - | - | - | - | - | ✓ | - | - | 1 |
| Assessment preference | | - | - | - | - | - | - | ✓ | - | 1 | |
| Nationality | | - | - | - | - | - | - | ✓ | - | 1 | |
| Gender | | - | - | - | - | - | - | ✓ | - | 1 | |
| Other | | Class size | - | ✓ | - | ✓ | - | - | - | - | 2 |
| | Lack of time | - | - | - | ✓ | - | - | - | - | 1 | |

As Table 4 demonstrates, there are 8 studies in total, 7 at master's and 1 at PhD level. It is observed that 3 of the studies were conducted with undergraduate students and 5 of the studies were conducted with educators, including teachers and lecturers. It is demonstrated that the method mostly used in the studies is mixed method and the data collection tools used are interviews and questionnaires. When the studies are examined, it is understood that the factors affecting formative assessment are studied in various variables in the categories of teacher, student and other (class size, lack of time). It is observed that professional experience/age, belief, self-efficacy, learning approaches, pedagogical content knowledge/subject area knowledge, number of lesson hours and gender variables are examined in the factors affecting teachers' use of formative assessment. Among the variables affecting teachers' use of formative assessment, "professional experience/age" was the most examined variable. While two studies found a positive correlation between teachers' use of formative assessment and professional experience/age factor, one study reported that this factor did not affect teachers' use of formative assessment. In terms of student-related variables affecting the use of formative assessment, it is seen that students' learning development/approach, class participation, assessment preferences, nationality and gender variables were examined. The most frequently examined student-related variable in the studies was students' learning development/approach. Class size and lack of time are seen as other factors affecting the use of formative assessment.

The studies that are under the category of the main theme of studies examining the effect of formative assessment on student outcomes (SEİFA) are presented in Table 5. As illustrated by Table 5, there are 24 studies, 18 at master's level and 6 at PhD level. This is the main theme with the highest number of studies. It is understood that most of the studies were conducted in the fields of science and English education. It is observed that 11 of the studies were conducted with undergraduate students, 10 with secondary school students, 2 with high school students and 1 with primary school students. It is revealed that mixed method was mostly preferred in the studies and the data collection tools used were interviews, scales and tests. It is figured out that content analysis and t-test are frequently preferred in data analysis.

The student outcomes examined in the studies belonging to the main theme of studies examining the effect of formative assessment on student outcomes (STEM) are presented in Table 6. As can be observed in Table 6, when we consider the student outcomes on which the effect of formative assessment was examined in the studies; achievement, attitude, motivation, conceptual learning, metacognitive knowledge and organizational skills, self-regulation skills, transfer of learning, course participation, learner autonomy, writing/exam anxiety, assessment and evaluation preferences, beliefs/perceptions/understandings and content knowledge/pedagogical content knowledge variables are observed. Of these variables, achievement is the student outcome with the highest number of examined effects. Attitude, conceptual learning and motivation are other variables with high numbers. In the studies examined, the effect of formative assessment on student outcomes was expressed as positive except for 2 studies. These two studies were coded as SS1 and M2. It was found out that formative assessment had no effect on the variables of "self-regulation skills" in the SS1 study and "transfer of learning" in the M2 study.

Table 5. Studies on the main theme of SEİFA

| Code/Type | | M3/MA | Phy1/MA | S7/MA | SS1/PhD | S5/MA | Eng12/PhD | C2/MA | S8/MA | S10/MA | S9/MA | **Eng5/MA | S1/MA | S2/MA | B1/PhD | C1/MA | M2/PhD | **M1/PhD | ET/MA | Eng6/MA | Eng7/MA | Eng8/MA | Eng4/MA | Eng9/PhD | Eng10/MA | Total |
|-----------------------|---------------------|---------|---------|---------|---------|---------|-----------|---------|---------|---------|---------|-----------|---------|---------|---------|---------|---------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------|
| Year/Language | | 2010/T. | 2019/T. | 2018/T. | 2017/T. | 2019/T. | 2020/Eng. | 2020/T. | 2017/T. | 2017/T. | 2013/T. | 2018/Eng. | 2022/T. | 2021/T. | 2018/T. | 2021/T. | 2021/T. | 2021/T. | 2017/Eng. | 2015/Eng. | 2014/Eng. | 2013/Eng. | 2019/Eng. | 2010/Eng. | 2009/Eng. | |
| University | State | ✓ | ✓ | ✓ | ✓ | ✓ | - | ✓ | ✓ | ✓ | ✓ | - | ✓ | ✓ | ✓ | - | ✓ | ✓ | - | - | ✓ | - | - | ✓ | - | 17 |
| | Private | - | - | - | - | - | ✓ | - | - | - | - | ✓ | - | - | - | - | - | - | ✓ | ✓ | ✓ | - | ✓ | - | - | 7 |
| Working group | Primary School | - | - | - | - | - | - | - | - | - | - | - | - | - | - | ✓ | - | - | - | - | - | - | - | - | - | 1 |
| | Secondary School | ✓ | - | ✓ | ✓ | ✓ | - | ✓ | ✓ | ✓ | ✓ | - | - | ✓ | - | - | - | - | ✓ | - | - | - | - | - | - | 10 |
| Method | High School | - | ✓ | - | - | - | - | - | - | - | - | - | - | - | - | - | ✓ | - | - | - | - | - | - | - | - | 2 |
| | Undergraduate | - | - | - | - | - | ✓ | - | - | - | - | ✓ | ✓ | - | ✓ | - | - | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 11 |
| Method | Experimental | ✓ | - | - | - | - | - | ✓ | ✓ | - | ✓ | - | - | - | - | - | - | - | ✓ | ✓ | - | - | - | - | - | 5 |
| | Mixed | - | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - | ✓ | ✓ | 14 |
| Method | Case | - | - | - | - | - | - | - | - | ✓ | - | - | - | - | - | - | - | - | - | - | ✓ | - | - | - | - | 3 |
| | Phenomenology | - | - | - | - | - | - | - | - | - | - | ✓ | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Data Collection Tools | Action | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | ✓ | - | - | 1 |
| | Field notes | - | ✓ | - | - | - | ✓ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | ✓ | - | ✓ | - | 5 |
| Data Collection Tools | Daily | - | ✓ | - | - | - | ✓ | - | - | - | - | - | ✓ | - | - | - | ✓ | - | - | - | ✓ | - | - | - | - | 5 |
| | Observation | - | - | - | ✓ | - | ✓ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | ✓ | - | ✓ | - | 4 |
| Data Collection Tools | Interview | - | - | ✓ | ✓ | ✓ | ✓ | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 18 |
| | Questionnaire | - | - | - | - | ✓ | ✓ | - | - | - | ✓ | ✓ | - | - | - | - | - | - | - | - | - | ✓ | ✓ | - | - | 6 |
| Data Collection Tools | Test | ✓ | ✓ | - | ✓ | - | - | - | - | - | - | - | ✓ | - | ✓ | - | ✓ | - | ✓ | ✓ | - | - | - | - | - | 8 |
| | Scale | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | ✓ | - | ✓ | ✓ | ✓ | - | ✓ | - | ✓ | - | ✓ | - | 11 |
| Data Collection Tools | Open-ended question | - | - | - | - | - | - | - | - | ✓ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| | Inventory | - | - | - | ✓ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | ✓ | - | 2 |
| Data Collection Tools | Other | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | - | - | - | - | ✓ | - | - | ✓ | - | ✓ | ✓ | - | - | ✓ | - | 8 |
| | Content A. | - | ✓ | ✓ | - | ✓ | ✓ | - | - | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | ✓ | ✓ | - | ✓ | ✓ | ✓ | 17 |
| Data Analysis Methods | Descriptive A. | - | - | ✓ | ✓ | ✓ | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - | - | - | - | - | 6 |
| | t-test | ✓ | ✓ | - | ✓ | - | - | - | - | - | - | ✓ | - | - | - | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | ✓ | ✓ | - | 11 |
| Data Analysis Methods | Kruskal Wallis T. | - | - | ✓ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| | Mann Whitney U. | - | - | ✓ | - | - | - | ✓ | ✓ | ✓ | ✓ | - | ✓ | - | - | ✓ | - | - | - | - | - | - | - | - | - | 7 |
| Data Analysis Methods | ANCOVA/MANCOVA | - | - | - | ✓ | ✓ | - | - | - | ✓ | - | - | ✓ | - | - | ✓ | - | - | - | - | - | - | - | - | - | 3 |
| | ANOVA/MANOVA | - | - | - | - | - | - | - | - | - | - | - | - | - | ✓ | - | ✓ | ✓ | - | - | - | - | - | - | - | 4 |
| Data Analysis Methods | Wilcoxon I.S.T. | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | ✓ | - | - | - | - | - | ✓ | - | - | - | - | - | - | ✓ | 5 |
| | Other | - | - | - | - | - | ✓ | - | - | - | - | ✓ | - | - | ✓ | - | - | ✓ | ✓ | ✓ | ✓ | - | - | ✓ | ✓ | 7 |

Table 6. Student outcomes examined in the studies on the main theme of SEİFA

| Code/Type | M3/MA | Phy1/MA | S7/MA | SS1/PhD | S5/MA | Eng12/Dok | C2/MA | S8/MA | S10/MA | S9/MA | **Eng5/MA | S1/MA | S2/MA | B1/PhD | C1/MA | M2/PhD | **M1/PhD | ET/MA | Eng6/MA | Eng7/MA | Eng8/MA | Eng4/MA | Eng9/Dk. | Eng10/MA | Total | |
|---|---------|---------|---------|---------|---------|-----------|---------|---------|---------|---------|-----------|---------|---------|---------|---------|---------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------|---|
| | 2010/T. | 2019/T. | 2018/T. | 2017/T. | 2019/T. | 2020/Eng. | 2020/T. | 2017/T. | 2017/T. | 2013/T. | 2018/Eng. | 2022/T. | 2021/T. | 2018/T. | 2021/T. | 2021/T. | 2021/T. | 2017/Eng. | 2015/Eng. | 2014/Eng. | 2013/Eng. | 2019/Eng. | 2010/Eng. | 2009/Eng. | | |
| Success | ✓ | - | - | ✓ | ✓ | ✓ | ✓ | - | - | ✓ | ✓ | ✓ | - | - | ✓ | ✓ | - | - | ✓ | - | - | - | - | ✓ | 12 | |
| Attitude | - | ✓ | - | ✓ | - | ✓ | - | - | - | - | - | - | - | - | ✓ | ✓ | ✓ | - | - | ✓ | - | - | - | ✓ | 8 | |
| Motivation | - | - | - | - | - | ✓ | - | - | - | - | - | ✓ | - | - | - | - | - | - | - | - | - | - | - | - | ✓ | 3 |
| Conceptual learning/understanding | - | ✓ | - | - | - | - | - | ✓ | ✓ | - | - | ✓ | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Metacognitive knowledge and organizational skills | - | - | ✓ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Self-regulation skills | - | - | - | ✓ | - | - | - | - | - | - | - | - | ✓ | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Transfer of learning | - | - | - | - | - | - | - | - | - | - | - | - | ✓ | - | - | ✓ | - | - | - | - | - | - | - | - | - | 2 |
| Class participation | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | ✓ | - | - | ✓ | - | - | - | - | 1 |
| Learner autonomy | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | ✓ | - | - | - | 1 |
| Writing/exam anxiety | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | ✓ | ✓ | - | - | 2 |
| Assessment and evaluation preferences | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | ✓ | - | - | 1 |
| Belief/perception/understanding | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | ✓ | - | - | - | - | - | - | - | ✓ | - | 2 |
| Content knowledge/pedagogical content knowledge | - | - | - | - | - | - | - | - | - | - | - | - | - | ✓ | - | - | - | - | - | - | - | - | - | - | - | 1 |

The studies that belong to the main theme of "Other studies on formative assessment (OSFA)" are presented in Table 7.

Table 7. Studies belonging to the main theme of the OSFA

| Code/Type | | CIT3/MA | CIT1/MA | S6/PhD | CIT2/PhD | CIT5/PhD | Total |
|-----------------------|-----------------------|-------------|---------|---------|----------|----------|-------|
| Year/Language | | 2015/T. | 2019/T. | 2019/T. | 2018/T. | 2021/Eng | |
| University | State | ✓ | ✓ | ✓ | ✓ | ✓ | 5 |
| | Private | - | - | - | - | - | 0 |
| Working group | Primary School | - | - | - | - | - | 0 |
| | Secondary School | ✓ | ✓ | - | - | ✓ | 3 |
| | High School | - | - | - | ✓ | - | 1 |
| | Undergraduate | - | - | - | - | - | 0 |
| Method | Teacher | - | - | ✓ | - | - | 1 |
| | Lecturer | - | - | - | - | - | 0 |
| | Survey | ✓ | - | - | - | - | 1 |
| | Experimental | - | ✓ | - | - | - | 1 |
| | Mixed | - | - | - | ✓ | - | 1 |
| | Case | - | - | - | - | ✓ | 1 |
| | Phenomenology | - | - | - | - | - | 0 |
| | Action | - | - | - | - | - | 0 |
| | Speech A. | - | - | ✓ | - | - | 1 |
| | Data Collection Tools | Field notes | - | - | - | - | - |
| Daily | | - | - | - | - | - | 0 |
| Observation | | - | - | - | ✓ | ✓ | 2 |
| Interview | | - | - | - | ✓ | ✓ | 2 |
| Questionnaire | | - | - | - | - | ✓ | 1 |
| Test | | ✓ | ✓ | - | - | - | 2 |
| Scale | | ✓ | ✓ | - | - | - | 2 |
| Open-ended question | | - | - | - | - | - | 0 |
| Inventory | | - | - | - | ✓ | - | 1 |
| Audio-video recording | | - | - | ✓ | ✓ | - | 2 |
| Data Analysis Methods | Other | ✓ | ✓ | - | - | ✓ | 3 |
| | Content A. | - | - | - | ✓ | ✓ | 2 |
| | Descriptive A. | ✓ | - | - | - | - | 1 |
| | t-test | - | ✓ | - | - | - | 1 |
| | Kruskal Wallis T. | - | - | - | - | - | 0 |
| | Mann Whitney U. | - | - | - | - | ✓ | 1 |
| | ANCOVA/MANCOVA | - | - | - | - | - | 0 |
| | ANOVA/MANOVA | ✓ | - | - | - | ✓ | 2 |
| | Wilcoxon I.S.T. | - | - | - | - | - | 0 |
| | Other | ✓ | ✓ | ✓ | ✓ | ✓ | 5 |

As illustrated in Table 7, all but one of the studies are in the field of computer and instructional technology education [CITE]. It was determined that the studies conducted in the field of CITE examined learner-assessment interaction in the context of acceptance structures of formative assessment system in web-based learning environments. In the study conducted in the field of science education, the questions used in the informal formative assessment process used by the participant teachers in science lessons and the purposes of these questions were investigated by using conversation analysis method. Two of these studies are master's and three are PhD level studies. The study group of 3 of the studies consisted of Secondary school students, the study group of 1 of them consisted of high school students and the study group of 1 of them consisted of teachers. In the studies, observation, interview, test, scale and log records, navigation data, participant information form, interview protocol and online records in the other category were used as data collection tools. The other category was frequently preferred in data analysis methods. This category includes thematic analysis, chi-square test, descriptive statistics, single case analysis, standard deviation and repeated measures analysis of variance.

Discussion and Conclusion

In this study, in which the thematic content analysis of the postgraduate theses on education and training in the field of formative assessment was conducted, 38 theses approved by CHE Thesis Screening Center were examined. The analyzed theses were categorized under 5 main themes. These main themes are; studies describing the formative assessment skills of teachers or pre-service teachers, studies planning to improve the skills of teachers or pre-service teachers in formative assessment components, studies examining the effect of formative assessment on student outcomes, studies on the factors affecting formative assessment practice, and studies outside these 4 main themes (İnaltun & Ateş, 2018).

It is observed that the number of studies in the main theme of studies that plan to improve the formative assessment skills of teachers or pre-service teachers is the lowest in number. It is observed that the analyzed theses were conducted in the fields of mathematics and science. Also, it is understood that no studies were conducted in other fields and the few studies analyzed were conducted in 2019 and later. İnaltun and Ateş (2018), who examine the studies on formative assessment in the field of science education, found that the number of studies on this main theme was the highest in number. Among 11 studies analyzed by İnaltun and Ateş (2018), it is found that there is one study conducted in Turkey and this study was conducted in 2016 (Aydeniz and Doğan, 2016), while the studies abroad started to be conducted in 2001 (Torrance & Pryor, 2001). The reason for this may be that the use of formative assessment has become widespread abroad (OECD, 2005) and the importance of formative assessment has been better emphasized with the studies indicating that the use of formative assessment is useful in achieving the goals of science education (European Commission, 2011). In Turkey, the importance of "formative assessment" in achieving the goals of science education was mentioned in the Science Curriculum in 2018 (MoNE, 2018a). This situation also shows that formative assessment has started to take its place in curricula in Turkey.

When the studies planning to develop the skills of teachers or pre-service teachers in formative assessment components are examined, 2 PhD studies are found. The reason why the studies were conducted at the PhD level may be that developing the skills of formative assessment

components requires a long and complex process (Frey & Fisher, 2011). It is revealed that mixed method was preferred as the method in the studies and the data collection tools were different such as interviews, scales, questionnaires, tests, observations, audio-video recordings and field notes. The reason why mixed methods were preferred in the studies may be that both qualitative and quantitative data collection tools are needed to examine the process in detail. The reason for the small number of studies conducted under this main theme may be that these studies are more challenging than the other themes in terms of both planning and implementation. The results of previous studies also reveal that teachers need time and support to develop their skills in formative assessment components (Buck & Trauth-Nare, 2009; Torrance & Pryor, 2001). This result supports that the studies related to this main theme may be more challenging. When the literature is examined, it is seen that the studies conducted with teachers in this main theme are carried out in professional development programs and various workshops (Furtak et al., 2016; Wiliam et al., 2004) and the studies conducted with pre-service teachers are carried out in practice-based courses (Buck et al., 2010; Gotwals & Birmingham, 2016). In this respect, the theses examined are similar to the literature in terms of the way they were planned. However, it is seen that collaborative action research is frequently preferred in the studies conducted with teachers under this main theme in the literature (Buck & Trauth-Nare, 2009; Harrison, 2013). The reason for the absence of this method in the theses analyzed may be due to the small number of studies. When the formative assessment components developed in the studies are examined, it is seen that other components other than peer assessment were tried to be developed in both studies. As a result of the studies, it was emphasized that factors such as pedagogical knowledge, pedagogical content knowledge, subject area knowledge, time and experience were effective in improving teachers' use of these components. When the studies on the factors affecting teachers' formative assessment practices are examined, similar results are seen (Falk, 2012; Furtak, 2012; Sach, 2012).

Another main theme with a low number of studies is the studies describing the formative assessment skills of teachers or pre-service teachers (FSATS). When the studies are examined, it is seen that interviews, scales and lesson plans are preferred as data collection tools. In order to better describe the skills of teachers and pre-service teachers in formative assessment components, the use of data collection tools such as observation, audio and video recordings, field notes and diaries in the process can create data diversity in the studies and provide a detailed view of this process. Gotwals, Philhower, Cisterna, and Bennett (2015) stated that the use of video recordings to examine teachers' formative assessment practices provides researchers with rich data. This situation reveals the importance of using more than one data collection tool in studies under this main theme. Similarly, Haug and Ødegaard (2015) diversified the data collection tools by using both interviews and video recordings while examining teachers' formative assessment practices. The most frequently examined formative assessment component in the studies belonging to this main theme is "obtaining information about student learning". The reason for this may be that it is a component that can be easily applied with techniques that are frequently used in the classroom such as observation and questioning. Sharing learning goals and success criteria, self-assessment, peer assessment, and instructional decision-making components may be another reason for the low rate of use by teachers (Gotwals et al., 2015).

When the studies on the factors affecting formative assessment practice are examined, it is seen that there are 11 studies, and most of the studies were conducted in the field of English education. The reason for this situation may be that the use of formative assessment in the 2018 English Language Teaching Program mentions the importance of emphasizing the student's strengths and weaknesses according to the learning goal and includes various techniques for the use of formative assessment (MoNE, 2018b). The fact that most of the studies conducted in the field of English language education were conducted in 2018 and after supports this situation. It is seen that undergraduate students, teachers and lecturers are mostly preferred as the study group in the studies. This situation shows that formative assessment practices are examined in terms of variables in people who are or will be in the position of instructors. The fact that the most preferred method in the studies is the mixed method shows that the process is wanted to be examined in detail. In addition, the fact that questionnaires and interviews were the most used data collection tools shows that the factors affecting formative assessment practices were investigated both qualitatively and quantitatively. In the analysis of the data, descriptive and statistical procedure, descriptive statistics, correlation, correlational analysis, single case analysis, and content analysis were frequently preferred in addition to the methods given as other categories.

When the findings and results of the main theme of the studies on the factors affecting formative assessment practice are examined, it is seen that the studies examined various variables in the categories of teacher, student and other (class size, lack of time). The most examined variable in the teacher category was professional experience/age. Similarly, Sach (2012), in a study conducted with secondary school teachers, stated that teaching experience influenced teachers' perceptions of formative assessment. Teachers' pedagogical content knowledge/subject area knowledge and beliefs were also examined more than other variables. It is like the results in the related literature that teachers' pedagogical content knowledge and subject matter knowledge variables affect formative assessment (Falk, 2012; Sabel et al., 2015). Similarly, it is supported by the results in the literature that teachers' beliefs that formative assessment can be useful and that they can apply formative assessment in their classrooms affect formative assessment practices. For example, Marshall and Jane Drummond (2006), in their study on teachers' formative assessment practices, stated that teachers' formative assessment practices were mostly influenced by teachers' beliefs about learning. As for the student-related variables affecting the use of formative assessment, the most frequently examined variable was students' learning approach/development. Similarly, Furtak (2012) examined how students' learning development in a particular subject affected formative assessment practices. In the study, it was concluded that teachers applied formative assessment more effectively as students' learning development increased. In the variables related to other factors affecting the use of formative assessment, the most examined variable was class size. Similarly, İnaltun (2019), in his study conducted to examine the effectiveness of the in-service training module for formative assessment developed for science teachers, stated that the high number of students in the class negatively affected formative assessment practices.

It is observed that the number of studies belonging to the main theme of studies examining the effect of formative assessment on student outcomes is the highest. This may be because formative assessment is an important variable that affects students' learning (Furtak et al., 2016;

Hattie & Timperley, 2007). It was seen that especially the theses in the fields of social studies, classroom, physics, biology and educational technologies belong to this main theme. This situation shows that formative assessment practices are becoming widespread in every field in our country. The most preferred study groups in the studies were undergraduate and secondary school students. While mixed methods were mostly preferred in the studies, it is seen that t-test and content analysis were mostly used among the data analysis methods.

In the studies examining the effect of formative assessment on student outcomes, it is seen that the most examined student outcome is achievement. In this case, it can be said that most of the studies examined investigated the effect of formative assessment on students' cognitive characteristics. Similarly, İnaltun and Ateş (2018), in their literature review to determine the trend of the studies on formative assessment, stated that in the studies examining the effect of formative assessment on student outcomes, studies investigating the effect of formative assessment on students' cognitive characteristics are in the majority. The reason for this may be that formative assessment is an important variable that affects students' learning (Hattie, 2008). Again, in the studies examined, the effect of formative assessment on students' affective characteristics was mostly investigated in terms of attitude and motivation. With the use of formative assessment in the classroom, students' ability to take responsibility for their own learning and to evaluate themselves may have a positive effect on students' affective characteristics such as attitude and motivation (Moss & Brookhart, 2009). In the studies reviewed, the effect of formative assessment on student outcomes was expressed as positive except for a few studies. This situation is like the results of the studies in the literature. For example, Furtak et al. (2016) stated that the achievement of students in classes with formative assessment practices was higher than other students.

It was determined that the studies belonging to the main theme of other studies on formative assessment were mostly conducted in the field of computer and instructional technology education and the studies examined the learner-assessment interaction. It is seen that most of the study group of the studies consisted of Secondary school students. The reason for this situation may be due to the selection of an easily accessible study group.

When the studies are analyzed, it is found that 27 studies were conducted at public universities and 11 studies were conducted at private universities. It is seen that the studies started in 2009 and have been increasing since 2017. It is seen that the highest number of studies was conducted in 2021. The language of 22 of the studies was Turkish and most of these studies were conducted in the field of science education. The language of 16 of the studies was English and most of these studies were conducted in the field of English education. Most of the studies conducted in public universities are in the field of science education, while most of the studies conducted in private universities are in the field of English education. The mostly used method in the studies was mixed method, while the least preferred method was action research. In terms of data collection tools, interviews and scales were used the most. Among the data analysis methods, content analysis, descriptive analysis and t-test were frequently preferred. In the studies examined, it is seen that there are few studies that describe and develop the use of formative assessment components by teachers or pre-service teachers. It was found that most of the studies on formative assessment were studies examining the effect of formative assessment on student

outcomes and that this effect was mostly achievement in terms of cognitive characteristics and attitude in terms of affective characteristics. In terms of the factors affecting the implementation of formative assessment, it was found that professional experience/age in terms of teachers, learning development/approach in terms of students, as well as class size were the most examined variables.

Recommendations

It is observed that the number of dissertations on formative assessment in Turkey is low in number and there is a need for studies on the subject. It can be suggested to increase the number of studies on the main theme of studies that describe and develop formative assessment components of teachers or pre-service teachers. In the studies to be planned on the main theme of studies that develop the formative assessment components of teachers or pre-service teachers, the process can be analyzed in more detail by choosing the collaborative action research method. In the studies to be conducted to examine the effect of formative assessment on student outcomes, it may be recommended to examine students' affective characteristics (attitude, motivation, self-confidence). In terms of disciplines, the number of studies on formative assessment in the fields of social studies, classroom, biology, physics, chemistry, and preschool teaching is limited and it can be recommended to increase the number of studies. Formative assessment practices and various activities can be included in the curricula of all grade levels from primary school to high school.

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Appendix 1. Thesis studies examined within the scope of the study

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- Alır, A. (2015). *Ortaokul öğrencilerinin web tabanlı biçimlendirici değerlendirme sistemini kabul yapılarının ve sistemdeki dönütlerle etkileşimlerinin incelenmesi* [Investigating secondary school students' acceptance of web based formative assessment system and students' interaction with different feedback types]. (Tez No. 381419). (Master Thesis, Hacettepe University), National Thesis Center.
- Arda Özkan, S. (2020). *Türkiye'deki İngilizce hazırlık okullarında görev yapan öğretim görevlilerinin biçimlendirici değerlendirmeye ilgili tutum, niyet ve uygulamalarının incelenmesi* [Exploring the attitudes, intentions and practices of EFL preparatory school instructors regarding formative assessment in a Turkish context]. (Tez No. 640554). [Master Thesis, İstanbul Sabahattin Zaim University], National Thesis Center.
- Arslan, S. (2022). *İngilizce öğretmenlerinin üretici dil becerilerinin değerlendirilmesinde ölçme ve değerlendirme okur-yazarlık seviyesi ve üretici dil becerilerini biçimlendirici değerlendirme yoluyla değerlendirmeye dair bakış açıları* [Depicting EFL instructors' language assessment literacy in assessing productive language skills and their perceptions and practices on formative assessment of productive language skills]. (Tez No. 708838). [Master Thesis, Başkent University], National Thesis Center.
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- Berikan, B. (2018). *Bilgi işlemsel düşünme becerisine yönelik tasarlanan "veri setleriyle problem çözme" öğrenme deneyiminin biçimlendirici değerlendirmesi* [Formative evaluation of 'Problem solving with data sets' learning experience designed to improve computational thinking skills]. (Tez No. 527309). [Doctoral dissertation, Gazi University], National Thesis Center.
- Büyükkarcı, K. (2010). *Yabancı dil eğitiminde biçimlendirici değerlendirmenin öğrencilerin sınav kaygısı ve ölçme ve değerlendirme tercihleri üzerindeki etkisi* [The effect of formative assessment on learners' test anxiety and assessment preferences in EFL context]. (Tez No. 294444). [Doctoral dissertation, Çukurova University], National Thesis Center.
- Çakır, S. (2021). *Matematik öğretiminde biçimlendirici değerlendirme eğitiminin ortaokul matematik öğretmen adaylarının ölçme ve değerlendirme algıları, pedagojik anlayışları, tutumları ve niyetleri üzerine etkisi* [The effects of a formative assessment education on the assessment perceptions, pedagogical understandings and attitudes-intentions of the prospective secondary mathematics teachers]. (Tez No. 658137). [Doctoral dissertation, Bolu Abant İzzet Baysal University], National Thesis Center.
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- Demir, D. (2017). *Bilgisayar destekli biçimlendirici değerlendirme aracılığıyla verilen farklı içeriklere sahip anlık geribildirim öğrenmenin transferi üzerine etkileri* [The effects of immediate feedback interventions with different contexts through computer assisted formative assessment on transfer of learning]. (Tez No. 454557). [Master Thesis, Bahçeşehir University], National Thesis Center.
- Elden, A. (2019). *Okul öncesi öğretmenlerinin biçimlendirici değerlendirme uygulamaları* [The formative assessment practices of early childhood teachers]. (Tez No. 554302). [Master Thesis, Başkent University], National Thesis Center.

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- Gökçe, Ö. F. (2014). *Özel ve devlet okullarında çalışan İngilizce öğretmenlerinin biçimlendirici değerlendirme algılarının karşılaştırılması* [A comparison of EFL teachers' perception of formative assessment in public and private schools]. (Tez No. 358355). [Master Thesis, Çaç University], National Thesis Center.
- Günel, A. S. (2014). *Biçimlendirici değerlendirmenin bir dil programındaki öğrencilerin derse katılımı üzerine etkileri* [The effects of formative assessment on students' participation in an English language program]. (Tez No. 350988). [Master Thesis, Çaç University], National Thesis Center.
- İnaltun, H. (2019). *Fen bilgisi öğretmenleri için geliştirilen biçimlendirici değerlendirmeye yönelik hizmet içi eğitim modülünün etkinliğinin incelenmesi* [Investigation of the effectiveness of in-service training module for developing science teachers' formative assessment practices]. (Tez No. 568665). [Doctoral dissertation, Gazi University]. National Thesis Center.
- Kaplan, G. (2015). *Ortaokul matematik öğretmeni adaylarının biçimlendirici değerlendirme yaklaşımlarının ders planlaması yoluyla incelenmesi* [An investigation of preservice middle school mathematics teachers' formative assessment approaches through lesson planning]. (Tez No. 399988). [Master Thesis, Middle East Technical University], National Thesis Center.
- Kara, Ü. E. (2021). *Biçimlendirici değerlendirmeye dayalı editörlük çalışmasının ilköğretim öğrencilerinin yazılı anlatım başarıları üzerine etkisi* [The effect of editorial study based on formative assessment on primary school students' writing success]. (Tez No. 697283). [Master Thesis, İstanbul Aydın University], National Thesis Center.
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- Kuzudişli, H. (2019). *Video-içi biçimlendirici değerlendirme ortamında öğrenen-değerlendirme etkileşimlerinin incelenmesi* [Investigating of interaction between learner-assessment in the in-video formative assessment environment]. (Tez No. 600549). [Master Thesis, Hacettepe University], National Thesis Center.
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- Sarı, H. (2019). *Biçimlendirici değerlendirme kullanımının yabancı dil öğrenenlerin yazma kaygıları üzerindeki etkisi: bir eylem araştırma çalışması* [The impact of the use of formative assessment on EFL students' writing anxiety: An action research study]. (Tez No. 541089). [Master Thesis, Çağ University], National Thesis Center.
- Somuncu, D. (2021). *Aday ingilizce öğretmenlerinin biçimlendirici değerlendirme öğretmen bilişi üzerine bir durum çalışması* [A case study on pre-service English teachers' formative assessment teacher cognition]. (Tez No. 685857). [Doctoral dissertation, Hacettepe University], National Thesis Center.
- Sönmez, M. (2020). *Biçimlendirici değerlendirmenin okuduğunu anlamaya etkisi* [The effect of formative assessment on reading comprehension]. (Tez No. 649617). [Master Thesis, Düzce University], National Thesis Center.
- Sönmez, T. (2013). *Biçimlendirici değerlendirmenin ingilizce'yi yabancı dil olarak öğrenen yetişkin türk öğrencilerin öğrenen özerkliğine olan etkileri* [The effects of formative assessment on the autonomy of Turkish adult EFL learners]. (Tez No. 347503). [Master Thesis, Necmettin Erbakan University], National Thesis Center.
- Şardağ, M. (2019). *Argümantasyon tabanlı bilim eğitiminde biçimlendirici değerlendirme: bir konuşma çözümlemesi araştırması* [Formative assessment in argumentation based science education: A conversation analytic research] (Tez No. 563806). [Doctoral dissertation, Hacettepe University], National Thesis Center.
- Şat, M. (2013). *Böte lisans öğrencilerinin biçimlendirici geri bildirimle yönelik algıları ve tercihleri ile bu algı ve tercihlerin öğrenme yaklaşımlarıyla olan ilişkisi* [CEIT undergraduate students' perceptions and preferences of formative feedback, and the relationship of these perceptions and preferences with their learning approaches]. (Tez No. 341046). [Master Thesis, Middle East Technical University], National Thesis Center.
- Taşkın, N. R. (2018). *Biçimlendirici değerlendirme tasarlama etkinliklerinin biyoloji öğretmen adaylarının modern genetik öğrenme progresyonu temelli alan bilgilerine ve pedagojik alan bilgilerine etkisi* [The effect of formative assessment design activities on biology student teachers' modern genetics learning progression based content knowledge and pedagogical content knowledge]. (Tez No. 529555). [Doctoral dissertation, Balıkesir University], National Thesis Center.
- Tekin, E. G. (2010). *Matematik eğitiminde biçimlendirici değerlendirmenin etkisi* [Effect of formative assessment in mathematics education]. (Tez No. 279887). [Master Thesis, Marmara University], National Thesis Center.
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- Unaş, F. (2021). *Fen eğitiminde biçimlendirici değerlendirme uygulamalarının öğrencilerin öz-düzenlemeli öğrenme becerilerine etkisi* [The effect of formative assessment practices in science education on students' self-regulated learning skills]. (Tez No. 693052). [Master Thesis, Sivas Cumhuriyet University], National Thesis Center.
- Ülker, F. T. (2022) *Fen bilgisi öğretmen adaylarına astronomi dersinde uygulanan web 2.0 temelli biçimlendirici değerlendirmenin etkililiği* [Effectiveness of Web 2.0-based formative assessment applied to science teacher candidates in astronomy course]. (Tez No. 715922). [Master Thesis, Necmettin Erbakan University], National Thesis Center.
- Yurtdakal, D. H. (2015). *Biçimlendirici değerlendirmenin öğrencilerin ingilizce kelime hazinesinin gelişmesine olan etkileri* [The effects of formative assessment on EFL learners' vocabulary enrichment]. (Tez No. 421463). [Master Thesis, İstanbul Sabahattin Zaim University], National Thesis Center.

BIOGRAPHICAL NOTES

Contribution Rate of Researchers

Author 1: 60%

Author 2: 40%

Conflict Statement

There is no conflict of interest in the study.



Genişletilmiş Türkçe Özet

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Türkiye’de Biçimlendirici Değerlendirme Alanında ve Eğitim-Öğretim Konusunda Yapılmış Olan Lisansüstü Tezlerin İçerik Analizi

Giriş

Son yıllarda sınıf içi değerlendirmenin önemi gittikçe artmaktadır (Shepard, 2000). Sınıf içi değerlendirmeyi etkileyen önemli bileşenlere bakıldığında problem çözme, karar verme, eleştirel düşünme, yaratıcılık, yenilikçi düşünme gibi bilgi, beceri ve eğilimleri içeren küresel bir anlayış ve bakış açısının hakim olduğu görülmektedir (Marzano, 2006). Öyle ki bu bilgi, beceri ve eğilimler ile amaçlanan; öğrencilerin günlük hayattaki bilgilerini ve etkili birer birey olma yolunda kapasite ve bilişlerini arttırmaktır (McMillan, 2017). Sınıf içi değerlendirmede, öğretmenlere düşen görev ise sadece dersteki öğretilen içerikleri değil, bu bilgi, beceri ve eğilimlerinin gelişimini arttırmak için sınıf içi değerlendirmeler yapmaktır (William, 2007).

İyi bir öğretim, öğrencilerin etkin öğretime katılımlarına imkan verecek şekilde tasarlanmalıdır (Demirel, 2004). Öğrencinin sürecin içinde olması, öğretmenlerin öğrencilerini öğrenme hedefleri doğrultusunda sürekli değerlendirmesi ve etkili geri bildirimler sağlaması ile mümkün olabilir (Hattie & Timperley, 2007). Geri bildirimler ile öğrenciler öğrenmelerini düzenlemeleri konusunda teşvik edilir. Bunun sonucu olarak öğrenci kendi öğrenme sorumluluğunu almanın bilincine ulaşmış olur. Bu durum da öğrencilerin öz yeterlik ve özgüvenlerini artırır (Brookhart, 2008). Bu çalışmalar ise öğrenmeyi artıran değerlendirme faaliyetleri ile mümkün olabilir ve öğrenme için değerlendirme olarak da adlandırılan biçimlendirici değerlendirme faaliyetleri kullanılabilir (Cornelius, 2013).

Alan yazın incelendiğinde biçimlendirici değerlendirme sürecinde kullanılan üç boyuta rastlanmaktadır. Bu boyutlar; 1) Ne öğreneceğiz (nereye gidiyoruz)? 2) Mevcut öğrenmeler ne durumda (şu an neredeyiz)?, 3) Mevcut durum ile öğrenme hedefleri arasındaki fark nasıl

kapatılır (Hangi strateji ya da stratejiler gitmek istediğim gitmek istediğim yere ulaşmamda bana yardım edebilir?) şeklindedir (Hattie & Timperley, 2007; Keeley, 2008; Moss & Brookhart, 2009; Wiliam & Thompson, 2007). Biçimlendirici değerlendirme sürecinde hem öğretmen hem de öğrenciler bu üç soruyu kullanarak öğrenme hedeflerine ve başarı kriterlerine göre mevcut durumu belirleyip mevcut durum ile ulaşılması beklenen nokta arasındaki farkı kapatmak için çalışırlar. Biçimlendirici değerlendirme sürecinin etkili bir şekilde sürdürülebilmesi için bu üç boyut kapsamında biçimlendirici değerlendirme bileşenleri kullanılır. Bu bileşenler; öğrenme hedeflerinin ve başarı kriterlerinin öğrencilerle paylaşılması, soru tipleri/öğrenci öğrenmesi hakkında veri toplama, bilgiyi elde etme stratejileri, geri bildirimde bulunma, öz-değerlendirme ve akran değerlendirme uygulamalarında bulunma ve öğretimde bir sonraki adımı planlamadır (Buck & Trauth-Nare, 2009; Hattie & Timperley, 2007; Keeley, 2008; Moss & Brookhart, 2009; Wiliam & Thompson, 2007). Çalışma kapsamında öğretmenlerin biçimlendirici değerlendirme bileşenlerini kullanma durumlarını betimleyen ve geliştiren çalışmalar olarak ana temalar belirlenmiştir.

Biçimlendirici değerlendirme uygulamaları üzerine yapılan çalışmalar incelendiğinde genel olarak öğrencilerin öğrenme düzeyinde ve öğretimin kalitesinde iyileştirmeler meydana getirdiği görülmektedir (Bala, 2013; Black vd., 2003; Buck & Trauth-Nare, 2009; Boz & Boz, 2005; Buldur, 2014; Cheng, 2006; DeNome, 2015; Furtak vd., 2016; Heritage, 2008; Metin & Birişçi, 2009; Shepard, 2000; Wiliam vd., 2004). Biçimlendirici değerlendirme öğrencilerin başarıları, (Ruiz-Primo ve Furtak, 2007; Wiliam ve diğerleri, 2004) öğrenme ve davranışları üzerinde etkili olabilmektedir (Black vd., 2003). Bu çalışmaların etkisiyle birçok ülkenin fen öğretim programında biçimlendirici değerlendirmeye yer vermesi gerektiği öne çıkmıştır (Avrupa Birliği Komisyonu, 2011; Milli Eğitim Bakanlığı [MEB], 2018a; Organisation for Economic Co-operation and Development [OECD], 2005; The Australian Institute for Teaching and School Leadership Limited [AITSL], 2011).

Literatür incelendiğinde biçimlendirici değerlendirmeyle ilgili İnaltun ve Ateş (2018) tarafından uluslararası araştırmalara odaklanan bir literatür taraması yapılmıştır. İnaltun ve Ateş (2018) biçimlendirici değerlendirme ile ilgili çalışmaların eğilimlerini ortaya çıkarmak için ilkökul ve ortaokul fen bilgisi, fizik, biyoloji, kimya derslerinde gerçekleşen çalışmalar ile fen bilimleri öğretmenleri/öğretmen adayları (fen fizik, biyoloji, kimya) ve sınıflarında fen öğretimi gerçekleştiren sınıf öğretmenleri ile gerçekleştirilen çalışmaları seçmiştir. Benzer şekilde Atasoy ve Kaya (2022), fen eğitiminde biçimlendirici değerlendirmeye ilişkin yapılan nitel araştırmaları belirli kriterlere göre inceleyen bir metasentez çalışması yapmışlardır. İncelenen çalışmalar, uluslararası alandaki makaleler üzerinden yapılmış, ancak mevcut çalışmanın Türkiye'deki tezler üzerine yapılması mevcut çalışmayı bu çalışmalardan ayırmaktadır.

Biçimlendirici değerlendirmenin öğretimde kullanımının artmasına paralel olarak Türkiye'de de biçimlendirici değerlendirmeyle ilgili yapılan araştırma sayısının da her geçen yıl arttığı söylenebilir. Bu bağlamda biçimlendirici değerlendirme konusunda yapılan tez çalışmalarının analizi, araştırmacıların odaklandıkları değişkenlerle ve durumlarla ilgili detaylı bir bilgi sunabilir. Literatürde konuyla ilgili yapılmış tez çalışmalarının analiz edilmesi konuya bütüncül bir bakış açısı sağlamanın yanı sıra araştırmaların eğilimlerinin belirlenerek bundan

sonraki çalışmalarda araştırmacılara yol gösterebilir. Bu bakımdan konuyla ilgili yapılmış tez çalışmalarının tek bir kaynak altında toplanması etkili ve yararlı olabilir.

Alanyazın incelendiğinde, ilgili dönemde biçimlendirici değerlendirme ile ilgili tezlerin analiz edildiği çalışmalara rastlanmamıştır. Bu yüzden bu çalışmanın, biçimlendirici değerlendirme alanında yapılan tezlerin eğilimlerini göstermesi açısından araştırmacılara yol göstereceği düşünülmektedir. Bu amaçla toplam 38 çalışmaya ulaşılarak (Ek 1) biçimlendirici değerlendirmeyle ilgili yapılan tez çalışmalarının eğiliminin tespit edilmesi amacıyla tematik içerik analizi yapılmıştır. Tezler belirlenen ana temalara göre sınıflandırılmış ve her bir ana tema altındaki tezlerle ilgili aşağıdaki problemlere cevap aranmıştır:

- 1) Biçimlendirici değerlendirme ile ilgili yapılan tez çalışmalarının türü, yılı ve dili nedir?
- 2) Biçimlendirici değerlendirme ile ilgili yapılan tez çalışmalarında hangi yöntemler kullanılmıştır?
- 3) Biçimlendirici değerlendirme ile ilgili yapılan tez çalışmalarının çalışma grupları kimlerden oluşmaktadır?
- 4) Biçimlendirici değerlendirme ile ilgili yapılan tez çalışmalarının üniversite türlerine ve bilim dallarına göre dağılımları nasıldır?
- 5) Biçimlendirici değerlendirme ile ilgili yapılan tez çalışmalarında hangi veri toplama araçları kullanılmıştır?
- 6) Biçimlendirici değerlendirme ile ilgili yapılan tez çalışmalarında hangi veri analiz yöntemleri kullanılmıştır?
- 7) Biçimlendirici değerlendirme ile ilgili yapılan tez çalışmalarında ulaşılan bulgular ve sonuçlar nelerdir?

Yöntem

Bu çalışmada Yükseköğretim Kurulu [YÖK] Ulusal Tez Merkezinde taranan biçimlendirici değerlendirme alanında ve eğitim öğretim konusunda yapılan tezlerin incelenmesi ve bu alandaki eğilimlerin belirlenmesi amaçlandığından, tematik içerik analizi yöntemi kullanılmıştır. Tematik içerik analizi, bir alanda yapılan çalışmaların sonuçlarının ve eğilimlerinin belirlenmesi amacıyla belirlenen temalar veya şablonlara göre eleştirel bir bakış açısıyla sentezlenmesidir (Au, 2007; Çalık & Sözbilir, 2014; Finfgeld, 2003).

Bu çalışmada, biçimlendirici değerlendirme alanında YÖK Ulusal Tez Merkezinde erişilen lisansüstü tezlerin içerik analizinin yapılması amacıyla araştırmacılar tarafından hazırlanan "Tez İnceleme Formu" kullanılmıştır. Tez Tarama Merkezinde "biçimlendirici değerlendirme (formative assessment) anahtar kelimesi ve konu kısmı eğitim ve öğretim olarak belirlendiğinde toplam 38 onaylanmış lisansüstü teze ulaşılmıştır. Bu tezler; tez adı, tez türü, tez dili, tez yılı, tezin yürütüldüğü üniversite türü, bilim dalı, tezin çalışma grubu, tezin yöntemi, veri toplama araçları, verilerin analiz yöntemi, bulgu ve sonuç şeklinde excell programı ile "Tez İnceleme Formu" na kaydedilmiştir. Daha sonra bu çalışmalar İnaltun ve Ateş (2018), tarafından fen bilimleri eğitimi alanında biçimlendirici değerlendirme ile ilgili yapılan çalışmaların eğilimlerinin ortaya çıkarılması amacıyla yapılan çalışmada belirlenen ana temalar kullanılarak sınıflandırılmıştır.

Tablo 1’de kullanılan ana temalar, ana tema kodları ve ana tema göstergeleri verilmiştir.

Tablo 1. Tezlere ait ana temalar, ana tema kodları ve ana tema göstergeleri

| Ana temalar | Ana tema kodları | Ana tema göstergeleri |
|--|------------------|---|
| Öğretmen veya öğretmen adaylarının biçimlendirici değerlendirme becerilerini betimleyen çalışmalar | BDBBÇ | Öğretmen veya öğretmen adaylarının biçimlendirici değerlendirme kullanma durumlarının belirlenmesinin amaçlanması |
| Öğretmen veya öğretmen adaylarının biçimlendirici değerlendirme bileşenlerine ait becerilerini geliştirmeyi planlayan çalışmalar | BDBGÇ | Öğretmen veya öğretmen adaylarının biçimlendirici değerlendirme uygulamalarının ve becerilerinin gelişimi için çeşitli süreçlerin (hizmetiçi eğitim, üniversite yöntem dersleri, işbirlikli eylem araştırması vb.) planlanması |
| Biçimlendirici değerlendirmenin öğrenci çıktıları üzerindeki etkisini inceleyen çalışmalar | ÖÇEİÇ | Biçimlendirici değerlendirmenin öğrenci bilişsel (başarı, kavramsal anlama vb.) ve duyuşsal (tutum, motivasyon, öz-güven vb.) özellikleri üzerindeki etkisinin incelenmesi |
| Biçimlendirici değerlendirme uygulamasını etkileyen faktörler üzerine yapılan çalışmalar | BDEFÇ | Biçimlendirici değerlendirmenin öğretmenler tarafından algılanmasını ve sınıflarda uygulanmasını etkileyen çeşitli değişkenler (konu alan bilgisi, pedagojik alan bilgisi, mesleki tecrübesi, kişisel değerlendirme teorisi vb.), öğrenciler tarafından uygulanmasını etkileyen değişkenler (öğrencilerin öğrenme gelişimi vb.) ve çeşitli sınıf süreçleri (sınıf iklimi, sınıf yönetimi vb.) |
| Biçimlendirici değerlendirme konusunda yapılmış diğer çalışmalar | BDYDÇ | Dört kategori dışında kalan çalışmalar |

Çalışmada tematik içerik analizine dahil edilen tezler 5 ana tema altında kodu, türü, yılı, dili, üniversite, çalışma grubu, yöntem ve veri toplama araçları ve veri analiz yöntemlerine göre sınıflandırılmıştır. Tezler kodlanırken yayımlandıkları bilim dalları ve ilgili konu alanları dikkate alınarak biyoloji alanında yapılanlar “B” kodu ile, bilgisayar ve öğretim teknolojileri alanında yapılanlar “BÖTE” kodu ile, eğitim teknolojileri alanında yapılanlar “ET” kodu ile, fen bilimleri alanında yapılanlar “F” kodu ile, fizik alanında yapılanlar “Fzk” kodu ile, İngilizce eğitimi alanında yapılanlar “İng” kodu ile, matematik alanında yapılanlar “M” kodu ile, okul öncesi eğitimi alanında yapılanlar “OÖ” kodu ile, sınıf öğretmenliği alanında yapılanlar “SnF” kodu ile ve sosyal bilgiler alanında yapılanlar “S” kodu kullanılarak sınıflandırılmıştır. Tezler türlerine göre sınıflandırılırken yüksek lisans tezleri için “yl” kodu ile doktora tezleri için ise “dok.” kodu kullanılmıştır. Tezler yayımlandıkları dillere göre Türkçe için “T.” Kodu ve İngilizce için “İng” kodu ile sınıflandırılmıştır. Tezlerin yapıldıkları üniversite türleri “devlet” ve “özel” olarak sınıflandırılmıştır. Çalışma grupları temasında ise 1.-4. Sınıf arası “İlkokul”, 5.-8. sınıf arası “Ortaokul”, 8.-12. Sınıf arası “Lise”, üniversite öğrencileri “Lisans”, görev yapan öğretmenler “Öğretmen” ve üniversitede çalışan öğretim görevlileri “Öğr. Gör” olarak sınıflandırılmıştır. Tezlerde kullanılan yöntemler; betimsel veya ilişkisel tarama türünde olanlar “Tarama”, yarı-deneysel ve zayıf deneysel türünde olanlar “Deneysel”, hem nitel hem de nicel araştırma yöntemlerinin kullanıldığı tezler “Karma”, durum çalışması türünde olanlar “Durum”, fenomenolojik türde olanlar “Olgubilim”, eylem araştırması türünde olanlar “Eylem” olarak sınıflandırılmıştır. Veri toplama araçları ise “Alan notları”, “Günlük”, “Gözlem”, “Görüşme”,

“Anket”, “Test”, “Ölçek”, “Açık Uçlu soru”, “Envanter”, “Ses-video kayıt” ve “Diğer” (biçimlendirici yoklama soruları, yansıtma kağıtları, çevrimiçi kayıtlar, rubrik, bilgi ve inceleme formları vb.) olarak kategorize edilmiştir. Verilerin analizindeki kategoriler dışında “diğer” (açıklayıcı ve istatistiksel prosedür, betimsel istatistik, korelasyon, ilişkisel analiz, tek durum analizi) de eklenmiştir. Her bir ana temanın bulgu ve sonuçları kendi içinde sınıflandırılmıştır. Tezler sınıflandırılırken birden fazla ana temaya ait çalışmalarda “***” sembolü kullanılmıştır.

Bulgular

Biçimlendirici değerlendirme konusunda yapılan tezlerin tematik içerik analizinin yapıldığı bu çalışmada 5 ana tema altında belirlenen alt temalara göre tezler incelenmiştir. Alt temalar; tez kodu, tez türü, tez dili, tez yılı, tezin yürütüldüğü üniversite türü, bilim dalı, tezin çalışma grubu, tezin yöntemi, veri toplama araçları, verilerin analiz yöntemi, bulgu ve sonuç olarak belirlenmiştir. Bu kısımda her bir ana tema altında bulgular sunulacaktır.

Öğretmen veya öğretmen adaylarının biçimlendirici değerlendirme becerilerini betimleyen çalışmalar (BDBBÇ) ana temasına ait çalışmalar incelendiğinde, 3 adet yüksek lisans tez çalışmasının okul öncesi, matematik ve fen bilimleri alanında yapıldığı görülmektedir. Çalışma gruplarına bakıldığında 2 adet çalışmanın öğretmenlerle 1 tanesinin ise öğretmen adaylarıyla yapıldığı belirlenmiştir. Çalışmaların iki tanesinde nitel bir tanesinde ise nicel yöntem kullanılmıştır. Veri toplama aracı olarak görüşme ve ölçek tercih edildiği görülmektedir. Verilerin analizinde ise içerik analizi ve diğer (doğrulayıcı faktör analizi ve açıklayıcı faktör analizi) analizlerin yapıldığı görülmektedir. İncelenen çalışmalardan fen bilimleri alanında yapılan çalışmanın ölçek geliştirme çalışması olduğu görülmektedir. Çalışmalarda incelenen biçimlendirici değerlendirme bileşenlerine bakıldığında; sadece bir çalışmada öğretmenlerin bütün biçimlendirici değerlendirme bileşenlerini kullanma durumlarının incelendiği görülmektedir. Çalışmalarda en çok incelenen bileşen ise “öğrenci öğrenmesiyle ilgili bilgi elde etme” bileşenidir.

Öğretmen veya öğretmen adaylarının biçimlendirici değerlendirme bileşenlerine ait becerilerini geliştirmeyi planlayan çalışmalar (BDBGÇ) ana temasına ait çalışmalar incelendiğinde, 2 adet doktora çalışmasının olduğu ve bu çalışmaların, Matematik ve Fen eğitimi alanlarında yapıldığı görülmektedir. Çalışmalardan 1 tanesinde öğretmen adaylarıyla 1 tanesinde ise öğretmenlerle çalışılmıştır. Çalışmalarda karma yöntem kullanıldığı ve veri toplama araçları olarak ise görüşme, ölçek, anket, test, gözlem, ses-video kayıt ve alan notları kullanıldığı belirtilmiştir. Geliştirilen biçimlendirici değerlendirme bileşenlerine bakıldığında yapılan iki çalışmada da akran değerlendirme bileşeni hariç diğer bileşenlerin incelendikleri görülmektedir. Çalışmaların sonucunda öğretmenlerin bu bileşenleri kullanma durumlarının geliştirilmesinde pedagojik bilgi, pedagojik alan bilgisi, konu alan bilgisi, zaman ve tecrübe gibi faktörlerin etkili oldukları vurgulanmıştır.

Biçimlendirici değerlendirme uygulamasını etkileyen faktörler üzerine yapılan çalışmalar (BDEFÇ) ana temasına ait çalışmalar incelendiğinde, 7 tane yüksek lisans ve 1 tane doktora düzeyinde olmak üzere toplamda 8 tane çalışmanın olduğu görülmektedir. Çalışmalarda çoğunlukla kullanılan yöntemin karma yöntem ve kullanılan veri toplama araçlarının ise görüşme ve anket olduğu görülmektedir. Çalışmalar incelendiğinde biçimlendirici değerlendirmeyi

etkileyen faktörlerin öğretmen, öğrenci ve diğer (sınıf mevcudu, zaman yetersizliği) kategorilerinde çeşitli değişkenleri inceledikleri görülmektedir. Öğretmenlerin biçimlendirici değerlendirmeyi kullanmasını etkileyen faktörlerde mesleki deneyim/yaş, inanç, özyeterlik, öğrenme yaklaşımları, pedagojik alan bilgisi/konu alan bilgisi, ders saati sayısı ve cinsiyet değişkenlerinin incelendikleri görülmektedir. İncelenen çalışmalarda öğretmenlerin biçimlendirici değerlendirme kullanımında etki eden değişkenlerden en fazla incelenen “mesleki deneyim/yaş” olmuştur. Biçimlendirici değerlendirme kullanımını etkileyen öğrencilere bağlı değişkenlerde ise öğrencilerin öğrenme gelişimi/yaklaşımı, derse katılımları, değerlendirme tercihleri, milliyetleri ve cinsiyetleri değişkenlerinin incelendikleri görülmektedir. Yapılan çalışmalarda en çok incelenen öğrencilere bağlı değişken ise öğrencilerin öğrenme gelişimi/yaklaşımı olmuştur. Sınıf mevcudu ve zaman yetersizliği ise biçimlendirici değerlendirme kullanımını etkileyen diğer faktörler olarak görülmektedir.

Biçimlendirici değerlendirmenin öğrenci çıktıları üzerindeki etkisini inceleyen çalışmalar (ÖÇEİÇ) ana temasına ait çalışmalar incelendiğinde, 18 tane yüksek lisans, 6 tane ise doktora düzeyinde olmak üzere 24 tane çalışmanın olduğu görülmektedir. Bu ana tema en fazla çalışmanın yapıldığı ana temadır. Çalışmaların Fen ve İngilizce eğitimi alanlarında en fazla yapıldığı görülmektedir. Çalışmaların 11 tanesinin lisans öğrencileriyle, 10 tanesinin ortaokul öğrencileriyle, 2 tanesinin lise öğrencileriyle ve 1 tane çalışmanın ise ilkokul öğrencileriyle yapıldığı görülmektedir. Çalışmalarda çoğunlukla karma yöntemin tercih edildiği ve kullanılan veri toplama araçlarının ise görüşme, ölçek ve test olduğu görülmektedir. Veri analizinde ise içerik analizi ve t-testinin sıklıkla tercih edildiği görülmektedir.

Biçimlendirici değerlendirmenin öğrenci çıktıları üzerindeki etkisini inceleyen çalışmalar (ÖÇEİÇ) ana temasına ait çalışmalarda incelenen öğrenci çıktıları incelendiğinde, yapılan çalışmalarda biçimlendirici değerlendirmenin etkisi incelenen öğrenci çıktılarına bakıldığında; başarı, tutum, motivasyon, kavramsal öğrenme, üstbilişsel bilgi ve düzenleme becerisi, öz-düzenleme becerisi, öğrenmenin transferi, derse katılım, öğrenen özerkliği, yazma/sınav kaygısı, ölçme ve değerlendirme tercihleri, inanç/algı/anlayış ve alan bilgisi/pedagojik alan bilgisi değişkenleri görülmektedir. Bu değişkenlerden sayıca en fazla etkisi incelenen öğrenci çıktısı başarıdır. Tutum, kavramsal öğrenme ve motivasyon da sayısı fazla olan diğer değişkenlerdir. İncelenen çalışmalarda, biçimlendirici değerlendirmenin öğrenci çıktıları üzerindeki etkisi 2 çalışma hariç olumlu olarak ifade edilmiştir.

Biçimlendirici değerlendirme konusunda yapılmış diğer çalışmalar (BDYDÇ) ana temasına ait çalışmalar incelendiğinde, yapılan çalışmaların biri hariç hepsinin bilgisayar ve öğretim teknolojileri eğitimi (BÖTE) alanında olduğu görülmektedir. BÖTE alanında yapılan çalışmaların web tabanlı öğrenme ortamlarında biçimlendirici değerlendirme sistemini kabul yapıları bağlamında öğrenen-değerlendirme etkileşimini inceledikleri belirlenmiştir. Fen eğitimi alanında yapılan çalışmada ise fen derslerinde katılımcı öğretmenlerin kullandıkları informal biçimlendirici değerlendirme sürecinde kullanılan soruların ve bu soruların amaçlarının neler olduğu konuşma çözümlemesi yöntemiyle araştırılmıştır. Bu çalışmaların ikisi yüksek lisans üçü ise doktora düzeyinde yapılan çalışmalardır. Yapılan çalışmaların 3 tanesinin çalışma grubunu ortaokul öğrencileri, 1 tanesinin çalışma grubunu lise öğrencileri ve 1 tanesinin çalışma grubunu da öğretmenler oluşturmaktadır. Yapılan çalışmalarda veri toplama aracı olarak; gözlem,

görüşme, test, ölçek ve diğer kategorisinde yer alan log kayıtları, gezinim verileri, katılımcı bilgi formu, görüşme protokolü ve çevrimiçi kayıtlar kullanılmıştır. Veri analiz yöntemlerinde sıklıkla tercih edilen diğer kategorisi olmuştur. Bu kategoride ise tematik analiz, ki-kare testi, betimsel istatistik, tek durum analizi, standart sapma ve tekrarlı ölçümler varyans analizi yer almaktadır.

Tartışma ve Sonuç

Biçimlendirici değerlendirme alanında eğitim ve öğretim konusunda yapılmış olan lisansüstü tezlerin tematik içerik analizinin yapıldığı bu çalışmada YÖK Tez Tarama Merkezinde onaylanmış 38 tez incelenmiştir. İncelenen tezler 5 ana tema altında toplanmıştır. Bu ana temalar; öğretmen veya öğretmen adaylarının biçimlendirici değerlendirme becerilerini betimleyen çalışmalar, öğretmen veya öğretmen adaylarının biçimlendirici değerlendirme bileşenlerine ait becerilerini geliştirmeyi planlayan çalışmalar, biçimlendirici değerlendirmenin öğrenci çıktıları üzerindeki etkisini inceleyen çalışmalar, biçimlendirici değerlendirme uygulamasını etkileyen faktörler üzerine yapılan çalışmalar ve bu 4 ana tema dışında kalan çalışmalardır (İnalton ve Ateş, 2018).

Öğretmen veya öğretmen adaylarının biçimlendirici değerlendirme bileşenlerine ait becerilerini geliştirmeyi planlayan çalışmalar incelendiğinde 2 adet doktora çalışmasının olduğu görülmektedir. Çalışmaların doktora düzeyinde yapılmasının nedeni biçimlendirici değerlendirme bileşenlerine ait becerilerin geliştirilmesinin uzun ve karmaşık bir süreç gerektirmesi olabilir (Frey & Fisher, 2011). Bu ana tema altında yapılan çalışmaların da sayıca az olmasının nedeni ise; bu çalışmaların gerek planlama gerekse uygulama noktasında diğer temalara göre daha uğraştırıcı olması olabilir. Yapılan çalışmaların sonuçları da öğretmenlerin biçimlendirici değerlendirme bileşenlerine ait becerilerinin gelişimi için zaman ve desteğe ihtiyaç duyduklarını ortaya koymaktadır (Buck & Trauth-Nare, 2009; Torrance & Pryor, 2001). Çalışmaların sonucunda öğretmenlerin bu bileşenleri kullanma durumlarının geliştirilmesinde pedagojik bilgi, pedagojik alan bilgisi, konu alan bilgisi, zaman ve tecrübe gibi faktörlerin etkili oldukları vurgulanmıştır. Öğretmenlerin biçimlendirici değerlendirme uygulamalarını etkileyen faktörlerle ilgili yapılan çalışmalar incelendiğinde de benzer sonuçlar görülmektedir (Falk, 2012; Furtak, 2012; Sach, 2012).

Yapılan çalışma sayısının az olduğu bir diğer ana tema öğretmen veya öğretmen adaylarının biçimlendirici değerlendirme becerilerini betimleyen çalışmalardır (BDBBÇ). Çalışmalar incelendiğinde, veri toplama aracı olarak görüşme, ölçek ve ders planlarının tercih edildiği görülmektedir. Özellikle öğretmen ve öğretmen adaylarının biçimlendirici değerlendirme bileşenlerine ait becerilerini daha iyi betimleyebilmek için gözlem, ses ve video kaydı, alan notları ve günlük gibi veri toplama araçlarının da süreçte kullanılması çalışmalarda veri çeşitliliği oluşturabilir ve bu sürecin ayrıntılarıyla görülmesini sağlayabilir. Gotwals, Philhower, Cisterna ve Bennett (2015) yaptıkları çalışmada da benzer sonuçlara ulaşmışlardır.

Biçimlendirici değerlendirme uygulamasını etkileyen faktörler üzerine yapılan çalışmalar incelendiğinde 11 adet çalışmanın olduğu ve çalışmaların büyük çoğunluğunu İngilizce eğitimi alanında yapıldığı görülmektedir. Bu durumun sebebi 2018 İngilizce Dersi Öğretim Programında biçimlendirici değerlendirmenin kullanımının öğrencinin öğrenme hedefine göre güçlü ve zayıf yönlerini vurgulamanın öneminden bahsetmesi ve biçimlendirici değerlendirmenin kullanılması

için çeşitli tekniklere yer verilmesi olabilir (MEB, 2018b). Biçimlendirici değerlendirme uygulamasını etkileyen faktörler üzerine yapılan çalışmalar ana temasına ait bulgu ve sonuçlar incelendiğinde çalışmaların öğretmen, öğrenci ve diğer (sınıf mevcudu, zaman yetersizliği) kategorilerinde çeşitli değişkenleri inceledikleri görülmektedir. Öğretmen kategorisinde en fazla incelenen değişken mesleki deneyim/yaş olmuştur. Literatür incelendiğinde benzer şekilde Sach (2012) ortaokul öğretmenleriyle yürüttüğü çalışmada, öğretmenlik deneyiminin öğretmenlerin biçimlendirici değerlendirme algıları üzerinde etkisi olduğunu ifade etmiştir. Öğretmenlerin pedagojik alan bilgisi/konu alan bilgisi ve inançları da sayıca diğer değişkenlere göre daha fazla incelenen değişkenlerdir. Öğretmenlerin pedagojik alan bilgisi ve konu alan bilgisi değişkenlerinin biçimlendirici değerlendirmeyi etkilediği ilgili literatürdeki sonuçlarla da benzerlik göstermektedir (Falk, 2012; Sabel vd., 2015).

Biçimlendirici değerlendirmenin öğrenci çıktıları üzerindeki etkisini inceleyen çalışmalar ana temasına ait çalışmaların sayıca en fazla olduğu görülmektedir. Bunun sebebi biçimlendirici değerlendirmenin öğrencilerin öğrenmesine etki eden önemli bir değişken olması olabilir (Furtak vd., 2016; Hattie & Timperley, 2007). Biçimlendirici değerlendirmenin öğrenci çıktıları üzerindeki etkisini inceleyen çalışmalarında, sayıca en fazla incelenen öğrenci çıktısının başarı olduğu görülmektedir. Bu durumda incelenen çalışmaların büyük çoğunluğunun biçimlendirici değerlendirmenin öğrencilerin bilişsel özellikleri üzerindeki etkisini araştırdığı söylenebilir.

Çalışmalar incelendiğinde 27 çalışmanın devlet üniversitesinde 11 çalışmanın ise özel üniversitelerde yapıldığı görülmektedir. Çalışmaların 2009 yılında başlayıp 2017 yılından bu yana artış gösterdiği görülmektedir. En fazla sayıda yapılan çalışmanın ise 2021 yılında olduğu görülmektedir. Çalışmaların 22 tanesinin dili Türkçe olup bu çalışmaların çoğunluğunu fen eğitimi alanında yapılan çalışmalar oluşturmaktadır. Çalışmaların 16 tanesinin ise dili İngilizce olup bu çalışmaların çoğunluğunu İngilizce eğitimi alanında yapılan çalışmalar oluşturmaktadır. Devlet üniversitelerinde yapılan çalışmaların çoğunluğunu fen eğitimi alanında yapılan çalışmalar, özel üniversitelerde yapılan çalışmaların çoğunluğunu ise İngilizce eğitimi alanında yapılan çalışmalar oluşturmaktadır. Çalışmalarda en fazla kullanılan yöntem karma yöntem olurken en az kullanılan yöntem ise eylem araştırmasıdır. Veri toplama araçlarında ise görüşme ve ölçek en fazla kullanılmıştır. Veri analiz yöntemlerinden ise içerik analizi, betimsel analiz ve t-testi sıklıkla tercih edilmiştir. İncelenen çalışmalarda; öğretmen veya öğretmen adaylarının biçimlendirici değerlendirme bileşenlerini kullanma durumlarını betimleyen ve geliştiren çalışmaların az sayıda olduğu görülmektedir. Biçimlendirici değerlendirmeyle ilgili çoğunlukla yapılan çalışmaların ise biçimlendirici değerlendirmenin öğrenci çıktıları üzerindeki etkisini inceleyen çalışmalar olduğu ve bu incelenen etkinin de çoğunlukla bilişsel özelliklerden açısından başarı, duyuşsal özellikler açısından ise tutum olduğu bulunmuştur. Yapılan çalışmalarda biçimlendirici değerlendirmenin uygulanmasını etkileyen faktörler bağlamında; öğretmenler açısından mesleki deneyim/yaşın, öğrenciler açısından ise öğrenme gelişiminin/yaklaşımının ve bunların yanı sıra sınıf mevcudunun da en çok incelenen değişkenler olduğu bulunmuştur.

Öneriler

Türkiye’de biçimlendirici değerlendirme ile yapılan tezlerin sayıca az olduğu ve konu ile ilgili çalışmalara ihtiyaç duyulduğu görülmektedir. Özellikle öğretmenlerin veya öğretmen adaylarının biçimlendirici değerlendirme bileşenlerini betimleyen ve geliştiren çalışmalar ana temasına ait çalışmaların arttırılması önerilebilir. Öğretmen veya öğretmen adaylarının biçimlendirici değerlendirme bileşenlerini geliştiren çalışmalar ana temasına ait planlanacak çalışmalarda işbirlikli eylem araştırması yöntemi tercih edilerek süreç daha detaylı analiz edilebilir. Biçimlendirici değerlendirmenin öğrenci çıktıları üzerindeki etkisini incelemek amaçlı yapılacak çalışmalarda öğrencilerin duyuşsal özelliklerinin (tutum, motivasyon, öz-güven) incelenmesi önerilebilir. Bilim dalı olarak bakıldığında sosyal bilgiler, sınıf, biyoloji, fizik, kimya ve okul öncesi öğretmenliği alanlarında biçimlendirici değerlendirme konusunda çalışmalar sayıca sınırlı olup arttırılması önerilebilir.




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Analysis of Postgraduate Studies on Learning Disability in Preschool Period

 Semih Uçar, Lecturer, Corresponding Author
Muş Alparslan University, Türkiye
s.ucar@alparslan.edu.tr
Orcid ID: 0000-0002-6723-3437

 Gökhan Duman, Prof. Dr.
Gazi University, Türkiye
gduman@gazi.edu.tr
Orcid ID: 0000-0002-8650-3594

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Abstract

The current study aims to review the postgraduate studies on learning disabilities in preschoolers in Turkey. In the study, document analysis was employed as a qualitative research method. The sampling was determined based on the criteria that the studies were focused on the pre-school period only, there was no interval between the years of the study, and the full texts of the studies were included in the Council of Higher Education Thesis Center. Nine postgraduate studies that were conducted in the preschool period were included in the sample. Results show that most of the postgraduate studies were master's theses and most of the studies utilized quantitative methods as research designs. The studies were mostly conducted in educational sciences institutes and children made up the majority of the participants in these studies. The results showed that the first research on the subject was completed in 2005 and there was only one study in the years 2010, 2012, 2017, and 2022. There were two studies regarding the learning disability in 2018 and 2019. It can be said that learning disability studies needs more attention in preschool age.

Keywords: Preschool period, learning disability, postgraduate study.

Introduction

The word learning disability was first used officially in Turkey in 1975; Individuals with learning difficulties were examined in two categories, those with other learning difficulties and those with cultural deprivation (Görgün, & Melekoğlu, 2019). Learning difficulties were handled under a single title after 1985 and many definitions of learning disabilities were made over time. Ministry of National Education [MoNE] (2006) defines individuals with learning disabilities as "...individuals who need special education and support education services due to difficulties in listening, speaking, writing, spelling, concentrating or performing mathematical operations". Learning difficulties with the use of academic skills can be observed clearly in formal education processes. According to the research, the most common symptoms of learning difficulties in the preschool period are spatial-temporal, visual, auditory, and tactile processes and defects expressed in motor and balance control (Aslan, 2015). In addition, exhibiting skills behind their peers in fulfilling developmental tasks, and having skills at the level of children who are a few years younger than the development of their age group can be expressed as early signs of learning disability. The existence of these imperfections provides an opportunity to be aware of learning difficulties in the early stages. It is stated that although some individuals with learning disabilities have normal and above-normal intelligence, they often exhibit lower academic performance in school compared to their existing intelligence potential (Vocational Education and Training System Strengthening Project [MEGEP], 2014).

Speech and language problems in the preschool period, and literacy problems in primary school education are considered learning difficulties. Especially in the years after the 3rd grade of primary school, literacy problems affect learning in different academic subjects (Deveci & Koç, 2020). Today, the diagnosis of a learning disability is often made in the first or higher grades in primary school. However, it is possible to see the symptoms of learning difficulties in preschool years. Some developmental characteristics or skills observed in the preschool period can predict the possibility of learning difficulties in the future (Demir, 2005). Learning difficulties that cannot be noticed in the preschool period indicate significant differences in children's academic performance compared to their peers and mental retardation. International studies on learning disabilities have shown that individuals diagnosed with learning disabilities in adulthood were shown to have learning disabilities for many years (Rodis,

Garrot & Boscardin, 2001 as cited in Akdemir, 2018). For this reason, it is possible to help these individuals as early as possible by recognizing learning disabilities at an early age and taking precautions accordingly. For this, the preschool period is very important.

A review of the literature shows that there are several studies that focus on learning disabilities. In their study, Deveci and Koç (2020) comparatively examined national and international articles published between 2015-2019, on learning disabilities. In the study conducted by Arı, Yıkılmış, and Özokçu (2019), experimental dissertations in Turkey on learning disabilities were examined. In the study conducted by Özkardeş (2012a), a descriptive analysis of the studies on special learning disabilities in Turkey was made. The study by Özkardeş, (2012b) aimed to evaluate the applications for special learning disabilities in Turkey and to determine what should be done in the light of these applications. İlker and Melekoğlu (2017) reviewed the studies on the writing skills of students with learning difficulties in primary school. Similarly, Görgün and Melekoğlu (2019) made a review the studies on special learning disabilities in Turkey. It seems that there are currently no reviews examining the postgraduate studies on learning disabilities in preschool years. A comprehensive examination of postgraduate studies on learning disabilities in the preschool period is important in terms of filling this gap in the field and guiding future studies on the subject. In line with this purpose, the researchers seek the answers to the following questions:

1. What is the distribution of postgraduate studies on learning disabilities in the preschool period by universities?
2. What is the distribution of postgraduate studies on learning disabilities in the preschool period by years?
3. What are the distribution of the preferred methods in postgraduate studies on learning disabilities in the preschool period and the distribution of the postgraduate level of the studies?
4. What is the distribution of postgraduate studies on learning disabilities in the preschool period by research design used?
5. What is the sample distribution of graduate studies on learning disabilities in the preschool period?
6. What is the distribution of postgraduate studies on learning disabilities in the preschool period by the methods used in sample selection?
7. What is the distribution of data collection tools used in postgraduate studies on learning disabilities in the preschool period?
8. What is the distribution of postgraduate studies on learning disabilities in the preschool period by institutes?
9. What is the distribution of postgraduate studies on learning disabilities in the preschool period by department?
10. For what purpose have postgraduate studies on learning disabilities in the preschool period been conducted?
11. What is the distribution of the participants in the postgraduate studies on learning disabilities in the preschool period by age?
12. What are the demographic (gender, etc.) characteristics of the participants in the postgraduate studies on learning disabilities in the preschool period?
13. How is learning disability expressed in postgraduate studies on learning disability in the preschool period?

Method

Research Model

The current study aims to examine the postgraduate studies on learning disabilities in preschool years with a descriptive research design, which is one of the screening models. Descriptive models are employed to describe the situation in which the research takes place as it is (Akgün, Büyükoztürk, Demirel, Karadeniz, & Kılıç Çakmak, 2015). The document analysis technique was used to examine the postgraduate studies on learning disabilities in the preschool period. Materials related to the subjects are examined in the document analysis technique (Merriam, 2013).

Research Data Collection

One of the criteria for the inclusion of a study was that the study related to learning disabilities in the preschool period should be accessible with full text and written in Turkish. There was no limitation for the time range. All postgraduate studies on learning disabilities in the preschool period were included. However, the first study on the subject dates to 2005, and the last one to 2022. The keywords used for the search were "learning disability", "specific learning disability", "specific learning disability", "learning disability", "specific learning disability", "preschool", and "kindergarten/school" were searched and a total of 9 postgraduate studies that met the specified criteria were included in the study. The postgraduate studies that were eligible for the purpose of the study on learning disabilities in the preschool period were downloaded by the researcher. The Publication Classification Form developed by Göktaş et al. (2012) was also used in the evaluation of the downloaded postgraduate studies. The first section of the form aims to collect information about the selected study, and the next part focuses on the method, sample information, and data collection tools. The researchers also collected other data using some categories.

Data Analysis

The researchers entered the keywords "learning disability", "specific learning disability", "special learning disability", "learning disorder", and "specific learning disability" on the website of the Higher Education Council Thesis Center. and "preschool", and "kindergarten/school" keywords were searched separately for the data collection. The researchers examined the consistency between the studies included to contribute to the validity and reliability of the research. Content analysis was used for the data. In content analysis, the data obtained are organized according to the determined categories (Merriam, 2013). The frequencies and percentages were calculated with the content analysis technique.

Ethical Permits of Research

In this study, all the rules within the scope of the "Higher Education Institutions Scientific Research and Publication Ethics Directive" were followed. None of the actions specified under the heading "Actions Contrary to Scientific Research and Publication Ethics", which is the second part of the directive, were performed.

Ethics Committee Permission Information:

This study is within the scope of activities that do not require ethical permission.

Findings

This study aims to investigate the postgraduate studies in Turkey on learning disabilities in the preschool period. Therefore, the distribution of the studies retrieved from the National Thesis Center. of the Council of Higher Education based on some variables is presented in this section.

Universities where Postgraduate Studies on Learning Disabilities in Preschool Period are Carried Out

The distribution of postgraduate studies on learning disabilities in the preschool period by the university is shown in Table 1.

Table 1. *Distribution of postgraduate studies on learning disabilities in the preschool period by the university*

| Universities Where Theses Are Written | Frequency | Percentage |
|---------------------------------------|-----------|------------|
| Gazi University | 1 | 11,1 |
| Anadolu University | 1 | 11,1 |
| Marmara University | 2 | 22,2 |
| İstanbul University | 1 | 11,1 |
| Ankara University | 1 | 11,1 |
| Trakya University | 1 | 11,1 |
| Okan University | 1 | 11,1 |
| Yıldız Technical University | 1 | 11,2 |
| Total | 9 | 100 |

Table 1, which gives the distribution of postgraduate studies on learning disabilities in the preschool period by universities, shows that postgraduate studies with learning disabilities in the preschool period were conducted in 8 universities. The studies on learning disabilities in the preschool period are mostly done at Marmara University (n=2), and one study from each of the other universities above, which are Gazi University, Anadolu University, Ankara University, Trakya University, Istanbul University, Okan University, and Yıldız Technical University.

Distribution of Postgraduate Studies on Learning Disabilities in Preschool Period by Year

The distribution of graduate studies on learning disabilities in the preschool period by year is shown in Table 2.

Table 2. *Distribution of postgraduate studies on learning disabilities in preschool period by year*

| Year | Frequency | Percentage |
|-------|-----------|------------|
| 2005 | 1 | 11,1 |
| 2010 | 1 | 11,1 |
| 2012 | 1 | 11,1 |
| 2017 | 1 | 11,1 |
| 2018 | 2 | 22,2 |
| 2019 | 2 | 22,2 |
| 2022 | 1 | 11,2 |
| Total | 9 | 100 |

Table 2, where the distribution of graduate studies on learning disabilities in the preschool period is given by years, shows that the first graduate study on learning disabilities in the preschool period was conducted in 2005. Also, most of the postgraduate studies on learning disabilities in the preschool period (n=2) were conducted in 2018 and 2019. For 2005, 2010, 2012, 2017, and 2022, there was only one study completed in each year.

Distribution of the Preferred Research Design and Thesis Type in Postgraduate Studies on Learning Disabilities in Preschool Period

The distribution of the preferred research designs and thesis types in postgraduate studies on learning disabilities in the preschool period is given in Table 3.

Table 3. *Distribution of preferred research designs in postgraduate studies on learning disabilities in the preschool period and the types of theses*

| Type of Thesis | Research Method | Frequency | Percentage |
|-----------------------|-----------------|-----------|------------|
| Master's Degree | Quantitative | 5 | 55,5 |
| | Qualitative | 2 | 22,2 |
| Doctorate | Qualitative | 1 | 11,1 |
| | Quantitative | | |
| Expertise in medicine | Qualitative | 1 | 11,2 |
| Total | Quantitative | 9 | 100 |

Table 3, which gives the distribution of the postgraduate studies on learning disabilities in the preschool period according to the preferred research designs and thesis types, shows that most of the postgraduate studies on the subject are quantitative (n=7), 5 of them are at the master's level, and there is one thesis at the doctoral level and one thesis as a specialization thesis in medicine. It is seen that there are 2 studies in which the qualitative method is used for the investigation of the subject, and these studies are at the graduate level.

Distribution of Postgraduate Studies on Learning Disabilities in PreSchool Period by the Designs Used

The distribution of graduate studies on learning disabilities es in the preschool period by the designs used is shown in Table 4.

Table 4. *Distribution of postgraduate studies on learning disabilities es in the preschool period by the designs used*

| Designs Used | Frequency | Percentage |
|-----------------------------|-----------|------------|
| Phenomenological Design | 2 | 22,2 |
| Experimental Design | 2 | 22,2 |
| Relational Screening Design | 5 | 55,6 |
| Total | 8 | 100 |

Table 4 shows that the designs in graduate studies on learning disabilities in the preschool period are relational scanning model (n=6), phenomenological design (n=2), and experimental design.

Distribution of Postgraduate Studies on Learning Disabilities in Preschool Period by Samples

The distribution of the type of participants in the graduate studies on learning disabilities in the preschool period is given in Table 5.

Table 5. *Distribution of graduate studies on learning disability in preschool period by sample*

| Sample | Frequency | Percentage |
|----------------------------------|-----------|------------|
| Families and Teachers | 1 | 11,1 |
| Children | 4 | 44,4 |
| Teachers | 2 | 22,2 |
| Families, Teachers, and Children | 1 | 11,1 |
| Children and Families | 1 | 11,2 |
| Total | 8 | 100 |

Table 5 shows that the samples were composed of children in 4 of the graduate studies on learning disabilities in the preschool period whereas only one study included families, teachers, and children as participants. Only one study was carried out with teachers while 2 studies focused on families and teachers as participants. Children and families together participated only in 1 study.

Distribution of Postgraduate Studies on Learning Disabilities in Preschool Period by Sampling Method

The distribution of graduate studies on learning disabilities in the preschool period by sampling the methods is given in Table 6.

Table 6. *Distribution of graduate studies on learning disabilities in the preschool period by the sampling methods*

| Sampling Methods | Frequency | Percentage |
|------------------------|-----------|------------|
| Purposeful Sampling | 5 | 55,5 |
| Random | 2 | 22,2 |
| Simple Random Sampling | 2 | 22,3 |
| Total | 9 | 100 |

Table 6 shows that purposive sampling, random, and simple random sampling methods were preferred in 5 studies for recruiting the participants of the graduate studies on learning disabilities in the preschool period while simple random sampling method was used in 2 studies.

Distribution of Data Collection Tools Used in Postgraduate Studies on Learning Disabilities in Preschool Period

The distribution of postgraduate studies on learning disabilities in the preschool period by data collection tools is given in Table 7.

Table 7. *Distribution of data collection tools used in postgraduate studies on learning disabilities in the preschool period*

| Data Collection Tools | Frequency | Percentage |
|-----------------------|-----------|------------|
| Scales | 7 | 77,7 |
| Interviews | 2 | 22,3 |
| Total | 9 | 100 |

Table 7 shows that scales (n=7) were the most preferred tools for data collection in the postgraduate studies on learning disabilities in the preschool period, and interview questions were used in 2 studies only.

Distribution of Postgraduate Studies on Learning Disabilities in Preschool Period by Institute

The distribution of postgraduate studies on learning disabilities in the preschool period by institutes is given in Table 8.

Table 8. *Distribution of postgraduate studies on learning disabilities in preschool period by institutes*

| Institutes | Frequency | Percentage |
|----------------------|-----------|------------|
| Educational Sciences | 4 | 44,4 |
| Social Sciences | 3 | 33,3 |
| Health Sciences | 1 | 11,1 |
| Medical School | 1 | 11,2 |
| Total | 9 | 100 |

When Table 8 shows that the postgraduate studies on the subject were mostly done in the Institute of educational sciences (n=4) followed by the Institute of social sciences (n=3). The rest of the studies were conducted in the Institute of health sciences (n=1) and medical faculty (n=1).

Distribution of Postgraduate Studies Related to Learning Disabilities in Preschool Period by Departments and Programs

The distribution of postgraduate studies on learning disabilities in the preschool period by departments and programs is given in Table 9.

Table 9. *Distribution of postgraduate studies on learning disabilities in preschool period by departments and programs*

| Department / Program | Frequency | Percentage |
|---|-----------|------------|
| Special Education/ Intellectually Disabled Education Program | 2 | 22,2 |
| Basic Education / Preschool Program | 3 | 33,3 |
| Special Education/ Education of Intellectually Disabled Program | 1 | 11,1 |
| Family Health / Mother-Child Healthcare | 1 | 11,1 |
| Art and Design Major Art/ Art and Design | 1 | 11,1 |
| Child and Adolescent Mental Health and Diseases | 1 | 11,2 |
| Total | 9 | 100 |

Table 9 shows that there are 3 graduate studies on learning disabilities in the preschool program, 3 in the Department of Special Education, 3 in the Department of Basic Education, and 3 in the Department of Family Health. It is seen that there is 1 in Art Design and the Department of Art, and 1 in the Department of Child and Adolescent Psychiatry and Diseases. Three of the postgraduate studies on learning disability in the preschool period were carried out in the Preschool Department, 2 in the Department of Intellectually Disabled Education, and 1 study was carried out in the Department of Education for the Intellectually Disabled, Mother Child Health and Art and Design.

Purposes of Postgraduate Studies on Learning Disabilities in Preschool Period

Information on the purpose of postgraduate studies on learning disabilities in the preschool period is given in Table 10.

Table 10. *Purposes of postgraduate studies on learning disabilities in the preschool period*

| Author | Purpose of the Study |
|--------------------|--|
| Açıkgöz (2019) | The study aims to determine the characteristics of kindergarten children who are at risk of learning difficulties based on parent and teacher reports. |
| Aydemir Pak (2018) | The study aims to reveal the opinions of preschool teachers residing in Istanbul on learning disabilities. |
| Doğan (2012) | The study was conducted to examine the effectiveness of the early intervention education program for 5–6-year-old children at risk of special learning difficulties. |
| Demir (2005) | The study aims to determine the special learning disability in preschool and primary school students in order to contribute to the early diagnosis of children with learning disabilities. |
| Çetin Kazak (2019) | The study aimed to determine the prevalence and symptoms of specific learning difficulties (SLD) in preschool children; In addition, it was carried out with the aim of pioneering the development of new scales for early diagnosis by predicting the difficulties they may experience in reading, writing, and mathematics in academic life. |
| Gürel (2018) | The study was conducted to investigate whether the Early Literacy Test scores (EROT) of preschool children who are known to be in the risk group for special learning disorders in Turkey, who have speech disorders, or who have a family history of special learning disorders, are different from the control group and each other. |
| Oral (2017) | The study was conducted with the aim of developing a valid and reliable tool for screening "specific learning disorders" for 60-72 months old children. |
| Özbey (2010) | The study was conducted with the aim of examining the effects of music on preschool education and school-age mental development, learning, and cognitive performance by explaining the general benefits of music in the development and learning process. |
| Ertuş (2022) | The study was conducted to determine the knowledge levels of preschool teachers about learning disabilities. |

Distribution of Participants by Age in Postgraduate Studies on Learning Disabilities in Preschool Period

The distribution of the participants of the postgraduate studies on learning disabilities in the preschool period by age is given in Table 11.

Table 11. *Distribution of participants by age in postgraduate studies on learning disabilities in the preschool period*

| Age | Frequency | Percentage |
|--------------|-----------|------------|
| 4-5 | 1 | 11,1 |
| 5-6 | 4 | 44,4 |
| 5-7 | 1 | 11,1 |
| 6 | 1 | 11,1 |
| 24 and above | 2 | 22,3 |
| Total | 9 | 100 |

Table 11 shows that the participants' age ranged between 5-7 in most of the studies. There are 2 studies in which the participants were 24 years old and above. The number of studies in which participants were 6, 4-5, and 5-7 was one.

Distribution of the Gender and Number of Participants in Postgraduate Studies on Learning Disabilities in Preschool Period

Table 12 shows the distribution of the participants of the graduate studies on learning disabilities in the preschool period by gender and age.

Table 12. *Distribution of participants by gender and number in postgraduate studies on learning disability in the preschool period*

| Gender | Number | Percentage |
|--------|--------|------------|
| Female | 376 | 51,57 |
| Male | 353 | 48,43 |
| Total | 729 | 100 |

Table 12 shows that a total of 729 participants were included in the postgraduate studies about learning disabilities in the preschool period. 376 of these participants were females, and 353 of the participants were males.

Distribution of Learning Disabilities by the Way They are Expressed in Postgraduate Studies on Learning Disabilities in Preschool Period

Table 13 gives data on how learning disability is expressed in postgraduate studies on learning disability in the preschool period.

Table 13. *Distribution of learning disabilities by the way they are expressed in postgraduate studies on learning disabilities in the preschool period*

| Expression | Frequency | Percentage |
|------------------------------|-----------|------------|
| Learning Disabilities | 5 | 55,5 |
| Special Learning Disability | 1 | 11,1 |
| Specific Learning Disability | 1 | 11,1 |
| Specific Learning Disorder | 1 | 11,1 |
| Special Learning Disorder | 1 | 11,2 |
| Total | 9 | 100 |

Table 13 shows that the phrase “learning disability” was used in 5 of the postgraduate studies on learning disabilities in the preschool period. “Specific Learning Disability (n=1)”, “Special Learning Disability (n=1)”, “Specific Learning Disorder (n=1)”, and “Special Learning Disorder (n=1)” phrases were also used.

Discussion and Conclusion

In this study, which was conducted to examine the postgraduate studies on learning disabilities in the preschool period, the age, gender, and number of participants, the distribution of the studies by universities es, and the distribution of the studies by years were examined. In addition, the methods used in these studies, the institutes where the studies were conducted, the departments and branches of science in which the studies were conducted, the data collection tools, the terms used to express learning disability, the type of studies, sampling methods, the aims of the studies, the research designs used in the studies were analyzed.

Results show that the postgraduate studies on learning disabilities in the preschool period were carried out in 8 different universities. It has been observed that most of the studies on learning disabilities in the preschool period were carried out at Marmara University. There was one study from the other universities each (Gazi University, Anadolu University, Ankara University, Trakya University, Istanbul University, Okan University, and Yıldız Technical University). These studies on learning disabilities in the preschool period were carried out in a few universities in Turkey and this may be due to the fact that not all universities offer postgraduate programs in the fields of preschool and special education.

The first postgraduate study on learning disabilities in the preschool period was done in 2005. However, most of the postgraduate studies on learning disabilities in the preschool period were carried out in 2018 and 2019, which shows that the number of postgraduate studies on learning disabilities in the preschool period has increased in recent years. The lack of postgraduate studies on the subject before 2005 might be due to the lack of awareness about learning disabilities in preschool.

Results show that most of the postgraduate studies on learning disabilities in the preschool period are quantitative, 5 of them are at the master's level, 1 is at the doctoral level and 1 is as a specialization in medicine thesis whereas 2 of the studies employed qualitative methods and these studies were at the master's level. Similar to the findings of Özkardeş, (2012a) and Arı, Yıkılmış, and Özokçu (2019), most studies on the subject included in this study were at the master's level and the number of postgraduate studies conducted at the doctorate level and medical specialization level was less. This suggests that the number of doctoral studies which investigates the topic from various perspectives and in depth is less the number of master’s theses.

In the postgraduate studies on learning disabilities in the preschool period, the most used design was relational scanning. However, the phenomenological design and experimental design were also used. Another similar finding is that most of the studies employed quantitative methods. Collecting data with the quantitative method might be easier and this may be the reason for being preferred in most of the studies.

In the postgraduate studies on learning disabilities in the preschool period, the majority of the participants were children, which is not surprising since the aim of this study is to examine the postgraduate studies on learning disabilities in the preschool period. Also, there were two studies that

included teachers. However, the number of studies that included families, teachers and children together was limited. The reason why teachers and families were included in the study might be that they are often considered sources of information. This result is in line with the findings of Özkardeş (2012a)'s study on the subject.

Multi-purpose sampling was used in determining the samples of the graduate studies on learning disabilities in the preschool period. In addition, there were also studies in which the random sampling method and the simple random sampling method were preferred. It is thought that the use of the purposive sampling method may have been preferred more often since the studies were conducted with participants with certain characteristics. Since the studies examined are related to the preschool period and the subjects examined are very important and sensitive, using purposive sampling might be seen as a better option.

In the postgraduate studies on learning disabilities in the preschool period, scales were the most preferred data collection tool and interviews were also used in two studies. The most used method in the studies is the quantitative method and the most used data collection tool is the scale, which is supported by Özkardeş (2012a)'s results.

Most of the postgraduate studies on learning disabilities in the preschool period are done at the Institute of educational sciences followed by the Institute of Sciences, the Institute of Educational Sciences, the Institute of health sciences, and the Faculty of Medicine, respectively. This might be due to the fact that the postgraduate programs in preschool education and special education are often part of the institutions of education.

The highest number of postgraduate studies (n=3) on learning disabilities in the preschool period was at the Department of Special Education and the Department of Basic Education, There was only one study in the Department of Family Health, the Department of Art Design, and Child and Adolescent Mental Health. It has been observed that 3 postgraduate studies on learning disabilities in the preschool period were carried out in the Preschool Department, 2 in the Department of Education for the Mentally Handicapped, and 1 study in each of the Department of Education for the Mentally Handicapped, Mother Child Health and Art and Design. The fact that the studies were carried out in the Preschool and Education for the Intellectually Disabled Departments is thought to be a situation that needs to be intervened in the early years, so it should be focused on, especially in the preschool period.

Postgraduate studies on learning disabilities in the preschool period aimed to determine the views on learning disabilities, develop a scale about learning disabilities, examine the effects of music on mental development, learning, and cognitive performance at preschool and school age, and 5-6 years old children at risk of special learning disability. Some studies aimed to examine the effectiveness of an early intervention education program, to determine the incidence and symptoms of specific learning disabilities, and to examine the learning disability.

It has been observed that the highest number of participants in the postgraduate studies on learning disabilities in preschool were 5-6 years old children. Because the subject examined is limited to preschool, the participants are most 5-6 years old children, which is in line with the results of Arı, Yıkmiş, and Özokçu (2019)'s studies on the subject.

In the postgraduate studies on learning disabilities in the preschool period, the number of female participants was higher than the number of male participants. This result supports the findings of Arı,

Yıkmaş, and Özokçu (2019) It is not surprising because the number of female professionals working with special children and preschool children is higher than males.

In the postgraduate studies on learning disabilities in the preschool period, the phrase “learning disability” was used 5 studies. It has been observed that learning disability has been used interchangeably with “specific learning disability”, “specific learning disability”, “specific learning disability”, and “specific learning disorder” in other studies. The result of the most common use of learning disability in this study and the results of Özkardeş (2012a)'s study on the subject show parallelism.

A review of the literature has shown that the number of postgraduate studies on learning disabilities in the preschool period is quite limited. It is very important to increase the number of studies on learning difficulties in the preschool period, which can be expressed as the most important and critical period of life, where early intervention matters most.

Recommendations

1. Further studies can be done with teachers who play a key role in education. They might help teachers take a more active role in the process by designing and implementing training programs that can support teachers' development on the subject.

2. The literature shows that most studies on learning disabilities focus on language development and cognitive development. Future studies might consider motor development, self-care skills, and social-emotional development, which are other developmental areas of children. In this way, doing holistic studies will help families with children with learning disabilities, teachers who have a student with learning difficulties in their class, and anyone else related to the subject with the opportunity to obtain more detailed information, helping them to make healthier decisions.

3. It is known that the first diagnosis of a learning disability is mostly made in the first and following grades. For this reason, the student may experience more difficulties if they do not receive a diagnosis as early as possible. Especially in the preschool period, activities that will inform the individuals living in society about learning disabilities in the first years of life should be planned and implemented. In this way, community members might gain awareness and consciousness of learning disabilities.

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BIOGRAPHICAL NOTES

Contribution Rate of Researchers

Author 1: 50%

Author 2: 50%

Conflict Statement

There is no conflict of interest in the research.



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Okul Öncesi Dönemde Öğrenme Güçlüğü ile İlgili Yapılan Lisansüstü Çalışmaların İncelenmesi

Giriş

Okul öncesi dönemde fark edilemeyen öğrenme güçlüğü çocuğun akademik hayatında akranlarına nazaran anlamlı farklılık göstermekte ve çocuğun gerilik göstermesine de neden olabilecek sonuçlar doğurmaktadır. Öğrenme güçlüğü ile ilgili uluslararası alanda yapılan çalışmalar, öğrenme güçlüğü yetişkinlikte fark edilen bireylerin uzun yıllar boyunca öğrenme güçlüğü yaşadığını göstermiştir (Rodis, Garrot & Boscardin, 2001'den akt. Akdemir, 2018). Bu nedenle öğrenme güçlüğüne erken yaşlarda fark edilmesi ve buna göre önlemler alınması ile bu bireylerin bu sorunlarını uzun yıllar yaşamaları önlenebilir veya minimize edilebilir. Bunun için de okul öncesi dönem oldukça önem arz etmektedir.

Literatür incelendiğinde öğrenme güçlüğüne konu edinen çalışmaların incelendiği araştırmaların yapılmış olduğu görülmektedir. Deveci ve Koç (2020) yapmış oldukları çalışmada, öğrenme güçlüğü ile ilgili 2015-2019 yılları dahil olmak üzere bu yıllarda yayınlanan ulusal ve uluslararası makaleleri karşılaştırmalı olarak incelenmişlerdir. Arı, Yıkmış ve Özokçu (2019) tarafından yapılan çalışmada, öğrenme güçlüğüne konu edinen Türkiye'de deneysel olarak yapılmış olan tezler incelenmiştir. Özkardeş (2012a) tarafından yapılan çalışmada, Türkiye'de özel öğrenme güçlüğü ile ilgili yapılan çalışmaların betimsel analizi yapılmıştır. Özkardeş (2012b) tarafından yapılan çalışma, Türkiye'de özel öğrenme güçlüğüne yönelik yapılan uygulamaların değerlendirilmesi ve bu uygulamalar ışığında yapılması gerekenlerin neler olabileceğinin belirlenmesi amacıyla yapılmıştır. İlker ve Melekoğlu (2017) tarafından yapılan çalışma, ilkökul çağında öğrenme güçlüğü bulunan öğrencilerin yazmaya yönelik becerileriyle ilgili çalışmaların incelenmesi amacıyla yapılmıştır. Görgün ve Melekoğlu (2019) tarafından yapılan araştırma ise, Türkiye'de özel öğrenme güçlüğü ile ilgili yapılan çalışmaların incelenmesi amacıyla gerçekleştirilmiştir.

Okul öncesi dönemde öğrenme güçlüğü konu edinen lisansüstü çalışmaların incelendiği bir çalışmaya rastlanmamıştır. Okul öncesi dönemde öğrenme güçlüğü konu edinen lisansüstü çalışmaların kapsamlı bir şekilde incelenmesi alanda yer alan bu boşluğu doldurması ve bundan sonra konu ile ilgili yapılacak çalışmalara da yön vermesi açısından önem arz etmektedir.

Yöntem

Bu çalışmada, okul öncesi dönemde öğrenme güçlüğü ile ilgili yapılan lisansüstü çalışmalar tarama modellerinden biri olan betimsel araştırma deseni ile incelenmiştir. Tarama modeli kullanılarak yapılan çalışmalarda amaç, araştırmanın yer aldığı durumun betimlenmesidir (Akgün, Büyüköztürk, Demirel, Karadeniz ve Kılıç Çakmak, 2015). Okul öncesi dönemde öğrenme güçlüğü konu edinen lisansüstü çalışmaların incelenmesi amacıyla döküman analizi tekniğinden yararlanılmıştır. Döküman analizi tekniğinde belirlenen konular ile ilgili materyaller incelenir (Merriam, 2013).

Bu araştırmanın dökümanlarının belirlenmesinde okul öncesi dönemde öğrenme güçlüğü ile ilgili yapılmış lisansüstü çalışmaların tam metin erişime açık olması ve Türkçe dilinde yazılması kriter alınmıştır. İncelenecek çalışmaların hangi yıllar arasında olacağı ile ilgili herhangi bir sınırlama belirlenmemiştir. Okul öncesi dönemde öğrenme güçlüğü ile ilgili yapılmış olan bütün lisansüstü çalışmalar dahil edilmiş ve ilk çalışmanın yapıldığı 2005 yılından Ağustos-2022 tarihine kadar yapılan bütün çalışmalar incelenmiştir. İncelenecek çalışmaların belirlenmesi amacıyla Yüksek Öğretim Kurulu Tez Merkezinin web sayfasında “öğrenme güçlüğü”, “ölgül öğrenme güçlüğü”, “özel öğrenme güçlüğü”, “öğrenme bozukluğu”, “ölgül öğrenme bozukluğu” ve “okul öncesi”, “ana sınıfı/okulu” anahtar kelimeler yazılarak tarama yapılmıştır. Tarama sonrasında belirtilen kriterlere uyan toplam 9 lisansüstü çalışmaya ulaşılmıştır.

Bulgular

Okul öncesi dönemde öğrenme güçlüğü konu edinen lisansüstü çalışmaların üniversitelere göre dağılımları incelendiğinde, okul öncesi dönemde öğrenme güçlüğü ile yapılan lisansüstü çalışmaların 8 üniversitede yapıldığı görülmektedir. Okul öncesi dönemde öğrenme güçlüğü ile ilgili yapılan çalışmaların en fazla Marmara Üniversitesinde (n=2) yapıldığı, Gazi Üniversitesi, Anadolu Üniversitesi, Ankara Üniversitesi, Trakya Üniversitesi, İstanbul Üniversitesi, Okan Üniversitesi ve Yıldız Teknik Üniversitesi’nde ise birer çalışma yapıldığı görülmektedir. Okul öncesi dönemde öğrenme güçlüğü ile ilgili ilk lisansüstü çalışmanın 2005 yılında yapıldığı görülmektedir. Okul öncesi dönemde öğrenme güçlüğü konu edinen lisansüstü çalışmaların en fazla (n=2) 2018 ve 2019 yıllarında yapılmış olduğu görülmektedir. Konu ile ilgili 2005, 2010, 2012, 2017 ve 2022 yıllarında da birer çalışmanın yapıldığı tespit edilmiştir.

Yapılan lisansüstü çalışmaların nicel (n=7) ağırlıklı olduğu, nicel çalışmalardan 5 tanesi yüksek lisans düzeyinde olduğu, doktora düzeyinde 1 tane ve tıpta uzmanlık tezi olarak da 1 tezin yapılmış olduğu görülmektedir. Konu ile ilgili yapılan lisansüstü çalışmalarda nitel yöntemin kullanıldığı 2 çalışmanın olduğu ve bu çalışmaların da yüksek lisans düzeyinde olduğu görülmektedir. Lisansüstü çalışmalarda en fazla kullanılan desenin ilişkisel tarama deseni (n=6) olduğu, fenomenolojik desen (n=2) ve deneysel desenin (n=2) de kullanılmış olduğu görülmektedir. Lisansüstü çalışmaların 4’ünde örneklemelerin çocuklardan oluştuğu, aileler, öğretmenler ve çocukların 1 çalışmada, öğretmenlerin 1 çalışmada, aileler ve öğretmenlerin 2 çalışmada ve çocuklar ve ailelerin de 1 çalışmada yer aldıkları görülmektedir. Lisansüstü çalışmaların örneklemelerinin belirlenmesinde 5 çalışmada amaçlı

örnekleme, random(rastgele) ve basit seçkisiz örnekleme yönteminin tercih edilmiş olduğu 2'şer çalışmanın olduğu görülmektedir.

Okul öncesi dönemde öğrenme güçlüğü konulu edinen lisansüstü çalışmalarda verilerin toplanmasında en çok ölçek (n=7) tercih edilmiş olduğu, ayrıca 2 çalışmada ise görüşme sorularının kullanıldığı görülmektedir. Konu ile ilgili yapılmış olan lisansüstü çalışmaların en çok eğitim bilimleri enstitüsünde (n=4) yapıldığı, eğitim bilimleri enstitüsünden sonra en çok çalışmanın yapıldığı sosyal bilimler enstitüsünün (n=3) geldiği, yapılan diğer çalışmaların ise sağlık bilimleri enstitüsü (n=1) ve tıp fakültesinde (n=1) yapılmış olduğu görülmektedir.

Yapılan lisansüstü çalışmaların Özel Eğitim Anabilim dalında 3 tane olduğu, Temel Eğitim Anabilim dalında 3 tane, Aile Sağlığı Anabilim dalında 1 tane, Sanat Tasarımı ve Ana Sanat Dalında 1 tane ve Çocuk ve Ergen Ruh Sağlığı ve Hastalıkları Anabilim dalında 1 tane olacak şekilde dağıldığı görülmektedir. Okul öncesi dönemde öğrenme güçlüğü konulu edinen lisansüstü çalışmaların 3 tanesinin Okul Öncesi Bilim Dalında, 2 tanesinin Zihinsel Engelliler Öğretmenliği Bilim Dalında yapıldığı, Zihinsel Engelliler Eğitimi Bilim Dalı, Ana Çocuk Sağlığı ve Sanat ve Tasarım Bilim Dallarında 1'er tane çalışmanın yapıldığı tespit edilmiştir. Okul öncesi dönemde öğrenme güçlüğü konulu edinen çalışmaların 4 tanesinde katılımcıların yaş aralığının 5-6 yaş olduğu görülmektedir. Yapılan çalışmalarda yaş aralığının 24 ve üst olduğu 2 çalışmanın olduğu görülmektedir. Yapılan diğer çalışmalarda ise 6, 4-5 ve 5-7 yaş gruplarında katılımcıların yer aldığı 1'er çalışmanın olduğu tespit edilmiştir. Lisansüstü çalışmalarda öğrenme güçlüğü 5 çalışmada aynı şekilde kullanılmıştır. Öğrenme güçlüğü'nün 1 çalışmada özel öğrenme güçlüğü, 1 çalışmada özgül öğrenme güçlüğü, 1 çalışmada özel öğrenme bozukluğu ve bir çalışmada da özgül öğrenme bozukluğu olarak kullanıldığı görülmektedir.

Tartışma ve Sonuç

Okul öncesi dönemde öğrenme güçlüğü ile ilgili yapılan lisansüstü çalışmaların 8 üniversitede yapıldığı görülmüştür. Okul öncesi dönemde öğrenme güçlüğü ile ilgili ilk lisansüstü çalışmanın 2005 yılında yapıldığı tespit edilmiştir. Okul öncesi dönemde öğrenme güçlüğü ile ilgili lisansüstü çalışmaların en fazla 2018 ve 2019 yıllarında yapılmış olduğu tespit edilmiştir. Okul öncesi dönemde öğrenme güçlüğü konulu edinen lisansüstü çalışmaların nicel ağırlıklı olduğu, nicel çalışmalardan 5 tanesi yüksek lisans düzeyinde olduğu, doktora düzeyinde 1 tane ve tıpta uzmanlık tezi olarak 1 tezin yapılmış olduğu görülmüştür. Yapılan 2 çalışmanın nitel yöntemde yapıldığı ve bu çalışmaların da yüksek lisans düzeyinde olduğu görülmüştür. Bu çalışmada ulaşılan konu ile ilgili en çok çalışmanın yüksek lisans düzeyinde olmuş olması sonucu ile doktora düzeyinde ve tıpta uzmanlık düzeyinde yapılan lisansüstü çalışmaların sayısının daha az olması sonucu ile Özkardeş 'in (2012a) ve Arı, Yıkmış ve Özokçu 'nun (2019) konu ile ilgili yapmış oldukları çalışmalardaki sonuçları ile paralellik göstermektedir.

Okul öncesi dönemde öğrenme güçlüğü ile ilgili yapılan lisansüstü çalışmalarda en fazla kullanılan desenin ilişkisel tarama deseni olduğu, fenomenolojik desen ve deneysel desenin de kullanılmış olduğu görülmüştür. Okul öncesi dönemde öğrenme güçlüğü ile ilgili yapılan lisansüstü çalışmalarda örneklemelerin çoğunluğunun çocuklardan oluştuğu görülmüştür. Bu çalışmada ulaşılan sonuç ile Özkardeş 'in (2012a) konu ile ilgili yapmış olduğu çalışmasındaki sonuçlar paralellik göstermektedir.

Okul öncesi dönemde öğrenme güçlüğü ile ilgili yapılan lisansüstü çalışmalarda verilerin toplanmasında en çok ölçek tercih edildiği, verilerin toplanmasında iki çalışmada da görüşme

kullanıldığı görülmüştür. Bu çalışmada ulaşılan sonuç ile Özkardeş 'in (2012a) konu ile ilgili yapmış olduğu çalışmasındaki sonuçlar paralellik göstermektedir. Okul öncesi dönemde öğrenme güçlüğü ile ilgili yapılan lisansüstü çalışmaların en çok eğitim bilimleri enstitüsünde yapıldığı, eğitim bilimleri enstitüsünden sonra bilimler enstitüsünün geldiği, yapılan diğer çalışmaların ise sağlık bilimleri enstitüsü ve tıp fakültesinde yapılmış olduğu görülmüştür.

Okul öncesi dönemde öğrenme güçlüğü ile ilgili yapılan lisansüstü çalışmaların Özel Eğitim anabilim dalında 3 tane ile en fazla olduğu görülmüştür. Okul öncesi dönemde öğrenme güçlüğü ile ilgili yapılan lisansüstü çalışmaların Okul Öncesi Bilim Dalında 3 tane, Zihinsel Engelliler Öğretmenliği Bilim Dalında 2 tane yapıldığı, Zihinsel Engelliler Eğitimi Bilim Dalı, Ana Çocuk Sağlığı ve Sanat ve Tasarım Bilim Dallarında 1 er tane çalışmanın yapıldığı görülmüştür. Literatür incelendiğinde okul öncesi dönemde öğrenme güçlüğü ile ilgili yapılmış olan lisans üstü çalışmaların oldukça sınırlı sayıda olduğu görülmüştür. Hayatın en önemli ve kritik dönemi olarak ifade edilebilen okul öncesi dönemde, öğrenme güçlüğüne konu alan çalışmaların sayısının artırılması bu problemi yaşayan öğrencilerin erken dönemde tespit edilmesi ve buna göre önleyici önlemler alınması açısından oldukça önem arz etmektedir.

Öneriler


1. Yapılan çalışmalar incelendiğinde çoğunlukla dil gelişimi ve bilişsel gelişime yönelik çalışmaların yapılmış olduğu görülmektedir. Çocukların diğer gelişim alanları olan motor gelişim, özbakım becerileri ve sosyal duygusal gelişime yönelik öğrenme güçlüğü ile ilgili çalışmalar yapılabilir.
2. Özellikle okul öncesi dönemde öğrenme güçlüğü ile ilgili hayatın ilk yıllarında toplumda yaşayan bireylerin bilgilenmelerini sağlayacak faaliyetlerin planlanarak uygulanması sağlanmalıdır. Bu şekilde toplumun her kesiminden bireylerin konu ile ilgili daha duyarlı ve bilinçli davranışlar sergilemeleri noktasında katkı sağlanmış olunabilir.



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Social Acceptance: Variables Predicting Social Acceptance of Teachers Working with Special Needs

 Emre Laçın, Dr., Corresponding Author
Hatay Mustafa Kemal University, Türkiye
emrelacn09@gmail.com
Orcid ID: 0000-0003-0262-1743

 Mustafa Ceylan, Dr.
Artvin Çoruh University, Türkiye
mceylan55@yahoo.com
Orcid ID: 0000-0003-1922-0161

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Abstract

The present research aims to investigate the social acceptance of teachers who work with individuals with special needs, along with identifying the variables that may contribute to predicting social acceptance. The study comprised 318 primary and secondary school teachers affiliated with the Ministry of National Education in the central district of Antakya, Hatay province. Employing a descriptive survey model based on the relational model, the research utilized three data collection instruments: the Teacher Social Acceptance Scale for Individuals with Special Needs, the Commitment to Teaching Profession Scale, and the Student-Teacher Relationship Scale-Short Form. Analytically, the research data underwent examination through t-tests, Pearson product-moment correlation coefficients, and multiple linear regression analysis. The outcomes revealed that gender had no significant impact on the level of social acceptance among teachers working with students with special needs. However, both professional commitment and the student-teacher relationship emerged as influential and substantial predictors of social acceptance. The implications of these findings were thoroughly discussed within the framework of existing literature, and relevant recommendations were subsequently put forward.

Keywords: Social acceptance, social acceptance of special needs, teacher social acceptance.

Introduction

The capacity of human beings to engage in effective communication and interpersonal interaction is a vital component for the smooth functioning of society. This necessitates the establishment of healthy communication and social interactions that are characterized by mutual respect and reciprocity. Social acceptance refers to the willingness of individuals to include others in their social circles and relationships, and is indicated by a range of behaviors that range from simple tolerance to active engagement (Leary, 2010). However, social rejection results from the lack of desire among individuals to include others in their social networks (Leary, 2010). With respect to individuals with special needs, social acceptance is characterized by communication, preference for social activities, and positive continuance of social relationships in all settings, particularly in the realm of education (Aktan, 2018; Holmes, 2011; Nowicki, 2003). The principle of inclusive education is a key objective of Turkish national education, which integrates all students, including those with special needs, into the mainstream school community. Education must be individualized, based on the premise that each student is unique and has their own distinct role to play within the school community. It is crucial for all students to feel socially accepted and valued by their peers.

Given that individuals with special needs occupy a shared environment with their typically developing peers, their requirement for social acceptance becomes evident. According to data from Turkish Statistical Institute [TUIK] (2020), the proportion of individuals with special needs in the overall population of the country stands at 7%, with 9.4% of this population being of school age. Of these individuals, 64.3% are participating in formal education. Most of the students with special needs in education are part of the inclusion system, which enables them to receive education alongside their typically developing peers. One of the primary objectives of inclusive education is to foster independence among individuals with special needs through the provision of support services, without separating them from their typically developing peers. This promotes their acceptance within society and enables them to coexist in harmony (De Boer, Pijl, & Minnaert, 2012; Sucuoğlu & Kargın, 2014).

Despite the objective of inclusive education, there remain significant challenges with regards to the social acceptance of individuals with special needs. These individuals often face difficulties in being

socially accepted by their peers in educational settings and may experience various forms of social exclusion, including communication avoidance, physical isolation, exclusion from classroom activities, lack of participation in playgroups, reluctance to cooperate, exposure to bullying and abuse, and a perception of social marginalization (Baydik & Bakkaloğlu, 2009; Çetin, Ceylan, & Taşlıbeyaz, 2022; De Boer et al., 2012; Garrote, 2017; Nowicki, 2003; Schrumpf, Crawford, & Bodine, 2007; Sucuoğlu & Kargın, 2014).

Several factors contribute to the social acceptance of individuals with special needs, including differences in physical appearance compared to typically developing peers (Sucuoğlu and Kargın, 2014), limited and inadequate academic skills (Çetin, Ceylan, and Taşlıbeyaz, 2022), and displaying problematic behaviors due to their limitations (Bakkaloğlu, Sucuoğlu, & Özbek, 2019). Additionally, difficulties in understanding and interpreting the behavior of others (Dobbins, Higgins, Pierce, Tandy, & Tincani, 2010) and slower progress in self-care skills compared to typically developing peers (Sucuoğlu and Kargın, 2014) also affect the level of social acceptance. These factors, which are rooted in the developmental characteristics of students with special needs, influence social acceptance. Furthermore, the role of teachers in promoting the social acceptance of these individuals cannot be overemphasized.

The level of professional commitment of teachers working with special needs is seen as an important factor in determining social acceptance. Schools play an important role in the academic, social, cognitive and emotional development of pupils and teachers are the main facilitators in this process. Therefore, teachers' professional commitment, as defined by Steers, and Spencer (1977), can have a significant impact on students' academic and behavioral outcomes. Professional commitment is characterized by belief in and acceptance of the goals and principles of the institution, an active effort to achieve those goals, and willingness to make sacrifices in pursuit of one's professional goals.

Providing educational services to individuals with special needs requires a high level of commitment and patience. It is paramount that teachers, who play a crucial role in shaping the future of all students, demonstrate a strong connection to their profession to conduct their responsibilities effectively (Shukla, 2014). Research has shown that teachers who are highly committed to the teaching profession demonstrate higher levels of performance in the performance of their duties, experience a strong sense of belonging and have a greater sense of self-efficacy (Chang, 2009). The literature on teachers' professional commitment highlights the need for them to develop skills such as monitoring their own development, effective classroom management, problem-solving skills, independence, planning and organizational skills, communication skills, and professional development (da Costa, 2014; Martineau, 2006; Shukla, 2014).

The relationship between teachers and students is an important factor influencing the social acceptance of students with special needs. Research has shown that students build relationships with their teachers to foster their social, emotional, and mental development (Longobardi, Prino, Marengo, & Settanni, 2016). Positive teacher-student interactions are crucial in determining the quality of relationships that students form with their peers and social environment. Studies have found that positive teacher-student relationships are associated with higher academic achievement and better adjustment to the classroom environment (Rimm-Kaufman et al., 2002). A longitudinal study by Curby, Rimm-Kaufman, and Point (2009) found that students who developed positive relationships with their teachers were more successful in reading and mathematics than their peers who did not. These studies

suggest that student-teacher relationships are a strong predictor of academic success for students with special needs.

A critical factor in social acceptance is the relationship between teachers and students with special needs. Unfortunately, available research suggests that this relationship is often not positive. DeBoer, Pijl, and Minnaert (2012) conducted a systematic review of 26 studies on teachers' perceptions of inclusive education and found that none of the studies reported a positive relationship between teachers and students with special needs. The researchers attributed this negative relationship to teachers' lack of experience and knowledge of inclusive education, and their inability to communicate effectively with these students. Similarly, Avramidis and Norwich (2002) found that a lack of positive relationships between teachers and students with special needs led to exclusion from peers, increased problem behavior and lower academic achievement. More recent studies have examined teachers' attitudes toward inclusive education and found that teachers with more professional experience and knowledge of special education have more positive attitudes than those with less experience and knowledge (Dudiyono, Wahyudi, & Mawardi, 2022; Guillemot, Lacroix, & Nocus, 2022; Laçin & Taşlıbeyaz, 2020).

In conclusion, the social integration of people with special needs faces many challenges. These challenges have a negative impact on the individual's school adjustment, academic performance, self-esteem, social competence, and emotional development. Some of these challenges serve as direct or indirect predictors of social acceptance. Factors contributing to social inclusion include student-teacher relationships, teacher commitment to the profession, behavioral problems, type of disability, teacher knowledge and attitudes toward people with special needs, gender, academic ability, and self-care skills. Understanding these predictors of social acceptance will inform the development and implementation of effective strategies for teachers in the future, thereby promoting the social acceptance of people with special needs and ensuring their access to quality education alongside their peers. The aim of this study is to explore the relationship between teachers' commitment to their profession, a potential predictor of social acceptance, and the social acceptance of student-teacher relationships. To this end, the following research questions will be addressed:

1. Does the level of social acceptance of teachers toward people with special needs differ according to gender?
2. Is teacher commitment to the profession and to the student-teacher relationship a predictor of social acceptance?

Method

The methodology of this study was based on a descriptive survey research design and investigated the relationship between variables that predict social acceptance levels and the social acceptance of teachers working with individuals with special needs. The aim of this research was to identify the variables that influence social acceptance in the context of working with students with special needs.

Sampling and Participants

The study group of the research consists of teachers from different branches working in Antakya, Hatay province. The study group of the research was determined by the purposive sampling method. Accordingly, the teachers included in the study: a) to be a permanent member of the state schools providing primary and secondary education under the Ministry of National Education, b) to have a student with special needs in their class or to have been in the past, and c) to be a volunteer to participate in the study. 318 teachers who fulfilled all these conditions were included in the study group. The demographic information form of the teachers included in the study group is presented in Table 1.

Table 1. Demographic information on the teachers participating in the study

| Field of Study | Gender | | Professional Seniority (year) | | | | | Educational Status | | |
|-------------------|--------|-----|-------------------------------|------|-------|-------|---------|--------------------|--------|--------------|
| | Woman | Man | 1-5 | 6-10 | 11-15 | 16-20 | 20-over | Associate Degree | Degree | Postgraduate |
| Classroom Teacher | 69 | 78 | 54 | 45 | 24 | 15 | 9 | 0 | 144 | 3 |
| Special Education | 15 | 9 | 9 | 9 | 6 | 0 | 0 | 21 | 3 | 24 |
| Science and Tech. | 9 | 21 | 18 | 3 | 3 | 3 | 3 | 0 | 18 | 12 |
| Pre-school | 9 | 6 | 9 | 3 | 3 | 0 | 0 | 0 | 12 | 3 |
| Turkish Teacher | 9 | 39 | 18 | 30 | 0 | 0 | 0 | 0 | 36 | 12 |
| English Teacher | 21 | 33 | 33 | 21 | 0 | 0 | 0 | 3 | 51 | 0 |
| Total | 132 | 186 | 141 | 111 | 36 | 18 | 12 | 3 | 282 | 33 |
| | 318 | | 318 | | | | | 318 | | |

Data Collection Tools

Teacher Social Acceptance Scale for Individuals with Special Needs

The "Teachers' Social Acceptance Scale" [TSAS] developed by Aktan (2021) was used to measure the social acceptance of teachers working with students with special needs toward their students. The TSAS is composed of 31 items and two sub-dimensions, namely, "Teachers' Social Acceptance Behaviour" [TSAB] and "Development of Social Acceptance Competencies." The scale has a possible score range from 31 to 151 points. In terms of construct validity, the explained variance was found to be 55.08%. To establish the reliability of the TSAS and its sub-dimensions, various methods including Cronbach's Alpha, the test-retest method, and composite reliability methods were employed. The results of these methods indicated high reliability, with a Cronbach's Alpha reliability value of .94 for the TSAB sub-dimension, .92 for the BDSA sub-dimension, and .94 for the total scale. The composite reliability values were .92 for the TSAB sub-dimension, .89 for the BDSA sub-dimension, and .91 for the total scale. The test-retest reliability values were .93 for the TSAB sub-dimension, .92 for the BDSA sub-dimension, and .91 for the total scale.

Scale of Commitment to the Teaching Profession

In to measure teachers' commitment to their profession, Yıldız (2020) developed the Teaching Profession Scale. The scale is composed of 33 items and four sub-dimensions, including Professional Identification, Professional Value, Professional Effort, and Professional Commitment. The variance explained by these four factors was 48.14%. The scale data's reliability was determined through the calculation of the Cronbach's alpha coefficient, yielding values of .92 for the Professional Identification dimension, .80 for the Professional Value dimension, .84 for the Professional Effort dimension, .83 for the Professional Commitment dimension, and .93 for the scale as a whole. The higher the score, the higher the level of commitment to the teaching profession. Confirmatory Factor Analysis was conducted, and the results showed that the factor loadings, factor correlations, and error variances were all

statistically significant. The goodness-of-fit indices, χ^2/df , and RMSEA indicate a good fit, while CFI and TLI values approach an acceptable fit.

Student-Teacher Relationship Scale-Short Form

The Student-Teacher Relationship Scale is a widely used and established measurement tool in the field of education. It was developed by Pianta (1999, 2001) and initially referred to as the "Student-Teacher Relationship Scale [STRS]." Ası and Karabay (2018) conducted an adaptation study of the "Student-Teacher Relationship Scale-Short Form" in Turkey, which has gained popularity due to its ease of use. The study established the validity and reliability of the scale in the Turkish context.

The Student-Teacher Relationship Scale-Short Form [PTS-C], developed by Pianta (2001), is a 15-item, 5-point Likert-style measure designed to assess teachers' perceptions of their relationship with a specific student. This scale can be used to evaluate secondary school students, starting from the pre-school stage. Each item in the scale is rated on a scale from 1 (not fitting) to 5 (fitting). Furthermore, it is a predictive scale in regards to academic and social outcomes, as evidenced by research (Drugli & Hjemdal, 2013; Milatz et al., 2014; Koomen et al., 2012). The short form of the scale consists of two sub-dimensions.

The Conflict sub-dimension of the Student-Teacher Relationship Scale-Short Form [PTS-C] (Pianta, 2001) assesses teachers' perceptions of conflictual dynamics in their relationship with a specific student. This sub-dimension encompasses three facets: the negative perception of the student's behavior by the teacher, adverse emotional interactions, and the lack of effective management of the student's behavior. High scores in conflict, as reported by the teacher, imply potential disagreements with the student, emotional struggles, and a limited ability to assert oneself in the relationship. The range of scores for the conflict sub-dimension is 8 to 40, with higher scores indicating higher levels of perceived conflict.

The Closeness sub-dimension of the Student-Teacher Relationship Scale-Short Form [PTS-C] measures the level of intimacy between the teacher and student, which encompasses the teacher's care for the student, responsiveness, and engagement in positive emotional interactions. High scores on this sub-dimension indicate a positive perception of the student by the teacher and a supportive relationship between the teacher and the student. The scores on this sub-dimension range from 7 to 35, with a higher score indicating a stronger sense of closeness. The reliability of this sub-dimension was assessed using Cronbach's Alpha, and the internal consistency reliability coefficient was found to be .76. Meanwhile, the Conflict sub-dimension measures the level of disagreement between the teacher and student, including negative behaviors and emotions, as well as the teacher's effectiveness in managing these issues. Scores on this sub-dimension range from 8 to 40, with higher scores indicating a higher level of conflict. The internal consistency reliability coefficient for this sub-dimension was found to be .84. The overall internal consistency reliability coefficient of the scale was calculated as .82.

Analysis of Data

The data obtained from the forms were subjected to several preliminary checks to ensure its validity and reliability. To begin with, the forms were screened to eliminate those that left more than half of the scale items blank or appeared to have been completed in a random pattern. Subsequently, missing values and extreme values were assessed. The results revealed that no data points exceeded the Z-value range of ± 3.29 . Multivariate outlier analysis was conducted using the Mahalanobis distance

metric. The results showed that the skewness and kurtosis coefficients were within the acceptable range of ± 1 and the distributions were found to be close to normal. To examine the multicollinearity assumption, the variance inflation factors [VIF], condition index [CI], and tolerance values were analyzed. The results showed that the VIF values were equal to 1.00, the CI values ranged from 1.00 to 25.45, and all the tolerance values were 1.00, thus indicating the absence of multicollinearity between the independent variables. The Durbin-Watson test was used to determine the presence of sequential dependence (autocorrelation) between the observed values, and it was found to be within the reference values (2.009). With these results, it was concluded that the data collected from 318 teachers were suitable for analysis, and further statistical procedures, including t-test, Pearson Product Moment correlation coefficients, and multiple linear regression analysis, were carried out to analyze the data.

Ethical Permits of Research

In accordance with the "Higher Education Institutions Scientific Research and Publication Ethics Directive," this study adheres to all established ethical principles and regulations. No violations of ethical standards, as specified in the "Actions Contrary to Scientific Research and Publication Ethics" section of the directive, have occurred during this study.

Ethics Committee Permission Information:

Name of the committee that made the ethical evaluation = Artvin Çoruh University Scientific Research and Publication Ethics Committee

Date of ethical review decision=28/02/2022

Ethics assessment document issue number= E-18457941-050.99-41543

Findings

An unpaired sample t-test was used to determine whether the participants' social acceptance levels changed according to gender. The results are shown in Tables 2 and 3.

Table 2. *Teacher social acceptance behavior scores t-test results*

| TSAB | n | \bar{x} | ss | t | sd | p |
|-------|-----|-----------|-------|------|-----|------|
| Women | 117 | 85,70 | 11,97 | ,675 | 316 | ,501 |
| Man | 201 | 83,85 | 15,12 | | | |

Table 3. *Development of social acceptance competencies score t-test results*

| DSAC | n | \bar{x} | ss | t | sd | p |
|-------|-----|-----------|-------|------|-----|------|
| Women | 117 | 51,88 | 8,61 | ,819 | 316 | ,415 |
| Man | 201 | 50,30 | 10,53 | | | |

The results of the unpaired samples t-test, as shown in Tables 2 and 3, indicate that there was no statistically significant difference in the level of social acceptance between genders in both sub-dimensions. The t-value calculated for the first sub-dimension was .675 ($t(316) = .675, p > .05$), and for the second sub-dimension was .819 ($t(316) = .819, p > .05$).

Regression Analysis Findings on the Prediction of Social Acceptance Scores

In this study, the interconnections among the predictor variables were first evaluated before conducting regression analysis to predict participants' social acceptance scores. The results of the regression analysis in this regard are subsequently presented.

Relationships Between Variables in Regression Analyze

The Pearson product-moment correlation coefficients indicating the associations between the study variables (teacher's behavior regarding social acceptance, advancement of social acceptance skills, dedication to the teaching profession, conflict within the student-teacher relationship, and intimacy within the student-teacher relationship) are presented in Table 4.

Table 4. *Relationships between variables in the study*

| Variables | \bar{x} | ss | 1 | 2 | 3 | 4 | 5 |
|--------------|-----------|-------|-------|-------|--------|--------|---|
| 1. TSAB* | 84,62 | 13,86 | - | | | | |
| 2. DSAC* | 50,96 | 9,77 | ,89** | - | | | |
| 3. CTP* | 120,39 | 28,20 | ,11** | ,10* | - | | |
| 4. Conflict | 21 | 6,42 | -,10* | -,07* | -,25** | - | |
| 5. Proximity | 31,21 | 5,05 | ,43** | ,38** | ,07* | -,24** | - |

*TSAB: Teacher Social Acceptance behavior, DSAC: Developing Social Acceptance Competencies, CTP: Commitment to the Teaching Profession

As shown in Table 3, the Pearson product-moment correlation coefficients reveal a positive and significant relationship between the research-predicted variable of social acceptance behavior and the development of social acceptance competences, as well as with commitment and closeness to the teaching profession. Conversely, a significant negative relationship was found with the conflict variable. The correlation coefficients range from -,89 to -,07, with the highest significant correlation between the predictor variables of social acceptance behavior and the sub-dimensions of teacher-student relationship, closeness, and conflict. The least significant correlation was found between commitment to teaching and closeness.

Regression Analysis Findings Regarding the Prediction of Social Acceptance Scores for Students with Special Needs

The study used a multiple linear regression approach to assess the predictive level of the Teachers' Social Acceptance Behaviour [TSAB], as a sub-dimension of the Social Acceptance Scale for Students with Special Needs, and the total scores obtained from the Commitment to Teaching Scale and the Conflict and Closeness sub-dimensions of the Student-Teacher Relationship Scale. The results of this analysis are presented in Table 5.

Table 5. *Results of multiple regression analysis in which TSAB was considered as the predicted variable*

| Variables | B | SH _b | β | t | p | Double r | Partial r |
|-----------------------------|-----------------------|-----------------|---------|-------|------|----------|-----------|
| Invariant | 54,055 | 9,33 | - | 5,79 | ,000 | | |
| CTP | -,185 | ,045 | -,125 | -1,36 | ,030 | -,419 | -,434 |
| Conflict | ,363 | ,147 | ,075 | 2,47 | ,014 | ,219 | ,105 |
| Proximity | 1,174 | ,250 | ,428 | 4,69 | ,000 | ,436 | ,421 |
| R=0,741 | R ² =0,452 | | | | | | |
| F _(3,316) =8,744 | P<,05 | | | | | | |

As shown in Table 5, the combination of the variables Commitment to Teaching, Conflict, and Closeness significantly and strongly predicts the scores of teachers' social acceptance behavior, R=0,741, R²=0,452, p<,01. These variables together account for about 45% of the total variation in

teachers' social acceptance behavior. The results of the t-tests on the significance of the regression coefficients indicate that each of these variables significantly predicts teachers' social acceptance behavior, with the most important predictors being intimacy, commitment to the teaching profession, and conflict.

Table 6 presents the results of the multiple linear regression analysis, which was conducted to investigate the predictive power of the scores obtained from the Development of Social Acceptance Competencies [SKYG] and the total scores obtained from the Commitment to Teaching Scale and the Conflict and Intimacy sub-dimensions of the Student-Teacher Relationship Scale. The aim was to determine the extent to which these variables could predict the scores of the Development of Social Acceptance Competencies sub-dimension of the Social Acceptance Scale.

Table 6. Multiple regression analysis results in which SCIG was considered the predicted variable

| Variable | B | SH _b | β | t | p | Double-r | Partial r |
|-----------------------------|-----------------------|-----------------|-------|-------|------|----------|-----------|
| Invariant | 32,358 | 6,73 | - | 4,80 | ,000 | | |
| CTP | -,204 | ,038 | -,115 | -,928 | ,020 | -,315 | -,308 |
| Conflict | ,204 | ,149 | ,089 | ,823 | ,022 | ,214 | ,108 |
| Proximity | ,781 | ,180 | ,404 | 4,29 | ,000 | ,388 | ,394 |
| R=0,743 | R ² =0,482 | | | | | | |
| F _(3,316) =6,750 | P<,05 | | | | | | |

The results of the multiple linear regression analysis indicate that the combined effect of Commitment to Teaching, Conflict, and Closeness significantly predicts the scores of developing social acceptance competencies, as evidenced by the correlation coefficient R=0,743 and R²=0,482 (p<,01). This finding suggests that approximately 48% of the total variance in the development of social acceptance competencies is accounted for by these three predictor variables. The t-test results on the significance of the regression coefficients further indicate that all three predictor variables have a significant effect on the development of social acceptance competencies. The relative importance of these predictor variables for developing social acceptance competencies is, in order of significance, intimacy, commitment to the teaching profession, and conflict.

Discussion and Conclusion

This research focused on assessing the impact of teachers' professional commitment and the influence of the student-teacher relationship on social acceptance. The results of the study are presented in two main sections, namely, the differentiation of social acceptance levels based on gender and the examination of predictors of social acceptance.

Social Acceptance by Gender

This research aimed to determine the level of social acceptance held by teachers, with particular attention to gender differentiation. The results showed that there was no significant gender difference in the social acceptance behavior and social acceptance competence sub-dimensions of the social acceptance scale. This is in contrast to previous studies, which have found mixed results regarding the acceptance of people with special needs by gender.

This study's findings of no significant difference in social acceptance behavior and competencies between male and female teachers follow previous research (Carroll, Forlin, & Jobling, 2003; Haq & Mundia, 2012; Kaner, 2010). These findings are supported by the results of Bilen's (2007) semi-structured interviews with 10 teachers who work with students with special needs, which showed no

relationship between teacher gender and social acceptance. Similarly, in Firat's (2014) study of 310 teacher candidates from various disciplines, the results indicated that gender did not affect the acceptance of students with special needs. These studies suggest that teacher gender is not a determinant of social acceptance toward students with special needs. The literature on the influence of teacher gender on the social acceptance of individuals with special needs presents a mixed picture. Some studies (Carroll et al., 2003; Haq and Mundia, 2012; Kaner, 2010; Bilen, 2007; Firat, 2014) have found no significant difference in social acceptance by teacher gender, whereas others (Chong et al., 2007; Vignes et al., 2009; Fakolade et al., 2009; Düşünür, 2018) have reported a higher level of social acceptance by female or male teachers. These discrepancies in results may be attributed to the varied samples used in the studies. The need for further research in this area is clear, and it is hoped that effective measures can be taken to enhance the social acceptance of individuals with special needs by all teachers, regardless of gender.

Predictors of Social Acceptance

There is a robust and significant correlation between the level of commitment to the teaching profession and both sub-dimensions of the Social Acceptance Scale, which assess social acceptance behavior and social acceptance competence. This finding suggests that teachers with a high level of commitment to their profession do not experience difficulties with the social acceptance of students with special needs. The work of Melo, Barbaso, and Sozua (2011) highlights that those who lack commitment to their profession experience physical and mental exhaustion, perform poorly at work, lack efficiency and often have conflicts with colleagues. Similarly, Tunca, Şahin, and Oğuz (2015) emphasize that the level of commitment to the teaching profession is reflected in the performance of teachers' responsibilities such as lesson planning, classroom management, and evaluation. The challenging context in which teachers of individuals with special needs operate in Turkey, including the lack of adequate resources, the inability to implement training programs, and the personal characteristics of such students, requires a high level of professional commitment from these teachers.

The literature review on the relationship between professional commitment and social acceptance of teachers working with people with special needs showed similar findings to this study. Although there is no direct examination of the relationship between these two constructs, the impact of difficulties in the teaching profession on students with special needs is discussed. Zarafshan et al. (2013) found that among 93 special education teachers, despite difficulties, a loss of professional commitment led to burnout and dissatisfaction with working with students with special needs. Similarly, Mutkins, Brown, and Thorsteinsson (2011) conducted a study with teachers working with people with intellectual disabilities, who expressed that the current environment did not meet their professional needs and that conditions needed to be improved to benefit students. Van der Meer et al. (2018) assessed the professional commitment of teachers working with individuals with special needs and found it to be at a moderate level. To increase this level, the authors suggest providing individual support and financial assistance to these teachers. Although the literature does not directly address the relationship between social acceptance and professional commitment, it does highlight that teachers working with individuals with special needs have low levels of professional commitment and, as a result, do not find enjoyment in their work.

The student-teacher relationship has been identified as a key factor in predicting the social acceptance of students with special needs. Empirical studies have established a strong and significant

correlation between the student-teacher relationship and the sub-dimensions of the social acceptance scale, namely, social acceptance behavior and social acceptance competence. This evidence suggests that teachers who foster positive relationships with their students with special needs do not encounter issues with regard to their social acceptance. Research by Howes, Shivers, and Ritchie (2004) highlights the enduring impact of healthy student-teacher relationships, with positive relationships established in early childhood having a positive influence on later relationships with peers and teachers, the development of social skills, and academic success. Addition, Curby, Rimm-Kaufman, and Point (2009) conducted a longitudinal study of 147 students and their teachers from kindergarten to the end of the first grade and found that the student-teacher relationship significantly impacted students' performance in mathematics, phonological awareness skills, and overall adjustment in the classroom.

The literature underscores the impact of the teacher-student relationship on students' social acceptance and academic performance. A study by Griggs et al. (2009) investigated the relationships between preschool teachers and students, and found that students with positive relationships with their teachers were more likely to be preferred by their peers, exhibit fewer problematic behaviors and demonstrate better adjustment skills in the classroom compared with those without positive teacher-student relationships. Addition, research suggests that the teacher-student relationship plays a crucial role in regulating peer acceptance and school adjustment (Wu et al., 2015). Moreover, Wentzel (2009) highlights that positive teacher-student relationships foster trusting relationships, increase acceptance among peers, and contribute to a positive classroom environment. The research has consistently indicated that the quality of the teacher-student relationship is a critical factor in promoting the social acceptance of students with special needs. In a study by Odom et al. (2006), it was found that positive teacher-student relationships are crucial for individuals with special needs to be accepted by their peers. Similarly, David and Bawa Kuyuni (2012) highlighted that the relationships between individuals with special needs and their teachers in the classroom activities have a significant impact on the level of social acceptance. Moreover, Bakkaloğlu, Sucuoğlu, and Özbek (2019) found that the student-teacher relationship was the strongest predictor of social acceptance of preschool children with special needs. Diamond, Hong, and Tu (2008) also found that the relationship between students with special needs and their teachers, as well as the classroom environment created by the teachers, enabled students with special needs to be accepted by their peers. Thus, it can be deduced that promoting positive teacher-student relationships would not only enhance social acceptance, but also model appropriate behavior for students. Therefore, it is crucial to support teachers in managing their relationships with individuals with special needs to improve the quality of student-teacher relationships and social acceptance.

This study investigates the predictors of social acceptance of individuals with special needs, focusing on two key variables: teacher professional commitment and student-teacher relationships. The results indicate that these two variables have a significant and positive impact on social acceptance. Additionally, other factors, such as problem behavior, degree and visibility of disability, teacher knowledge level, social skills, and classroom management skills, are also relevant predictors of social acceptance. Further research should examine the predictive power of these variables and others that were not addressed in the current study. Effective interventions could be developed by considering all the relevant predictors and providing appropriate support to teachers working with individuals with special needs. This may involve offering pre-service and in-service training programs to enhance effective communication skills, classroom management strategies, differentiated teaching methods, and

problem behavior management techniques, which would contribute to the social acceptance of students with special needs and create a supportive learning environment.

Recommendations

This study examines the factors that influence the social acceptance of teachers working with students with special needs. The factors discussed in the study include variables such as the teacher's professional commitment and the student-teacher relationship. However, other factors such as the physical appearance of the students, family involvement, and the quality of the student-teacher relationship may also play a role in shaping social acceptance. To further enhance the validity of the research, a complementary study can be conducted that incorporates additional variables identified in the literature as impacting social acceptance. The results of the present study and the results of the additional study can be integrated and interpreted in concert to provide a more comprehensive understanding of the factors influencing social acceptance of teachers working with students with special needs.

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BIOGRAPHICAL NOTES

Contribution Rate of Researchers

Author 1: 50%

Author 2: 50%

Conflict Statement

We declare that there is no conflict of interest between the persons, institutions and organizations where this research was conducted and the researchers.



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Sosyal Kabul: Özel Gereksinimlerle Çalışan Öğretmenlerin Sosyal Kabulünü Yordayan Değişkenler

Giriş

İnsanların birbirleriyle iletişim ve etkileşim içerisinde olabilmesi, toplumun olağan akışının sağlanabilmesi için gerekli olan becerilerdendir. Bunun için birbirleriyle sağlıklı etkileşim kurmaları ve etkileşime geçmek için birbirlerinin iletişim isteklerini kabul etmeleri gerekmektedir. Sosyal kabul, diğer insanların sizi gruplarına ve ilişkilerine dahil etmek istediklerini belirtmeleri anlamına gelmektedir (Leary, 2010). Sosyal kabul, yalnızca başka bir kişinin varlığına müsamaha göstermekten ziyade, aktif bir etkileşim ortağı olarak birini takip etmeye kadar uzanan bir süreci içermektedir. Sosyal reddetme, başkalarının sizi gruplarına ve ilişkilerine dahil etmek için çok az arzusu olduğu anlamına gelir (Leary, 2010). Özel gereksinimli bireylerin sosyal kabulü ise; öncelikle eğitim olmak üzere özel gereksinimli bireylerin yer aldığı tüm sosyal ortamlarda, başta normal gelişim gösteren akranları ve toplumun tüm bireyleri tarafından benimsenmesi, kendileriyle iletişim kurulması, sosyal etkinlikler için tercih edilmesi ve sosyal ilişkilerde pozitif devamlılığın sağlanması olarak tanımlanmaktadır (Aktan, 2018; Holmes, 2011; Nowicki, 2003).

Özel gereksinimli bireylerinde normal gelişim gösteren akranlarıyla aynı ortamı paylaştıkları düşünüldüğünde sosyal olarak kabul görme gereksinimleri ortaya çıkmaktadır. Türkiye İstatistik Kurumu [TÜİK] (2020) verilerine göre, özel gereksinimli bireylerin toplam ülke nüfusuna oranı %7, okul çağındaki bireylerin içerisindeki oranı %9.4 olarak belirtilmektedir. Özel gereksinimli öğrencilerin %64.3'ü eğitim almaktadır. Eğitim alan özel öğrencilerin büyük bir kısmı normal gelişim gösteren akranlarıyla bir arada eğitim almalarını sağlayan kaynaştırma sisteminin bir parçasıdır. Kaynaştırma eğitiminin temel amaçlarından biri, özel gereksinimli bireylerin normal gelişim gösteren akranlarından ayrıştırılmadan gerekli destek hizmetleri sağlanarak bağımsızlaşmalarını ve toplum tarafından kabul

görecik uyum içerisinde yaşamalarını sürdürebilmelerine katkı sunmaktır (De Boer, Pijl, & Minnaert, 2012; Sucuođlu & Kargın, 2014).

Kaynaştırma eğitimi çalışmalarının amacının bu olmasına rağmen özel gereksinimli bireylerin sosyal kabullerine ilişkin bazı sorunlar vardır. Özel gereksinimli bireyler akranları tarafından sınıf ortamlarında sosyal kabul görememekte; iletişim kurmaktan kaçınılmakta, fiziksel olarak yalnız bırakılmakta, sınıf içi etkinliklere dahil edilmemekte, boş vakitlerinde oyun gruplarında yer edinmemekte, iş birliği kurulmaktan kaçınılmakta, akranları tarafından zorbalığa ve istismara maruz kalmakta ve sosyal olarak dışlanan bireyler olarak görülmektedirler (Baydik & Bakkalođlu, 2009; Çetin, Ceylan, & Taşlıbeyaz, 2022; De Boer ve diğ., 2012; Garrote, 2017; Nowicki, 2003; Schrupf, Crawford, & Bodine, 2007; Sucuođlu & Kargın, 2014).

Özel gereksinimli bireylerin sosyal kabullerinde birtakım sorunlarla karşılaşmaktadır. Karşılaşılan sorunlar özel gereksinimli bireylerin okula uyumlarını, akademik başarılarını, öz güvenlerini, sosyal becerilerini ve duygusal gelişimlerini olumsuz olarak etkilemektedir. Bu sorunların bir kısmı doğrudan bir kısmı ise dolaylı olarak özel gereksinimli öğrencilerin sosyal kabullerini yordamaktadır. Sosyal kabulün yordayıcılarından bazıları; öğrenci-öğretmen ilişkileri, öğretmenlerin mesleklerine olan bağlılıkları, problem davranışlar, yetersizliğin türü, öğretmenlerin özel gereksinimli öğrencilere ilişkin bilgileri ve tutumları, cinsiyeti, akademik becerileri ve öz bakım becerileridir. Sosyal kabulün yordayıcılarının belirlenmesinin ileride öğretmenlere yol gösterecek olan uygulamaların planlanmasında ve uygulanmasında yol gösterici olacağı düşünülmektedir. Bunun da özel gereksinimli öğrencilerin sosyal kabul görmelerinde ve akranlarından ayrıştırılmadan nitelikli ortamlarda eğitim almalarına katkı sağlayacağı düşünülmektedir. Bu çalışmada da sosyal kabulün yordayıcılarından olduğu düşünülen öğretmenlerin mesleklerine bağlılıkları ve öğrenci-öğretmen ilişkilerinin sosyal kabulü ile aralarındaki ilişkinin belirlenmesi hedeflenmektedir. Bu hedef doğrultusunda aşağıdaki araştırma sorularına yanıt aranmaktadır:

1. Öğretmenlerin özel gereksinimli bireylere yönelik sosyal kabul düzeyi cinsiyete bağlı olarak farklılık göstermekte midir?
2. Öğretmenlik mesleğine bağlılık ve öğretmen öğrenci ilişkisi, sosyal kabulün bir yordayıcısı mıdır?

Yöntem

Bu çalışmanın yöntemi; ilişkisel tarama modeline dayalı betimsel bir çalışmadır. Araştırmanın genel amacı; özel gereksinimli öğrencilerle çalışan öğretmenlerin sosyal kabul düzeyini ve sosyal kabullerini yordayan değişkenleri belirlemektir.

Araştırmanın çalışma grubunu Hatay ili Antakya ilçesinde görev yapan farklı branşlardaki öğretmenler oluşturmaktadır. Araştırmanın çalışma grubu amaçlı örnekleme yöntemi ile belirlenmiştir. Buna göre çalışmaya dahil eden öğretmenlerde; a) milli eğitim bakanlığına bağlı ilk ve orta öğretim yapan devlet okullarında kadrolu olarak görev yapıyor olmak, b) sınıfında özel gereksinimli öğrencisi bulunmak ya da öncesinde bulunmuş olmak, c) çalışmaya katılmak için gönüllü olmak şartları aranmıştır. Tüm bu koşulları sağlayan 318 öğretmen çalışma grubuna dahil edilmiştir.

Araştırmanın verilerinin toplanmasında üç adet ölçek kullanılmıştır. Bunlardan ilki; Öğretmenlerin, öğretmenlik mesleğine bağlılıklarını ölçmek amacıyla Yıldız (2020) tarafından geliştirilen "Öğretmenlik Mesleğine Bağlılık Ölçeği" kullanılmıştır. İkinci kullanılan araç; "Öğrenci-

Öğretmen İlişki Ölçeği” dir. Orijinal adı Student – Teacher Relationship Scale (STRS) olan Pianta (1999, 2001) tarafından geliştirilmiştir. Ası ve Karabay (2018), kullanım kolaylığı nedeniyle alanda yaygın biçimde uygulanmaya başlanan “Öğrenci-Öğretmen İlişki Ölçeği- Kısa Formu”nun Türkiye’deki geçerlik ve güvenilirlik bulgularına ilişkin bir uyarlama çalışmasını yapmıştır. Son olarak; Özel gereksinimli öğrencilerle çalışan öğretmenlerin öğrencilerine yönelik sosyal kabulünü ölçmek amacıyla Aktan (2021) tarafından geliştirilmiş bir ölçektir. 31 maddeden ve Öğretmen Sosyal Kabul Davranışları ile Sosyal Kabul Yeterliliklerini Geliştirme isimli iki alt boyuttan oluşmaktadır.

Bulgular

Katılımcıların sosyal kabul düzeylerinin cinsiyete göre değişip değişmediğini belirlemek amacıyla ilişkisiz örneklem t-testi yapılmıştır. Yapılan t-testi sonucunda, sosyal kabul düzeyinin her iki alt boyutta da cinsiyete göre anlamlı bir fark göstermediği saptanmıştır. $t(316) = .675, p > .05$. $t(316) = .819, p > .05$.

Araştırmaya dahil edilen değişkenler (Öğretmen Sosyal Kabul davranışları, sosyal kabul yeterliliklerini geliştirme, öğretmenlik mesleğine bağlılık, öğrenci öğretmen ilişkisinde çatışma ve öğrenci öğretmen ilişkisinde yakınlık) arasındaki ilişkileri gösteren Pearson Momentler Çarpımı korelasyon katsayıları hesaplanmıştır. Araştırmanın yordanan değişkeni olan sosyal kabul davranışları ve sosyal kabul yeterliliklerini geliştirme ile öğretmenlik mesleğine bağlılık ve yakınlık arasında olumlu yönde anlamlı ilişki bulunmaktadır. Çatışma değişkeni ile olumsuz yönde anlamlı bir ilişki olduğu görülmektedir. Korelasyon katsayılarının ,89 ve -,07 arasında değiştiği görülmektedir. Yordayıcı değişkenler arasındaki anlamlı düzeydeki en yüksek ilişki sosyal kabul davranışları ile öğretmen öğrenci ilişkisi alt boyutları olan yakınlık ve çatışma değişkenleri arasında gözlenmiştir. En düşük ilişki ise öğretmenlik mesleğine bağlılık ile yakınlık arasında olduğu gözlemlenmiştir.

Katılımcıların özel gereksinimli öğrencilere yönelik sosyal kabul ölçeğinin alt boyutu olan, öğretmen sosyal kabul davranışlarından [ÖSKD] aldıkları puan ile öğretmenlik mesleğine bağlılık ölçeğinden alınan toplam puanlar, öğrenci-öğretmen ilişkisi ölçeğinin çatışma ve yakınlık alt boyutlarından alınan toplam puanların yordama düzeyini belirlemek için çoklu doğrusal regresyon analizi yapılmıştır. Öğretmenlik mesleğine bağlılık, çatışma ve yakınlık değişkeni birlikte, öğretmen sosyal kabul davranışları puanlarını anlamlı ve yüksek düzeyde yordamaktadır, $R = 0,741$, $R^2 = 0,452$, $p < .01$. Söz konusu değişkenler birlikte, öğretmen sosyal kabul davranışlarının toplam varyansının yaklaşık %45’ini açıklamaktadır. Regresyon katsayılarının anlamlılığına ilişkin t-testi sonuçları incelendiğinde ise, tüm bu değişkenlerin öğretmen sosyal kabul davranışlarını anlamlı bir şekilde yordadıkları görülmektedir. Yordayıcı değişkenlerin öğretmen sosyal kabul davranışları üzerindeki görece önem sırası; yakınlık, öğretmenlik mesleğine bağlılık ve çatışma şeklindedir.

Sosyal kabul ölçeğinin bir diğer alt boyutu olan sosyal kabul yeterliliklerini geliştirme [SKYG] aldıkları puan ile öğretmenlik mesleğine bağlılık ölçeğinden alınan toplam puanlar, öğrenci-öğretmen ilişkisi ölçeğinin çatışma ve yakınlık alt boyutlarından alınan toplam puanların yordama düzeyini belirlemek için çoklu doğrusal regresyon analizi yapılmıştır. Öğretmenlik mesleğine bağlılık, çatışma ve yakınlık değişkeni birlikte, sosyal kabul yeterliliklerini geliştirme puanlarını anlamlı ve yüksek düzeyde yordamaktadır, $R = .743$, $R^2 = .482$, $p < .01$. Söz konusu değişkenler birlikte, öğretmen sosyal kabul davranışlarının toplam varyansının yaklaşık %48’ini açıklamaktadır. Regresyon katsayılarının anlamlılığına ilişkin t-testi sonuçları incelendiğinde ise, tüm bu değişkenlerin sosyal kabul yeterliliklerini

geliştirmeyi anlamlı bir şekilde yordadıkları görülmektedir. Yordayıcı değişkenlerin sosyal kabul yeterliklerini geliştirme üzerindeki görece önem sırası; yakınlık, öğretmenlik mesleğine bağlılık ve çatışma şeklindedir.

Tartışma ve Sonuç

Öğretmenlerin sosyal kabul durumlarının incelendiği bu çalışmada sosyal kabul ölçeğinin sosyal kabul davranışları ve sosyal kabul yeterlilikleri alt boyutlarının ikisinde de cinsiyete göre anlamlı bir farklılık görülmemektedir. Yani öğretmenlerin sosyal kabul davranışları ve sosyal kabul yeterlilikleri cinsiyetlerine göre değişmemektedir. Alanyazına bakıldığında cinsiyetin özel gereksinimli bireyleri kabulüne ilişkin çok çeşitli bulguları olan çalışmalar yer almaktadır.

Çalışmada sosyal kabulü yordadığı düşünülen öğretmenlerin mesleklerine bağlılığı ve öğrenci-öğretmen ilişkileri incelenmiştir. Öğretmenlik mesleğine bağlılık ile sosyal kabul ölçeğinin alt boyutları olan sosyal kabul davranışları ve sosyal kabul yeterlilikleri arasında yüksek düzeyde ve anlamlı ilişki olduğu bulgusuna ulaşılmıştır. Bu bulgu mesleğine bağlı olarak çalışan öğretmenlerin özel gereksinimli öğrencilerin sosyal kabulüne ilişkin sorun yaşamadıkları yorumunu yapmamızı sağlayabilir. Melo, Barbaso ve Sozua (2011) mesleğine karşı bağlılık duymayan bireyleri kendilerini fiziksel ve ruhsal olarak yorgun, mesleğini icra etmek istemeyen, istenilen düzeyde verim sağlanamayan ve meslektaşları ile sıklıkla sorun yaşayan insanlar olarak belirtmiştir. Tunca, Şahin ve Oğuz (2015), öğretmenlerin mesleki yaşantılarında; öğretimi planlama ve uygulama, sınıf yönetimi ve değerlendirme gibi sorumluluklarını yerine getirirken öğretmenlik mesleğine bağlılıklarını yansıttıklarını vurgulamışlardır. Türkiye’de özel gereksinimli bireylerle çalışan öğretmenlerin yetersiz materyal desteği, geliştirilen eğitim programlarının uygulanamaması, özel gereksinimli bireylerin kişisel özellikleri, gerekli hizmet içi eğitimlerin sağlanamaması gibi problemler yaşamaktadırlar. Bu bilgiler ışığında özel gereksinimli bireylerle çalışan öğretmenlerin mesleğe bağlılığı son derece zor ve bir o kadar da önemlidir.

Özel gereksinimli öğrencilerin sosyal kabullerini yordayan bir diğer değişken öğrenci-öğretmen ilişkisidir. Öğrenci-öğretmen ilişkisi ile sosyal kabul ölçeğinin alt boyutları olan sosyal kabul davranışları ve sosyal kabul yeterlilikleri arasında yüksek düzeyde ve anlamlı ilişki olduğu bulgusuna ulaşılmıştır. Bu bulgudan yola çıkarak özel gereksinimli öğrencilerle olumlu ilişkiler kuran öğretmenlerin onlara yönelik sosyal kabulde sorun yaşamadıklarını düşünebiliriz. Okul öncesi dönemden itibaren öğretmenlerle kurulan sağlıklı ilişkilerin ilerleyen yıllarda farklı öğretmenlerle ve akranlarla kurulacak ilişkiyi, sosyal becerilerin edinimini ve akademik yaşantılarındaki başarılarını etkiledikleri bilinmektedir (Howes, Shivers, & Ritchie, 2004). Curby, Rimm-Kaufman ve Pointz (2009), 147 öğrencinin öğretmenleriyle olan ilişkilerini anasınıfından ilkököl birinci sınıfın sonuna kadar boylamsal olarak incelemişlerdir. Araştırmacılar çalışmalarında öğretmenlerin öğrencilerle kurdukları ilişkinin öğrencilerin matematik becerilerini, fonolojik farkındalık becerilerini ve sınıfa uyumlarını etkilediğini belirtmişlerdir.

Sonuç olarak özel gereksinimli bireylerin sosyal kabullerini yordayan değişkenlerden öğretmenlerin mesleğe bağlılıklarının ve öğrenci-öğretmen ilişkilerinin incelendiği bu çalışmada iki değişken sosyal kabulün yüksek ve anlamlı düzeyde yordayıcılarıdır. Ele alınan değişkenler dışında sosyal kabulü yordayan; problem davranışlar, engelin derecesi ve görülebilirliği, öğretmenlerin bilgi düzeyleri, sosyal beceriler, sınıf yönetimi becerileri gibi değişkenler bulunmaktadır. Bu çalışmada ele

alınmayan değişkenlerin de sosyal kabulü yordama düzeylerinin incelenmesi gerekmektedir. İncelenen ve bu çalışmada yer verilmeyen değişkenlerin tamamını barındıran uygulamaların oluşturulması ve uygulanması özel gereksinimli bireylerin sosyal kabullerini sağlamada etkili olacaktır. Özel gereksinimli bireylerle çalışan öğretmenlere verilebilecek olan; etkili iletişim becerileri, sınıf yönetimi, farklılaştırılmış öğretim yöntemleri, problem davranışlarla başa çıkma gibi hizmet öncesi ve hizmet içi eğitimlerin yaygınlaştırılması bu öğrencilerin sosyal kabul düzeylerinin artmasını ve ılımlı öğrenme ortamlarının oluşturulmasını sağlayacaktır.

Öneriler


Bu çalışmada özel gereksinimli çocuklarla çalışan öğretmenlerin sosyal kabulünü etkilediği düşünülen değişkenler ele alınmıştır. Öğretmenlerin sosyal kabulünü etkileyebilecek bu değişkenlere ek olarak; Öğrencilerin fiziksel görünümü, ailenin çocuğa ilgisi, çocuk ve öğretmen arasındaki ilişkinin kalitesi, sosyal kabulü etkileyebilecek diğer değişkenler olarak sıralanabilir. Araştırmanın geçerliğini artırmak için literatürde sosyal kabulü etkileyen diğer değişkenlerle başka bir çalışma yapılabilir. Elde edilen sonuçlar ve mevcut sonuçlar birlikte yorumlanabilir.




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The Views of Academics Working in Physical Education and Sports Teaching Departments on Teaching Approaches

 Aykut Şahin, Res. Asst., Corresponding Author
Munzur University, Türkiye
aykutsahin@munzur.edu.tr
Orcid ID: 0000-0003-3654-6550

 Yunus Emre Karakaya, Assoc. Prof. Dr.
Fırat University, Türkiye
emrekarakaya@firat.edu.tr
Orcid ID: 0000-0002-9858-2103

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Abstract

This study was conducted to determine the teaching approaches used in the education process in line with the views of the academics working in the physical education and sports teaching department. The population of the study consists of academics working in physical education and sports teaching departments from all geographical regions in Türkiye. Here, 50 academics were reached by using the purposive sampling method. The academics stated that they prepared for the lessons mostly by researching resources and literature and adopted the question-answer method to ensure students' participation and attention, and expected students to be active in the lessons. They preferred teacher-centered methods the most and used traditional assessment and evaluation techniques the most. As a result, it was determined that the academics adopted teacher-centered approaches. However, it was determined that they did not use methods and techniques suitable for only one approach during education; they used both teacher-centered and student-centered approaches depending on the duration of the lesson and the current situation of the class. In the physical education and sports teaching department, the courses in the curriculum should not only be classified as practical and theoretical but also categorized according to cognitive, affective and psychomotor domains. Thanks to this categorization, it can be ensured that the advantages and disadvantages of the approach, the field, and the aimed course can be known instead of the superiority of the teaching approaches adopted in the courses. In all these processes, the central goal should be the active learning of the student.

Keywords: Academics, prospective teachers, teaching approach, physical education, sports.

Introduction

The needs of societies and individuals as the smallest element of society and the innovations and developments in the education system affect the learning, teaching and training processes. Within the change that takes place with this interaction, individuals are expected to be able to solve problems, take responsibility for their learning, research, find and produce information, question, think critically and analytically, be active, apply what they have learned, have communication skills, be useful and empathetic. For this reason, the conditions under which pre-service teachers, to whom we will entrust our future generations, receive education have become an important issue to be emphasized. The curricula of the faculties or colleges of the universities where prospective teachers receive education are important in terms of having the ability to gain the roles that society expects from individuals.

The effectiveness of teaching processes depends on the application of teaching approaches. How to ensure permanent learning is one of the most important questions in the world of education. For this reason, different teaching approaches and teaching theories have emerged from past to present. Teaching approaches are used in teaching processes according to theories, strategies and techniques created according to the results of research (Bulut, 2015). Teachers have two different beliefs about teaching. The first one is teaching as transferring knowledge and the second one is teaching to guide students to construct knowledge (Samuelowicz & Bian, 2001; Teo et al., 2008). When the historical development of teaching approaches is examined, it is seen that the oldest known approach is the "behaviorist approach". In this approach, which considers that learning can only take place between stimulus-response, the data obtained as a result of experiments on animals were used. Especially in this theory put forward by Pavlov and Skinner, the process of learning reflexive behaviors under certain conditions is mentioned. Another approach that emerged in the same period as behaviorist approaches is the cognitive learning approach. A group of scientists who investigated the effect of mental processes that affect learning and cannot be directly observed, such as behavior, on learning, obtained different results in this regard and replaced the behaviorist approach. Cognitive approaches, which started with

Gestalt, became widespread and became an approach with the studies of scientists dealing with education such as Piaget, Bruner and Ausubel (Bulut, 2015; Küçükahmet, 2014).

Some researchers in the field of education have stated that innovative and different teaching approaches can help students learn, provide lasting learning and apply what they have learned (Shepard & Brew, 2005; Stinchfield, 2006). The teacher-centered approach is associated with traditional educational philosophy. In this approach, since the teacher is at the center, he/she is in the role of transferring knowledge and their primary goal is to convey the topics in the content (Brown, 2003). Since the teacher is the owner of the knowledge, he/she is the fulcrum and the most important point of the learning environment in terms of the subject taught at the point of students' lack of knowledge and inexperience. Due to this distinction, a hierarchical structure is formed between the teacher and the student. The teacher's relationship with the student is shaped according to the role of the student as a passive receiver of knowledge as opposed to the role of the teacher as the transmitter of knowledge created by the teacher (Wright, 2011). Instructors who adopt a teacher-centered approach rely heavily on the lesson and the subject matter. In the evaluation phase, they gain knowledge by checking to what extent the content has been learned by the students (Brown, 2003). While lecturing is defined as a tool to encourage students, teachers who adopt a predominantly lecture approach, that is, teachers who focus on the subject matter, create an effect to ensure that students learn superficially (Diseth, 2007). In the student-centered approach, learners are considered individuals who can think in the learning process and generate ideas for problems. In student-centered teaching environments, students think that the knowledge they have already acquired affects the knowledge they will learn in the future and therefore previous learning should be strengthened. In this model where the student is at the center, an approach in which the student is predominantly active in teaching activities, as well as information processing, learning and teaching processes, is adopted (Estes, 2004). Froyd and Simpson (2010) revealed in their study that lecturers working in different faculties found, developed and used many different teaching techniques suitable for the student-centered approach. The student-centered approach has been more adapted to higher education in recent years. It has been proven to positively affect students' development in terms of knowledge, skills and qualifications (Derting & Ebert-May, 2010). However, some studies indicate that this approach is not easy to implement in higher education. This is because the crucial factor for the success of this approach in educational policies is teachers and their voluntary or active participation in this process (Tran, 2017). Teachers' adoption and participation in a teaching approach may be linked to their belief in their ability to fulfill teaching tasks in specific areas (Klassen & Chiu, 2011).

Traditional teaching approaches are implemented through in-class activities in which the teacher only provides content knowledge and transfers the information directly to the students (Tsai, 2002). However, constructivist or student-centered approaches do not accept that the learning process is a one-way process from the teacher to the student. They argue that learning is an active process in which students make connections between what they have already learned and their ideas and interactions with the environment (Millar & Driver, 1987). With the transition from traditional understanding (teacher-centered) to contemporary understanding (student-centered), the processes of measuring students' achievement of the targeted outcomes have also changed. So much so that while the evaluation of the student in teacher-centered teaching processes was only result-oriented, with the student-centered teaching approach, the necessity to evaluate the process has emerged. It has become clear that a decision cannot be reached only with the final evaluation of the student, but that a decision

can be reached by gaining the goals in the process, measuring the deficiencies and giving feedback, and then evaluating all these processes. Changes in the field of education, technological advances and scientific studies have pushed traditional education to be replaced by a new understanding. Education programs have realized this transformation by moving from a teacher-centered process to a learner-centered process. In Türkiye, the traditional teaching approach (teacher-centered) was abandoned in 2005 and the contemporary approach (student-centered) was adopted. In the first stage, the primary education curriculum was updated in line with all these developments, technological advances, administrative differences, globalization and compliance with the European Union criteria (Özdaş et al., 2005). The new curriculum, which was put into practice in the 2004-2005 academic year, is based on constructivism, active participation and learner-centered teaching (Gömleksiz, 2005).

Teaching approaches in physical education are multidimensional and complex due to the course structure with practical and theoretical processes (Graham, 2008). In physical education and sports lessons, teachers use different teaching processes to achieve the objectives of the lesson. In a study examining the teaching quality of physical education and sports lessons, teachers set measurable and feasible goals and design a lesson plan to achieve these goals (Gallahue & Cleland-Donnelly, 2007). Mosston and Ashworth's spectrum of teaching styles can be used in the applicability of these designs, in teachers' coping with student diversity and in achieving the goals of the curriculum (Sanchez et al., 2012). There are at least eleven teaching styles in the spectrum of teaching styles, each with different learning outcomes (Goldberger, et al., 2012). Different perspectives have been proposed in studies on the spectrum of learning styles. Mosston, and Ashworth (2002) described the spectrum of teaching styles as a continuum in which the decisions during the implementation of the lesson change between the teacher and the student. Here, two different clusters of teaching styles, teacher-centered and student-centered, are presented (Mosston & Ashworth, 2022). In the cluster of teacher-centered teaching styles, the concept of "reproduction" is used since it refers to the process of restructuring or reproducing the knowledge and skills presented by the teacher by the student. However, in the cluster of student-centered teaching styles, the concept of "production" is used since it is a process in which the teacher encourages students to produce and discover knowledge and skills (Goldberger et al., 2012). The production-based teaching style cluster provides students with different motor responses by allowing them to perform different movements, compare their movements with their peers, and experience different experiences (Nichols, 1994).

The implementation of a student-centered approach in universities is considered to be especially important for teacher training programs. Because the individuals studying in teacher training programs are prospective teachers and they will serve as teachers in the future. When considered as a cycle, all processes and individuals can affect each other positively or negatively. Therefore, the use of student-centered teaching approaches in higher education institutions where pre-service teachers are educated is of great importance for raising individuals trained at the level of knowledge, skills and competencies. In this context, this study aims to examine the views of instructors in physical education and sports teaching departments on teaching approaches in the education-training process. The teaching approaches were tried to be determined by content analysis of the opinions of the lecturers about the teaching approaches they adopt and use in the learning-teaching processes. It is thought that this information obtained will contribute to the field and researchers.

Method

Research Model

Phenomenology design was used in the study. Instructors' views on teaching approaches were discussed within this framework. Phenomenology is a research method that utilizes people's experiences to reveal information about a phenomenon (Kocabıyık, 2016). In this context, face-to-face interviews were conducted with the sample group.

Population-Sample (Study Group)

The population of the study consisted of lecturers working in physical education and sports teaching departments from seven geographical regions in Türkiye (Muğla Sıtkı Koçman University, Sakarya University of Applied Sciences, Karabük University, Hacı Bektaş Veli University, Adıyaman University, Kahramanmaraş Sütçü İmam University, and Fırat University). It was aimed to reach a total of 70 lecturers, 10 from each university. Here, "maximum diversity sampling", one of the "purposive sampling" methods, was used. In this sampling technique, the aim is to reflect the diversity of the sample that will represent the universe to the maximum extent (Suri, 2011). As a result of the diversity of the sample and the diversity of the lecturers who gave their opinions to the questions, it was aimed to reveal the differences and sides in the best way (Yıldırım & Şimşek, 2006). However, 50 volunteer lecturers working at the universities mentioned above were reached. Demographic information about the sample group is shown in the table below (Table 1).

Table 1. *Frequency distribution of the research group according to demographic variables*

| | Demographic Information | N | f (%) |
|------------------|---------------------------------------|----|-------|
| Gender | Female | 14 | 28.0 |
| | Male | 36 | 72.0 |
| Age | 24-30 | 7 | 14.0 |
| | 31-40 | 18 | 36.0 |
| | 41-50 | 17 | 34.0 |
| | 51 + | 8 | 16.0 |
| Marital Status | Married | 35 | 70.0 |
| | Single | 15 | 30.0 |
| Academic Title | Instructor | 17 | 34.0 |
| | Assistant Professor | 14 | 28.0 |
| | Associate Professor | 16 | 32.0 |
| | Professor | 3 | 6.0 |
| Years of Service | 0-5 Years | 13 | 26.0 |
| | 6-10 Years | 10 | 20.0 |
| | 11-15 Years | 5 | 10.0 |
| | 16-20 Years | 8 | 16.0 |
| | 21 + | 14 | 28.0 |
| University | Adıyaman University | 10 | 20.0 |
| | Hacı Bektaş Veli University | 5 | 10.0 |
| | Kahramanmaraş Sütçü İmam University | 8 | 16.0 |
| | Fırat University | 7 | 14.0 |
| | Muğla Sıtkı Koçman University | 3 | 6.0 |
| | Karabük University | 9 | 18.0 |
| | Sakarya University of Applied Science | 8 | 16.0 |
| Total | | | 100 |

Data Collection

In the study, phenomenology design, one of the qualitative methods, was used to obtain the views of the lecturers in the study group on teaching approaches. The phenomenological design is a design that focuses on phenomena that we are aware of but do not have in-depth knowledge of (Yıldırım & Şimşek, 2011, p. 72). For this purpose, the opinions of the instructors about the teaching approaches they apply in the courses were obtained using a semi-structured interview form. In this form, there are five questions in addition to personal information. During the preparation of these questions, studies on teaching approaches in the literature and especially scales developed on this subject were examined (Aksoy et al., 2018; Goh et al., 2014; Monroy et al., 2015; Stes et al., 2008; Tezci, 2017). These questions developed by the researcher were evaluated and finalized by experts in sports sciences and educational sciences. After the expert opinions in the field of educational sciences and sports sciences were received regarding the research questions and the answers given, the answers were transferred to the transcript (Experts in the field of educational sciences have academic studies in the fields of curriculum and curriculum development, and experts in the field of sports sciences have academic studies on physical education and sports course curriculum). The transcripts were then shared with the participant lecturers for confirmation and thus internal validity was aimed to be ensured. In terms of the reliability of the research questions and the answers from the participants, a different expert other than the researchers was consulted while coding and creating themes. In line with these ideas, categories were created and misconceptions were corrected. The reliability value was calculated as 0.84 with the formula of $\text{Consensus} / (\text{Consensus} + \text{Disagreement})$ proposed by Miles and Huberman (1994). It is stated that a reliability value of .70 and above is reliable for the research (Miles & Huberman, 1994). These questions are as follows:

- What do you do to prepare yourself for lessons?
- How do you ensure that your students actively participate in the lessons?
- How do you expect students to behave in lessons?
- What kind of methods and techniques do you use in your lessons?
- With what kind of measurement and evaluation structures do you ensure that students have achieved the desired outcomes?

The answers to the questions were obtained through face-to-face interviews with the lecturers for 5-15 minutes. By analyzing the data obtained, it was tried to determine with which teaching approach the instructors carry out their educational activities. After the necessary data were obtained within the scope of the research, the analysis of the data obtained was carried out through qualitative content analysis stages. Lichtman (2006) stated that content analysis can be conducted in six steps. These steps are coding, checking the coding, creating main ideas and categories, reviewing categories, creating main and sub-categories, and transitioning from categories to themes. The data obtained in this context were first processed in Microsoft Word and Excel programs and the first arrangements were made here. Here, coding was made in line with the data in the literature. Then, themes and categories belonging to themes were created. The opinions of 50 instructors were coded as Instructor 1 Female (Aü-1), Instructor 2 (Sü-5), to represent the instructors and the data were transferred to the computer environment. Then, the licensed QSR NVIVO-10 program was used for data analysis and modeling of the situation (Figures 1, 2, 3, 4 and 5).

Ethical Permits of Research

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

Ethics Committee Permission Information:

Name of the committee that made the ethical evaluation=Firat University Rectorate, Social and Human Sciences Research Ethical Board

Date of ethical review decision=17/10/2019

Ethics assessment document issue number=36/6

Findings

Within the scope of the research objectives, the findings obtained from the opinions of the lecturers working in the physical education and sports teaching departments of universities are given below. Within the scope of the research, lecturers' views on teaching approaches used in learning-teaching processes were discussed. Firstly, the lecturers participating in the research were asked the question "What do you do to prepare yourself for the lessons?". The opinions of the participants on this question were analyzed. The themes obtained from the analysis results and the categories related to these themes are given in Figure 1.

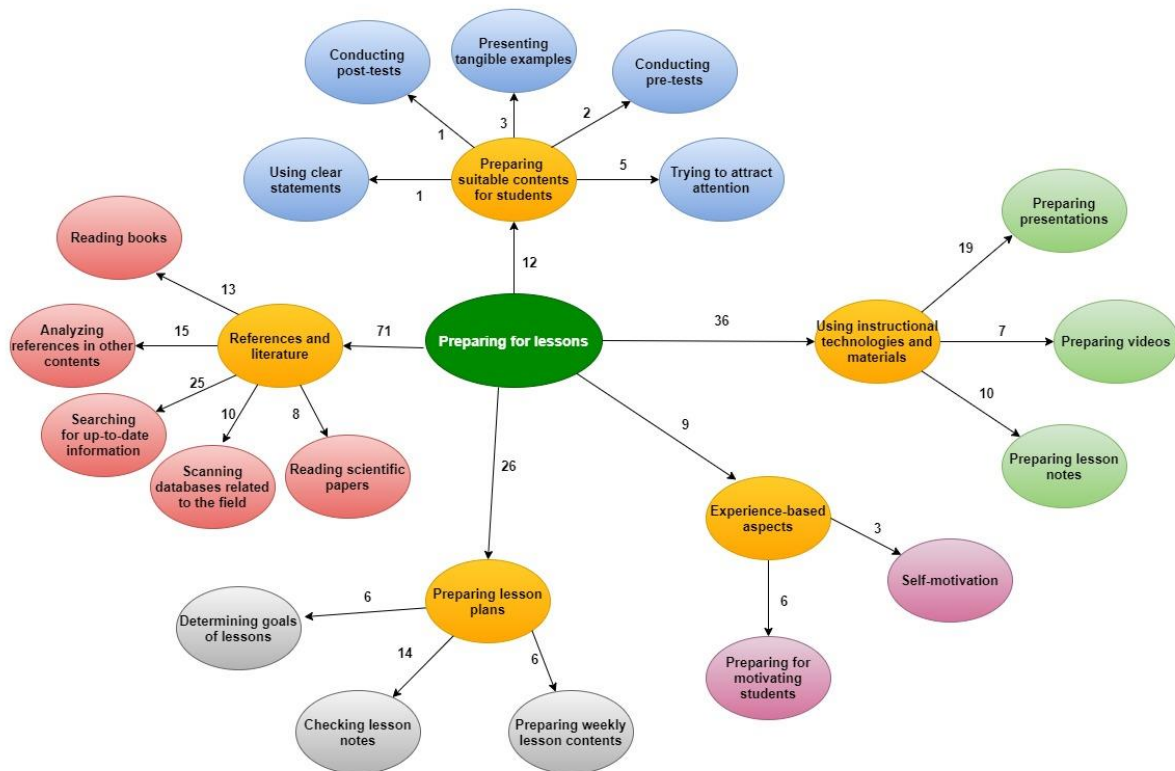


Figure 1. Analysis of the opinions of the research group on preparation for lessons

The views of the instructors on the theme of preparing for the lessons were divided into five themes: resources and literature (f=71), using instructional technologies and materials (f=36), making

a lesson plan (f=26), preparing content suitable for the student (f=12) and preparation for experience (f=9) (Figure 1). Some excerpts from the participants' views are as follows:

"I create a presentation file of general topics by scanning domestic and foreign sources related to the course content. If the content is theoretical, I do a literature review. If it is an applied lesson, I repeat the movement pattern I plan to teach. If available, I prepare visual content related to the relevant subject." (Aü-6)

"First of all, I consider the daily plan. I complete my material deficiency in the subject I will explain. I repeat the subjects that I think I will be incomplete while explaining. I take a look at the latest news about my field to increase the examples I will give." (Sü-5)

"First of all, we need to be motivated. Attending classes with high energy and motivation affects the students positively. They should come prepared for the theoretical and practical content of the course, slide presentations and current reinforcements should be prepared." (Sü-1)

Secondly, the instructors were asked the question "How do you ensure that students actively participate in the lessons?". The opinions of the participants on this question were analyzed. The themes obtained in the analysis results and the categories related to these themes are given in Figure 2.

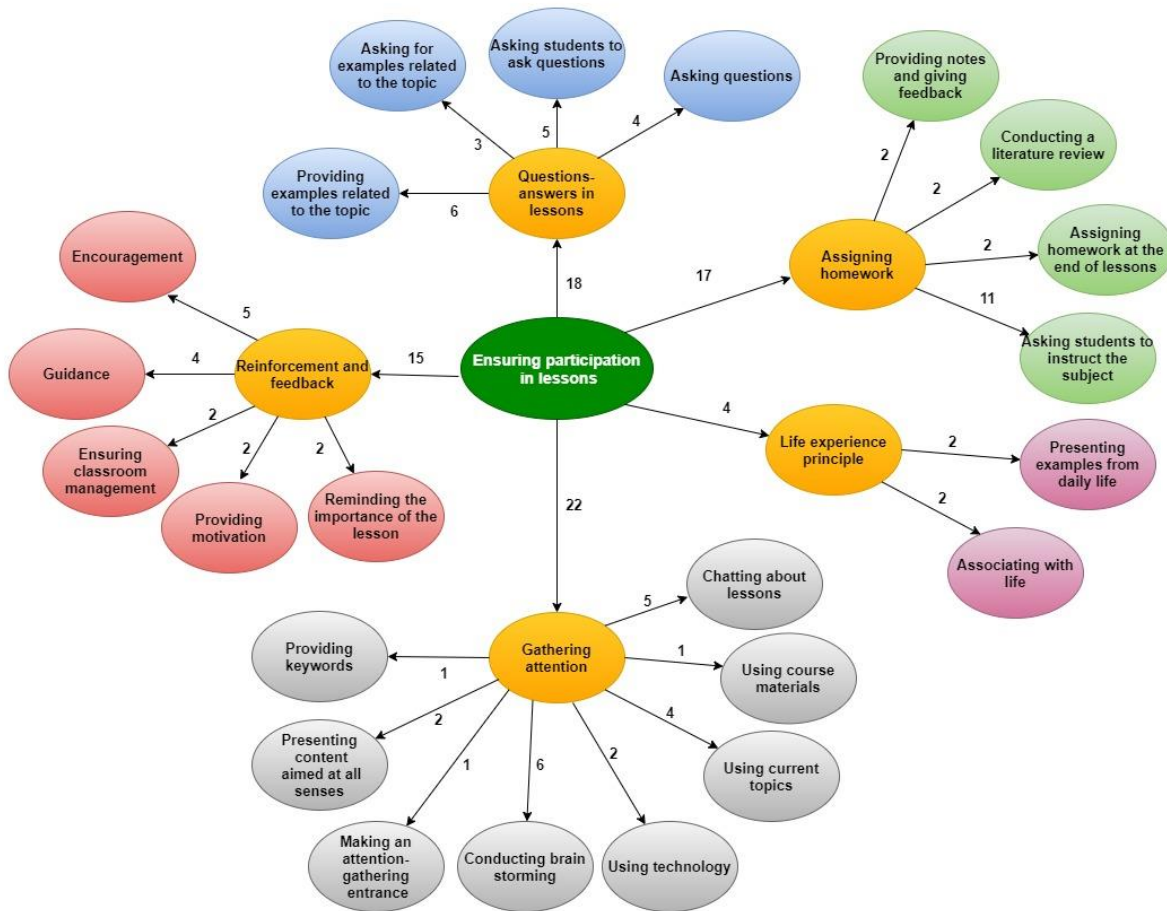


Figure 2. Analysis of the opinions of the research group on ensuring their participation in the lesson

The opinions of the lecturers on the theme of "Ensuring their participation in the lessons" were divided into five themes: focusing attention (f=22), question-answer in the lesson (f=18), giving

homework (f=17), reinforcement and feedback (f=15) and the principle of vitality (f=4) (Figure 2). Some excerpts from the participants' views are as follows:

"I try to keep the students active through methods such as preparing and explaining some chapters by the relevant students, answering questions about the topics during and at the end of the lesson, and preparing games and puzzles involving the course topics." (Mskü-1)

"By giving students the right to speak all the time. Using the show-and-do method in applied lessons ensures active participation. I give reinforcements and encourage students even when they give wrong answers." (Aü-7)

"It is necessary to greet the students and welcome them to the lesson with a smiling face. Then, drawing attention to the importance of the subject to be explained in that lesson for them, focusing on where they will use it, emphasizing the necessity of the lesson and starting to present the subject, active participation in the lesson is ensured." (Sü-1)

Thirdly, the instructors were asked the question "How do you ensure that students actively participate in the lessons?". The opinions of the participants on this question were analyzed. The themes obtained from the analysis results and the categories related to these themes are given in Figure 3.

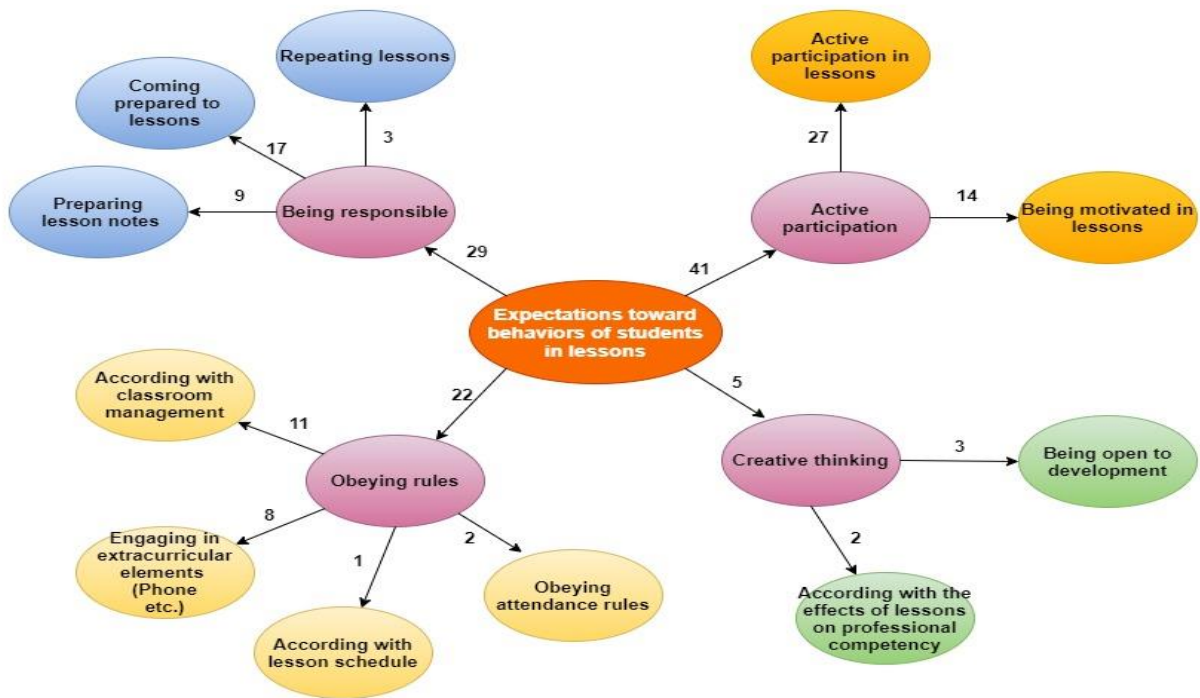


Figure 3. Analysis of the opinions of the research group on the expectations of students regarding their behavior in classes

The opinions of the instructors on the theme "Expectations for students' behaviors in the lessons" were divided into four themes: active participation (f=41), being responsible (f=29), following the rules (f=22) and creative thinking (f=5) (Figure 3). Some excerpts from participants' views are as follows:

"They should be respectful and responsible. It will be beneficial to come to class prepared by reviewing the general topics related to the course. In this way, a sense of responsibility will develop in students and they will add something to themselves. Coming to class

prepared will cause them to look at what they have learned in the lesson with skepticism and filter the information through their filters." (Mskü-3)

"I expect them to see the lessons not only as passing exams but also as professional equipment, to be prepared for the subjects related to the lesson in advance, not to be interested in cell phones or anything else outside the lesson, to be active in the question and answer section, to be able to transfer knowledge-skills between the lessons, to ask questions such as how I will use this information in my professional life." (Mskü-1)

"They should act in a disciplined manner, in a way that they will not disrupt the classroom management and in a manner befitting a university student." (Efü-1)

Fourthly, the instructors were asked the question "What kind of methods and techniques do you use while teaching your lessons?". The opinions of the participants on this question were analyzed. The themes obtained from the analysis results and the categories related to these themes are given in Figure 4.

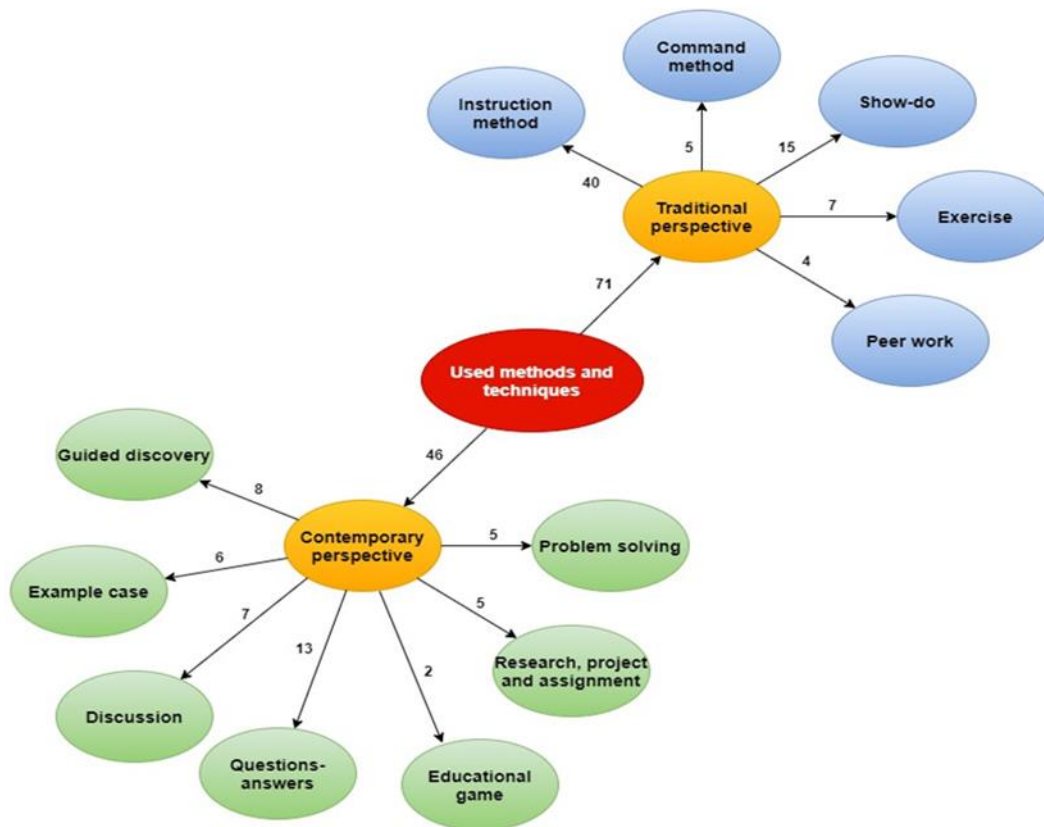


Figure 4. Analysis of the opinions of the research group on the methods and techniques they used

The opinions of the instructors on the theme of "Methods and techniques used" were divided into two themes: traditional approach (f=71) and contemporary approach (f=46) (Figure 4). Some excerpts from the opinions of the participants are as the following.

"Since my course is applied, I teach it by showing and practicing it myself. In practical lessons; command method, demonstration and other materials related to the course. In theoretical lessons; PowerPoint presentations, guided discovery and problem-solving" (Kü-6)

"Although it varies in practice and theoretical lessons, in general, I use methods and strategies such as lecture, exercise, demonstration, command, self-assessment, problem-solving, guided discovery, etc., which we use in physical education and sports, and I make use of complex and individual learning models and mostly student-centered studies." (Sü-1)

"While teaching, I usually support the theoretical subjects with visual presentations, videos, etc. In applied courses, I use the demonstration method. I generally prefer methods to develop problem-solving, lateral thinking and reflective thinking skills." (Aü-6)

Fifthly, the instructors were asked the question "What kind of measurement and evaluation structures do you use to ensure that students achieve the desired outcomes?". The opinions of the participants on this question were analyzed. The themes obtained in the analysis results and the categories related to these themes are given in Figure 5.

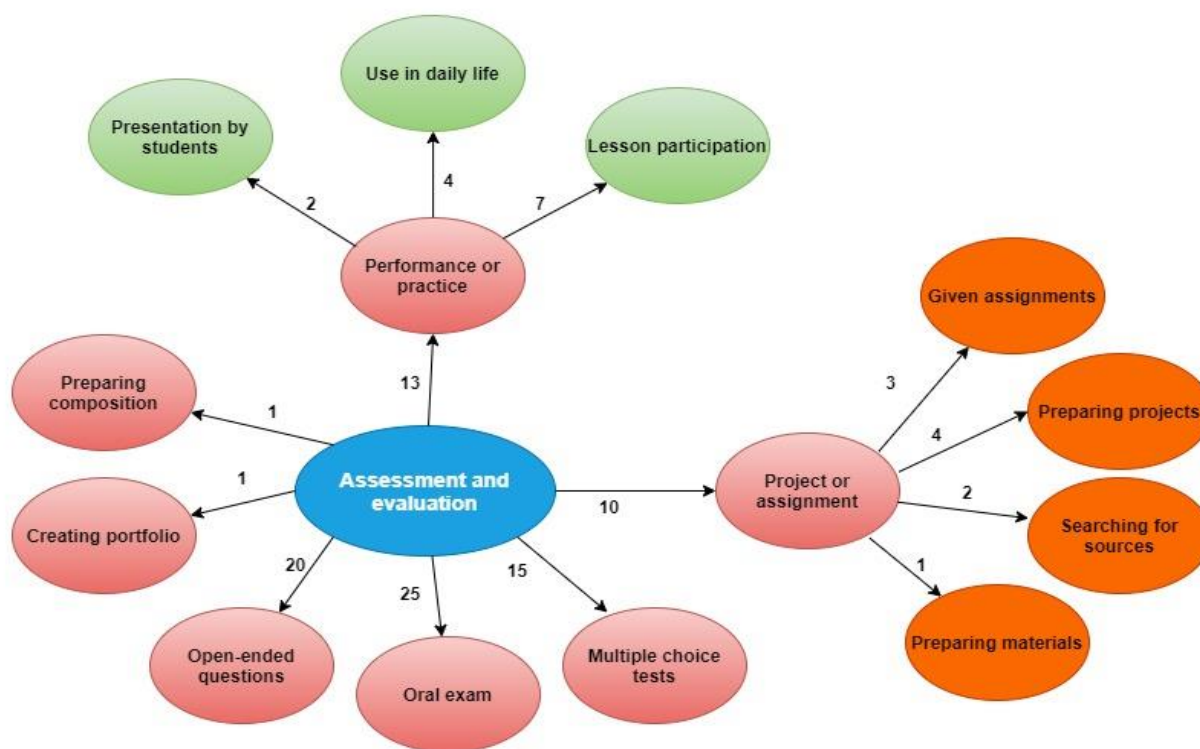


Figure 5. Analysis of the research group's views on measurement and evaluation

The "Assessment and evaluation-themed opinions" expressed by the instructors were divided into seven themes: oral exams (f=25), open-ended questions (f=20), multiple-choice tests (f=15), performance or practice (f=13), project or homework (f=10), portfolio formation (f=1) and composition (f=1) (Figure 5). Some excerpts from the participants' views are as follows:

"A lesson is successful if at least 70-80% of the students have gained at least 70-80% of the teaching in a lesson when they easily understand the subject with active participation in the lessons. For the gain of the remaining students, the subjects are reinforced with repetition. At the end of the lessons, I open a question-and-answer section for the supported subject. I assess the learning level of the class to make sure that the lesson has been learned. I do intermediate quizzes (oral)." (Efü-6)

"At the end of the lesson, I summarize the key topics and information of the lesson and do short question-answer sessions with the students. At the beginning of the lesson, I remind the students of the previous topic and measure their motivation, and then I make a connection to the new topic. In the meantime, when I realize that the information to be learned is missing, I ensure the active participation of the students by giving examples and create environments that will enable the students to express themselves." (Nhbvü-4)

"A lesson is successful if at least 70-80% of the students have gained at least 70-80% of the teaching in a lesson when they easily understand the subject with active participation in the lessons. For the gain of the remaining students, the subjects are reinforced with repetition. At the end of the lessons, I open a question-and-answer section for the supported subject. I assess the learning level of the class to make sure that the lesson has been learned. I do intermediate quizzes (oral)." (Efü-6)

Discussion and Conclusion

In the study, the opinions of the instructors were analyzed by content analysis. After analyzing the opinions, important results were obtained about teaching approaches. The instructors were asked the question "What do you do to prepare yourself for lessons?" and the answers were analyzed under the theme of "preparing for lessons". This theme was divided into themes such as resources and literature, using instructional technologies and materials, making lesson plans, preparing content suitable for students and preparations for life (Figure 1). When the statements in the theme of resources and literature and the statements in its content were examined, it was seen that the instructors who prepared for the lessons by scanning resources and literature made preparations such as reading books, examining sources outside the field, researching current information, searching databases related to the field and reading scientific articles. The most common type of preparation for the lessons expressed by the instructors is resource and literature review. When the statements in this theme are analyzed, it is seen that professional reflexes such as research examination and scientific studies, which are among the main duties of instructors, emerge. Boyer (1991) stated that lecturers, or in other words academics, have four main duties. These are; accessing new knowledge, integrating old and new knowledge, application and teaching. The first two tasks show the academician's research, examination and synthesizing activities. In the application task, the academician uses his/her knowledge and experience to serve society. In teaching, they share knowledge with students by managing a teaching process through in-class activities (Odabaşı et al., 2010). It is thought that research and teaching processes have an important place in the university education system and especially in teacher training programs. For this reason, it can be said that instructors have responsibilities such as presenting up-to-date and accurate information in their courses and increasing the efficiency of teaching processes, so following the most up-to-date sources and literature can be said to be the first and most important stage of course preparation. The role of teaching, which is one of the main duties of instructors, requires bringing about changes in students' behavior, increasing their cognitive capacities and revealing their abilities. It aims to develop students' active, participatory, questioning and creative characteristics by enabling them to construct and transfer knowledge rather than transmit information (Boyer, 1991). To increase the cognitive capacities of students and to provide accurate information, instructors prepare for lessons by scanning sources and literature (Prosser et al., 2008); they try to fulfill important objectives such as attracting students' attention in lessons, gathering attention, ensuring the comprehensibility of the

lesson by using visual aids such as videos, pictures, slides, using clear expressions, giving concrete examples, and increasing the retention of knowledge by linking the learned information with real life. Organizing the teaching process by putting the student at the center will enable students to construct knowledge by providing permanent trace learning. The first stage of putting the student at the center can be considered as preparing well for the lessons and doing the necessary activities to increase students' interest in the lesson during the teaching process. The instructors were asked the question "How do you ensure that students actively participate in the lessons?" and the answers given were analyzed under the theme of "ensuring their participation in the lesson". This theme was divided into the following themes: focusing attention, question-answer in the lesson, giving homework, reinforcement-feedback and the principle of vitality (Figure 2). The theme of focusing attention was the most frequently reported theme by the instructors in their opinions on ensuring their participation in the lesson. When this theme and the statements in its content are examined, it is seen that there are opinions such as giving keywords, presenting content for all senses, and making an introduction that will attract attention. These expressions have objectives parallel to the first stage of the preparation process stated by the instructors in their opinions on lesson preparation. In this regard, Zaman (2004) states that instructors should guide students not to be passive recipients in this process and guide them to discover and construct knowledge. In this sense, higher education institutions should be institutions where students develop themselves by actively participating in the processes of producing and structuring knowledge instead of passively receiving information from instructors and learning this information as it is (Verburgh et al., 2007). We can say that the views expressed in the content of the theme of making a lesson plan, which is included in the views on ensuring their participation in the lesson and preparing for the lesson, have largely the same aspect as the views expressed in the content of the theme of making a lesson plan. This is because the lecturers reported that they also considered questions such as how to involve students in the lesson, how to attract attention, how to provide feedback, and how to establish relationships with daily life while making lesson plans. In this context; Gagne and Driscoll (1988) stated that the teaching of a lesson should consist of activities such as attracting attention, explaining the target learning of the lesson, activating prior knowledge, giving reinforcements, guiding the student, making the student active, giving feedback, evaluating the process and transferring the knowledge to daily life by making it permanent. Since the aim of this process is to make the student active, the student is at the center of the goals set, while the instructors are at the center of the teaching process as the implementer of the activities. As a matter of fact, Kuh et al. (2006) placed teachers and teaching at the center of ensuring student participation and emphasized the importance of attitudes and behaviors, encouraging and encouraging discourses that ensure participation. When the reinforcement and feedback theme and the statements in the content of the views on ensuring student participation in the lesson are examined, it is seen that they are in line with the views of Kuh et al. (2006). Similarly, Mearns et al. (2007) stated that if teachers are perceived to be accessible to students and sensitive to students' needs, students will be more willing to study, participate and express their own opinions.

When the question-answer theme in the lesson and the statements in its content are examined in the analysis of the opinions on ensuring their participation in the lesson; it is seen that there are opinions such as asking questions about the subject, asking them to ask questions, giving examples about the subject and asking for examples. We can say that the aim of the lecturers' opinions about the question-answer method is to encourage students to think and question by involving them in the

teaching process. The functions of question-answer activity have important effects on students such as creating an environment that encourages thinking, arousing interest in the lesson, guiding the knowledge that the student will construct, thinking analytically, organizing thoughts, and enabling students to make self-evaluation (Oğuzkan, 1989). Demirel (2011) stated that the most common technique used by teachers in teaching activities is the question-answer technique. The question-answer technique can be adapted and applied to both student-centered and teacher-centered approaches. If we are aiming for students' answers to single-answer questions, this process will be suitable for the teacher-centered approach. However, if we want students to reach a point through a brainstorming technique with open-ended questions that encourage students to think, this method will be suitable for the student-centered approach. According to Dell'Olio and Donk (2007), in the question-and-answer method, students use high-level cognitive skills such as analysis, synthesis, evaluation and application to understand the relationship between question and answer. The question-and-answer method also provides students with the ability to think and express themselves. With thinking and self-expression, the student constructs the information himself/herself and provides permanent learning (Çelenk, 2016). It is thought that the instructors' asking students to ask questions and exemplify them in the question and answer technique expressed by the instructors to ensure the active participation of the student in the lesson may enable the student to take responsibility for his/her learning and to construct knowledge. When the themes of assigning homework and the expressions in the content of the lecturers' views on ensuring student participation in the course are examined, it is seen that they have opinions such as providing feedback on the notes, having students research resources, assigning homework at the end of the course and asking students to explain the topics. The specific purpose here is to enable students to learn by doing and experiencing. Asking students to research a subject and then expecting them to share their findings with their friends in the classroom is thought to ensure that the student is at the center of the teaching process as it develops both the student's ability to access information and the ability to transfer information by experiencing it.

The instructors were asked the question "How do you expect your students to behave in the lessons?" and the answers were analyzed under the theme of "expectations for students' behavior in the lessons". This theme was divided into the following themes: active participation, being responsible, following the rules and creative thinking (Figure 3). The theme of active participation was the theme with the highest number of opinions expressed by the instructors regarding the expectations for students' behaviors in the lessons. When this theme and the statements in its content are analyzed, students are expected to be active and motivated in the lessons. Baxter, and Gray (2001) stated that for effective learning, approaches in which students actively participate in the learning process should be adopted. It is now considered sufficient for students to be active instead of passive recipients of information and for teachers to be in a supportive and guiding role, even if they are not experts in certain subjects. With the contemporary understanding of education, the roles of both teachers and students have changed. The most important behavior that teachers expect from their students is to be active participants in classroom activities and to be motivated to the lesson without being interested in extracurricular elements. This is also the behavior that instructors expect from students in educational institutions that train prospective physical education and sports teachers. As a matter of fact, when the themes and categories prepared in line with the opinions of the lecturers were examined, the most expected behaviors were participating in the lesson and being motivated to the lesson. Avcı and Durmuşçelebi (2014), in their study on the expected student characteristics according to teachers'

views, found that teachers expect students to be active in the lesson, to respect both their friends and the teacher during the lesson, not to exhibit irregular behaviors that would disrupt classroom management, and to fulfill their homework and responsibilities in classroom practices or teaching processes. In this respect, we can see similar attitudes when compared with the views of the lecturers. The active participation of students in the lessons, as expressed in the opinions of the instructors, will enable them to learn by doing-living and help them to express themselves.

When the expectations for students' behaviors in the lessons are examined with the themes of following the rules and being responsible and the expressions in its content; opinions consisting of the main ideas of coming prepared for the lesson, creating lesson notes, repeating the lesson, complying with classroom management, not being interested in extracurricular elements, complying with the class time and complying with the absenteeism rule were stated. In the statements belonging to this theme, especially the views of coming prepared for the lesson and obeying the rules of the classroom were mentioned. Applying the student-centered approach in classroom activities, especially in crowded classes, depends on students who know the rules and responsibilities. For this reason, it is a natural result to have these expectations when the classes of the participant lecturers are considered. Neumann et al. (2002) stated in their study that to increase the applicability of the student-centered approach, it is necessary to reduce the number of students in the classes and to create uncrowded classes. Similarly, Yalçın İncik and Tanrıseven (2012) stated that crowded classes constitute an obstacle in the opinions of both students and instructors regarding the student-centered approach. For this reason, it can be seen as a normal result that instructors expect students to follow the rules and come to class prepared while organizing in-class activities following the student-centered approach. As can be understood from the theme of expectations for students' behaviors in the lessons and the statements in the content of our research, we can state three important behaviors that instructors expect from pre-service teachers. These can be summarized as active participation in the lesson, coming to the lesson prepared and obeying the rules. From this point of view, it can be said that the behaviors that are appropriate for the student-centered approach are active participation and coming prepared for the lesson. However, we can say that a statement such as obeying the rules, which may pose a risk to prevent students from expressing themselves, was said as an opinion to manage the teaching processes of crowded classes. Fourthly, the instructors were asked the question "What kind of methods and techniques do you use while teaching your lessons?" and the answers given were analyzed under the theme of "methods and techniques used". This theme was divided into two themes: traditional understanding and contemporary understanding (Figure 4). When the opinions of the instructors about the methods and techniques used are examined, it is seen that the most commonly used methods and techniques are teacher-centered approaches belonging to traditional understanding. When the expressions in the content of the traditional understanding theme were examined, it was determined that there were opinions about the expression method, demonstration, drill, command and pair work methods. Çelenk (2016) analyzed teaching methods under three headings. These are teacher-centered methods (lecture and demonstration), student-centered methods (project development, problem-solving, experimentation and simulation) and interaction-centered methods (question-answer, brainstorming, brainstorming, group work, active learning, cooperative learning, case study, role-playing, creative drama, storytelling, game learning and observation trip). Mosston and Ashworth (2002) examined the range of teaching styles used in physical education and sport teaching under two headings: teacher-

centered methods (drill, pair work, command, self-assessment and participation) and student-centered methods (problem-solving, student design, guided discovery, student initiation and self-teaching).

In educational institutions that train physical education and sports teacher candidates, courses include sportive practices and theoretical subjects. For this reason, instructors sometimes carry out teaching activities in the classroom environment and sometimes in the sports hall following the curriculum of the courses they are responsible for. In the opinions on the methods and techniques used in our research, in the traditional understanding theme, while the lecture method is preferred in the teaching processes carried out in the classroom environment, command, demonstration, practice and pair work methods are used in the teaching processes carried out in sports halls. When the opinions on the methods and techniques used are examined in the traditional understanding theme, it is seen that the instructors transfer the subject by preferring the direct expression method in the first place. The lecture method is the oldest and most widely used teaching technique belonging to the teacher-centered approach in which the content is transferred by the teacher to the students who are passive recipients (Çelenk, 2016). While teaching with this method, behaviors in the knowledge dimension of the cognitive domain, the receptive and response dimension of the affective domain, and the arousal step of the psychomotor domain are gained (Sönmez, 2007). This method, which is used especially when transferring information at the beginning of the lesson and making a summary at the end of the lesson, is preferred in the presence of limited time and crowded classes (Çelenk, 2016). In our study, results supporting this finding were found in the statements of the instructors on this theme. Especially due to the limited time and crowded classrooms, the lecturers stated that they preferred the lecture method in their lessons. It was obtained from the opinions that the instructors used command, show-and-perform, practice and pair work methods by using sports halls in the parts of the lessons that require practice. These methods, which are specific to physical education and sports lessons, are the most commonly used methods by teachers at all levels of education (İnce & Hünük, 2010). When the findings related to teaching approaches are examined, it is seen that instructors prefer teacher-centered approaches more, especially in the opinions about the methods and techniques used. The data obtained from our study have similar results to the studies conducted abroad (Cothran et al., 2005; Kulinna, & Cothran, 2003) and in Türkiye (Demirhan et al., 2008; İnce & Hünük, 2010). In light of these findings, it is thought that the necessity for instructors to teach their courses with student-centered approaches in teacher training programs (Aksoy et al., 2018) may enable pre-service teachers to use similar methods when they start their duties. For this reason, while it is seen from the statements of the lecturers that the methods they use are mostly teacher-centered, it is also seen that activities that will make students active are organized from time to time in the lessons. From this point of view, we can infer that the instructors do not carry out teaching activities by adhering to only one method during a course, but also provide active learning environments in some parts of the course. When the contemporary understanding theme and the statements in its content are examined in the opinions on the methods and techniques used, it is seen that the instructors use student-centered; guided discovery, case study, discussion, question-answer, educational game, research-project-homework and problem-solving techniques in their teaching processes. When the common purpose of these methods is analyzed, we see that the student is included in the teaching processes and learning with active experience. As a matter of fact, the selection of teaching methods that will make all students active in the teaching process is the most important point of being a successful teacher. Thanks to the suitability of the methods to be chosen in the acquisition of target behaviors, it will be easier to achieve the objectives (Büyükkaragöz & Çivi, 1999;

Eker, 2001). In teacher-centered methods, the direction of teaching is only from teacher to student, whereas in student-centered methods, the teaching process is not unidirectional. The methods used in the activities are from teacher to student as well as from student to teacher and even more so from student to student. Especially in the project-based research and homework method, collaborative working environments are offered and group work among students contributes to the structuring of knowledge. After a comprehensive literature review, it was found that some researchers have obtained important findings about student-centered methods. Froyd and Simpson (2010) found that lecturers working in different faculties found, developed and used many different teaching techniques suitable for the student-centered approach. These teaching techniques include active learning (Bonwel and Eison, 1991), cooperative learning (Bruffee, 1984), research-based and collaborative learning (Johnson et al., 1991), problem-solving and peer-based group work (Tien et al., 2002), peer teaching, inquiry-based and project-based teaching (Mazur, 1997). These results support the results of our study. Ünal, and Ergin (2006) stated that using the guided discovery method in physical education lessons will increase the student's interest in the lesson and make them more active. In the findings related to educational games, it was determined that instructors used educational games in applied or theoretical lessons, especially when students were distracted. In parallel with the findings of our study, studies have revealed that in addition to the educational benefits of the game, it has motivational and motivational effects (Rosas et al., 2003) and develops a more willing attitude to learning (Lou et al., 2001). In the opinions on the methods and techniques used, important findings that affect the choice of method in teaching processes emerged from the statements belonging to the themes. While teacher-centered techniques belonging to the traditional understanding are used if the class is crowded, time is limited and depending on the content of the subject to be taught; we can say that student-centered methods belonging to the contemporary understanding are preferred for purposes such as student involvement in the process, active learning, practice in applied lessons, the lesson is not ordinary and they learn to access information. From the findings obtained, we can say that teaching approaches can have an integrated structure in teaching processes. Because in a lesson process, the instructor can teach the lesson both with methods appropriate to the traditional understanding and methods appropriate to the contemporary understanding. For example, the instructor may start the lesson with the lecture method to summarize the information, use the question-answer method to attract students' attention, then use educational games to prevent students from getting bored, and finally end the lesson by assigning a research project to support their ability to access information and collaborative work. As can be seen, the application of teaching approaches in a lesson process is not independent of each other, and instructors prefer an integrated approach according to the conditions of the lesson and the situation of the students. Fifthly, the instructors were asked the question "What kind of measurement and evaluation structures do you use to ensure that students achieve the desired outcomes?" and the answers were analyzed under the theme of "measurement and evaluation". When this theme and the statements in its content were examined, it was divided into seven themes: essay preparation, portfolio creation, open-ended questions, oral exam, multiple-choice tests, performance or practice, and project or homework (Figure 5). When the themes in the opinions on measurement and evaluation are analyzed, two groups emerge clearly. The first one is result-oriented assessments, which is the traditional approach assessment, and the second one is process-oriented assessments, which is the contemporary approach assessment. Since one of the main purposes of this distinction is to determine which teaching approach the instructors use in line with their views, the measurement and evaluation process also

contains views that will serve this purpose. The differences between traditional assessment and evaluation designs and contemporary assessment and evaluation designs are expressed as follows (McMillan, 2004): Measurement and evaluation in the traditional understanding; result-oriented, measurement of independent skills, recalling memorized information, measuring a single correct answer because the information is absolute and single, applying it after teaching, giving little feedback, classical exams (open-ended, multiple choice, fill-in-the-blank, oral, etc.), applying only one method for measurement. Measurement and evaluation in contemporary understanding; process-oriented, measurement of interrelated skills, structuring and application of knowledge, differentiated responses from person to person due to the structuring of knowledge, application during teaching, immediate feedback, performance-based methods, use of more than one measurement tool. The most common measurement and evaluation methods mentioned in the opinions on measurement and evaluation are oral exams, open-ended questions and multiple-choice tests. These student-centered themes in the opinions on measurement and evaluation weigh approximately 67% within the general themes. Considering that these methods make result-oriented measurements, it will be revealed that traditional measurement and evaluation methods are preferred. Birgin, and Gürbüz (2008), in their study on pre-service classroom teachers, found that pre-service teachers mostly used measurement and evaluation methods belonging to the traditional teaching approach such as written exams, multiple-choice tests, true-false, and matching tests. These findings of the study revealed similar results to the findings of our study. Other studies have obtained similar results (Çakan, 2004; Güven & Eskiürk, 2007; Özsevgeç et al., 2004). The measurement and evaluation statements include student-centered measurement and evaluation methods in the form of essay preparation, portfolio creation, project or homework, performance or practice themes. Among these themes, the research and homework theme includes homework assignments, project preparation, resource research and material preparation. In the performance or application theme, the student's presentation, use in daily life and participation in the course are included. When the answers given by the instructors to the questions in this theme are examined, it is seen that measurement and evaluation methods in accordance with contemporary understanding are used with a small intensity (33%). These findings coincide with the findings of another study conducted on pre-service teachers (Birgin & Gürbüz, 2008). In addition, Struyven et al. (2005) measured the perceptions of university students about measurement and evaluation and found that students preferred exams with multiple-choice tests more than essay-like exams that require long answers. The lecturers' use of traditional assessment and evaluation tools shows that they adopt a result-oriented approach. However, when the opinions of the lecturers on this question are analyzed, there are statements that they use both contemporary and traditional assessment and evaluation tools. As explained in the content analysis of the methods and techniques used, the type of assessment and evaluation tools used may vary depending on criteria such as time, place, student status, course status and the number of students in the class. As a result, it has been determined that instructors mainly use traditional measurement tools and assessment methods, and to a lesser extent, they use contemporary measurement tools and assessment methods.

As a result of the findings obtained from the opinions of the lecturers working in physical education and sports teaching departments about teaching approaches, the following conclusions were reached. It was determined that lecturers have two main duties in universities as research and teaching. It is thought that the reason for the intensity of the opinions about the research dimension is due to the academic professional reflexes of the lecturers. It was determined that the lecturers used remarkable

activities to make students active and used question-answer practices to involve them in the process. It is thought that they reported these opinions based on the idea that the first step to ensure students' active participation in the lesson is to attract their attention to the lesson. It was determined by the analysis results in the findings section that the instructors expected three important behaviors from the pre-service teachers: active participation in the lesson, coming to the lesson prepared and obeying the rules (Figure 3). It can be inferred that although expectations such as active participation and coming to class prepared are appropriate for the student-centered approach, the expectation of following the rules is more appropriate for the teacher-centered approach. It can be said that the reason for the expectation of following the rules is to carry out the teaching processes of crowded classes in a healthy way. The results obtained in the study coincide with the findings of previous studies (Cothran & Kulinna, 2008). Due to the multidimensional structure of physical education and sports courses, it has been stated that various factors can affect the teaching preferences of instructors (Cothran & Kulinna, 2008). As a matter of fact, in our study, it was determined that instructors do not adhere to only one approach during a lesson process, and their preferences for teaching approaches change according to the situation of the lesson, the student, the class and the time. Jenkins, and Byra (1996) emphasized that the participation method is more effective in terms of permanent learning of skills than self-control and practice methods. In another study, it was revealed that teaching tennis skills with the self-control method was more effective than the command teaching technique (Patmanoglou et al., 2008). In his study, Alhayek (2004) stated that the drill method was more effective than the cooperative learning style in teaching basketball skills. In another study, it was stated that the command teaching method was preferred due to the high number of students during dance education, but the problem-solving method improved students' critical thinking skills (Chen & Cone, 2003). It is possible to say that the teaching approaches and styles preferred by instructors in their courses differ according to many variables. As a matter of fact, Dyson (2002) stated that the implementation of a collaborative learning style is not a simple and smooth process for the teacher. It was emphasized that changes in teaching approaches used by instructors would lead to difficulties in classroom control and course organization (Dyson, 2002). From the findings, it can be interpreted that the teaching methods are not independent of each other in the implementation of teaching methods, they are integrated, and the instructors switch between approaches according to the conditions. We can also state that the fact that the courses have theoretical and practical objectives also affects this process. As a matter of fact, Garn and Byra (2002) stated that cognitive, affective, social and moral learning in physical education and sports curriculum will provide effective learning with student-centered approaches. However, in course designs with motor skills and physical development goals, it was stated that teacher-centered approaches would provide better learning (Garn & Byra, 2002; Goldberger, 1995; Mosston & Ashworth, 2002). From this point of view, it is not possible to conclude that all teaching approaches can effectively achieve all the objectives of a lesson (Syrmpas et al., 2017). In the differentiation of teaching approaches, it can be stated that instructors choose the most appropriate style depending on the objectives of the course. It is possible to say that the approach chosen in line with the objectives and outcomes of the lesson and the method suitable for this approach can change even in instantaneous situations. As a result, it is necessary to state that methods suitable for the teacher-centered approach are preferred, especially due to the factors of ensuring classroom control, limited time, and objective and easily measurable evaluation. As a result of the results obtained, it emerges as a normal situation that instructors approach teaching approaches in a multidimensional way due to the multidimensional structure of physical education and sports courses.

Recommendations

As a result of the results obtained from the research, instructors in educational institutions that train physical education and sports teachers have predominantly adopted teacher-centered traditional approaches. It is known that physical education and sports courses address different areas (cognitive, affective and psychomotor) when the target acquisitions are taken into consideration. To reach the objectives in all these areas, it is not possible to determine a fixed teaching approach during the course. For this reason, in institutions that train physical education and sports teachers, course practices that emphasize this flexibility should be emphasized. The courses in the curriculum should not only be classified as practical and theoretical but also categorized according to cognitive, affective and psychomotor domain objectives. Thanks to this categorization, the advantages and disadvantages of the teaching approaches adopted in the courses can be known for which course and in which area, instead of their superiority over each other. In all these processes, the central goal should be the active learning of the student.

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Contribution Rate of Researchers

Author 1: 50%

Author 2: 50%

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Conflict Statement

We wish to confirm that there are no known conflicts of interest associated with this publication and there has been no significant financial support for this work that could have influenced its outcome.



Genişletilmiş Türkçe Özet

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Beden Eğitimi ve Spor Öğretmenliği Bölümlerinde Görev Yapan Öğretim Elemanlarının Öğretme Yaklaşımlarına İlişkin Görüşleri

Giriş

Öğretim süreçlerinin etkinliği öğretim yaklaşımlarının uygulanmasına bağlıdır. Kalıcı öğrenmenin nasıl sağlanacağı eğitim dünyasında cevap aranan soruların başında gelmektedir. Bu nedenle geçmişten günümüze farklı öğretme yaklaşımları ve bu yaklaşımlara bağlı olarak öğretme kuramları ortaya çıkmıştır. Öğretme yaklaşımları yapılan araştırmaların sonuçlarına göre oluşturulmuş kuramlara, stratejilere ve tekniklere göre öğretim süreçlerinde kullanılmaktadır (Bulut, 2015). Öğretmenlerin öğretim ile ilgili iki farklı inançları bulunmaktadır. Bunlardan ilki bilgiyi aktaran olarak öğretim, ikincisi ise öğrencilerin bilgiyi yapılandırmasına rehberlik etmek için öğretimdir (Samuelowicz & Bian, 2001; Teo vd., 2008).

Eğitim alanında yaşanan değişimler, teknolojik ilerlemeler ve bilimsel çalışmalar geleneksel eğitimin yerini yeni bir anlayışa bırakmaya itmiştir. Eğitim programları öğreten merkezli bir süreçten öğrenen merkezli bir sürece girerek bu dönüşümü gerçekleştirmiştir. Türkiye’de ilk olarak 2005 yılında geleneksel öğretim yaklaşımından (öğretmen merkezli) vazgeçilerek çağdaş yaklaşıma (öğrenci merkezli) geçilmiştir. İlk etapta ilköğretim programı; yaşanan tüm bu gelişmeler, teknolojik ilerlemeler, yönetsel farklılıklar, küreselleşme ile gelen Avrupa Birliği kriterlerine uyum ile birlikte güncellenmiştir (Özdaş vd., 2005). 2004-2005 eğitim-öğretim yılında uygulamaya konulan yeni öğretim programının temelinde yapılandırmacılık, aktif katılım, öğrenen merkezli öğretim yer almaktadır (Gömleksiz, 2005).

Beden eğitiminde öğretme yaklaşımları uygulamalı ve teorik süreçlere sahip ders yapısından dolayı çok boyutlu ve karmaşık bir yapıdadır (Graham, 2008). Beden eğitimi ve spor derslerinde dersin hedeflerine ulaşmak için öğretmenler farklı öğretme süreçlerini kullanmaktadırlar. Beden eğitimi ve

spor derslerinin öğretim kalitesini inceleyen bir çalışmada öğretmenlerin ölçülebilir ve uygulanabilir hedefler koyduğunu ve bu hedeflere ulaşmak için bir ders planı tasarladıklarını belirtmiştir (Gallahue & Cleland-Donnelly, 2007). Bu tasarımların uygulanabilirliğinde, öğretmenlerin öğrenci çeşitliliği ile başa çıkabilmesinde ve dersin müfredatın belirttiği hedeflere ulaşmasında Mosston ve Ashworth'un öğretim stilleri spektrumu kullanılabilir (Sanchez vd., 2012). Öğretim stilleri spektrumunda her birinde farklı öğrenme çıktıların olduğu en az on bir öğretim stili bulunmaktadır (Goldberger vd., 2012). Öğrenme stilleri spektrumu ile ilgili yapılan çalışmalarda farklı bakış açıları önerilmiştir. Mosston ve Ashworth (2002) öğretim stilleri spektrumunu dersin uygulaması esnasındaki kararların öğretmen ve öğrenci arasında değiştiği bir süreklilik olarak ifade etmiştir. Burada öğretmen merkezli ve öğrenci merkezli olmak üzere iki farklı öğretim stili kümesi ortaya konulmuştur (Mosston & Ashworth, 2022). Öğretmen merkezli olan öğretim stilleri kümesinde öğretmen tarafından sunulan bilgi ve becerilerin öğrenci tarafından yeniden yapılandırılması veya üretilmesi süreci ifade edildiğinden "yeniden üretme (reproduction)" kavramı kullanılmaktadır. Ancak öğrenci merkezli olan öğretim stilleri kümesinde ise öğretmenin öğrencileri bilgi ve becerileri üretmeye ve keşfetmeye teşvik ettiği bir süreç olduğundan "üretim (production)" kavramı kullanılmaktadır (Goldberger vd., 2012). Üretmeye dayalı öğretim stili kümesi öğrencilere farklı hareketleri yapmalarına, akranlarıyla kendi hareketlerini karşılaştırmalarına ve farklı deneyimleri yaşamalarına olanak sağlayarak farklı motor tepkiler vermelerini sağlamaktadır (Nichols, 1994).

Öğrenci merkezli yaklaşımın üniversitelerde uygulanması, özellikle öğretmen yetiştiren programlar için önemli olduğu düşünülmektedir. Çünkü öğretmen yetiştiren programlarda öğrenim gören bireyler öğretmen adaylarıdır ve gelecekte öğretmen olarak görev yapacaklardır. Bir döngü olarak düşünüldüğünde, tüm süreç ve bireyler birbirini olumlu ya da olumsuz etkileyebilmektedir. Bundan dolayı, öğretmen adaylarının eğitim aldıkları yükseköğretim kurumlarında öğrenci merkezli öğretim yaklaşımlarının kullanılması bilgi, beceri ve yetkinlikler düzeyinde eğitilmiş bireylerin yetiştirilmesi adına büyük önem taşımaktadır. Bu kapsamda yapılan araştırmanın amacı, beden eğitimi ve spor öğretmenliği bölümlerindeki öğretim elemanlarının gerçekleştirdikleri eğitim-öğretim sürecinde öğretim yaklaşımlarına yönelik görüşlerini incelemektir. Öğretim elemanlarının öğrenme-öğretim süreçlerinde benimsedikleri ve kullandıkları öğretim yaklaşımlarına yönelik görüşlerinin içerik analizi yapılarak öğretim yaklaşımları belirlenmeye çalışılmıştır. Elde edilen bu bilgilerin alana ve araştırmacılara katkı sağlayacağı düşünülmektedir.

Yöntem

Araştırmada olgu bilimsel (fenomenoloji) deseni kullanılmıştır. Öğretim elemanlarının öğretim yaklaşımlarına yönelik görüşleri bu çerçevede ele alınmıştır. Olgubilim, olguyla ilgili bilgiler ortaya koymak için insanların deneyimlerinden yararlanan bir araştırma yöntemi şeklindedir (Kocacıoğlu, 2016). Bu kapsamda, örneklem grup ile yüz yüze görüşme yapılmıştır.

Araştırmanın evrenini Türkiye'deki yedi coğrafi bölgeden beden eğitimi ve spor öğretmenliği bölümlerinde görev yapan öğretim elemanları oluşturmaktadır. Bu üniversitelerden 10 kişi olmak üzere toplam 70 öğretim elemanına ulaşılması hedeflenmiştir. Burada "amaçlı örneklem seçimi" yöntemlerinden "maksimum çeşitlilik örnekleme" kullanılmıştır. Bu örneklem tekniğinde amaç evreni temsil edecek örneklemin çeşitliliğini maksimum derecede yansıtmaktır (Suri, 2011). Örneklem çeşitliliğinin fazla olması ve sorulara görüş bildiren öğretim elemanlarının çeşitliliği neticesinde farklılık

ve tarafların en iyi şekilde ortaya konulması amaçlanmıştır (Yıldırım & Şimşek, 2006). Ancak belirtilen üniversitelerde görev yapan gönüllü 50 öğretim elemanına ulaşılmıştır.

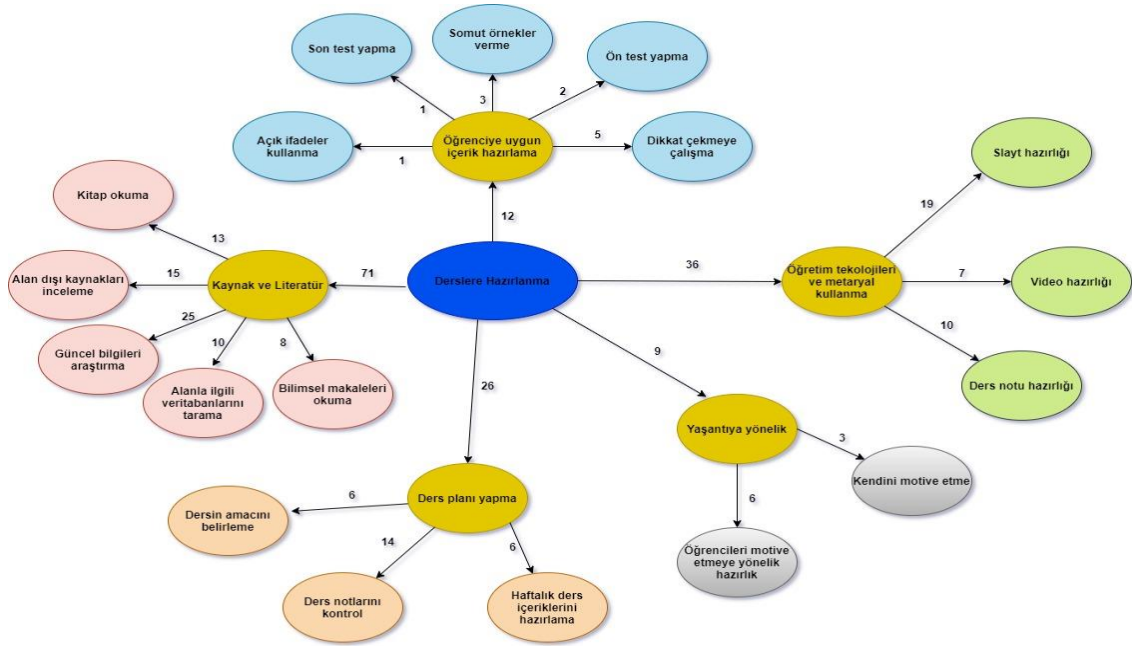
Araştırmada çalışma grubunda yer alan öğretim elemanlarının öğretme yaklaşımlarına yönelik görüşlerini elde edebilmek için nitel yöntemlerden olgubilim (fenomenoloji) deseni kullanılmıştır. Olgubilim deseni temelde farkında olunan ancak derinlemesine bir bilgiye sahip olmadığımız olgulara odaklanan desendir (Yıldırım & Şimşek, 2011, s. 72). Bu amaçla öğretim elemanlarından derslerde uyguladıkları öğretme yaklaşımlarına yönelik görüşleri yarı yapılandırılmış görüşme formu kullanılarak elde edilmiştir. Bu formda kişisel bilgilere yönelik bilgilerin yanında beş adet soru bulunmaktadır. Bu soruların hazırlanması aşamasında literatürdeki öğretme yaklaşımları konulu çalışmalar ve özellikle bu konuda geliştirilmiş ölçekler irdelenmiştir (Aksoy vd., 2018; Goh vd., 2014; Monroy vd., 2015; Stes vd., 2008; Tezci, 2017). Araştırmacı tarafından geliştirilen bu sorular spor bilimlerindeki ve eğitim bilimlerindeki uzmanlar tarafından değerlendirilmiş ve son haline getirilmiştir. Daha sonra katılımcı öğretim elemanları ile paylaşılarak teyit alınmış ve bu şekilde iç geçerlik sağlanması amaçlanmıştır. Araştırma sorularının ve katılımcılardan gelen cevapların güvenilirliği açısından araştırmacılar dışında farklı bir uzmandan kodlama ve tema oluşturulurken fikir alınmıştır. Bu fikirler doğrultusunda kategoriler oluşturulmuş ve kavram hataları düzeltilmiştir. Miles ve Huberman (1994) tarafından ortaya konulan Görüş Birliği / (Görüş Birliği + Görüş Ayrılığı) formülü ile güvenilirlik değeri .84 olarak hesaplanmıştır. Güvenirlik değerinin .70 ve üzeri olmasının araştırma için güvenilir olduğu ifade edilmiştir (Miles & Huberman, 1994). Bu sorular aşağıdaki gibidir:

- Kendinizi derslere hazırlamak için neler yaparsınız?
- Öğrencilerinizin derslere aktif katılmalarını nasıl sağlarsınız?
- Öğrencilerin derslerde nasıl davranmasını beklersiniz?
- Derslerinizi işlerken ne tür yöntem ve teknikleri kullanırsınız?
- Öğrencilerin istenilen kazanımları elde ettiklerini ne tür ölçme ve değerlendirme yapılarıyla elde edersiniz?

Sorulara verilen cevaplar öğretim elemanlarıyla 5-15 dakika arası yüz yüze görüşme sonucunda elde edilmiştir. Elde edilen veriler analiz edilerek öğretim elemanlarının hangi öğretme yaklaşımıyla eğitim-öğretim faaliyetlerini yürüttükleri belirlenmeye çalışılmıştır. Araştırma kapsamında gerekli veriler elde edildikten sonra, elde edilen verilerin çözümlenmesi nitel içerik analiz aşamalarıyla yürütülmüştür.

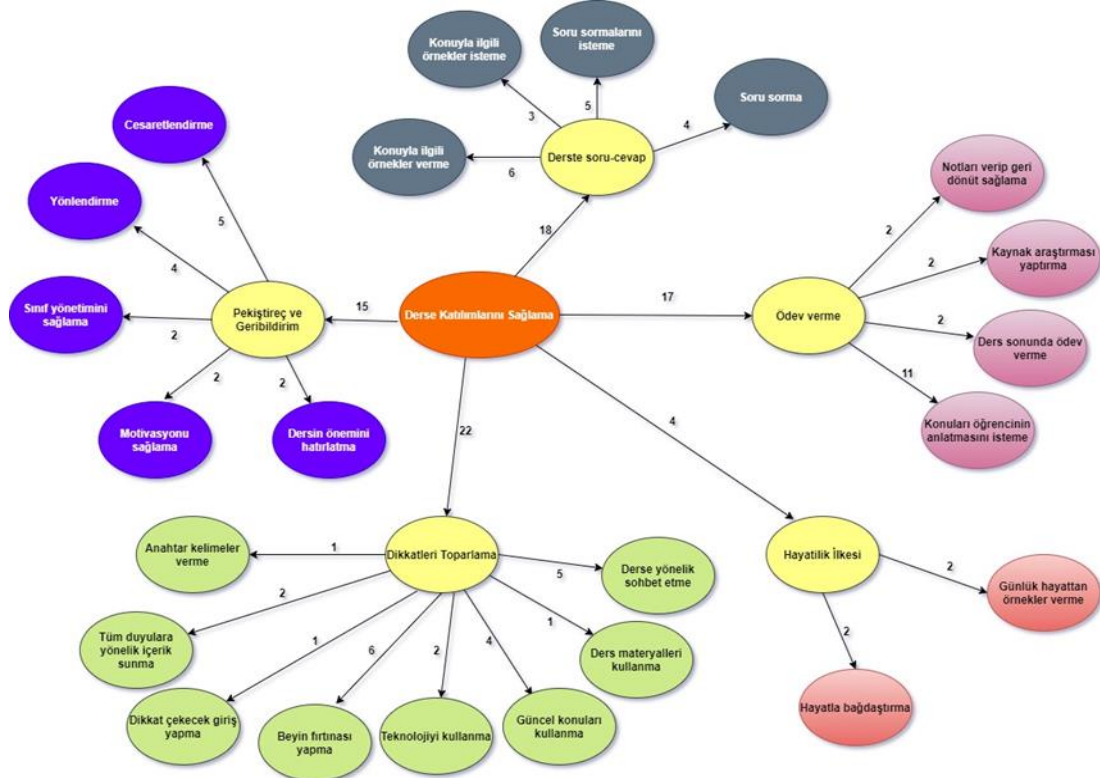
Bulgular

Araştırma amaçları kapsamında, üniversitelerde beden eğitimi ve spor öğretmenliği bölümlerinde görev yapan öğretim elemanlarının görüşlerinde elde edilen bulgular aşağıda verilmiştir. Araştırma kapsamında, öğretim elemanlarının öğrenme-öğretme süreçlerinde kullanılan öğretme yaklaşımlarına yönelik görüşleri ele alınmıştır. İlk olarak araştırmaya katılan öğretim elemanlarına “Kendinizi derslere hazırlamak için neler yaparsınız? sorusu yöneltilmiştir. Katılımcıların bu soruya yönelik belirttikleri görüşler analiz edilmiştir. Analiz sonuçlarında elde edilen temalar ve bu temalara ilişkin kategoriler Şekil 1’de verilmiştir.



Şekil 1. Araştırma grubunun derslere hazırlanma ile ilgili görüşlerinin analizi

Öğretim elemanlarının belirttikleri Derslere hazırlanma temalı görüşleri; kaynak ve literatür (f=71), öğretim teknolojileri ve materyal kullanma (f=36), ders planı yapma (f=26), öğrenciye uygun içerik hazırlama (f=12) ve yaşantıya yönelik (f=9) hazırlık olmak üzere beş temaya ayrılmıştır (Şekil 1). İkinci olarak öğretim elemanlarına “Öğrencilerin derslere aktif katılmalarını nasıl sağlarsınız?” sorusu yöneltilmiştir. Katılımcıların bu soruya yönelik belirttikleri görüşler analiz edilmiştir. Analiz sonuçlarında elde edilen temalar ve bu temalara ilişkin kategoriler Şekil 2’de verilmiştir.



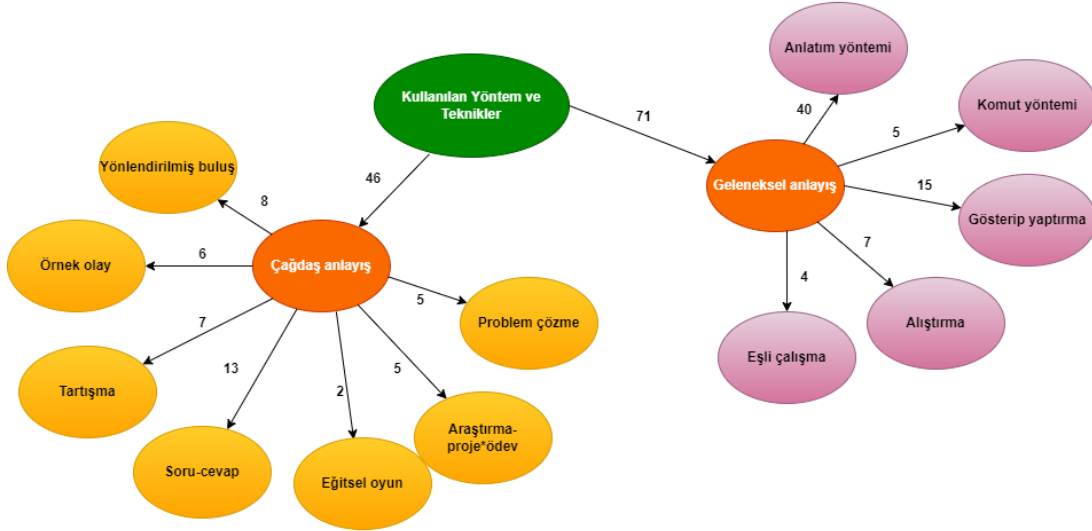
Şekil 2. Araştırma grubunun derse katılımlarını sağlama ile ilgili görüşlerinin analizi

Öğretim elemanlarının belirttikleri “Derslere katılmalarını sağlama” temalı görüşleri; dikkatleri toplama (f=22), derste soru-cevap (f=18), ödev verme (f=17), pekiştirme ve geribildirim (f=15) ve hayatilik ilkesi (f=4) olmak üzere beş temaya ayrılmıştır (Şekil 2). Üçüncü olarak öğretim elemanlarına “öğrencilerin derslere aktif katılmalarını nasıl sağlarsınız?” sorusu yöneltilmiştir. Katılımcıların bu soruya yönelik belirttikleri görüşler analiz edilmiştir. Analiz sonuçlarında elde edilen temalar ve bu temalara ilişkin kategoriler Şekil 3’ te verilmiştir.



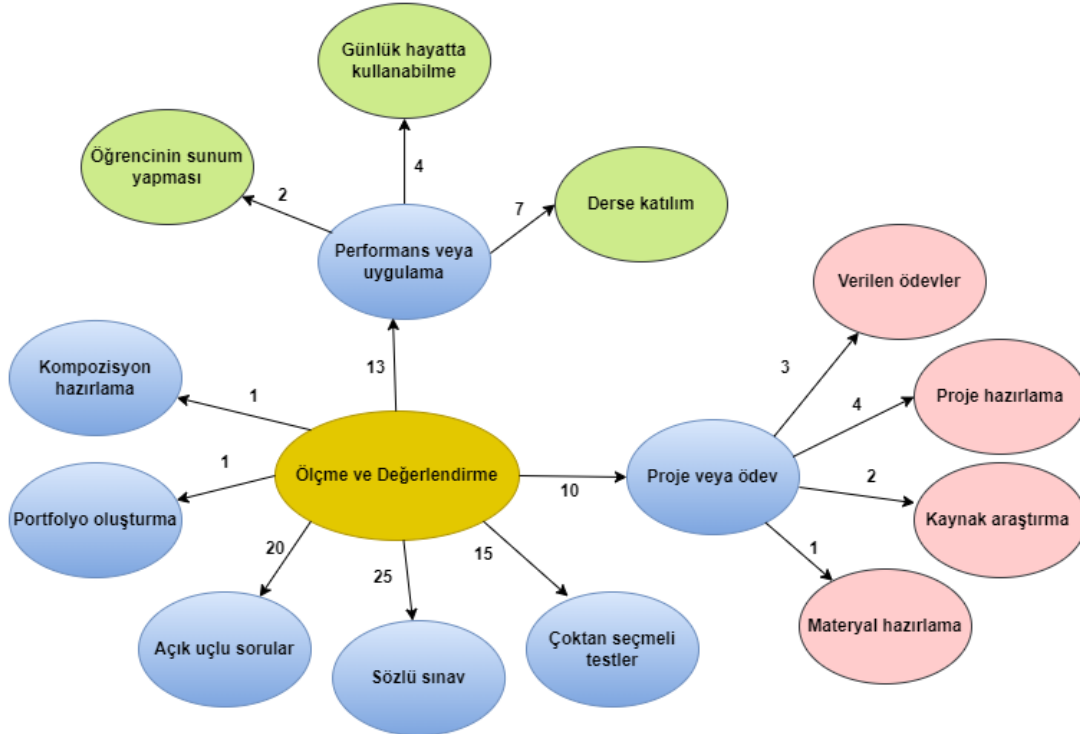
Şekil 3. Araştırma grubunun öğrencilerin derslerdeki davranışlarıyla ilgili beklentilerine yönelik görüşlerinin analizi

Öğretim elemanlarının “Öğrencilerin derslerdeki davranışlarına yönelik beklentiler” temalı görüşleri; aktif katılım sağlama (f=41), sorumluluk sahibi olma (f=29), kurallara uyma (f=22) ve yaratıcı düşünme (f=5) olmak üzere dört temaya ayrılmıştır (Şekil 3). Dördüncü olarak öğretim elemanlarına “Derslerinizi işlerken ne tür yöntem ve teknikleri kullanırsınız?” sorusu yöneltilmiştir. Katılımcıların bu soruya yönelik belirttikleri görüşler analiz edilmiştir. Analiz sonuçlarında elde edilen temalar ve bu temalara ilişkin kategoriler Şekil 4’ te verilmiştir.



Şekil 4. Araştırma grubunun kullandıkları yöntem ve tekniklere yönelik görüşlerinin analizi

Öğretim elemanlarının belirttikleri “Kullanılan yöntem ve teknikler” temalı görüşleri; geleneksel anlayış (f=71) ve çağdaş anlayış (f=46) kategorisinde olmak üzere iki temaya ayrılmıştır (Şekil 4). Beşinci olarak öğretim elemanlarına “Öğrencilerin istenilen kazanımları elde ettiklerini ne tür ölçme ve değerlendirme yapılarıyla elde edersiniz?” sorusu yöneltilmiştir. Katılımcıların bu soruya yönelik belirttikleri görüşler analiz edilmiştir. Analiz sonuçlarında elde edilen temalar ve bu temalara ilişkin kategoriler Şekil 5’ de verilmiştir.



Şekil 5. Araştırma grubunun ölçme ve değerlendirmeye yönelik görüşlerinin analizi

Öğretim elemanlarının belirttikleri “Ölçme ve değerlendirme temalı görüşleri”; sözlü sınav (f=25), açık uçlu sorular (f=20), çoktan seçmeli testler (f=15), Performans veya uygulama (f=13), proje

veya ödev (f=10), portfolyo oluşturma (f=1) ve kompozisyon oluşturma (f=1) olmak üzere yedi temaya ayrılmıştır (Şekil 5).

Tartışma ve Sonuç

Araştırmada öğretim elemanlarının görüşleri içerik analizi yapılarak çözümlenmiştir. Ortaya konan görüşlerin çözümlenmesinin ardından öğretme yaklaşımları ile ilgili önemli sonuçlar elde edilmiştir. Öğretim elemanlarına “Kendinizi derslere hazırlamak için neler yaparsınız?” sorusu sorulmuş ve verilen cevaplar “derslere hazırlanma” teması altında incelenmiştir. Bu tema; kaynak ve literatür, öğretim teknolojileri ve materyal kullanma, ders planı yapma, öğrenciye uygun içerik hazırlama ve yaşantıya yönelik hazırlıklar olarak temalara ayrılmıştır (Şekil 1). Öğretim elemanlarının temel görevlerinden olan öğreticilik rolü öğrencilerin davranışlarında değişiklikler meydana getirebilmek, bilişsel kapasitelerini artırmak ve yeteneklerini ortaya çıkarmayı gerektirir. Bilgiyi iletmekten öte bilginin yapılandırılmasına ve transfer edilmesine imkân vererek öğrencilerin aktif, katılımcı, sorgulayıcı ve yaratıcı özelliklerini geliştirmeyi amaçlamaktadır (Boyer, 1991). Öğrencilerin bilişsel kapasitelerini artırmak, doğru bilgileri verebilmek için kaynak ve literatür taraması yaparak derslere hazırlanan öğretim elemanları (Prosser vd., 2008); öğrencilerin derslerde ilgisini çekmek, dikkatleri toplamak, video, resim, slayt gibi görsel destekleyicilerle, açık ifadeler kullanarak, somut örnekler vererek dersin anlaşılabilirliğini sağlamak ve öğrenilen bilgileri gerçek hayatla bağdaştırarak bilginin kalıcılığını artırmak gibi önemli amaçları yerine getirmeye çalışmaktadırlar. Öğrenciyi merkeze alarak öğretim sürecini düzenlemek, kalıcı izli öğrenmeleri sağlayarak öğrencinin bilgiyi yapılandırabilmesini beraberinde getirecektir. Öğrenciyi merkeze almanın ilk aşaması derslere iyi bir şekilde hazırlanmak ve öğretim süreçlerinde öğrencilerin derse olan ilgilerini artırmak için gerekli etkinlikleri yapmak olarak düşünülebilir.

Öğretim elemanlarına “Öğrencilerin derslere aktif katılmalarını nasıl sağlarsınız?” sorusu sorulmuş ve verilen cevaplar “derse katılmalarını sağlama” teması altında incelenmiştir. Bu tema; dikkatleri toplama, derste soru-cevap, ödev verme, pekiştirme-geribildirim ve hayatlilik ilkesi olarak temalara ayrılmıştır (Şekil 2). Derse katılmalarını sağlamaya yönelik görüşlerde dikkatleri toplama teması öğretim elemanları tarafından en çok görüş bildirilen tema olmuştur. Bu tema ve içeriğindeki ifadeler incelendiğinde; anahtar kelimeler verme, tüm duyulara yönelik içerik sunma, dikkat çekecek giriş yapma vb. görüşlerin olduğu görülmektedir. Bu ifadeler öğretim elemanlarının derse hazırlanmaya yönelik görüşlerinde belirttikleri hazırlık sürecinin ilk aşamasına paralel amaçları taşımaktadır. Bu konuda Zaman (2004), öğretim elemanları bu süreçte öğrencilerin pasif alıcı olmalarını ve bilgiyi keşfederek yapılandırmalarına rehberlik etmelidir ifadelerini kullanmaktadır. Bu anlamda yükseköğretim kurumları öğrencilerinin pasif bir şekilde öğretim elemanlarından bilgi alarak ve bu bilgiyi olduğu gibi öğrenerek geliştirmek yerine, aktif olarak bilginin üretilmesi, yapılandırılması süreçlerine katılarak kendilerini geliştirdikleri kurumlar olmalıdır (Verburch vd., 2007). Derse katılmalarını sağlamaya ve derse hazırlanma yönelik görüşlerde yer alan ders planı yapma temasının içeriklerinde ifade edilen görüşlerle büyük oranda aynı düzleme sahiptir diyebiliriz.

Öğretim elemanlarına “Öğrencilerinizin derslerde nasıl davranmasını beklersiniz?” sorusu sorulmuş ve verilen cevaplar “öğrencilerin derslerdeki davranışlarına yönelik beklentiler” teması altında incelenmiştir. Bu tema; aktif katılım sağlama, sorumluluk sahibi olma, kurallara uyma ve yaratıcı düşünme olarak temalara ayrılmıştır (Şekil 3). Öğrencilerin derslerdeki davranışlarına yönelik beklentilere yönelik görüşlerde aktif katılım teması öğretim elemanları tarafından en çok görüş

bildirilen tema olmuştur. Bu tema ve içeriğindeki ifadeler incelendiğinde öğrencilerden derslerde aktif olmaları ve derse motive olmaları beklenmektedir. Baxter ve Gray (2001), etkili öğrenme için öğrencilerin öğrenme sürecine aktif katıldıkları yaklaşımların benimsenmesi gerektiğini belirtmiştir. Artık öğrencilerin pasif bir bilgi alıcı olmasının yerine aktif olmaları ve öğretmenlerin de belirli konularda uzman olmasa bile destekleyici ve rehberlik eden rollerinde olması yeterli görülmektedir. Çağdaş eğitim anlayışıyla birlikte hem öğretmenlerin hem de öğrencilerin rolleri değişmiştir. Öğretmenin öğrencisinden beklediği en önemli davranış sınıf-ıçi etkinliklerde aktif katılımcı olması, ders dışı unsurlarla ilgilenmeden derse motive olmasıdır. Beden eğitimi ve spor öğretmeni adayı yetiştiren eğitim kurumlarında öğretim elemanlarının öğrencilerden bekledikleri davranışlar da bu yöndedir. Nitekim öğretim elemanlarının görüşleri doğrultusunda hazırlanan tema ve kategoriler incelendiğinde derse katılım gösterme ve derse motive olmalı davranışları en çok beklenen davranışlar olmuştur. Avcı ve Durmuşçelebi (2014), öğretmen görüşlerine göre beklenen öğrenci özellikleri ile ilgili çalışmada öğretmenlerin sınıf içi uygulamalarda veya öğretme süreçlerinde öğrencilerden derste aktif olmaları, ders esnasında hem arkadaşlarına hem de öğretmene saygılı duymaları, sınıf yönetimini bozacak kural dışı davranışlar sergilememeleri ve ödev ve sorumluluklarını yerine getirmelerini beklemektedirler. Bu bakımdan öğretim elemanlarının görüşleriyle karşılaştırıldığında benzer tutumları görebilmekteyiz. Öğrencilerin derslere öğretim elemanlarının görüşlerinde ifade ettiği gibi aktif katılımcı olması onların yaparak-yaşayarak öğrenmelerini imkân verecek ve kendilerini ifade edebilmelerine yardım edecektir.

Dördüncü olarak öğretim elemanlarına “Derslerinizi işlerken ne tür yöntem ve teknikleri kullanırsınız?” sorusu sorulmuş ve verilen cevaplar “kullanılan yöntem ve teknikler” teması altında incelenmiştir. Bu tema; geleneksel anlayış ve çağdaş anlayış olarak iki temaya ayrılmıştır (Şekil 4). Öğretim elemanlarının kullanılan yöntem ve tekniklere yönelik görüşleri incelendiğinde en çok kullanılan yöntem ve teknikler geleneksel anlayışa ait öğretmen merkezli yaklaşımların olduğu görülmektedir. Burada yer alan geleneksel anlayış temasının içeriğindeki ifadeler incelendiğinde; anlatım yöntemi, gösterip yaptırma, alıştırma, komut ve eşli çalışma yöntemlerine ait görüşlerin olduğu tespit edilmiştir. Araştırmamızın kullanılan yöntem ve tekniklerine yönelik görüşlerde geleneksel anlayış temasında sınıf ortamında gerçekleştirilen öğretim süreçlerinde daha çok anlatım yöntemi tercih edilirken, spor salonlarında gerçekleştirilen öğretim süreçlerinde ise komut, gösterip yaptırma, alıştırma ve eşli çalışma yöntemleri kullanılmaktadır. Kullanılan yöntem ve tekniklere yönelik görüşlerde geleneksel anlayış temasında anlatım yöntemi ile ilgili görüşler incelendiğinde öğretim elemanlarının konuyu ilk etapta bu şekilde düz anlatım yöntemini tercih ederek aktardıkları görülmektedir. Anlatım yöntemi içeriğin olduğu gibi öğretmen tarafından pasif alıcı durumundaki öğrencilere aktarıldığı bilinen en eski ve en çok kullanılan öğretmen merkezli yaklaşıma ait öğretim tekniğidir (Çelenk, 2016). Bu yöntemle ders işlerken bilişsel alanın bilgi boyutu, duyuşsal alanın alma ve tepki boyutu, psikomotor alanın uyarılma basamağındaki davranışlar kazandırılır (Sönmez, 2007). Özellikle dersin başında bilgiyi aktarırken ve dersin sonunda kısa bir özet yaparken kullanılan bu yöntem, zamanın kısıtlı olduğu ve kalabalık sınıfların varlığında tercih edilmektedir (Çelenk, 2016). Araştırmamızda öğretim elemanlarının bu temadaki ifadelerinde bu bulguyu destekler sonuçlara ulaşılmıştır. Özellikle zamanın kısıtlı olması ve sınıfların kalabalık olmasından dolayı öğretim elemanları derslerinde anlatım yöntemini tercih ettiklerini belirtmişlerdir.

Beşinci olarak öğretim elemanlarına “Öğrencilerin istenilen kazanımları elde ettiklerini ne tür ölçme ve değerlendirme yapılarıyla elde edersiniz?” sorusu sorulmuş ve verilen cevaplar “ölçme ve

değerlendirme” teması altında incelenmiştir. Bu tema ve içeriğinde ifadeler incelendiğinde; kompozisyon hazırlama, portfolyo oluşturma, açık uçlu sorular, sözlü sınav, çoktan seçmeli testler, performans veya uygulama ve proje veya ödev olarak yedi temaya ayrılmıştır (Şekil 5). Ölçme ve değerlendirmeye ilişkin görüşlerdeki temalar incelendiğinde iki grup belirgin bir şekilde ortaya çıkmaktadır. Bunlardan birincisi geleneksel yaklaşım değerlendirmesi olan sonuç odaklı değerlendirmeler, ikincisi ise çağdaş yaklaşım değerlendirmesi olan süreç odaklı değerlendirmelerdir. Bu ayrım araştırmamızın temel amaçlarından biri olan öğretim elemanlarının görüşleri doğrultusunda hangi öğretim yaklaşımını kullandıklarını tespit edebilmek olduğundan, ölçme ve değerlendirme süreci de bu amaca hizmet edecek görüşleri barındırmaktadır. Geleneksel ölçme ve değerlendirme tasarımıyla çağdaş ölçme ve değerlendirme tasarımlarındaki farklılıklar şu şekilde ifade edilmiştir (McMillan, 2004): Geleneksel anlayışta ölçme ve değerlendirme; sonuç odaklı, birbirinden bağımsız becerilerin ölçümü, ezberlenmiş bilginin hatırlanması, bilginin mutlak ve tek olması sebebiyle tek bir doğru cevabın ölçülmesi, öğretimden sonra uygulanması, geri bildirim az verilmesi, klasik sınavlar (Açık uçlu, çoktan seçmeli, boşluk doldurma, sözlü vb.), ölçüm için sadece tek bir yöntemin uygulanması. Çağdaş anlayışta ölçme ve değerlendirme; süreç odaklı, birbiriyle ilişkili becerilerin ölçülmesi, bilginin yapılandırılması ve uygulanması, bilginin yapılandırılmasından dolayı kişiden kişiye farklılaşan cevaplar, öğretim esnasında uygulanması, anında geri bildirim, performans dayalı yöntemlerle ölçümler, birden fazla ölçüm aracının kullanılması. Ölçme ve değerlendirmeye ilişkin görüşlerde en çok görüş bildirilen ölçme ve değerlendirme yöntemleri sırasıyla; sözlü sınav, açık uçlu sorular ve çoktan seçmeli testlerdir. Ölçme ve değerlendirmeye yönelik görüşlerde yer alan öğrenci merkezli bu temalar genel temalar içerisinde yaklaşık % 67’lik bir ağırlığa sahiptir. Bu yöntemlerin sonuç odaklı ölçümler yaptığı göz önünde bulundurulursa geleneksel ölçme ve değerlendirme yöntemlerinin tercih edildiği ortaya çıkacaktır. Birgin ve Gürbüz (2008) sınıf öğretmeni adayları üzerine yaptığı çalışmada öğretmen adaylarının çoğunlukla yazılı sınav, çoktan seçmeli testler, doğru yanlış, eşleştirmeli testler gibi geleneksel öğretim yaklaşımına ait ölçme ve değerlendirme yöntemlerini kullandıklarını tespit etmiştir. Yapılan araştırmada elde edilen bu bulgular araştırmamızın bulgularıyla benzer sonuçları ortaya çıkarmıştır. Ayrıca benzer sonuçları elde etmiş başka çalışmalarda mevcuttur (Çakan, 2004; Güven & Eskinürk, 2007; Özsevgeç vd., 2004).

Beden eğitimi ve spor derslerinin çok boyutlu yapısı dolayısıyla çeşitli faktörlerin öğretim elemanlarının öğretim tercihlerini etkileyebileceği ifade edilmiştir (Cothran & Kulinna, 2008). Nitekim araştırmamızda öğretim elemanlarının bir ders süreci boyunca sadece bir anlayışa bağlı kalmadıkları dersin, öğrencinin, sınıfın ve zamanın durumuna göre öğretme yaklaşımları tercihlerinin değiştiği saptanmıştır. Jenkins ve Byra (1996) yaptığı çalışmada katılım yönteminin kendi kendini kontrol etme ve alıştırmaya yöntemlerine göre becerilerin kalıcı öğrenmeleri noktasında daha etkili olduğunu vurgulamıştır. Bir başka çalışmada ise tenis becerilerinin kendi kendini kontrol etme yöntemiyle öğretilmesinin komutla öğretme tekniğinden daha etkili olduğu ortaya konulmuştur (Patmanoglou vd., 2008). Alhayek (2004) ise yaptığı çalışmada basketbol becerilerinin öğretilmesinde alıştırmaya yönteminin işbirlikli öğrenme stiline kıyasla daha etkili olduğunu ifade etmiştir. Bir diğer çalışmada ise dans eğitimi sırasında öğrenci sayısının fazla olması dolayısıyla komutla öğretiminin tercih edildiği ancak problem çözme yönteminin ise öğrencilerin eleştirel düşünme becerilerini geliştirdiği ifade edilmiştir (Chen & Cone, 2003). Öğretim elemanlarının derslerinde tercih ettikleri öğretme yaklaşımları ve stillerinin birçok değişkene göre farklılaştığını söylemek mümkündür. Nitekim Dyson (2002) işbirlik öğrenme stiline uygulanmasının öğretmen açısından basit ve sorunsuz bir süreç

olmadığı belirtilmiştir. Öğretim elemanları tarafından kullanılan öğretme yaklaşımlarındaki değişikliklerin sınıf kontrolünde ve ders organizasyonunda zorluklara yol açacağı vurgulanmıştır (Dyson, 2002). Elde edilen bulgulardan öğretim yöntemlerinin uygulanmasında birbirinden bağımsız olmadıkları birbiriyle bütünleşik bir yapıda oldukları şartlara göre öğretim elemanlarının yaklaşımlar arasında geçiş yaptıkları yorumunu yapabiliriz. Ayrıca derslerin teorik ve uygulamalı hedeflere sahip olmasının da bu süreci etkilediğini ifade edebiliriz. Nitekim Garn ve Byra (2002) beden eğitimi ve spor ders müfredatındaki bilişsel, duyuşsal, sosyal ve ahlaki öğrenmelerin öğrenci merkezli yaklaşımlarla etkili öğrenmeler sağlayacağı belirtilmiştir. Ancak motor beceriler ve fiziksel gelişim hedeflerine sahip ders tasarımlarında ise öğretmen merkezli yaklaşımların daha iyi öğrenmeler sağlayacağı ifade edilmiştir (Garn & Byra, 2002; Goldberger, 1995; Mosston & Ashworth, 2002). Buradan hareketle öğretim yaklaşımlarının bütünüyle bir dersin tüm hedeflerini etkili bir şekilde gerçekleştirebileceği sonucuna varmak mümkün değildir (Syrmpas vd., 2017). Öğretme yaklaşımlarının farklılaşmasında öğretim elemanlarının dersin hedeflerine bağlı kalarak en uygun stili seçtikleri ifade edilebilir. Dersin hedef ve kazanımları doğrultusunda seçilen yaklaşımın ve bu yaklaşıma uygun yöntemin anlık durumlarda bile değişebildiğini söylemek mümkündür. Sonuç olarak özellikle sınıf kontrolünün sağlanması zamanın kısıtlı olması ve değerlendirmenin objektif ve kolay ölçülebilir olması faktörlerinden dolayı öğretmen merkezli yaklaşıma uygun yöntemlerin tercih edildiğini belirtmek gerekmektedir. Elde edilen sonuçlar neticesinde öğretim elemanlarının beden eğitimi ve spor derslerinin çok boyutlu bir yapıda olması dolayısıyla öğretme yaklaşımlarına çok yönlü yaklaşımları olağan bir durum olarak ortaya çıkmaktadır.

Öneriler


Araştırmadan elde edilen sonuçlar neticesinde, Beden eğitimi ve spor öğretmeni yetiştiren eğitim kurumlarında öğretim elemanları ağırlıklı olarak öğretmen merkezli geleneksel yaklaşımları benimsemişlerdir. Beden eğitimi ve spor derslerinin hedef kazanımları dikkate alındığında farklı alanlara (bilişsel, duyuşsal ve psikomotor) hitap ettiği bilinmektedir. Tüm bu alanlardaki hedeflere ulaşabilmek için ders süresince sabit bir öğretim yaklaşımı belirlemek mümkün değildir. Bu nedenle beden eğitimi ve spor öğretmeni yetiştiren kurumlarda bu esnekliğin ön plana çıktığı ders uygulamalarına ağırlık verilmelidir. Müfredat içerisindeki derslerin yalnızca uygulama ve teorik olarak sınıflandırılmasının yanı sıra bilişsel, duyuşsal ve psikomotor alan hedeflerine göre de kategorize edilmesi sağlanmalıdır. Bu sınıflandırma sayesinde derslerde benimsenen öğretme yaklaşımlarının birbirinden üstünlükleri yerine hangi ders için hangi alanda hangi yaklaşımın avantaj-dezavantajları bilinmesi sağlanabilir. Tüm bu süreçlerde merkezci hedefin öğrencinin aktif öğrenmesi olmalıdır.





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Examining the Leadership Behaviors of Primary School Principals: A Phenomenological Study

 Emre Sönmez, Assoc. Prof. Dr., Corresponding Author
Gazi University, Türkiye
emresonmez@gazi.edu.tr
Orcid ID: 0000-0002-2853-7956

 Zeki Öğdem, Assoc. Prof. Dr.
Ankara University of Music and Fine Arts, Türkiye
zekiogdem15@hotmail.com
Orcid ID: 0000-0002-2051-3976

 Emre Er, Assoc. Prof. Dr.
Yıldız Technical University, Türkiye
emreerytu@gmail.com
Orcid ID: 0000-0002-9084-6768

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Abstract

This study aims to examine the beliefs and experiences of primary school principals regarding leadership behaviors. In this context, the research was structured in a phenomenological design by employing a qualitative approach. Seven primary school principals were the study's participants, chosen using the criterion sampling method. A semi-structured interview form developed by the researchers were used as data collection tools. The research data were collected through face-to-face interviews with the participants and also recorded. The research data were analyzed with both content analysis and descriptive analysis techniques. In the study, it was found that school principals demonstrated a range of leadership behaviors within the meaning of the concept of those behaviors, the process of developing a strategic plan and vision, the process of making decisions at the school, the school environment, the impact on teachers' professional development studies, parent and relations with the external environment, and the efforts to improve student success. The findings of the research are broken down and analyzed with reference to the corresponding literature. Various recommendations were presented in accordance with the research findings.

Keywords: Primary school, school principal, leadership behavior, phenomenology.

Introduction

The role of the school principal is one of leadership in educational institutions, and as such, the school principal is tasked with a variety of responsibilities, including working effectively with individuals, providing professional assistance to the school, preparing the school and its environment for instructional activities, and establishing educational programs (Aydın, 2000). One of the fields of study that places a significant emphasis on educational administration is leadership (Şişman, 2014). Since leadership first made its way into the realm of educational administration, it has been the subject of research into many different aspects. For example, in several studies, its relationship with organizational factors such as job performance (Kuoppala, Lamminpaa, Liira, and Vainio, 2008), job satisfaction (Stander and Rothmann, 2008; Taş and Önder 2010; Yılmaz and Boğa Ceylan, 2011), commitment (Ding, Lu, Song, and Lu, 2012; Soba, Akman, and Eroğlu, 2018), culture (Arif, Zainudin, and Hamid, 2019; Çelikten, 2006), climate (Allen, Grigsby, and Peters, 2015; Erdoğan and Umurkan, 2014; Griffith, 1999), and trust (Ertürk, 2019; Joseph and Winston, 2004; Terzi, Gocen and Kaya, 2020) was investigated.

In addition to these research domains, studies on the relationship between school leadership and student success occupy a significant position in the relevant literature. The duties and responsibilities of the school principal are stated as setting goals, raising skill expectations, establishing strategies, offering a positive and supportive climate, offering resources, creating a safe and organized environment, ensuring the professional development of teachers, overseeing teaching, and monitoring student progress in the studies looking for answers to the inquiry of the roles and responsibilities of the school principal in increasing student success (Heck, Larsen, & Marcoulides, 1990; Leithwood & Mascal, 2008; Özdemir & Kavak, 2020). Additionally, it is stressed that the principal of the school should prioritize equality, forge positive relationships with his or her coworkers, be steady and consistent, understanding and empathic, act as a mentor, be open to changes, generate suggestions and solutions, be sensitive to issues, and know how to act toward the student and the teacher (Babaoğlu, Nalbant, & Çelik, 2017). These expectations demonstrate the need for the school principal to possess both strong interpersonal and technical skills. Examining the literature, it is emphasized that school principals should possess the necessary technical, conceptual, and humanistic competencies. Even though the

literature agrees on these three dimensions, some studies suggest that school principals should have new competence areas that are adaptable to changing circumstances (eg. Şahin, 2000). Uslu (2013) came to the conclusion that school principals should enhance their management philosophy, communication, and management processes.

Examining the research on school administration reveals that school principals are expected to do more than perform routine and bureaucratic tasks. In the literature, the primary leadership behaviors of school principals have been identified as achieving the predetermined school objectives, improving teachers and families for student success, and enhancing the school's effectiveness (Bursalıoğlu, 2000; Hallinger & Murphy, 1986; Şişman, 2014). Similar to this, leading students and teachers, developing the school's mission and vision, establishing the school's culture and setting, and maintaining school-parent collaboration are all anticipated leadership behaviors of the school principal (Bilge, 2013). According to Akbaba Altun and Çakan (2008), successful schools should have characteristics such as cooperation, support for education in the school, the quality of teachers, improving the physical infrastructure of the school, and the utilization of technology in the school; and it is the responsibility of the school principal to turn these characteristics a reality in the school. In summary, there is an emphasis placed on a variety of leadership behaviors of school principals, including concentrating on the success of students, developing a school culture that is success-oriented, guiding teachers, and providing effective communication with the school environment. In order to exhibit these leadership behaviors, it is important that they have 21st-century skills. In this respect, 21st-century skills are grouped under three main themes: (i) learning and innovation skills, (ii) information, media, and technology literacy skills, and (iii) life and career skills (Partnership for 21st Century Skills, 2008). Today's school principals need to have a variety of skills in order to effectively regulate the learning processes that take place in schools and to lead the education of their students. These skills include being open to learning, creating effective communication and cooperation, being entrepreneurial, taking responsibility, having access to information as well as the ability to effectively use information technology.

Numerous studies have been conducted to investigate the extent to which the leadership behaviors of school principals are related to the level of academic success achieved by students. These studies suggest that there are direct or indirect effects between the school principal's leadership behaviors and student success. According to Ozdemir and Kavak (2020), there is a complex relationship between the leadership of the school principal and the success of the students, and the effect that the leadership has on the student's success is small yet significant. In spite of the fact that it has been underlined that the difference is small but significant, it is apparent that school administrators have a vital role in minimizing the disparities in academic achievement that exist across schools (Babaoğlu et al., 2017). Research looking into student academic failures found issues with the family's lack of interest in education, the child's lack of motivation, the quality of the teacher, and the school surroundings (Akbaba Altun, 2009). In a related study, Özata Yücel and Özkan (2011) found that the problems caused by the teacher, the student, and the family were what ultimately led to the lack of student success, and these problems included the school's lack of infrastructure, the teacher's and the student's lack of motivation, and the family's lack of interest at the foundation. The effect of the school principal on student achievement is inescapable in terms of how they influence the factors that show up in the studies. Although it appears that the effect of the school principal on such variables will be indirect, it is believed that the effect will be greater when other factors are considered. Leithwood and Mascall (2008)

emphasized that the principal's involvement with all school stakeholders in education through cooperation and teamwork has a significant effect on student success.

The quality of the teacher is another factor influencing student success and is among the responsibilities of the school principal (Babaoğlan et al., 2017). A Principal's level of effectiveness affects teacher performance and, consequently, the success of students (Darling Hammond, 2000; Joyce & Showers, 2002). Success is enhanced by teachers who are communicating with their students, consistently motivate students, and guide students (Akkurt & Karabağ Köse, 2019). In addition, teacher education should be prioritized in order to narrow the success gaps between schools (Önder & Güçlü, 2014). In both national and international reports, teacher education is identified as an aspect of policies executed to increase student success and reduce success gaps between institutions due to the quality of teachers (European Trade Union Committee for Education [ETUCE], 2008; TEDMEM, 2019). Evidently, the importance of teacher quality has been emphasized in numerous sources and reports, and this responsibility is enumerated among those of the school principal (Karip, 2018). Balyer (2013) found that school principals' conversations with teachers regarding educational issues, their feedback and appreciation, their function as role models for teachers, their encouragement of teachers' professional development, their emphasis on teaching and learning, and their support of relationships and collaboration among teachers had a positive impact on student success.

Another crucial leadership behavior of school principals is that they foster a cooperative school culture. Therefore, building school culture is one of the primary responsibilities of school principals (Babaoğlan et al., 2017; Özdemir, 2006). Şahin Frat (2010) emphasizes the importance of developing a robust organizational culture to clarify what is right and wrong in situations where formal regulations are inadequate. After meticulously organizing present traditions, objectives, and ceremonies, school principals work alongside teachers to develop a shared and collaborative vision that ensures the school's success (Çelikten, 2006). The cultures of schools ought to be situated within the framework of trust, respect, cooperation, and the sharing of similar aims and values; and they can be made possible via the communication of the school principal and the cooperation of teachers (Aslan, Özer, & Ağıroğlu Bakır, 2009). Numerous research has been done looking at the relationship between student success and school culture, and significant correlations between school culture and student success have been proven. (Ayık & Ada, 2009; Çimen & Karadağ, 2019; Karadağ, Kılıçoğlu, & Yılmaz, 2014).

Among the duties and responsibilities of the school principal is the creation of a learning environment that is open to communication and collaboration. Openness to communication, teamwork, and the creation of educational applications are signs that a school is a professional learning community, and student success is the primary objective in these institutions (DuFour, 2003; Talbert, 2010). According to Hord and Sommers (2008), the principal of the school should prioritize teacher and student development and foster a collaborative environment. Student success in school increases and a development-based education process develops when the school principal successfully performs these responsibilities (Lynch, Smith, Provost, & Madden, 2016; Vescio, Ross, & Adams, 2008). Student success will increase when shared leadership, collective and collaborative learning, and shared value and vision, which are the dimensions of being a professional learning community are created by the school principal (Dufour & Eaker, 1998; Hughes & Kritsonis, 2007). As a result, the fact that the school is a professional learning community increases the quality of teachers and student success (Ratts et al., 2015). This context suggests that the school principal's direct impact on teacher quality by encouraging

collaboration and communication also indirectly contributes to increased student success. Likewise, Özdemir, Gün, and Yirmibeş (2021), it was determined that school principals play a significant part in boosting student success by enhancing the organizational and family-related paths that teachers work within. In the end, the key concepts for developing an efficient school and enhancing student success are the leadership characteristics and behaviors of the school principal (Gümüş, Bellibaş, Şen, & Hallinger, 2021; Hallinger, Bickman, & Davis, 1996; Hou, Cui, & Zhang, 2019; Shatzer, Caldarella, Hallam, & Brown, 2014). This study's main objective is to look at the leadership behaviors of school principals who work in primary schools since they have a direct and indirect impact on student success. The purpose of this study is to investigate the leadership behaviors of school principals (Kars and İnandı, 2018; Lindahl, 2010; Tahaoğlu and Gedikoğlu, 2009), which are predominantly examined based on teacher opinions, according to the school principals' opinions and views. According to school principals, understanding the nature and extent of leadership behaviors can help them understand how each principal personally perceives their roles, responsibilities, and duties inside the school. Through this study, it will also be possible to learn more about the leadership behaviors that primary school principals emphasize and the areas in which they define such qualities. In light of this information, the major objective of the study is to elicit the perspectives and first-hand accounts of principals who currently work in primary schools on leadership behaviors.

Method

Research Model

The main purpose of this study is to shed light on the beliefs and experiences of primary school principals regarding leadership behaviors. This study is qualitative research based on the phenomenological research design. According to Johnson and Christensen (2012), phenomenological studies allow for the understanding and disclosure of a person's or people's feelings, thoughts, and experiences toward phenomena. The phenomenological method was used in this situation to bring out the opinions, perceptions, and experiences of school principals on the leadership behaviors they employ.

Participants

In this study, the participants were determined according to the purposeful sampling method. Purposeful sampling provides access to abundant information sources pertinent to the research's objectives. When it is intended to work with individuals or situations that meet specific criteria or traits, this method of sampling is chosen (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz, & Demirel, 2020). The criterion sampling method, one of the purposive sampling methods, was used. Being a school principal for at least 5 years in primary schools was determined as a criterion. The primary objective of determining this criterion is to identify participants who exhibit managerial qualities and who are able to gain managerial experience in primary schools. The participants of the study consisted of seven school principals working in primary schools in Ankara (Table 1). Each participant was assigned a name code to facilitate the presentation of the findings and protect their confidentiality. According to the announcement made by the General Directorate of Population and Citizenship Affairs in Turkey as of the year 2020, these name codes were chosen as one of the most common names used in the country. Information about the participants can be seen in Table 1.

Table 1. Information about the participants

| Participant Name Code | Education Level | Gender | Seniority in School Administration (years) | Educational Status |
|-----------------------|-----------------|--------|--|---------------------|
| Mehmet | Primary School | Male | 37 | Bachelor's degree |
| Mustafa | Primary School | Male | 27 | Bachelor's degree |
| Ahmet | Primary School | Male | 20 | Bachelor's degree |
| Ali | Primary School | Male | 15 | Postgraduate degree |
| Hüseyin | Primary School | Male | 8 | Bachelor's degree |
| Hasan | Primary School | Male | 7 | Bachelor's degree |
| İbrahim | Primary School | Male | 6 | Bachelor's degree |

All of the participants in the study work as school principals in primary schools. In addition, all participants were male ($n = 7$). The seniority of the school principals ranged from 6 to 37 years. Finally, all of the participants have undergraduate degrees except for a school principal who has a postgraduate education.

Data Collection

For the purpose of data collection, a semi-structured interview form was utilized. This form was devised by the researchers, and it consisted of open-ended questions that were enriched by probes. The interview form was developed after going through various stages. First, a list of 10 questions based on the literature and the research problems was developed. Then, a field expert and a Turkish language expert assisted in examining these questions. Initially, the expert in the field suggested adding an interview question about relationships with the external environment and undertaking deeper literature reviews. The literature study was enlarged by the researchers in the subject matter, and researchers looked at several publications from domestic as well as international sources. As a direct consequence of these readings, an additional interview question on relations with the external environment was included, some interview questions were eliminated, and some interview questions were modified. The Turkish language specialist then looked over the interview questions for grammar, expression, and spelling. The specialist in the Turkish language indicated that the interview questions were understandable in general and recommended some minor spelling fixes. On the basis of the specialists' opinions and suggestions, necessary revisions were made to the interview form. Accordingly, the interview form consisted of seven open-ended questions. Some sample interview questions are presented below:

- Can you explain how the decision-making processes in your school work?
- What kinds of practices do you put into place at your school to boost the student's academic success?
- Are there any practices that are unique to your school? Can you give an example?

The research data were collected in the form of face-to-face interviews with the participants. In this direction, firstly, a phone interview was held with the determined school principals. In these interviews, information was provided about the purpose, scope, and content of the research and an appointment was also requested. By expressing their support for the research, school principals scheduled an interview. The interviews were held at the relevant school on the specified date and time. The first researcher conducted interviews with the school principals. With the permission of the participants, a voice recorder was used in all interviews. The interviews with the school principals lasted around 50 minutes, and they were all conducted over a week.

Data Analysis

The voice-recorded interviews were transcribed verbatim before the research data were analyzed. These transcripts have been added to a folder in the computer environment. The reading and analysis of the data began after that. The research data were read in detail by the researchers. The research data were analyzed with both content analysis and descriptive analysis techniques. In the research, the data were initially analyzed inductively with the content analysis method. According to Patton (2014), with the inductive approach, the researcher's interaction with the data generates the findings. In this manner, the researchers read the interview transcripts of each participant to generate numerous codes from the data. At the end of this coding process, the first code list was created. Secondly, a deductive approach has been adopted in data analysis. In this regard, the compatibility of the codes with the literature was investigated. After this procedure, the codes' compliance with the literature was confirmed, and they were integrated into several themes in line with the literature.

Validity and Reliability

To guarantee the validity and trustworthiness of the research process, a variety of methodologies have been employed. First, the research process is thoroughly planned. Within this plan, a systematic approach was taken to prepare the interview form, arrange the form according to the opinions of experts, and collect and analyze the data. Secondly, a detailed description strategy was applied. In this situation, every attempt was made to accurately portray the participant's opinions in the findings. In addition, the expert examination was utilized as a strategy. Expert review is the study of research in its numerous facets by individuals with broad research knowledge and expertise in qualitative research methods (Yıldırım & Şimşek, 2011). An expert in Education Management and qualitative research methods was requested to review the article as part of the research. The expert in the field stated that the article generally adheres to academic writing standards and provided many suggestions for the methods section. The researchers made the necessary adjustments in accordance with the expert opinion. In order to uncover the participants' genuine opinions on the research topic, probing questions were utilized. In this regard, different types of probe questions were employed in the research in an effort to elicit the participants' genuine opinions on the topic.

Ethical Permits of Research

Throughout this analysis, all guidelines specified to be applied within the scope of the "Scientific Research and Publication Ethics Directive for Higher Education Institutions" were implemented. None of the actions that were stated under the title "Actions Against Scientific Research and Publication Ethics", which is the second part of the directive, were performed during the study.

Ethics Committee Permission Information:

Name of the committee that made the ethical evaluation = Gazi University Ethics Commission

Date of ethical review decision=20.04.2021

Ethics assessment document issue number=2021-487

Findings

Opinions on the Meaning of Leadership Behaviors

"What comes to mind when we say Leadership behaviors in school and How would you define this concept?" was the first question asked to the participants. The interviews provided several codes that were used to answer this question, which looks at what the concept of "leadership behaviors" entails (Table 2).

Table 2. Primary school principals' opinions on the meaning of the concept of "leadership behaviors"

| Theme | Code | f |
|--|---|---|
| Meaning of the concept of leadership behaviors | Focusing on teaching | 4 |
| | Communicating effectively-developing relationships | 3 |
| | Securing justice | 2 |
| | Providing a visionary perspective | 2 |
| | Taking on responsibility and taking action | 2 |
| | Being well-equipped and having an accumulation of knowledge | 1 |
| | Sparking enthusiasm and excitement | 1 |
| | Facilitating Coordination | 1 |
| | Behaving in a consistent and determinant way | 1 |
| | Problem Solving | 1 |
| | Interview system | 1 |

In the research, the concept of "leadership behaviors" has numerous connotations in the minds of primary school principals. Focusing on teaching and effective communication have been at the vanguard of these associations. Principal Mehmet stated that he puts teaching at the center of leadership behavior and emphasized that "*they strive to make a difference between the day a student first shows up and the point reached at the end through offering behavioral change for improvement in students according to requirements by the primary school education level*". Additionally, school principals have addressed issues of effectively employing communication tactics, cooperating, fostering great employee relations, and fostering a positive educational atmosphere. In addition, school principals have defined leadership behaviors in terms of securing justice, providing a visionary perspective, taking on responsibility, and taking action. The views of a school principal on securing justice and taking responsibility are as follows (Hasan):

Leadership in school for me is the ability to briefly undertake responsibility and to secure justice. The foundation of leadership behavior is the capacity to accept responsibility for all actions and to uphold justice in order to create a peaceful working atmosphere for all school employees. The individual becomes a natural leader when they take every step to maintain an equal distance from all school employees and to facilitate justice. The two main pillars of leadership behavior will be established on a firm foundation if every responsibility can be acknowledged in the duties and operations, in addition to being a trustworthy principal who ensures justice.

Besides these opinions, some school principals stated that school leaders should be well-equipped and possess an accumulation of knowledge regarding leadership behaviors, spark employees' enthusiasm and excitement, ensure coordination in work and operations, and display consistent and determined behaviors. A school principal (Ahmet) stated that problem-solving by proposing rational and conciliatory solutions is an essential leadership behavior. Ali concluded by saying that, in contrast to these opinions, it makes not much sense to discuss leadership behaviors in a setting where school

administrators are chosen through an interview system. Moreover, he highlighted that the education system has a command structure. It is extremely difficult for a leader to emerge from an education system where this culture predominates due to the fact they must follow orders from the top down and do what is required.

Opinions on the Strategic Plan and Vision Determination Process

The second question posed to the participants was "What is your approach when determining the strategic plan and school vision in the school? How do you approach when making associations for practices in school?". As a consequence of the interviews, a variety of codes were developed for the scope of this question (Table 3).

Table 3. Opinions of primary school principals on the strategic plan and vision determination process

| Theme | Code | f |
|---|--|---|
| Strategic plan and vision determination process | Fostering a participatory and democratic environment | 6 |
| | Sharing the vision | 5 |
| | Analyzing the needs and current situation | 3 |
| | Putting the student at the forefront | 2 |
| | Setting achievable goals | 2 |
| | Conducting preliminary work with the core staff | 2 |

In the study, primary school principals' viewpoints on the strategic plan and vision determination process were sought. As the focal point of these processes, school principals agreed to provide a participatory and democratic environment. In this perspective, almost all of the school principals reported that in addition to the process of determining the strategic plan and vision for the school, participation in the school's decision-making procedures on many problems was encouraged for teachers and all other stakeholders. *It is our major objective to make our school a democratic practice area by taking the opinions of every one of our stakeholders in every application we do based on collaboration*, Hasan said, underscoring the fact that they have embraced a democratic understanding. In addition to this finding, the majority of school principals stressed that the vision-sharing process is a crucial step. In this context, Mehmet stressed the value of working together before noting that several meetings and events are organized throughout the year to communicate the school's vision and mission to its stakeholders. Nevertheless, a number of school principals emphasized the significance of analyzing the needs and current situation when developing strategic plans and visions. Ali gave the following example regarding this matter:

For instance, after switching to the "4+4+4 Education System," we exchanged students with secondary schools after evaluating the school's current situation. We exchanged students, but the students who came to us were far below expectations. We tried to analyze why this happened. As a consequence of our analyses, we determined that approximately 70 private schools in the area had a substantial impact on the parents. With the assistance of the government, families began to favor private schools. This was both an advantage and a disadvantage for us. We began to comprehend the situation and determine the required strategies accordingly.

Under this theme, school principals also advocate putting the student at the forefront, establishing achievable goals, working with the core staff, and determining the most effective strategies. Therefore, certain school principals stated that they centered their strategic planning efforts on the student and sought to set achievable goals. Additionally, a school administrator (Ali) claimed that he

often conducted preliminary discussions on developing the mission and vision with his core team and then interviewed the teachers.

Opinions on Decision-Making Processes at School

The third question posed to participants was “How do you make decisions in your school? What kind of path do you follow when making decisions? How do your employees affect the decision-making processes? Can you give examples of the practices?”. As a consequence of the interviews, a variety of codes were developed for the scope of this question (Table 4).

Table 4. *Opinions of primary school principals on the decision-making processes at school*

| Theme | Code | f |
|---------------------------------------|---|---|
| The decision-making process at school | Participatory decision making | 5 |
| | Expressing ideas freely - exchanging opinions | 3 |
| | Consulting with relevant individuals | 1 |
| | Purposeful decision making | 1 |
| | Taking regulations into consideration | 1 |
| | Conducting preliminary work with the core staff | 1 |

In the research, questions on the decision-making procedures at the school were posed to primary school principals. Principals of schools reported that they implement participatory decision-making processes in a pluralistic, democratic environment. School administrators said that they reached a conclusion with the input of the teachers (Mehmet), that the teachers participated in the decision-making process by voting when the process is mature enough (Mustafa), and they guaranteed the applicability of the decision by involving teachers in the process (Brahim). Hasan explained his views on this matter as follows:

Our decisions are made in a pluralistic way. To illustrate, there are four entrances to our two school buildings in the school garden. We initially talked with the deputy principals about the best times to enter and leave the school and how to do it in accordance with the social distancing rules during the pandemic. We asked that the group presidents meet with our teachers to discuss their ideas with us. We also spoke about the circumstance with the other staff members and security personnel at our school. In order to divide students into two separate groups before beginning education, the majority of respondents suggested beginning the day by having students in the first and second grades enter the building through the front entrance at 9:00 and those in the third and fourth grades enter through the back entrance at 9:20. At the point of leaving, we came to the conclusion that we could fix the issue if we steered each of the four groups toward one of the building's four different departure doors. During the course of our discussion on these issues, we also consulted with the ideas and opinions of our parents via the parent-teacher association. We have incorporated all of our stakeholders that are interested in the issue in this way. Overall, everyone was pleased with the decision.

The issues of freedom of speech and the exchange of ideas are also highlighted in relation to this theme. Some school principals said that they make an effort to foster an atmosphere that encourages teachers to voice their opinions without restraint. In this context, they stressed that employees have the chance to express their thoughts and ideas in a comfortable environment. In addition to these outcomes, Hasan said that he only shared information with those who would be interested in the situation if a choice was to be made for specific situations. Huseyin, on the other hand, emphasized that decisions are

based on the school's goals for education. Last but not least, Ali used the following phrases to describe his decision-making and preliminary work with the core staff:

We first go over the choices to be made and the objectives to be established in a core staff made up of "Me, School Counselor, and Deputy School Principal." After deciding as a team, we share our decisions with the teachers. We ask for their opinions and suggestions. We will now begin implementing our activities in their finalized state.

Opinions on the School Environment

The fourth query posed to the participants was, "How would you describe the school's overall working environment?" What steps are you taking to foster a positive atmosphere for learning for your employees and students?". As a consequence of the interviews, a variety of codes were developed for the scope of this question (Table 5).

Table 5. *Opinions of primary school principals about the school environment*

| Theme | Code | f |
|--------------------|---|---|
| School environment | Creating and maintaining a strong culture of collaboration | 4 |
| | Developing values and rituals that are unique to the school | 2 |
| | Creating a positive and supportive school environment | 2 |
| | Organizing projects and events | 1 |

In the course of the study, primary school principals' opinions on the school environment were solicited. Accordingly, the majority of school principals stated that they strive to create and maintain a strong cooperation culture. Ali put forward the following in this regard:

Our school is a "Boutique School". We have a positive working climate. Communication and cooperation between teachers is quite good. As the school administration, we strive to maintain and develop this atmosphere. A positive school environment also reflects professional cooperation.

Mustafa made a similar observation and stressed the significance of cultivating and maintaining cooperation among teachers. Additionally, he added that this cooperative setting promotes teachers' professional development. On the other hand, a number of school principals have addressed the matter of establishing rituals and values that are unique to their own schools. Mustafa said, "*There are traditional ceremonies and rituals specific to our school. The observance of the rules is regarded as a significant value at our school.*" İbrahim stressed that every school has a distinct identity and noted that all of the practices carried out in the school are impacted by the elements On the other side, a number of school principals underlined that they work hard to cultivate a positive and supportive atmosphere within their schools. According to Hüseyin, who views the school as a living space, the presence of teachers who are well-equipped, possess a high level of intellectual profundity, have grown in their capacity to take on responsibility, are productive in their social lives, and are open to change and development is crucial for improving the quality of education and teaching. In this respect, he emphasized that teachers have a supportive approach. Last but not least, Hasan said that through Ministry programs, European Union projects, and other school-specific activities and projects, they are attempting to establish a positive educational environment that emphasizes learning:

Our primary objective is to facilitate mobility beyond the Three Continents Three Sisters School Project, EU Erasmus KA101, KA102, and E-Twinning, as well as traditional sister

school programs. In addition to students and teachers, our goal is to assure the mobility of parents after the COVID-19 pandemic. We would want to plan a fair with our international students and parents (who are mostly immigrants) where they may express their own culture when the COVID-19 pandemic ends. We are the practice school of MoNE TVP (Turkish Vocabulary Preservation Project). We are contributing to the project as the district coordinator. In addition to this, we actively take part in EU programs that are open to all schools.

Opinions on the Effect of School Principals on the Professional Development of Teachers

"What are your views on the professional development of teachers?" was the sixth question posed to the participants. What do you do, or how do you do it?". As a consequence of the interviews, a variety of codes were developed for the scope of this question (Table 6).

Table 6. *Opinions regarding the effect of primary school principals on the teachers' professional development*

| Theme | Code | f |
|--|---|---|
| Effect on teachers' professional development | Encouraging postgraduate education | 2 |
| | Organizing seminars | 2 |
| | Being a role model | 2 |
| | Establishing academic cooperation with universities | 1 |
| | Supporting the teacher | 1 |
| | Promoting and encouraging in-service activities | 1 |
| | Encouraging them to work fairly | 1 |

In the study, primary school principals were asked for their opinions on their effects on teachers' professional development. School principals have put forward various opinions on this matter. In this situation, becoming a role model, conducting seminars, and promoting postgraduate study were seen to be key. Ahmet mentioned that he supports and advises teachers to take part in postgraduate studies in this regard. Likewise, Ali mentioned that "*The professional development of our teachers is quite crucial. For this reason, we encourage their participation in various seminars or postgraduate study and try to make these opportunities possible.*" The following are the phrases he used to describe how he attempted to lead seminars for the professional growth of teachers at the school:

...For instance, we invited Professor... from Ankara University to offer seminars by coordinating with multiple schools during the seminar session at the beginning of the year. We try to do this every year.

Hasan also noted that the ministry's in-service training programs are insufficient and stressed that they are working to address this shortcoming by developing academic partnerships and collaboration with universities. He claimed that universities gave them the support they needed, particularly with regard to matters that teachers requested or thought were lacking. In addition to these opinions, he said that school administration tries to be role models in order to motivate teachers to work and develop themselves by using the following words: "*... working hard and being open to progress is our main principle. Teachers who observe the administration's determination and dedication conform to the administration without further motivation.*" In favor of these views, Ibrahim stated that education is a process of lifelong learning and that teachers always assist them in the process of adapting themselves to new things.

Another school principal (Huseyin) expressed the in-service training opportunities available or planned for each field and stated that he demonstrated to teachers the benefits of these activities. Hasan stated that working fairly as a school principal contributed significantly to the job performance of teachers. In this context, he asserted that acting fairly encourages teachers to work professionally and, consequently, improves their performance.

Opinions on Relationships with Parents and the Surroundings

The sixth question posed to the participants was "How do you manage your relationships with the school's external environment? How is your relationship with your parents? What policies do you follow in your relationships? Do you make use of external opportunities to improve school conditions? Do you work with non-governmental organizations, associations, etc.?" As a consequence of the interviews, a variety of codes were developed for the scope of this question (Table 7).

Table 7. *Opinions of primary school principals on their relationship with parents and the environment*

| Theme | Code | f |
|--|---|---|
| Relations with parents and the environment | Communicating effectively with parents and the environment | 5 |
| | Utilizing external opportunities to improve school conditions | 5 |
| | Teacher-parent relationships for student development | 1 |
| | The disadvantage of establishing a relationship with non-governmental organizations | 1 |
| | Dissatisfied parents (Unnecessary complaints) | 1 |

Principals of primary schools were surveyed regarding their relationships with parents and the environment. The majority of school principals stated that they attach importance to relations with parents and the environment and that they try to improve these relations. In this context, school principals highlighted their desire to preserve a positive relationship with parents, nonprofit organizations and public agencies. Ali highlighted the significance of preserving a positive relationship with them in this regard in order to gain parental support in primary school. He then shared the following views:

In our role as the school administration, we focus largely on listening to and comprehending the concerns of the parents. Parents who feel appreciated and heard are more likely to work together to solve problems. In relations with parents, we prefer to be "open, transparent, and clear" for this reason.

Principal Mustafa stated that he employed an empathic approach in his interactions with parents, whereas Principal Hüseyin stated that they recognized their shortcomings and increased their sense of unity by conducting regular parent meetings. Utilizing external opportunities to enhance school conditions can be represented as another significant element stressed within the context of this subject. According to school principals, they used opportunities from outside sources to meet some of the school's equipment or restoration requirements. Hasan stated in this context that they contributed to the school, particularly through non-governmental organizations with the following words:

In order to improve school conditions, we establish relations with external sources. We do not hesitate to cooperate with NGOs for possible useful activities. I am also the president of an international non-governmental organization. As someone who believes that civic organizations are beneficial to education, all NGOs are welcome at our school.

Ali stated that he received substantial support from parents in his efforts to improve school conditions. He then expressed the following opinions: "... one of our parents covered the costs of the Disabled Ramp for our disabled students. We keep in touch with our parents about a variety of different topics and make sure they support the school." Additionally, he said that because they are primary schools, parent-teacher relationships are more crucial and fundamental for students' development:

Our school is a primary school, thus parents usually speak to classroom teachers. Parents who have good relations and don't have issues with their teachers are less likely to apply to the school administration. In this respect, we are very lucky as a school. We have excellent primary school teachers. When a parent is pleased with the classroom teacher, he or she does not often want to visit the school principal and may not even be familiar with the person.

Finally, several school principals highlighted certain unfavorable circumstances related to this issue. Mehmet provided the following justification for why he didn't develop relationships with non-governmental organizations: "I do not establish relations with non-governmental organizations. Because they may then attempt to control the process to suit their own wishes. We do what the regulation requires." Hasan, another school principal, also brought up the topic of dissatisfied parents by addressing the pointless complaints and demands of parents of primary school children:

...The largest barrier to fostering a positive school climate is unnecessary complaints and demands from parents, particularly in primary schools. Cooperating with perpetually dissatisfied parents who do not participate in parent training and do not attend enough of the events we invite is becoming increasingly difficult. Despite this, we engage in activities designed to reach parents and redirect their energies.

Opinions on Efforts to Increase Student Success

The final query posed to the participants was, "What practices do you employ to improve the academic success of your students? Are there any practices that are unique to your school? Can you give an example?" As a consequence of the interviews, a variety of codes were developed for the scope of this question (Table 8).

Table 8. *Opinions of primary school principals on their efforts to increase student success at school*

| Theme | Code | f |
|-------------------------------------|---|---|
| Efforts to increase student success | Providing a positive learning environment | 2 |
| | Study times, practice tests | 2 |
| | Effective guiding system | 2 |
| | Monitoring and evaluation | 2 |
| | Rewarding success | 1 |
| | Support to improving teaching | 1 |

In the study, primary school principals were asked for their opinions on their efforts to increase student success at school. School principals have put forward various opinions on this matter. Some school principals stated that they strive to create a positive, motivating learning environment in order to increase student success. Though some school principals said that tests were applied to students who are below their peers' level in order to gauge their performance and develop strategies to improve it. Along with these findings, some school principals reported that they made a variety of guidance efforts

based on the abilities of the students; thus, counseling services were offered. Regarding this finding, Hasan shared the following views:

We provide support to gifted individuals by directing them to different institutions other than Counseling and Research Center. Our counseling service actively monitors the BILSEM [Science and Art Center] exams and generates statistics on a regular basis. We urge students who are considered suited to participate in our support training.

Monitoring and evaluating student success is an additional conclusion arrived within the scope of this topic. According to Ali, they regularly assess student achievement with the following detailed evaluations:

... we discuss the results of the practice exams separately with each class group. I advise teachers to identify students who struggle academically and who have learning difficulties and to choose the best course of action for them. On the other hand, we don't want to use these exams to rank students' performance or promote competition. Because of this, students are not given information about things like their ranking. We are discussing the ups and downs in their scores. We are against the competitive education system that ranks students.

In addition to these results, the school's principal (Mustafa) underlined that they honor them and present them with many awards in recognition of their academic and athletic accomplishments. In conclusion, a principal of a school remarked that the school is committed to supporting the expansion and dissemination of resources, as well as the enrichment of teaching methods and approaches, by contributing to the development of teaching.

Discussion and Conclusion

The purpose of this research was to discover the perspectives and experiences of school principals working in primary schools on leadership behaviors. In order to accomplish this goal, a phenomenological research design was employed and interviews were carried out with seven different school principals. As a result of the data analysis, the main findings were reached in the form of (i) the meaning of the leadership behaviors concept, (ii) the strategic plan and vision determination process, (iii) the decision-making process at school, (iv) the school environment, (v) the impact on teachers' professional development, (vi) parent and relations with the external environment, and (vii) efforts to improve student success.

Principals of primary schools have assigned a variety of meanings to the concept of leadership behaviors. Notable is the fact that the majority of participants assigned positive connotations to school leadership behaviors. Among them, the importance of teaching effective communication is reiterated. In this context, leadership behaviors such as prioritization of teaching activities, focusing on student learning, dedication to learning and effective communication, working in harmony, and fostering positive relationships with employees are discussed. The findings of the study are generally compatible with the literature. Day and Leithwood (2007) identified a focus on teaching and open communication as defining characteristics of successful school principals. According to Alig Mielcarek (2003), school principals may help students succeed by modeling instructional leadership behaviors and applying academic pressure (emphasis on teaching). Similar to the findings of the research, Demirtaş and Özer (2014) defined school principals as persons who have good communication with the teachers, students,

parents, and environment. On the other hand, school principals described leadership behaviors within the scope of the study as ensuring justice, providing a visionary perspective, assuming responsibility, and taking action. Mulford (2007) came to the conclusion in support of this finding, that successful school principals possess values such as equality and social justice. Justice and honesty are also two of the most crucial qualities of ethical school principals, according to Brown and Trevio (2006). Within the scope of the research, meanings such as being well-equipped and possessing an accumulation of knowledge in terms of leadership behaviors, sparking enthusiasm and excitement in employees, ensuring coordination in work and operations, displaying consistent and determined behaviors, and problem solving were also reached. Babaoglan et al. (2017) similarly underlined in their research that school principals should place a high value on equity and justice, build positive relationships with teachers, be consistent and determined, take responsibility, and be understanding and empathic. In relation to this issue, a participant said that discussing leadership behaviors in a setting where school administrators were chosen via an interview process did not make much sense. In support of this conclusion, Arabacı, Akilli, and Erol (2015) observed that the subjective nature of the school principal interview process generates sentiments of doubt and insecurity in candidates. In this study, a school principal also had this concern.

The research came to the conclusion that primary school principals fostered a democratic and participative environment while formulating strategic plans and visions. The school principal's involvement in determining the direction of the school was highlighted by Hallinger and Heck (1998), who collated the impacts of school leadership and used the school's vision, mission, and objectives as a key domain in their research. In a similar vein, Leithwood, Seashore, Anderson, and Wahlstrom (2004) evaluated guidance and the development and implementation of school development plan through strategic planning as essential leadership practices. In addition, topics such as "determining school vision and mission in a democratic environment" and "taking part of teachers in decision-making" rose to the forefront at the school level as a result of this study's examination of the evidence on how successful leadership impacts student success. Corresponding to the findings of the research, Durukan (2006) stated that one of the three primary functions of the school vision is to encourage participation in decision-making that will assure the school's development. The fact that school principals share the vision is another conclusion drawn from this topic. According to Durukan (2006) visionary leaders can effectively institutionalize their vision and convey it to all levels of their organization. Considering the view of Durukan, vision is a contract of persuasion. A successful principal is able to unify the teachers behind a shared vision of education. The leadership behaviors observed in several research to boost the academic emphasis of schools are characterized by Leithwood et al. (2010) as *(i)* creating and conveying common goals and *(ii)* assisting in the clarification of common goals for academic success. The research also revealed that some school principals place students at the forefront of the strategic plan and vision determination process by analyzing the needs and current situation. Mulford (2007) found, in support of the research findings, that successful school principals determined vision and mission with a student-focused approach and a shared vision applying to the entire school. This research also revealed that certain school principals made an effort to set achievable goals when formulating strategic plans and visions. The vision, according to Durukan (2006) is the setting of achievable goals for the future. As a consequence, the research's findings might be seen as evidence in favor of Durukan's concept of vision.

Within the parameters of the study, it was determined that primary school principals used a democratic and participatory approach to decision-making, encouraged the sharing of ideas, and made

decisions after discussing with the parties in question. Göksoy (2014) came to the conclusion that school principals include teachers in decisions concerning practices while supporting this conclusion. Similarly, Babaoglan, and Yılmaz (2012) discovered that, based on the opinions of both teachers and school principals, the majority of teachers agreed with the decisions taken at the school. Against the findings of this study, Gülcan (2011) stated that school decisions were made solely by school principals, that teachers' desires to take part in decision-making were not completely realized, and that there was no common decision-making culture in school management. Similarly to this, Tabak, Şahin, and Yavuz Tabak (2020) came to the conclusion in their research that school administrators often stick to the limitations established by the regulations and do not go above and beyond the law or regulation in decision-making.

Another finding from the study is that primary school principals work hard to establish and preserve a robust culture that encourages cooperation in school. Additionally, some school principals said that they worked to establish a positive and supportive learning atmosphere by developing values and rituals that were unique to their school. Nonetheless, it can be said that they strive to create a school environment that emphasizes learning through a variety of projects and activities. Examining the pertinent literature, it is emphasized that school principals' leadership behaviors, such as promoting schoolwide cooperation and fostering a positive, supportive, and learning-focused school environment, are consistent with the research findings. (Garvin, Edmondson, & Gino, 2008; Leithwood et al., 2010; Özdemir & Kavak, 2020; Robinson, Lloyd, & Rowe, 2008). Walker (2010) asserted that school principals play a crucial role in developing meaningful, interconnected, and learning-focused school environments. On the other hand, Garvin et al. (2008) highlighted the supportive role of school principals in establishing a positive learning environment at school. Ozdemir, and Kavak (2020) highlighted the behaviors of providing a positive and supportive climate and establishing a secure and organized setting as a part of the school principal's duties and responsibilities for enhancing student success. According to Leithwood et al. (2010), the effect of school leaders on student learning is indirect because they affect the school conditions. In this regard, they emphasized leadership behaviors such as being open, helpful, and truthful in terms of school-level aspects and establishing an organized setting. On the other hand, Robinson, Lloyd, and Rowe (2008) discovered in their meta-analysis research that the potential influence of school leaders' practices of creating a regular and supportive atmosphere on the academic and non-academic results of students was significant.

Another leadership behavior of school principals mentioned in this study was encouraging and supporting teachers' professional development. In the context of this result, school principals said that they offer support for the professional development of teachers in a variety of ways. These involve initiating seminars, promoting graduate education, setting an example, cooperating academically with institutions, and supporting the teacher. Examining the relevant literature, findings reveal that the behaviors of teachers that encourage and promote professional development are among the fundamental leadership behaviors of school leaders which are in line with the study results. In their study, Leithwood et al. (2004) classified the fundamental core practices for successful leadership in various national cultures. According to this study, nurturing people, providing intellectual stimulation, and offering individual support are successful leadership behaviors. Similarly to this, Ozdemir, and Kavak (2020) pointed out supporting teachers' professional growth as one of the duties and responsibilities of school principals. Walker (2010) said that in order to develop a sustainable learning environment, school leaders should be role model, observe and establish dialogues. Balyer (2013)

discovered that school leaders' behaviors toward serving as role models for teachers, supporting teachers' professional development, placing an emphasis on teaching and learning, and fostering relationships and cooperation among teachers all had a positive effect on the achievement of students. Jantzi, and Leithwood (1996) identified being an appropriate model, giving tailored support, and encouraging intellectual growth as crucial leadership behaviors to corroborate the study results.

Relationships with parents and the external environment are another instance of leadership behavior among primary school principals in the study. In this scenario, it has been determined that primary school principals endeavor to communicate effectively with parents and the environment and to take advantage of external opportunities to enhance school conditions. The research findings confirm the literature that emphasizes the primary impact of school administrators on parent-school relationships. Leithwood et al. (2010) highlighted that the family is the most important factor in determining student success and stated what school administrators must do to increase parental involvement and impact on student learning as follows: (i) inviting personal and private family participation as opposed to general events, taking advantage from the support and skills of families in activities where families are going to take part, and (ii) offering chances for families to interact with others about school issues, (iii) devising classroom activities by creating special initiatives that involve families and make use of their unique skills. (iv) communicating effectively with families, for illustration, to plan family meetings that will be more significant for families, creating a special environment to make the family-teacher relationship effective, to consult the family on fundamental issues associated with children's education including solving mutual problems of families, and (v) establishing a network between teachers and families and assigning a person as correspondent. Bozkurt, Bayar, and Üstün (2018) stated that parents have an important role in achieving the goals of the school. They underlined the need of collaborating with families and the school to address children's issues and improve student learning. Additionally, they said that by using the leadership and entrepreneurial qualities of parents, it is possible to build stronger relationships with the environment, which is why school-family organizations were created. As underscored by a school principal within the purview of the research, it was determined that parent-teacher relations are more essential and primary than school principal-parent relations in the context of a primary school. Yet, within the parameters of the study, school principals mentioned the disadvantage of establishing relationships with non-governmental organizations and the issue of dissatisfied parents.

The research revealed that primary school principals exhibit a variety of leadership behaviors to improve student success. In this context, leadership behaviors such as providing a positive learning environment, organizing study times and practice exams, effectively guiding, monitoring, and evaluating students, and rewarding success have been noted. These results also support the relevant literature. Haiyan, Walker, and Xiaowei (2017) stated that school principals are responsible for creating a positive learning environment. Similarly, Aslan et al. (2009) asserted that schools can have a positive learning environment in the context of trust, respect, cooperation, and shared common objectives and values owing to the communication of the school principal and the teachers' collaboration. Besides, Leithwood et al. (2010) highlighted leadership behaviors such as overseeing teaching and learning processes, providing feedback, and protecting instructional time in order to enhance student learning and increase academic pressures in schools. In addition, Bulach, Lunenburg, and Potter (2011) reported that school administrators strive to foster an encouraging or gratifying environment in an effort to improve student achievement.

Recommendations

Various recommendations can be made based on the findings of the research. On the whole, school principals employ a participatory and democratic approach to determining the school's strategic plan and vision and making important decisions. Given that these are the perspectives of school principals, they may be limited in terms of self-affirmation. School principals strive to create and maintain a strong culture of collaboration. However, it might be recommended that school principals encourage teachers in their teaching processes and construct numerous school-specific rituals and values in order to establish and maintain a positive, supportive, and learning-friendly school atmosphere. It is possible to recommend that principals of schools take on additional responsibilities, such as promoting and supporting the professional development of teachers, being role models for their teachers, and cultivating collaborative relationships with other schools and universities. Overall, school principals generally have a positive approach to parent relations and the external environment. Appropriate settings and activities may be planned to foster positive relationships between teachers and parents, especially as they are primarily in charge of the development of students at the primary school level.

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İlkokul Müdürlerinin Liderlik Davranışlarının İncelenmesi: Fenomenolojik Bir Çalışma

Giriş

Eğitim kurumlarında okul müdürü lider olarak görülür ve okul müdüründen insanlarla etkili bir şekilde çalışma, okula mesleki anlamda hizmet, okul ve çevresini eğitime hazırlama, eğitim programlarının geliştirilmesi gibi görevler beklenir (Aydın, 2000). Liderlik konusu, okul yönetimi üzerinde çokça durulan çalışma alanlarından biri olmuştur (Şişman, 2014). Liderlik, eğitim yönetimi alanına girdiğinden beri çeşitli boyutları ile araştırılmaktadır. Örneğin araştırmalarda, iş performansı (Kuoppala, Lamminpaa, Liira, ve Vainio, 2008), iş doyumu (Stander ve Rothmann, 2008; Taş ve Önder 2010; Yılmaz ve Boğa Ceylan, 2011), bağlılık (Ding, Lu, Song ve Lu, 2012; Soba, Akman, ve Eroğlu, 2018), kültür (Arif, Zainudin, ve Hamid, 2019; Çelikten, 2006), iklim (Allen, Grigsby, ve Peters, 2015; Erdoğan ve Umurkan, 2014; Griffith, 1999) ve güven (Ertürk, 2019; Joseph ve Winston, 2004; Terzi, Gocen, ve Kaya, 2020) gibi örgütsel faktörler ile ilişkisi araştırılmıştır. Bu araştırma alanlarının yanı sıra ilgili alanyazında okul liderliği ile öğrenci başarısı arasındaki çalışmalar önemli bir yer tutmaktadır (Heck, Larsen, & Marcoulides, 1990; Leithwood & Mascal, 2008; Özdemir & Kavak, 2020).

Okul yönetimi ile ilgili çalışmalar incelendiğinde, okul müdürlerinden rutin ve bürokratik işlerin yapılması dışında çeşitli beklentilerin olduğu görülmektedir. Alanyazında ağırlıklı olarak okul müdürlerinin başlıca liderlik davranışları, okullarının belirlenen amaçlarını yerine getirmek, öğrenci başarısı için öğretmenleri ve aileyi geliştirmeye yönelik eylemlerde bulunmak, okulun etkililiğini artırmak için çaba sarf etmek olarak belirlenmiştir (Bursalıoğlu, 2000; Hallinger & Murphy, 1986; Şişman, 2014). Akbaba Altun ve Çakan'a (2008) göre, başarılı okullarda işbirliği, okuldaki eğitime verilen destek, öğretmenlerin niteliği, okulun fiziki altyapısını iyileştirme, okulda teknoloji kullanımını gibi özellikler olmalıdır ve bu özelliklerin gerçekleşmesi okul müdürünün sorumluluğundadır. Özetlemek gerekirse, okul müdürlerinin öğrenci başarısına odaklanma, başarı odaklı okul kültürü

oluşturma, öğretmenlere rehberlik etme ve okulun çevresi ile etkili iletişim sağlama gibi çeşitli liderlik davranışlarına vurgu yapılmaktadır.

Öğrenci başarısı ve okul müdürünün liderlik davranışları arasındaki ilişkiyi inceleyen birçok araştırma bulunmaktadır. Bu araştırmalar, okul müdürünün liderlik davranışları ile öğrenci başarısı arasında doğrudan veya dolaylı etkiler olduğu yönündedir. Özdemir ve Kavak'a göre (2020), okul müdürünün liderliği ile öğrenci başarısı arasında karmaşık bir ilişki vardır ve başarı üzerine etkinin küçük ama anlamlı olduğu üzerinedir. Her ne kadar küçük ve anlamlı bir fark olduğu vurgulanmış olsa da okullar arası başarı farklılıklarının azaltılmasında okul müdürlerine önemli roller düştüğü aşıkardır (Babaoğlu vd., 2017). Çalışmalarda ortaya çıkan değişkenleri etkilemesi yönüyle okul müdürünün öğrenci başarısındaki etkisi kaçınılmazdır. Okul müdürünün bu tür değişkenleri etkilemesi dolaylı bir etki yaratacak gibi görünse de, diğer etkenler de göz önüne alındığında etkinin daha büyük olacağı düşünülmektedir. Okul müdürünün sorumluluk ve görevlerden bir diğeri ise, okulda iletişime açık ve işbirlikçi bir öğrenme ortamı oluşturmaktır. Özetle okul müdürünün özellikleri ve benimsediği liderlik davranışları etkili bir okul oluşturmak ve öğrenci başarısını artırmak için anahtar kavramdır (Gümüş, Bellibaş, Şen, & Hallinger, 2021; Hallinger, Bickman, & Davis, 1996; Hou, Cui, & Zhang, 2019; Shatzer, Caldarella, Hallam, & Brown, 2014). Okul müdürünün okul çıktılarını dolaylı ve doğrudan etkilemesi ışığında bu çalışmanın odağında, ilkokullarda görev yapan okul müdürlerinin liderlik davranışlarını incelemek yer almaktadır. Bu çalışmada, büyük oranda öğretmen görüşlerine göre incelenen okul müdürlerinin liderlik davranışlarını (Kars ve İnanlı, 2018; Lindahl, 2010; Tahaoğlu ve Gedikoğlu, 2009) okul müdürlerinin görüş ve düşüncelerine göre araştırmak amaçlanmaktadır. Okul müdürlerinin görüşlerine göre, liderlik davranışlarının içeriğini ve kapsamını belirlemek onların okuldaki rol, görev ve sorumlulukları hakkındaki kişisel algısının öğrenilmesine katkı sağlayacaktır. Ek olarak, bu çalışma aracılığıyla ilkokul müdürlerinin liderlik davranışlarının odağında neyin yer aldığı, liderlik davranışlarını hangi alanlarda tanımladıkları üzerine bilgi edinilmesi mümkün olacaktır. Bu bilgiler ışığında çalışmanın temel amacı, ilkokullarda görev yapan okul müdürlerinin liderlik davranışlarına yönelik görüş ve deneyimlerini açığa çıkarmaktır.

Yöntem

Bu çalışma, olgubilim deseninde kurgulanan nitel bir araştırmadır. İlkokul müdürlerinin benimsedikleri liderlik davranışlarına ilişkin görüşlerini, algılarını ve deneyimlerini ortaya çıkarmak için olgubilim deseni tercih edilmiştir.

Katılımcılar

Bu araştırmada katılımcılar, amaçlı örnekleme yöntemine göre belirlenmiştir. Bu doğrultuda, amaçlı örnekleme yöntemlerinden biri olan ölçüt örnekleme yöntemi kullanılmıştır. İlkokullarda en az 5 yıl okul yöneticiliği yapmış olmak ölçüt olarak belirlenmiştir. Bu ölçütün belirlenmesindeki temel amaç, ilkokullarda yönetsel deneyim kazanabilecek süre kadar yönetici özelliği gösteren katılımcılara erişmektir. Araştırmanın katılımcılarını, Ankara ilinde ilkokullarda görev yapan yedi okul müdürü oluşturmaktadır. Bulguların sunumuna akıcılık kazandırmak ve gizliliği sağlamak için her bir katılımcıya isim kodları verilmiştir. Araştırmada yer alan katılımcıların tamamı ilkokullarda okul müdürü olarak görev yapmaktadır. Ek olarak katılımcıların tamamı erkektir (n=7). Katılımcıların okul yöneticiliği kıdemi 6 ila 37 yıl arasında değişmektedir. Son olarak katılımcıların eğitim durumu açısından lisansüstü eğitim yapan bir okul müdürü hariç tamamı lisans mezunudur.

Verilerin Toplanması

Verilerin toplanmasında araştırmacılar tarafından geliştirilen açık uçlu sorulardan oluşan ve sondalarla desteklenmiş yarı yapılandırılmış görüşme formu kullanılmıştır. Görüşme formu, yedi açık uçlu sorudan meydana gelmiştir. Araştırma verileri, katılımcılarla yüz yüze görüşme şeklinde toplanmıştır. Görüşmeler, belirlenen tarih ve saatte ilgili okulda gerçekleştirilmiştir. Katılımcıların izniyle görüşmelerin hepsinde ses kayıt cihazı kullanılmıştır. Görüşmeler ± 50 dakika sürmüş olup okul müdürleriyle görüşmelerin tamamı bir hafta içinde tamamlanmıştır.

Verilerin Analizi

Araştırma verilerinin analizi öncesinde, ses kayıt cihazında kaydedilen görüşmeler kelimesi kelimesine deşifre edilmiştir. Araştırma verileri, araştırmacılar tarafından detaylı olarak okunmuştur. Araştırma verileri, hem içerik analizi hem de betimsel analiz tekniğiyle analiz edilmiştir. Bu doğrultuda araştırmacılar her bir katılımcıya ilişkin görüşme deşifrelerini okuyarak verilerden çeşitli kodlar üretmişlerdir. Bu kodlama sürecinin sonunda ilk kod listesi oluşturulmuştur. İkinci olarak, ulaşılan kodların literatürle uyumluluğu incelenmiştir. Bu sürecin sonunda, kodların literatürle uyumluluğu doğrulanmış ve kodlar literatüre uyumlu bir şekilde çeşitli temalarda birleştirilmiştir.

Geçerlik ve Güvenirlik

Araştırma sürecinin geçerliğini ve güvenirliliğini sağlamak için çeşitli stratejiler kullanılmıştır. İlk olarak, araştırma süreci kapsamlı bir şekilde planlanmıştır. İkinci olarak ayrıntılı betimleme stratejisi kullanılmıştır. Bu bağlamda, bulguların sunumunda katılımcı görüşlerinin detaylı olarak yansıtılmasına gayret edilmiştir. Bir diğer strateji olarak uzman incelemesine başvurulmuştur. Araştırma kapsamında, Eğitim Yönetimi ve nitel araştırma yöntemleri konusunda uzman bir akademisyenden makaleyi incelemesi istenmiştir. Son olarak araştırmada katılımcıların konuya ilişkin gerçek yorumlarını ortaya çıkarmak için sonda sorular kullanılmıştır. Bu doğrultuda araştırmada, farklı türde sonda sorular kullanılmış olup katılımcıların konuyla ilgili gerçek görüşleri alınmaya çalışılmıştır.

Bulgular

Bu bölümde, araştırma sonucunda ulaşılan bulgular ve bazı katılımcıların görüşleri sunulmuştur.

Liderlik Davranışlarının Anlamına İlişkin Görüşler

Araştırmada "liderlik davranışları" kavramı ilköğretim müdürlerinde çeşitli çağrışımlar uyandırmıştır. Bu çağrışımlar arasında öğretime odaklanma ve etkili iletişim kurma ön planda yer almıştır. Mehmet Müdür, öğretimi liderlik davranışının merkezine koyduğunu belirtmiştir. Bununla birlikte etkili iletişim kurma açısından okul müdürleri iletişim tekniklerini iyi kullanma, uyumlu çalışabilme, çalışanlarla iyi ilişkiler geliştirme ve olumlu bir okul iklimi oluşturma konularına değinmişlerdir. Ek olarak okul müdürleri liderlik davranışlarını adaleti sağlama, vizyoner bakış açısı sunma, sorumluluk alma ve harekete geçme açısından tanımlamışlardır. Bu görüşlerin yanı sıra bazı okul müdürleri, liderlik davranışları açısından okul liderlerinin donanımlı ve birikimli olması, çalışanlarda coşku ve heyecan uyandırması, iş ve işlemlerde koordinasyonu sağlaması, tutarlı ve kararlı davranışlar sergilemesi gerektiğini belirtmiştir. Bir okul müdürü (Ahmet) sorunlara akılcı ve uzlaştırıcı çözümler getirerek problem çözmenin önemli bir liderlik davranışı olduğunu ifade etmiştir. Son olarak bu görüşlerin aksine Ali, okul yöneticilerinin mülakat sistemi ile atandığı bir ortamda liderlik

davranışlarından bahsetmenin çok anlamlı olmadığını söylemiştir. Dahası eğitim sisteminin hiyerarşik bir emir-komuta zincirine sahip olduğunu, tepenin emirlerine uymak ve yapılması gerekeni yapmak zorunda olduklarını dolayısıyla bu kültürün egemen olduğu bir eğitim sisteminden lider çıkmasının çok güç olduğunu vurgulamıştır.

Stratejik Plan ve Vizyon Belirleme Sürecine İlişkin Görüşler

Araştırmada ilkökul müdürlerinin stratejik plan ve vizyon belirleme süreci hakkındaki görüşleri istenmiştir. Okul müdürleri bu süreçlerin odağında katılımcı ve demokratik bir ortam sağlama görüşünde hemfikirdir. Bu doğrultuda okul müdürlerinin neredeyse tamamı, stratejik plan ve vizyon belirleme sürecinin yanı sıra birçok konuda öğretmenlerin ve tüm paydaşların okul karar mekanizmalarına katılımını sağladıklarını belirtmiştir. Bu bulgunun yanı sıra okul müdürlerinin büyük çoğunluğu vizyon belirleme sürecinin önemli bir aşamasının vizyonu paylaşma olduğunu vurgulamıştır. Bu bağlamda Mehmet, birlikte hareket etmenin önemine değinerek yılda birçok kez okulun vizyonu ve misyonunu okulun paydaşlarına paylaşmak için çeşitli toplantılar, organizasyonlar düzenlediklerini ifade etmiştir. Bununla birlikte bazı okul müdürleri stratejik plan ve vizyon belirlerken ihtiyacı ve mevcut durumu analiz etmenin önemine değinmişlerdir. Bu tema altında ayrıca okul müdürleri; öğrenciyi merkeze koyma, ulaşılabilir hedefler belirleme, çekirdek kadroda ön çalışma yapma ve en iyi stratejileri belirleme çabası gibi görüşler de öne sürmüşlerdir. Buna göre bazı okul müdürleri stratejik plan belirleme sürecinde öğrenciyi odağa aldıklarını, ulaşılabilir hedefler belirlemeye gayret ettiklerini ifade etmişlerdir. Ayrıca bir okul müdürü (Ali) vizyon ve misyon geliştirme açısından genellikle çekirdek kadrosuyla ön çalışma yaptığını, daha sonra öğretmenlerle görüştiklerini ifade etmiştir.

Okulda Karar Alma Süreçlerine İlişkin Görüşler

Araştırmada ilkökul müdürlerinin okulda karar alma süreçleri hakkındaki görüşleri istenmiştir. Okul müdürleri genel itibarıyla çoğulcu bir anlayışla demokratik bir ortamda katılımcı karar alma süreçlerini uyguladıklarını belirtmiştir. Okul müdürleri öğretmenlerle birlikte karar aldıklarını (Mehmet), karar sürecinin olgunlaşma aşamasında oylama yaptıklarını (Mustafa) ve öğretmenleri bu sürece dâhil ederek kararın uygulanabilirliğini garantiye aldıklarını (İbrahim) ifade etmişlerdir. Bu tema altında vurgulanan bir diğer nokta özgürce fikir beyan etme ve fikir alışverişi konularıdır. Bazı okul müdürleri her öğretmenin fikirlerini özgürce ifade etmelerine olanak sağlayan bir ortam oluşturmaya çalıştıklarını belirtmiştir. Bu bağlamda çalışanların rahat bir ortamda görüş ve önerilerini sunma imkânına sahip olduğunu vurgulamışlardır. Bu bulguların yanı sıra Hasan alınacak karar daha özel durumlar için geçerli ise, sadece durumu ilgilendirecek kişilerle paylaşımlarda bulunduğunu ifade etmiştir. Hüseyin ise, okulun eğitim amaçlarına dayalı olarak kararların şekillendiğinin altını çizmiştir. Son olarak Ali, karar alırken öncelikle çekirdek kadrosunda ön çalışma yaptığını ifade etmiştir.

Okul Ortamına İlişkin Görüşler

Araştırmada ilkökul müdürlerinin okul ortamı hakkındaki görüşleri istenmiştir. Buna göre okul müdürlerinin çoğunluğu güçlü iş birliği kültürü oluşturma ve sürdürme noktasında gayret gösterdiğini ifade etmiştir. Bu bulguya benzer şekilde Mustafa, öğretmenler arasındaki iş birliğini geliştirmenin ve sürdürmenin önemine değinmiştir. Ek olarak bu iş birliği ortamının öğretmenlerin mesleki gelişimlerini desteklediğini belirtmiştir. Diğer taraftan bazı okul müdürleri, okula özgü değerler ve ritüeller geliştirme konusuna değinmiştir. İbrahim müdür, her okulun kendine has bir kimliği olduğunu vurgulayarak okulda yapılan bütün çalışmaların bu unsurlardan etkilendiğini belirtmiştir. Okulu bir

yaşam alanı olarak değerlendiren Hüseyin, eğitim ve öğretimin niteliğinin artırılmasında donanımlı, entelektüel düzeyi yüksek, sorumluluk alma becerisi gelişmiş, sosyal yaşamında verimli, değişime ve gelişime açık öğretmenlerin varlığının oldukça önemli olduğunu belirtmiştir. Bu açıdan öğretmenleri destekleyici bir yaklaşım sergilediklerini vurgulamıştır. Son olarak Hasan, Avrupa Birliği projeleri, Bakanlık projeleri ve okula özgü bazı etkinlik ve projeler aracılığıyla öğrenmeyi merkeze alan olumlu okul ortamı oluşturmaya çalıştıklarını dile getirmiştir.

Öğretmenlerin Mesleki Gelişim Çalışmalarına Etkisine İlişkin Görüşler

Araştırmada ilkokul müdürlerinden öğretmenlerin mesleki gelişim çalışmalarına etkilerine ilişkin görüşleri istenmiştir. Bu konu hakkında okul müdürleri çeşitli görüşler öne sürmüştür. Bu bağlamda lisansüstü eğitimi teşvik etme, seminer çalışmaları düzenleme ve rol model olma görüşleri ön planda yer almıştır. Bu bağlamda Ahmet, öğretmenlerin lisansüstü eğitim çalışmalarına katılmalarını arzu ettiğini ve önerdiğini ifade etmiştir. Benzer şekilde Ali okulda öğretmenlerin mesleki gelişimi için seminer çalışmaları yapmaya gayret ettiğini belirtmiştir. Bununla birlikte Hasan, bakanlığın hizmet içi eğitim faaliyetlerinin sınırlı olduğunu belirterek bu açığı üniversiteler ile akademik iş birliği kurarak ve onlardan destek alarak çözmeye çalıştıklarını vurgulamıştır. Bu görüşlerin yanı sıra öğretmenleri çalışmaya ve gelişmeye özendirmek adına en başta okul yönetimi olarak rol model olmaya çabaladıklarını ifade etmiştir.

Veli ve Çevre ile İlişkiler Hakkındaki Görüşler

Araştırmada ilkokul müdürlerinin veli ve çevre ile ilişkileri hakkındaki görüşleri istenmiştir. Okul müdürlerinin büyük çoğunluğu veli ve çevreyle ilişkileri önemsediklerini ve bu ilişkileri geliştirmek için çaba sarf ettiklerini belirtmiştir. Bu bağlamda okul müdürleri gerek veli gerekse sivil toplum kuruluşları ve kamu kuruluşlarıyla olumlu ilişkiler sürdürmeyi istediklerini vurgulamışlardır. Bu açıdan Ali ilkokul özelinde veli desteği alabilmek için onlarla iyi bir ilişki sürdürmenin gerekliliğine vurgu yapmıştır. Mustafa Müdür, velilerle ilişkilerde empatik bir yaklaşım benimsediğini ifade ederken; Hüseyin Müdür ise düzenli veli toplantıları yaparak eksiklerini gördüklerini ve dayanışmayı artırdıklarını belirtmiştir (Hüseyin). Bu tema kapsamında vurgulanan bir diğer önemli nokta, okul şartlarının iyileştirilmesi için çevre olanaklarından yararlanma şeklinde ifade edilebilir. Okul müdürleri, okulun bazı donanım veya tadilat ihtiyaçlarını çevre olanakları aracılığıyla giderdiklerini söylemişlerdir. Bu kapsamda Hasan, özellikle sivil toplum kuruluşları aracılığıyla okula katkı sağladıklarını dile getirmiştir. Son olarak bazı okul müdürleri bu tema kapsamında bazı olumsuz durumlara vurgu yapmışlardır. Mehmet, sivil toplum kuruluşlarıyla ilişki kurmadığına; Hasan ise ilkokul velilerinin gereksiz şikâyet ve taleplerde bulduklarına değinmiştir.

Öğrenci Başarısını Artırma Çalışmalarına İlişkin Görüşler

Araştırmada ilkokul müdürlerinin okulda öğrenci başarısını artırma çalışmalarına ilişkin görüşleri istenmiştir. Bu konu hakkında okul müdürleri çeşitli görüşler öne sürmüştür. Bazı okul müdürleri öğrencilerin başarılarını artırmak için motive edici olumlu bir öğrenme ortamı sağlamaya çalıştıklarını belirtmiştir. Bununla birlikte bazı okul müdürleri, sınıf seviyesini yakalayamayan öğrenciler için etüt çalışmaları ve öğrencilerin başarısını ölçmek ve buna yönelik stratejiler belirlemek için deneme sınavları yapıldığını ifade etmiştir. Bu bulguların yanı sıra bazı okul müdürleri öğrencilerin yetenek durumuna göre çeşitli yönlendirme girişimlerinde bulduklarını, bu anlamda rehberlik hizmetlerinin aktif olarak çalıştığını belirtmiştir. Bu tema kapsamında ulaşılan bir diğer bulgu, öğrenci

başarısını izleme ve değerlendirme olarak ifade edilebilir. Ali, belirli aralıklarla öğrencilerin başarılarını ölçtüklerini ve bu ölçümleri kapsamlı olarak değerlendirdiklerini dile getirmiştir. Bu bulguların yanı sıra bir okul müdürü (Mustafa), öğrencilerin sportif ve akademik başarıları sonucunda öğrencilere çeşitli ödüller verdiklerini, onları onurlandırdıklarını vurgulamıştır. Son olarak bir okul müdürü ise, öğretimi geliştirmeye destek olarak materyal geliştirme ve yaygınlaştırma, öğretim yöntem ve metodlarının zenginleştirilmesine destek olduklarını ifade etmiştir.

Tartışma ve Sonuç

Bu çalışmada, ilkokullarda görev yapan okul müdürlerinin liderlik davranışlarına yönelik görüş ve deneyimlerini açığa çıkarmak amaçlanmıştır. Bu amaç doğrultusunda olgubilim deseni kurgulanmış ve yedi okul müdürüyle görüşmeler gerçekleştirilmiştir. Veri analizleri sonucunda (i) liderlik davranışları kavramının anlamı, (ii) stratejik plan ve vizyon belirleme süreci, (iii) okulda karar alma süreci, (iv) okul ortamı, (v) öğretmenlerin mesleki gelişim çalışmalarına etki, (vi) veli ve çevreyle ilişkiler ve (vii) öğrenci başarısını artırma çalışmaları şeklinde ana bulgulara ulaşılmıştır.

İlkokul müdürleri, liderlik davranışları kavramına yönelik çeşitli anlamlar yüklemişlerdir. Katılımcıların okul liderliği davranışlarını açıklamada genellikle olumlu anlamlar kullandıkları göze çarpmaktadır. Bunlar arasında öğretime odaklanma ve etkili iletişim kurma anlamları vurgulanmıştır. Bu bağlamda öğretim etkinliklerini öncelikleme, öğrenci öğrenmesini odağa alma, öğrenmeye bağlılık ile iyi iletişim kurma, uyumlu çalışabilme ve çalışanlarla iyi ilişkiler geliştirme gibi liderlik davranışlarına değinilmiştir. Araştırma bulguları, genel olarak ilgili alanyazın ile uyumludur (Alig Mielcarek, 2003; Day & Leithwood, 2007). Araştırma kapsamında ayrıca liderlik davranışları açısından donanımlı ve birikimli olma, çalışanlarda coşku ve heyecan uyandırma, iş ve işlemlerde koordinasyonu sağlama, tutarlı ve kararlı davranışlar sergileme ve problem çözme gibi anlamlara da ulaşılmıştır. Bu bulguya benzer şekilde Babaoğlu vd. (2017) çalışmalarında, okul müdürünün eşitliğe ve adalete önem vermesi, öğretmenleriyle iyi ilişkiler kurması, tutarlı ve istikrarlı olması, sorumluluk alması, anlayışlı olması ve empati kurması gerektiğini vurgulamışlardır. Bu tema kapsamında son olarak bir katılımcı tarafından okul yöneticilerinin mülakat sistemi ile atandığı bir ortamda liderlik davranışlarından bahsetmenin çok anlamlı olmadığı belirtilmiştir.

Araştırmada ilkokul müdürlerinin stratejik plan ve vizyon belirleme sürecinde katılımcı ve demokratik bir ortam sağladıkları sonucuna ulaşılmıştır. Okul liderliğinin etkilerini derleyen Hallinger ve Heck (1998) bu çalışmalarda birincil bir etki alanı olarak özellikle okul müdürünün vizyon, misyon ve hedeflerle okulun yönünü şekillendirmedeki rolüne vurgu yapmışlardır. Dahası bu çalışmada başarılı liderliğin öğrenci başarısını nasıl etkilediğine dair kanıtların incelenmesi sonucunda okul düzeyinde, “demokratik bir ortamda okul vizyon ve misyonun belirlenmesi, karar vermeye öğretmenlerin katılımı” gibi konular ön plana çıkmıştır. Araştırma bulgularıyla örtüşür şekilde Durukan (2006) ise, karara katılımla okulun gelişimini sağlayacak kararların alınmasını teşvik etmeyi okul vizyonunun üç temel işlevinden biri olarak ifade etmiştir. Bu tema kapsamında ulaşılan bir diğer sonuç, okul müdürlerinin vizyonu paylaştığı yönündedir. Araştırmada ulaşılan bir diğer sonuç, bazı okul müdürlerinin stratejik plan ve vizyon belirleme sürecinde ihtiyacı ve mevcut durumu analiz ettikleri ve öğrenciyi merkeze aldıkları şeklindedir. Araştırma bulgularını destekler nitelikte Mulford (2007) çalışmasında, başarılı okul liderlerinin öğrenci odaklı bir yaklaşımla vizyon ve misyon belirlediği ve okul boyunca vizyonu paylaştığı bulgularına ulaşmıştır. Bununla birlikte araştırmada bazı okul müdürlerinin stratejik plan ve vizyon belirlerken ulaşılabilir hedefler belirlemeye gayret ettiği sonucuna ulaşılmıştır.

Araştırma kapsamında ilkökul müdürlerinin karar alma sürecinde katılımcı ve demokratik bir yaklaşım benimsediği, fikir alış verişini desteklediği ve ilgili kişilere danışarak kararların alındığı gibi sonuçlara ulaşılmıştır. Bu bulguyu destekler nitelikte Göksoy (2014) araştırmasında okul müdürlerinin uygulamalar ile ilgili kararlara öğretmenleri dâhil ettiği sonucuna ulaşmıştır. Araştırma bulgularının aksine Gülcan (2011) araştırmasında, okullarda alınan kararların sadece okul müdürleri tarafından alındığı, öğretmenlerin kararlara katılım konusundaki arzularının tam olarak karşılanmadığı ve okul yönetiminde ortak karar alma kültürünün olmadığı sonucuna ulaşmıştır.

Araştırmada ulaşılan bir diğer sonuç, ilkökul müdürlerinin okulda güçlü bir iş birliği kültürü oluşturma ve sürdürme yönünde çaba gösterdikleridir. Ek olarak bazı okul müdürleri okula özgü değerler ve ritüeller geliştirdiklerini ve olumlu ve destekleyici bir okul ortamı oluşturma yönünde girişimlerde bulduklarını ifade etmişlerdir. Bununla birlikte çeşitli proje ve etkinlikler aracılığıyla öğrenmeyi merkeze alan olumlu okul ortamı oluşturmaya çalıştıkları söylenebilir. İlgili alanyazın incelendiğinde, araştırma bulgularını destekler nitelikte okul müdürlerinin okulda iş birliği sağlama, olumlu, destekleyici ve öğrenmeyi merkeze alan bir okul ortamı oluşturma ve sürdürme şeklindeki liderlik davranışlarına vurgu yapılmaktadır (Garvin, Edmondson, & Gino, 2008; Leithwood vd., 2010; Özdemir, & Kavak, 2020; Robinson, Lloyd, & Rowe, 2008).

Araştırma kapsamında okul müdürlerinin bir diğer liderlik davranışı, öğretmenlerin mesleki gelişim çalışmalarını teşvik etme ve destekleme olarak ortaya çıkmıştır. Bu bulgu kapsamında okul müdürleri çeşitli yollarla öğretmenlerin mesleki gelişimlerini desteklediklerini ifade etmişlerdir. Bu yollar arasında lisansüstü eğitimi teşvik etme, seminer çalışmaları düzenleme, rol model olma, üniversiteler ile akademik iş birliği kurma ve öğretmeni destekleme gösterilebilir. İlgili alanyazın incelendiğinde, araştırma bulgularıyla benzer şekilde okul liderlerinin temel liderlik davranışları arasında öğretmenlerin mesleki gelişim çalışmalarını teşvik etme ve destekleme davranışları yer almaktadır. Leithwood ve diğerleri (2004) araştırmalarında farklı ulusal kültürlerde başarılı liderlik için temel çekirdek uygulamaları tasnif etmişlerdir. Bu araştırmaya göre insanları geliştirmek, entelektüel uyarım ve bireysel destek sağlamak başarılı liderlik davranışları arasında gösterilmiştir.

Araştırmada ilkökul müdürlerinin liderlik davranışı sergilediği bir diğer alan, veli ve çevreyle ilişkileridir. Bu bağlamda ilkökul müdürlerinin veli ve çevreyle etkili iletişim kurmaya ve okul şartlarını iyileştirmek için çevre olanaklarından yararlanmaya çaba gösterdikleri sonucuna ulaşılmıştır. Araştırma bulguları, okul müdürlerinin veli ve çevreyle ilişkilerdeki birincil etkisini vurgulayan alanyazını desteklemektedir. Leithwood ve diğerleri (2010) özellikle öğrenci başarısını açıklayan en büyük etkenin aileye ait olduğunu vurgulamıştır. Araştırma kapsamında bir okul müdürünün vurguladığı üzere, ilkökul olma özelinde okul müdürü-veli ilişkilerinden ziyade veli-öğretmen ilişkilerinin daha önemli ve birincil olduğu sonucuna ulaşılmıştır. Bununla birlikte araştırma kapsamında okul müdürleri tarafından sivil toplum kuruluşlarıyla ilişki kurmanın dezavantajı ve memnun olmayan veli yapısına değinilmiştir.

Son olarak araştırmada ilkökul müdürlerinin öğrenci başarısını artırmak için çeşitli liderlik davranışları sergiledikleri sonucuna ulaşılmıştır. Bu kapsamda olumlu öğrenme ortamı sağlama, etüt ve deneme sınavları organize etme, öğrencileri etkili bir şekilde yönlendirme, izleme ve değerlendirme ve başarıyı ödüllendirme liderlik davranışlarına ulaşılmıştır. Araştırmada ulaşılan bu sonuçlar, ilgili literatürü destekler niteliktedir. Haiyan, Walker ve Xiaowei (2017) okul müdürlerinin olumlu öğrenme ortamı sağlama konusunda sorumlu olduğunu belirtmiştir. Buna ek olarak Leithwood ve diğerleri

(2010) öğrenci öğrenmesini geliştirmek ve okulların akademik baskılarını artırmak için öğretme ve öğrenme süreçlerini izleme ve geri bildirim sağlama ile öğretimsel zamanı koruma gibi liderlik davranışlarına vurgu yapmışlardır.

Öneriler


Araştırmada ulaşılan sonuçlar bağlamında çeşitli öneriler getirilebilir. Okul müdürlerinin okulun stratejik plan ve vizyon belirleme ile karar alma sürecinde genel itibarıyla katılımcı ve demokratik bir yaklaşım benimsediği söylenebilir. Bu görüşler, okul müdürlerinin görüşleri olduğu için kendini olumlama açısından bazı sınırlılıklar barındırabilir. Okul müdürlerinin, güçlü bir iş birliği kültürü oluşturma ve sürdürme yönünde çabası bulunmaktadır. Ancak olumlu, destekleyici ve öğrenmeye uygun bir okul ortamı oluşturmak ve sürdürmek için okul müdürlerinin öğretmenleri öğretim süreçlerinde desteklemesi, okula özgü çeşitli ritüeller ve değerler geliştirmesi önerilebilir. Okul müdürlerinin öğretmenlerin mesleki gelişimlerini teşvik etme ve destekleme yönünde daha fazla sorumluluk alması, rol model olması ve diğer okullar ve üniversitelerle iş birlikleri geliştirmesi önerilebilir. Okul müdürleri, veli ve çevreyle ilişkiler konusunda genel itibarıyla olumlu bir yaklaşım içerisindedir. Özellikle ilkökul düzeyinde öğrenci gelişiminin birincil sorumlusu olarak öğretmen ve veli ilişkilerinin ve iş birliğinin geliştirilmesi için uygun ortamlar ve etkinlikler düzenlenebilir.



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Levels of Classroom Teachers' Use of Tacit Knowledge

 Ali Yıldız, Prof. Dr., Corresponding Author
Atatürk University, Türkiye
ayildiz@atauni.edu.tr
Orcid ID: 0000-0001-6241-2316

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Abstract

The purpose of the study is to explore the levels of tacit knowledge used by classroom teachers. In this study, case study approach, one of the qualitative research designs, was used. The study group consists of a total of 14 classroom teachers, 10 females and 4 males, who have a master's degree in classroom education at a state university. As a data collection tool, an opinion form consisting of four open-ended questions about tacit knowledge prepared by the researcher was used. In addition, semi-structured interviews were conducted with 7 participants who volunteered and had time about their answers to 4 questions. The fact that 3 of the 14 primary school teachers who made up the study group stated that "I heard it for the first time" and the other 3 participants said "I heard it before but I didn't know what it was" only proves that they were not aware of the classification of knowledge as tacit and explicit. This does not mean that 6 respondents (42.8%) did not know tacit knowledge. In this study, it has been shown that classroom teachers have a significant level of tacit knowledge about classroom management, students' learning, teacher behavior in classroom, cooking, and driving cars. Furthermore, a significant percentage (92.9%) of the participants stated that they believed the tacit knowledge gained by teacher candidates throughout their undergraduate education was necessary and valuable for the teaching profession.

Keywords: Classroom teachers, tacit knowledge, level of use.

Introduction

Knowledge is divided into two as explicit and tacit depending on its source. Explicit knowledge can be expressed in words, pictures, numbers or other means and can be easily transferred and shared with other people. Additionally, explicit knowledge can be exemplified by books, documents and visual materials. Tacit knowledge is defined as skills, ideas, and experiences that people have but are not codified and easily articulated (Chugh, 2015). Tacit knowledge is the non-symbolized knowledge people obtain through their intuitions, experiences, comprehension and evaluation methods, or their environment (Howells, 1996). According to various studies (Çakır, İra, and Yenil, 2020; İra, and Bulut, 2018; Nonaka, and Takeuchi, 1995), tacit knowledge, which is based on the actions and experiences of the individual; is a type of knowledge that is personal and extremely difficult to formulate and share or transmit. Effective transfer of tacit knowledge usually requires extensive personal contact, regular interaction and trust (Goffin, & Koners, 2011; Wikipedia, 2022). Tacit knowledge that is rare, valuable, difficult to imitate, transfer and replace is important for institutions to make a difference and maintain it. For this reason, tacit knowledge should be removed from the individual dimension and transformed for institutions (Doğan, 2007; Yıldırım, & Özdemirci, 2019).

The expression tacit knowledge is attributed to the physical chemist and philosopher of science Michael Polanyi (1958) for his work "*Personal Knowledge: Towards a Post-Critical Philosophy*". Polanyi (1958) stated in his study that the personal contribution of the scientist to his knowledge in both discovery and verification is an indispensable element of science. Polanyi, in his later work (1966), *The Tacit Dimension*, claimed that "we can know more than we can say". Tacit knowledge is a person has knowledge but cannot express verbally, explain, illuminate and write. That is, tacit knowledge is the knowledge that is difficult to articulate, describe, explain or receive, and, therefore, more difficult to write or verbally transfer to others. It is formed due to personal experience-practice, beliefs, values and intuitions. Therefore, it can be considered as personal knowledge.

Walter Baade is an astronomer who made significant observations. In 1943, a mass blackout was issued in Los Angeles against possible Japanese air attacks. In these blackout days, Walter Baade made

a number of observations using the big telescope set up on Mount Palomar. Baade is an astronomer who knows all the pitfalls of the telescope, the many tricks of the job, and how to push the telescope all the way. Similar to a race car driver (pilot) who knows how far he can push his car; in which case he can step a little more on the gas. In the process, the telescope becomes almost part of the body of the astronomer or race car of the race car pilot. This is described as “tacit knowledge” (Feyerabend, 2015). This tacit knowledge used in experimental processes has an essential role because it needs not only objective explanations but also direct responses from the individual to be effective (Polanyi, 1958; Feyerabend, 2015). In other words, experimentalists don't just observe what happens in nature. They also use a significant amount of tacit knowledge, operate their gear like race car drivers, and often keep pushing it to the limit. Then, they make intuitive judgments regarding the obtained-reached reactions. The same situation occurs in the process of the emergence of a theory. No theory comes out of the theorist's head the way Athena emerges from Zeus' forehead. Difficult-to-understand expectations, missing parts of thought that could be theory are adapted to the boundary conditions that the theorist considers important. “Tacit knowledge” is used in preparation for the theory (Feyerabend, 2015).

Knowing that Ankara is the capital of Turkey is explicit knowledge, it can be written, transmitted and understood by anyone. However, it is complicated to transfer the skill of riding a bicycle, kneading dough and playing a musical instrument in writing to others. Those who believe in tacit knowledge claim that tacit knowledge cannot be transferred through a written text or document, not the tacit knowledge itself. Tacit knowledge can be transferred through education. Piano playing can be transferred with piano playing training, but not by reading a book (Feyerabend, 2015).

One good example of tacit knowledge is face recognition. An average person can recognize the face of a person he knows, even if he sees it among a thousand different faces. However, people often cannot tell how they recognize their chosen face because they have difficulty expressing the recognition in words. When an individual sees a face, he sees and recognizes the face as a whole with its individual features (eye, nose, mouth, forehead, chin), rather than being aware of his knowledge of specific features (Polanyi, 1966; Wikipedia, 2022).

An electronics company decided to develop an automatic machine for making bread at home in 1985. However, there is a problem with how to mechanize the dough kneading process. A firm's software development team member starts to work as a volunteer apprentice for the head baker of a hotel known for producing the best bread in the region, to learn the necessary tacit knowledge. After imitating and practicing for a while, the programmer observes that one day the head baker stretches the dough and bends it in a certain way. This observation, namely the practice of pulling or stretching the dough by bending, which has an important and effective contribution to the success of the method of the head baker, can be considered as a good example of tacit knowledge (Nonaka, & Takeuchi, 1995; Wikipedia, 2022).

According to Polanyi (1958), tacit knowledge can be distinguished from explicit knowledge in three major areas:

1) In terms of codifying and transmission: The explicit knowledge can be easily codified and transmitted without the key knowledge holder. Tacit knowledge is an intuitive and inarticulate knowledge that cannot be transmitted, understood or used without the “key knowledge holder”.

Contrary to the transfer of explicit knowledge, the transfer of the tacit knowledge necessitates common understanding, close interaction and trust.

2) In terms of acquisition: Explicit knowledge can be generated through logical deduction and acquired through practical (hands-on) experience in the relevant context. However, tacit knowledge can only be acquired through practical experience in the relevant context.

3) In terms of collecting and distributing: Explicit knowledge can be collected in one place, stored in objective formats and owned without the participation of the key knowledge holder. Tacit knowledge is personal and contextual; it is distributed to people who know it and cannot be easily combined. To achieve its full potential, it needs the close participation and interaction of the key knowledge holder.

The majority of the crafts are based on tacit knowledge (Feyerabend, 2015). Finding all the features, intricacies or important details of a profession or craft in writing may not be possible. Because it is not easy to tell, explain or write every information. Such knowledge is tacit knowledge and is generally used in applications. An experienced craftsman driving nails knows exactly where to strike the nail, at which level, in which direction or at which angle. He can even re-plan and change all these according to the type of timber being nailed. An experienced physics teacher who gives a written exam usually knows which questions or problems his students may be unable to answer or solve. So, he has an opinion on it. If the experienced physics teacher wants his students to like physics lessons and study more in physics, he does not use problems they cannot solve as questions in the exam. At the same time, the experienced physics teacher can make accurate inferences about what concept misconceptions might be based on the unscientific thoughts and claims that students have made with their explanations in physics classes.

Tacit knowledge used by classroom teachers has been classified in a study (Çakır, İra, and Yenal, 2020), under five headings as “daily work”, “in the institution”, “school management”, “in the achievement of school goals” and “professional development”. In the study, the expression “tacit knowledge” was not included in any of the eight questions used to elicit the participant's views. Similarly, when the opinions given by the research participants were examined, it was seen that the expression “tacit knowledge” was not included in any sentence. Therefore, claiming that the research (Çakır, İra, and Yenal, 2020) reveals the opinions of classroom teachers about tacit knowledge is a matter that should be discussed.

The tacit knowledge makes a teacher, a craftsman, in short, a professional, experienced or expert. It is thought that teachers have many and very important implicit knowledge that they use and benefit from without explaining or writing in the classroom. In this sense, it is predicted that classroom teachers have advanced tacit knowledge and use it widely when necessary.

Purpose of the Study

The aim of this study is to investigate at what level classroom teachers use tacit knowledge.

Method

Research Design

In this study, case study approach, one of the qualitative research designs, was used. The most basic feature of the case study is to investigate the situation or situations in depth. The results of a situation can create experiences for understanding similar situations (Tekindal, & Uğuz Arsu, 2020; Yıldırım, & Şimşek, 2018).

In qualitative studies, the number of participants or the sample is usually small. As in many qualitative research, purposive sampling methods are used in case studies (Yıldırım, & Şimşek, 2018). In this study, critical case sampling, one of the purposive sampling types, was used to show the opinions of classroom teachers about tacit knowledge and their level of use. If a researcher or observer assumes that, "If this group is having problems, we can be sure that all other groups are having problems as well." critical situation sampling is used (Patton, 2014).

Study Group

The study group consists of a total of 14 classroom teachers, 10 females and 4 males, who have a master's degree in classroom education at a state university. The average ages for the participating females and males, respectively, were 28 and 32; the average of professional seniority was determined as 6 and 8 years. As stated in a study (Ay, and Başbüyük, 2022), before the implementation, necessary explanations were made about explicit and tacit knowledge and relevant examples were presented to the study group.

Data Collection

The study used an opinion form consisting of four open-ended questions prepared by the researcher about implicit knowledge as a data collection tool. In order to support the content validity of open-ended questions, opinions of experts in the field were taken (Büyüköztürk et al., 2013). In addition, necessary corrections were made per the feedback received from the experts to make the open-ended questions in the opinion form understandable. Before the opinion form was distributed within the framework of the principle of voluntariness, a presentation on explicit and implicit knowledge was given to the classroom teachers. The researcher prepared the presentation, which includes the definitions, characteristics and examples of explicit and tacit knowledge. The researcher provided prompt responses to the participants' questions on the explanations after the presentation. The researcher, then made comments in an effort to increase the motivation of the study group. The researcher stated that the answers to the open-ended questions in the opinion form with a sincere understanding can provide very important data for their research and therefore are valuable. In other words, the researcher tried to minimize the situations that prevent the data flow by stating that they need classroom teachers' ideas and examples about tacit knowledge.

In qualitative research, a second or third interview can be done with the participants. In qualitative research, second or third interviews can be conducted. Such interviews increase the validity and reliability of the research, as they allow the interviewees to confirm the explanations reached by the researcher and their meanings (Yıldırım, & Şimşek, 2018). In this context, semi-structured interviews were conducted with 7 participants who volunteered and had time about the answers they gave for 4 questions. No video or audio recording device was used during the interview. In the interviews, participant opinions were determined based on the statements and explanations written

and recorded by the researcher himself. At the end of each face-to-face interview, the written versions of the views and thoughts were reviewed. The incomplete or incorrectly written statements were immediately confirmed, and necessary arrangements were made. Among the opinions of the 7 interviewees, 4 opinions that were thought to be interesting were presented under the relevant heading in the findings section.

Data Analysis

Description constitutes the foundation of all qualitative research reports. The best advice for researchers is to read the data they collect repeatedly. The more the researcher interacts with the data, the more patterns and categories begin to appear to the researcher (Patton, 2014). Descriptive analysis method was used to organize the data obtained based on this claim. In the descriptive analysis method, the data is brought together in a meaningful and logical way, organized and defined understandably (Yıldırım, & Şimşek, 2018). Subsequently, necessary inferences are made, and the findings are interpreted.

In this study, the answers written by the participating classroom teachers for each open-ended question were examined in detail. They were grouped under certain categories considering the similarities of the written answers. The categories created were re-examined and grouped expressions with common and similar meanings were reassembled. The grouped answers of the classroom teachers, the number of females, males and total participants who wrote the answers were transferred to the relevant tables prepared separately for each question. After each table, the inferences and comments about the grouped expressions of the participating teachers are included. In the semi-structured interviews with the classroom teachers, 4 opinions that were thought to be different and interesting among the 7 participant opinions determined based on the statements and explanations recorded by the researcher were given in precise detail under a separate subheading in the findings section.

Ethical Permits of Research

This study complied with all the rules specified to be followed within the scope of “Higher Education Institutions Scientific Research and Publication Ethics Directive”. None of the actions specified under the title of “General Actions Contrary to Scientific Research and Publication Ethics”, which is the second part of the directive, were executed.

Ethics Committee Permission Information:

Name of the committee that made the ethical evaluation = Social and Human Sciences Ethics Committee / Educational Sciences Unit Ethics Committee

Date of ethical review decision=16.01.2023

Ethics assessment document issue number=01/13

Findings

Question 1. State your status on knowing and using the concept of tacit knowledge.

Table 1. Classroom teachers' answers to the question "State your status on knowing and using the concept of tacit knowledge."

| Teachers' Answers | Female | Male | f |
|---|--------|------|----|
| This is the first time I've heard of the concept of tacit knowledge. | 3 | - | 3 |
| I've heard the concept tacit knowledge before but didn't know what it was | 3 | - | 3 |
| I know and use the concept of tacit knowledge | 4 | 4 | 8 |
| Total | 10 | 4 | 14 |

When Table 1 is examined, it is interesting note that 3 participants claimed to have heard the term "tacit knowledge" for the first time, referring to the presentation made prior to the application, and that the other 3 participants claimed to have heard the term "tacit knowledge" previously but didn't know what it meant. In other words, 6 participants (42.8%) stated they did not know tacit knowledge, whereas 8 participants (57.1%) knew it.

Even classroom teachers, who claimed to have never heard the term tacit knowledge before, may inadvertently use tacit knowledge. The fact that some participants do not know that classification is made as explicit and tacit knowledge does not mean that they do not have tacit knowledge. Every member of the profession, even individuals who do not have a profession, has tacit knowledge that they use. In daily life, it is observed that individuals use tacit knowledge in many contexts as they communicate with each other. While shopping, talking with children, requesting a service or obtaining information, it is seen that each individual uses his/her own attitudes, words and expressions. Adults adeptly (indirectly) learn what foods they like, games, toys and animals while talking to children, usually thanks to their tacit knowledge.

Question 2. Is there any tacit knowledge you use about your profession? Please explain.

Table 2. Classroom teachers' answers to the question "Is there any tacit knowledge you use about your profession?"

| Teachers' Answers and Explanations | Female | Male | f |
|---|--------|------|----|
| I consider myself experienced in terms of classroom management because the information written in the books is not sufficient. | 4 | 1 | 5 |
| I try to use appropriate language and courtesy in the classroom because we are role models for students. | 2 | - | 2 |
| I usually know which of my students can solve which math problem or make which mistake. | 1 | 1 | 2 |
| Yes, there is Before starting the lesson, I know the best ways for my students to understand the subjects, the kind of questions they can ask, and even the kinds of examples they can give if I so want. | 2 | - | 2 |
| Simplifying each topic in each lesson helps students gain a better understanding of the subject | - | 1 | 1 |
| I have implicit knowledge about doing mostly administrative work. | - | 1 | 1 |
| I write down important events at school, students' comments and thoughts about the events in a special notebook. | 1 | - | 1 |
| Total | 10 | 4 | 14 |

Table 2 demonstrates that all of the participating classroom teachers provided seven different justifications why they answered "Yes, there is" to the second question and specified the type of tacit knowledge they used about their profession. However, it can be said that there is difficulty in how the explanation of a female participant given in the last line can be associated with tacit knowledge. Could the non-associative response be explained by the fact that several classroom teachers in the study group

claimed they had never heard of the tacit knowledge? It is unknown. As can be seen from the data, 35.7% of the participants stated that they have tacit knowledge about classroom management.

Question 3. Is there any tacit knowledge that you use in your daily or social life? Please explain.

Table 3. Classroom teachers' answers to the question "Is there any tacit knowledge that you use in daily or social life?"

| Teachers' Answers and Explanations | | Female | Male | f |
|------------------------------------|--|--------|------|---|
| Yes, there is | About driving cars | 2 | 2 | 4 |
| | About cooking | 4 | - | 4 |
| | About motivating students | 1 | - | 1 |
| | About minor repairs and alterations in the home | 1 | - | 1 |
| | About correcting mistakes made in official correspondence | - | 1 | 1 |
| | Other answers (Non-example answers for implicit knowledge) | 1 | 1 | 2 |
| No answer | 1 | - | 1 | |
| Total | 10 | 4 | 14 | |

The third question was answered by the participants in Table 3 with "Yes, there is". They continued their response by listing in which areas they used tacit knowledge and providing relative explanations. The first five statements written by eleven (11) participants (78.6%) can be associated with tacit knowledge. It may be inferred that 2 participants who wrote the statements included in the other answers section and 1 participant who did not write any answers had difficulty in writing tacit knowledge (21.4%). This may be the case because of the nature of tacit knowledge, people who use it have difficulties in expressing it verbally or in writing, or they are sometimes unaware that they are using tacit knowledge. Because in general, observers can detect tacit knowledge more easily.

Question 4. Do you find tacit knowledge necessary and useful in the education process of teacher candidates? Why?

Table 4. Classroom teachers' answers to the question "Do you find tacit knowledge necessary and useful in the education process of teacher candidates?"

| Teachers' Answers and Explanations | | Female | Male | f |
|--------------------------------------|---|--------|------|---|
| Yes, I think it necessary and useful | Since it is a product of experience, tacit knowledge will contribute us professionally and make our profession easier. | 1 | 2 | 3 |
| | Teaching is not a profession that can be learned only with books, documents, written materials and explanations. | 3 | - | 3 |
| | Tacit knowledge is needed to reach students. That information should also be obtained during the undergraduate education process. | 2 | - | 2 |
| | Equipping the teachers with tacit knowledge during their training is a preliminary preparation for the solution of the problems and problems they will encounter in a village school where they are first assigned. | 2 | - | 2 |
| | A person who has acquired tacit knowledge is more proficient at his job. Learning the profession from experts takes the prospective teacher further | 2 | - | 2 |
| | Teacher candidates can be provided with tacit knowledge by increasing the teaching practice course hours. | - | 1 | 1 |
| No, I don't think it necessary | 1 | 1 | 1 | |
| Total | 10 | 4 | 14 | |

When Table 4 is examined, it can be observed that the primary school teachers answered the fourth question with the statement "Yes, I believe it necessary and valuable" and supported it with 6 different justifications at a rate of 92.9%. Only 1 participant supported the answer "No, I do not find it

necessary” with the explanation “He acquires the tacit knowledge he needs when he starts his profession”. In recent years, when distance education has become widespread, it cannot be ignored how important and essential it is to continue face-to-face education with experienced experts in obtaining a profession. Because in the process of acquiring the teaching profession, observing or learning the tacit knowledge used by experienced experts provides important gains to prospective teachers.

Places like classrooms, laboratories, and workshops are examples of settings where tacit knowledge is employed more frequently and productively. What makes face-to-face education valuable, important, effective and efficient is that teachers or academicians have the opportunity to transfer their tacit knowledge to students in classrooms, laboratories and workshops. In addition, students can obtain the tacit knowledge that teachers or academicians use unconsciously in classrooms, laboratories and workshops by observing. In other words, what makes the teachers who teach face-to-face in the specified environments powerful, valuable, precious and productive is that they use their tacit knowledge together with explicit knowledge at the stages they consider appropriate. Effective sharing of tacit knowledge is easier with face-to-face education than with distance education. Tacit knowledge is root knowledge; it can make explicit information more permanent.

Opinions Expressed by Classroom Teachers in the Interview

Semi-structured interviews were conducted with 7 participants who volunteered and had time among the classroom teachers that made up the study group. The opinions expressed by the participants in the interviews with half of the study group were examined and 4 opinions that were considered to be important and interesting are given below.

I learned the expression of tacit knowledge with the explanations made today. In fact, I just heard that knowledge is classified as explicit and tacit.

I know who knows what and how much from my students in the class. I give them the pleasure of knowing by asking questions they can answer, and I motivate them to learn more.

Recipes written in books are explicit knowledge. In practice, it is tacit knowledge to add oil, salt and spice in a way that adds flavor -without measuring- by rule of thumb.

It should be ensured that students who receive undergraduate education to become a classroom teacher go to internship schools more and stay there longer. Pre-service teachers going to primary schools for practice gain experience by observing experienced classroom teachers, administrators, students and parents coming and going to school. And they can make important conclusions afterwards.

Discussion and Conclusion

The fact that 3 of the 14 primary school teachers who made up the study group stated that "I heard it for the first time" and the other 3 participants said "I heard it before, but I didn't know what it was" only proves that they were not aware of the classification of knowledge as tacit and explicit. This does not mean that 6 respondents (42.8%) did not have tacit knowledge. Generally speaking, each individual possesses different types of tacit knowledge in different areas that they can use voluntarily or as a spontaneous response when necessary. This study has shown that classroom teachers have a significant level of tacit knowledge regarding classroom management, students' learning, classroom teacher behavior, cooking, and driving cars. In addition, a high percentage (92.9%) of the participants

stated that they found the tacit knowledge that teacher candidates will acquire during their undergraduate education necessary and useful for the teaching profession.

In a study called "Classroom teachers' views on tacit knowledge" conducted by Çakır, İra, and Yenil (2020), the expression " tacit knowledge" was not included in any of the eight questions used to reveal the views of the participants. When the opinions provided by the same research participants were evaluated, it was discovered that not a single sentence used the phrase " tacit knowledge. For this reason, claiming that the research (Çakır, İra, and Yenil, 2020) reveals the opinions of classroom teachers about tacit knowledge should be considered as a case that should be discussed.

As stated in some documents (Feyerabend, 2015; Geiger and Schreyögg, 2012; Héder and Paksi, 2018; Nonaka and Takeuchi, 1995; Polanyi, 1958; Smith, 2001; Wikipedia, 2022), close contact is necessary to transmit tacit knowledge. For this reason, classes in educational institutions that prepare people for careers should be taught in-person. What makes face-to-face education valuable, important, effective and productive is that teachers or academicians have the opportunity to transfer their tacit knowledge to students in classrooms, laboratories and workshops. In addition, students can obtain the tacit knowledge that teachers or academicians use unconsciously in classrooms, laboratories and workshops by observing. What makes the teachers or academicians who teach face-to-face in the specified environments powerful, valuable, precious and productive is that they use their tacit knowledge together with explicit knowledge at the stages they consider appropriate. Tacit knowledge is root knowledge; it can make explicit information more permanent. Without tacit knowledge, a pre-service teacher cannot make useful and insightful observations on experienced teachers or academics. Subsequently, the pre-service teacher may not be able to achieve the expected level of equipment. For every member of profession, tacit knowledge about his profession is valuable. The tacit knowledge that a teacher, scientist, or expert has and uses efficiently to maintain their position at the top is the only basis for their training and competence in their profession.

Recommendations

Studies that examine people's tacit knowledge should be conducted by interviewing fewer participants. Because it is not possible to verbalize the tacit knowledge in writing due to its nature, it should be seen as a more appropriate way to conduct interviews with the participants. In fact, second interviews can be conducted with the participants -for confirmation or for details- if needed regarding the opinions expressed in the first interviews. Participants should be given the appropriate explanations regarding the different forms of tacit and explicit knowledge, reinforced by solid examples, prior to the first interview, and their questions should be answered patiently and in detail.

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BIOGRAPHICAL NOTES

Contribution Rate of Researchers

Author 1: 100%

Conflict Statement

There is no material or individual organic connection with the people or institutions involved in the research and there is no conflict of interest in the research.



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Sınıf Öğretmenlerinin Örtük Bilgiyi Kullanma Düzeyleri

Giriş

Bilgi, kaynağına göre açık ve örtük olmak üzere ikiye ayrılır. Açık bilgi; sözcüklerle, resimlerle, rakamlarla veya diğer araçlarla ifade edilebilir ve başka insanlara kolaylıkla aktararak paylaşılabilir. Ayrıca açık bilgi, kitaplar, belgeler ve görsel materyallerle örneklendirilebilir. Örtük bilgi, insanlar tarafından sahip olunan ancak kodlanmayan ve kolayca ifade edilemeyen beceriler, fikirler ve deneyimler olarak tanımlanır (Chugh, 2015). Örtük bilgi; kişilerin önsezileri, tecrübeleri, kavrama ve değerlendirme yöntemleri veya çevreleri yoluyla elde ettikleri sembolleştirilmemiş bilgidir (Howells, 1996). Bazı çalışmalara (Çakır, İra ve Yenil, 2020; İra ve Bulut, 2018; Nonaka ve Takeuchi, 1995) göre bireyin eylem ve deneyimleri üzerine kurulmuş olan örtük bilgi; kişisel, formüle edilmesi ve bir başkasıyla paylaşılması veya bir başkasına iletilmesi son derece zor bir bilgi türüdür.

Örtük bilgi ifadesi, "*Personal Knowledge: Towards a Post-Critical Philosophy*" isimli eserinden dolayı fizikokimyacı ve bilim felsefecisi Michael Polanyi'ye (1958) atfedilmektedir. Polanyi, sonraki çalışmasında (1966), *The Tacit Dimension*, "söyleyebileceğimizden daha fazlasını bilebiliriz" iddiasını ortaya koymuştur. İşte kişinin bildiği halde söyleyemediği, anlatamadığı, açıklayamadığı ve yazamadığı bilgi örtük bilgidir. Yani, örtük bilgi; ifade edilmesi, anlatılması, açıklanması veya alınması zor olan ve bu nedenle yazılması veya sözlü olarak başkalarına aktarılması daha zor olan bilgidir. Kişisel deneyim-uygulama, inanç, değer ve sezgiler sonucu oluşur. O nedenle kişisel bilgi olarak düşünülebilir.

Türkiye'nin Başkentinin Ankara olması bilgisi, açık bilgidir; herkes tarafından yazılabilir, iletilebilir ve anlaşılabilir. Ancak bisiklete binmek, hamur yoğurmak ve bir müzik aletini çalmak becerisini başkalarına yazılı olarak aktarmak oldukça zordur. Örtük bilgiye inananlar, örtük bilginin aktarılamayacağını değil, yazılı bir metin veya doküman aracılığıyla aktarılamayacağını iddia etmektedir. Örtük bilgi eğitimle aktarılabilir. Piyano çalma, piyano çalma eğitimi ile aktarılabilir, ama bir kitap okuyarak aktarılamaz (Feyerabend, 2015).

Bir elektronik firması, 1985'te evde ekme yapmak için otomatik bir makine geliştirmeye karar verir. Ancak hamur yoğurma işleminin nasıl mekanize edileceği sorunu ortaya çıkar. Firmanın yazılım geliştirme ekibinin bir üyesi, gerekli örtük bilgiyi öğrenmek için, bölgenin en iyi ekmeğini üretmesiyle tanınan bir otelin baş fırıncısının yanında gönüllü çırak olarak çalışmaya başlar. Yazılımcı, bir süre taklit ve pratik yaptıktan sonra, bir gün baş fırıncının hamuru sadece esnetmediğini, aynı zamanda belirli bir şekilde büküğünü gözlemler. Yapılan bu gözlem, yani baş fırıncının yönteminin başarısında önemli ve etkili katkısı olan hamuru bükerek çekme veya esnetme pratiği, örtük bilgi için iyi bir örnek olarak düşünülebilir (Nonaka, & Takeuchi, 1995; Wikipedia, 2022).

Bir araştırmada (Çakır, İra ve Yenal, 2020), sınıf öğretmenlerinin kullandıkları örtük bilgiler; “günlük işlerde”, “kurum içerisinde”, “okul yönetiminde”, “okulun amaçlarının gerçekleşmesinde” ve “mesleki gelişimde” olmak üzere beş başlık altında sınıflandırılmıştır. Araştırmada katılımcıların görüşlerini ortaya çıkarmak için kullanılan sekiz sorunun hiç birinde “örtük bilgi” ifadesine yer verilmemiştir. Benzer şekilde araştırmanın katılımcılarından aynen alınarak verilen görüşleri incelendiğinde “örtük bilgi” ifadesinin hiçbir cümlede yer almadığı görülmüştür. Bu nedenle araştırmanın (Çakır, İra ve Yenal, 2020) sınıf öğretmenlerinin örtük bilgileri hakkında görüşlerini ortaya koyduğunu iddia etmek tartışılması gereken bir durumdur.

Bir öğretmeni, bir zanaatkârı kısaca bir meslek erbabını deneyimli veya uzman yapan sahip olduğu örtük bilgidir. Öğretmenlerin, sınıfta açıklamadan-yazmadan kullandığı-yararlandığı çok sayıda ve çok önemli örtük bilgilerinin olduğu düşünülmektedir. Bu anlamda sınıf öğretmenlerinin ileri düzeyde örtük bilgiye sahip oldukları ve gerektiğinde onu yaygın olarak kullandıkları öngörülmektedir.

Çalışmanın Amacı

Bu çalışmanın amacı, sınıf öğretmenlerinin örtük bilgiyi hangi düzeyde kullandıklarını araştırmaktır.

Yöntem

Bu araştırmada nitel araştırma desenlerinden durum çalışması yaklaşımı kullanılmıştır. Durum çalışmasının en temel özelliği durumun veya durumların derinliğine araştırılmasıdır. Bir duruma ilişkin ortaya konan sonuçlar benzer durumların anlaşılmasına yönelik deneyimler oluşturabilir (Tekindal, & Uğuz Arsu, 2020; Yıldırım, & Şimşek, 2018). Nitel çalışmalarda katılımcı sayısı veya örneklem genelde küçüktür. Bu çalışmada sınıf öğretmenlerinin örtük bilgi hakkında görüşlerini ve onu kullanma düzeylerini ortaya çıkarmak için amaçlı örnekleme türlerinden kritik durum örnekleme kullanılmıştır. Bir araştırmacı veya gözlemci “Eğer bu grup problem yaşıyorsa, diğer tüm grupların da problem yaşadığına emin olabiliriz.” şeklinde bir tespit veya çıkarım yapıyorsa kritik durum örnekleme kullanılır (Patton, 2014).

Çalışma grubunu bir devlet üniversitesi sınıf eğitimi bilim dalında yüksek lisans yapan 10 kadın ve 4 erkek olmak üzere toplam 14 sınıf öğretmeni oluşturmaktadır. Sırasıyla katılımcı kadın ve erkekler için yaş ortalamaları 28 ve 32; mesleki kıdem ortalamaları ise 6 ve 8 yıl olarak tespit edilmiştir. Bir araştırmada (Ay ve Başbüyük, 2022) belirtildiği gibi uygulamadan önce, çalışma grubuna açık ve örtük bilgi hakkında gerekli açıklamalar yapılarak ilgili örnekler sunulmuştur. Çalışmada veri toplama aracı olarak araştırmacı tarafından örtük bilgi hakkında hazırlanan dört açık uçlu sorunun yer aldığı bir görüş formu kullanılmıştır.

Tüm nitel araştırma raporlarının temelini betimleme oluşturur. Verilerle ne kadar çok etkileşim kurularsa, o derece çok örüntü ve kategori araştırmacıya görünmeye başlar (Patton, 2014). Bu iddiaya dayanarak elde edilen verilerin düzenlenmesi için betimsel analiz yöntemi kullanılmıştır. Betimsel analiz yönteminde veriler anlamlı ve mantıklı bir şekilde bir araya getirilir, düzenlenir ve anlaşılır bir şekilde tanımlanır (Yıldırım, & Şimşek, 2018). Akabinde gerekli çıkarımlar yapılarak bulgular yorumlanır.

Yazılan cevapların benzerlikleri dikkate alınarak belli kategoriler altında toplanmıştır. Oluşturulan kategoriler tekrar incelenerek anlamları ortak ve benzer olan gruplandırılmış ifadeler yeniden birleştirilmiştir. Sınıf öğretmenlerinin gruplandırılan cevapları, cevapları yazan kadın, erkek ve toplam katılımcı sayıları her soru için ayrı hazırlanan ilgili tablolara aktarılmıştır. Sınıf öğretmenleri ile yapılan yarı yapılandırılmış mülakatlarda araştırmacı tarafından yazılarak kayıt altına alınan ifade ve açıklamalar esas alınarak belirlenen 7 katılımcı görüşleri arasından farklı ve ilginç olduğu düşünülen 4 görüş bulgular kısmında ayrı bir alt başlık altında aynen verilmiştir.

Bulgular

Soru 1. Örtük bilgi kavramının tarafınızdan bilinmesi ve kullanılması hakkında durumunuzu belirtiniz?

Tablo 1. Sınıf öğretmenlerinin "Örtük bilgi kavramının tarafınızdan bilinmesi ve kullanılması hakkında durumunuzu belirtiniz." sorusu için yazdıkları cevaplar

| Öğretmenlerin Cevapları | Kadın | Erkek | f |
|---|-------|-------|----|
| Örtük bilgi kavramını ilk kez duyuyorum | 3 | - | 3 |
| Örtük bilgi ifadesini daha önce duymuştum ancak ne olduğunu bilmiyordum | 3 | - | 3 |
| Örtük bilgi kavramını biliyorum ve kullanıyorum | 4 | 4 | 8 |
| Toplam | 10 | 4 | 14 |

Tablo 1 incelendiğinde 3 katılımcının uygulamadan önce yapılan sunumu kastederek örtük bilgi ifadesini ilk kez duyduklarını ve diğer üç katılımcının ise daha önce duymuştum ancak ne olduğunu bilmiyordum şeklinde görüş belirtmeleri ilginç bulunmuştur. Yani, örtük bilgiyi 6 katılımcı (42.8%) bilmediğini, 8 katılımcı (57.1%) ise bildiğini ifade etmiştir.

Örtük bilgi ifadesini ilk defa duyduğunu belirten sınıf öğretmenlerinin dahi farkında olmadan kullandıkları örtük bilgileri olabilir. Bazı katılımcıların açık ve örtük bilgi şeklinde bir sınıflandırmanın yapıldığını bilmiyor olmaları örtük bilgileri olmadığı anlamına gelmez. Her meslek mensubunun hatta bir mesleği olmayan bireylerin dahi kullandıkları örtük bilgileri vardır. Günlük yaşamda bireylerin birbirleri ile iletişim kurmada kullandıkları gibi birçok alanda etkin yararlandıkları örtük bilgileri gözlemlenmektedir. Alış-veriş yaparken, çocuklarla konuşurken, bir hizmet alımı veya bilgi edinme talebinde bulunurken genelde her bireyin kendisine özgü tavır, sözcük ve ifadeler kullandıkları görülmektedir. Yetişkinlerin çocuklarla konuşurken onların hangi yemekleri-yiyecekleri, oyunları, oyuncakları ve hayvanları sevdiklerini ustalıkla (dolaylı yollarla) öğrenmeleri genelde örtük bilgileri sayesinde gerçekleşmektedir.

Soru 2. Mesleğinizle ilgili kullandığınız örtük bilgi var mı? Açıklayınız.

Tablo 2. Sınıf öğretmenlerinin “Mesleğinizle ilgili kullandığınız örtük bilgi var mı?” sorusu için yazdıkları cevaplar

| Öğretmenlerin cevapları ve açıklamaları | Kadın | Erkek | f |
|--|-----------|----------|-----------|
| Sınıf yönetimi bakımından kendimi deneyimli görüyorum çünkü kitaplarda yazılan bilgiler yeterli gelmiyor | 4 | 1 | 5 |
| Sınıfta uygun bir dil kullanmaya ve nezaket kurallarına özen gösteriyorum çünkü öğrenciler için biz rol modeliz | 2 | - | 2 |
| Hangi öğrencimin hangi matematik problemini çözebileceğini veya hangi hatayı yapabileceğini genelde biliyorum | 1 | 1 | 2 |
| Evet, var Derse başlamadan önce öğrencilerimin konuyu hangi yöntemle daha iyi öğrenebileceklerini, hangi soruları sorabileceklerini hatta istemem halinde hangi örnekleri verebileceklerini biliyorum | 2 | - | 2 |
| Her derste her konuyu basitleştirmek öğrencilerin konuyu daha iyi kavramalarını sağlıyor | - | 1 | 1 |
| Daha çok idari işlerin yapılmasına yönelik örtük bilgilere sahibim | - | 1 | 1 |
| Okulda yaşanan önemli olayları, olaylara ilişkin öğrencilerin yorumlarını ve düşüncelerini özel bir defterime not alıyorum | 1 | - | 1 |
| Toplam | 10 | 4 | 14 |

Tablo 2 incelendiğinde katılımcı sınıf öğretmenlerinin tamamının ikinci soruya “Evet, var” cevabının devamında yedi farklı açıklama yaparak meslekleri ile ilgili ne tür örtük bilgi kullandıklarını belirtmişlerdir. Ancak son satırda verilen bir kadın katılımcıya ait açıklamanın örtük bilgi ile nasıl ilişkilendirilebileceği noktasında zorluk yaşandığı söylenebilir. Çalışma grubunda örtük bilgiyi daha önce duymadığını ifade eden sınıf öğretmenlerinin olması ilişkilendirilemeyen cevabın nedeni olabilir mi? Bilinmez. Katılımcıların, 35.7% oranında sınıf yönetimiyle ilgili örtük bilgiye sahip olduklarını belirttikleri görülmektedir.

Soru 3. Günlük veya sosyal hayatta kullandığınız örtük bilgi var mı? Açıklayınız.

Tablo 3. Sınıf öğretmenlerinin “Günlük veya sosyal hayatta kullandığınız örtük bilgi var mı?” sorusu için yazdıkları cevaplar

| Öğretmenlerin Cevapları ve Açıklamaları | Kadın | Erkek | f |
|--|-----------|----------|-----------|
| Otomobillerin kullanılması hakkında | 2 | 2 | 4 |
| Yemek pişirme hakkında | 4 | - | 4 |
| Öğrencilerin motive edilmesi hakkında | 1 | - | 1 |
| Evet, var Evdeki küçük onarım ve değişimler hakkında | 1 | - | 1 |
| Resmi yazışmalarda yapılan hataları düzeltme hakkında | - | 1 | 1 |
| Diğer cevaplar (Örtük bilgi için örnek olma niteliği taşımayan cevaplar) | 1 | 1 | 2 |
| Cevap yazmayan | 1 | - | 1 |
| Toplam | 10 | 4 | 14 |

Tablo 3’de katılımcılar, üçüncü soruya “Evet, var.” cevabının devamında göreceli açıklamalarla kullandıkları örtük bilginin hangi alanlarda olduğunu belirtmişlerdir. On bir (11) katılımcı (78.6%) tarafından yazılan ilk beş açıklama örtük bilgi ile ilişkilendirilebilecek niteliktedir. Diğer cevaplar kısmına dâhil edilen ifadeleri yazan 2 ve hiçbir cevap yazmayan 1 katılımcı için örtük bilgiyi yazmakta zorlandıkları (21.4%) çıkarımı yapılabilir. Bu durumun nedeni örtük bilginin doğası gereği onu kullanan kişilerin onu yazılı veya sözlü olarak ifade etmede zorlanmaları veya örtük bilgi kullandıklarının bazen farkında olmamaları olabilir. Çünkü genelde gözlem yapanlar örtük bilgiyi daha kolay tespit edebiliyorlar.

Soru 4. Öğretmen adaylarının eğitimi sürecinde örtük bilgiyi gerekli ve yararlı buluyor musunuz?
Niçin?

Tablo 4. Sınıf öğretmenlerinin “Öğretmen adaylarının eğitimi sürecinde örtük bilgiyi gerekli ve yararlı buluyor musunuz?” sorusu için yazdıkları cevaplar

| Öğretmenlerin Cevapları ve Açıklamaları | | Kadın | Erkek | f |
|---|---|-------|-------|----|
| Evet, gerekli ve yararlı görüyorum | Örtük bilgi, tecrübe ürünü olduğu için mesleki anlamda katkı sağlayacak ve mesleğimizi kolaylaştıracaktır | 1 | 2 | 3 |
| | Öğretmenlik sadece kitaplarla, belgelerle, yazılı materyallerle ve anlatılarak öğrenilecek bir meslek değildir | 3 | - | 3 |
| | Öğrencilere ulaşmak için örtük bilgiye ihtiyaç vardır. O bilgi de lisans eğitimi sürecinde alınmalıdır | 2 | - | 2 |
| | Öğretmenlerin yetiştirilmeleri sürecinde örtük bilgilerle donatılmaları ilk atandıkları bir köy okulunda karşılaştıkları sorun ve problemlerin çözümü için ön hazırlık olur | 2 | - | 2 |
| | Örtük bilgiler edinmiş bir kişi işinde daha uzmandır. Mesleği, uzman kişilerden öğrenmek, öğretmen adayını daha ileri götürür | 2 | - | 2 |
| Hayır, gerekli görmüyorum | Öğretmenlik uygulaması ders saati artırılarak öğretmen adaylarının örtük bilgi edinmeleri sağlanabilir | - | 1 | 1 |
| | Mesleğe başladığında ihtiyacı olan örtük bilgiyi zamanla kendisi edinir | - | 1 | 1 |
| Toplam | | 10 | 4 | 14 |

Tablo 4 incelendiğinde sınıf öğretmenlerinin dördüncü soruya “Evet, gerekli ve yararlı görüyorum” cevabını yazarak 6 farklı açıklama ile 92.9% oranında destekledikleri görülmektedir. Sadece 1 katılımcı “Hayır, gerekli görmüyorum” cevabını “Mesleğe başladığında ihtiyacı olan örtük bilgiyi zamanla kendisi edinir” açıklaması ile desteklemiştir. Uzaktan eğitimin yaygınlaştığı son yıllarda meslek edinme sürecinde deneyimli uzmanlarla yüz yüze eğitimin sürdürülmesinin ne kadar kıymetli ve önemli olduğu göz ardı edilemez. Çünkü öğretmenlik mesleğinin edinilmesi sürecinde öğretmen adaylarının deneyimli uzmanlar tarafından kullanılan örtük bilgileri gözlemleyerek almaları veya öğrenmeleri onlara önemli kazanımlar sağlar.

Tartışma ve Sonuç

Çalışma grubunu oluşturan 14 sınıf öğretmeninden 3 kişinin örtük bilgiyi “ilk kez duyuyorum” diğer 3 katılımcının ise “daha önce duymuştum ancak ne olduğunu bilmiyordum” şeklinde görüş belirtmesi sadece bilginin örtük ve açık olmak üzere sınıflandırılmasından haberdar olmadıklarını kanıtlar. Bu 6 katılımcının (42.8%) örtük bilgileri olmadığı anlamına gelmez. Genelde her birey farklı alanlarda farklı türden örtük bilgilere sahiptir ve onu gerektiğinde isteyerek veya kendiliğinden gelişen tepki şeklinde kullanabilir. Bu çalışmada sınıf öğretmenlerinin sınıf yönetimi, öğrencilerin öğrenmeleri, sınıf içi öğretmen davranışı, yemek pişirme, otomobillerin kullanılması hakkında önemli düzeyde örtük bilgileri olduğu ve gerektiğinde kullandıkları ortaya konulmuştur. Ayrıca katılımcılar yüksek oranda (92.9%), öğretmen adaylarının lisans eğitimleri sürecinde edinecekleri örtük bilgiyi öğretmenlik mesleği için gerekli ve yararlı bulduklarını ifade etmişlerdir.

Çakır, İra ve Yenal (2020) tarafından yapılan “Sınıf öğretmenlerinin örtük bilgi hakkındaki görüşleri” isimli bir araştırmada katılımcıların görüşlerini ortaya çıkarmak için kullanılan sekiz sorunun hiç birinde “örtük bilgi” ifadesine yer verilmemiştir. Aynı araştırmanın katılımcılarından alıntılar yapılarak verilen görüşleri incelendiğinde “örtük bilgi” ifadesinin hiçbir cümlede yer almadığı görülmüştür. Bu nedenle incelenen araştırmanın (Çakır, İra ve Yenal, 2020) sınıf öğretmenlerinin örtük

bilgileri hakkında görüşlerini ortaya koyduğunu iddia etmek tartışılması gereken bir durum olarak değerlendirilmelidir.

Bazı dokümanlarda (Feyerabend, 2015; Geiger ve Schreyögg, 2012; Héder ve Paksi, 2018; Nonaka ve Takeuchi, 1995; Polanyi, 1958; Smith, 2001; Wikipedia, 2022) belirtildiği gibi örtük bilgilerin aktarılması için yakın temasın olması gerekmektedir. Bu nedenle bireylerin meslek sahibi olmaları için hizmet veren eğitim kurumlarında dersler yüz yüze yapılmalıdır. Yüz yüze yapılan eğitimi değerli, önemli, etkili ve verimli kılan öğretmenlerin veya akademisyenlerin örtük bilgilerini öğrencilere sınıflarda, laboratuvarlarda ve atölyelerde aktarma fırsatı yakalamasıdır. Ayrıca öğrenciler; sınıf, laboratuvar ve atölyelerde öğretmenlerin veya akademisyenlerin farkında olmadan kullandıkları örtük bilgileri gözlemleyerek edinebilmektedir. Belirtilen ortamlarda yüz yüze ders yapan öğretmenleri veya akademisyenleri güçlü, değerli, kıymetli ve verimli kılan sahip oldukları örtük bilgileri uygun gördükleri aşamalarda açık bilgi ile birlikte kullanmalarıdır. Örtük bilgiler, kök bilgilerdir; açık bilgilerin daha kalıcı olmasını sağlayabilir. Aksi durumda bir öğretmen adayı örtük bilgileri olan deneyimli öğretmenler veya akademisyenler ile ilgili işlevsel ve etkili gözlemler yapamaz. Devamında öğretmen adayı, beklenen düzeyde donanıma sahip olmayı gerçekleştiremeyebilir. Her meslek mensubu için mesleğine ilişkin örtük bilgiler kıymetlidir. Bir öğretmen, bir bilim insanı veya bir uzman ancak sahip olduğu ve etkin kullandığı örtük bilgilerine dayalı olarak alanında donanımlı ve yetkin olmayı yakalayabilir ve zirvede kalmayı kalıcı hale getirebilir.

Öneriler

Bireylerin örtük bilgilerini araştırmak amacıyla yapılacak çalışmalar daha az katılımcı ile görüşmeler yapılarak gerçekleştirilmelidir. Çünkü örtük bilgilerin doğası gereği yazılarak ifade edilmesi çok mümkün olmadığı için katılımcılarla mülakatlar yapılması daha uygun bir yol olarak görülmelidir. Hatta ilk mülakatlarda ortaya konan görüşlerle ilgili olarak ihtiyaç duyulması durumunda -teyit amaçlı veya detaylar için- katılımcılarla ikinci görüşmeler de yapılabilir. Katılımcılara, ilk mülakat öncesi örtük ve açık bilgi türleri hakkında iyi örneklerle desteklenmiş gerekli açıklamalar yapılmalı ve soruları sabırla detaylı bir şekilde cevaplandırılmalıdır.



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The Effects of Urban Poverty: An Evaluation of Students' Experiences

Orhan Kahya, Res. Assist, Corresponding Author
Muğla Sıtkı Koçman University, Türkiye
okahya1@gmail.com
Orcid ID: 0000-0001-7932-2982


Perihan Korkut, Assoc. Prof. Dr.
Muğla Sıtkı Koçman University, Türkiye
pkocaman@mu.edu.tr
Orcid ID: 0000-0002-5037-0267


Kasım Yıldırım, Prof. Dr.
Muğla Sıtkı Koçman University, Türkiye
kasimyildirim@mu.edu.tr
Orcid ID: 0000-0003-1406-709X

Sergender Sezer, Assist. Prof. Dr.
Muğla Sıtkı Koçman University, Türkiye
sergender@mu.edu.tr
Orcid ID: 0000-0002-7097-8691

 Tuğba Hoşgörür, Assoc. Prof. Dr.
Muğla Sıtkı Koçman University, Türkiye
t.hosgorur@gmail.com
Orcid ID: 0000-0001-7109-3935

 Mirace Karaca Evren, Res. Assist.
Muğla Sıtkı Koçman University, Türkiye
miracekaraca@mu.edu.tr
Orcid ID: 0000-0003-4565-3200

 Mine Kızır, Assist. Prof. Dr.
Muğla Sıtkı Koçman University, Türkiye
minekizir@mu.edu.tr
Orcid ID: 0000-0001-8801-5693

 Eda Yeşil, M.Sc.
Muğla Sıtkı Koçman University, Türkiye
edayesill181097@gmail.com
Orcid ID: 0000-0002-4841-6545

 Vural Hoşgörür, Prof. Dr.
Muğla Sıtkı Koçman University, Türkiye
vuralhosgorur@gmail.com
Orcid ID: 0000-0001-8734-1171

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Abstract

Children of urban poor families living in cities may be deprived of many opportunities offered by the city, especially quality education, and quality life. This study aims to determine the situations that may affect children's educational life and to reveal their characteristics within the framework of face-to-face in-depth interviews with children of urban poor families. The research was conducted using case study. While selecting the study group, attention was paid to the students' being urban poor and having a secondary disadvantage (broken family, imprisoned parents, having different ethnic origin, etc.). Accordingly, face-to-face interviews were conducted with 14 students and a semi-structured interview form was used to collect the data in the interviews. The data obtained from the interviews were analyzed using content analysis technique. The findings of the research are presented in order regarding the family and home organization, the neighborhood, the socio-cultural environment, and the needs of the participant children. In the light of these findings, it is discussed how urban poverty affects quality educational outcomes. Suggestions are made that the negative effects can be improved through the coordinated efforts of teachers, school administrators, families, and other social actors.

Keywords: Urban poverty, ecological system, disadvantaged students.

Introduction

One of the important sociological variables associated with academic achievement is socioeconomic background. The main "common belief" behind this relationship is that families with higher socioeconomic status invest more in their children's education (e.g. providing books, computers, tutoring, etc.) and that these families have access to better quality schools (Conger & Donnellan, 2007). On the other hand, since families with low socioeconomic status have limited access to such opportunities, children's academic success and social mobility through education may be limited. Families living in urban areas but disadvantaged in socioeconomic terms - the urban poor - are included in this second group. Urban poverty refers not only to low income but also to a series of deprivations and deficits in well-being, such as unmet basic needs, crowded households, limited socialization, and limited use of urban amenities (Chamhuri et al., 2012; Satterthwaite, 2001). In addition, it is known that the children of these families face many problems, especially access to quality education and academic success. Even if urban poor children have high school attendance rates, this does not guarantee that they receive quality education and achieve academic success. Their educational achievement, learning, equipped transitions between educational levels, and capacity to aspire for a better future are inadequate, and they benefit from the gains of education to a limited extent due to material deprivation combined with socio-regional characteristics and cultural and administrative barriers (Silva-Laya et al., 2020).

In educational achievement, the environments in which the student lives affect his/her development. These environments can be represented as the smallest, micro-environments, such as the family, or at the meso level, such as the neighborhood and school, or at the macro level, such as the cultural and socio-political situation, or at the chrono level, such as the requirements of the time (Bronfenbrenner, 1974). Studies have clearly shown how more micro and meso environments such as family, neighborhood, and family involvement in school affect students' development (Ryan & Paquette, 2001).

This study aims to investigate the effects of urban poverty on the educational lives of students through the data obtained from in-depth interviews conducted in schools in Muğla province where

children from urban poor families predominantly attend. In this framework, the situation of students can be understood more clearly in relation to their micro, meso and macro environments. This understanding is thought to be useful in determining the special needs arising from family and neighborhood variables in the education of children from poor families in Muğla province.

The family ecology paradigm focuses on the relationships between the family and other ecological systems such as schools, neighborhoods, and friendships (Bronfenbrenner, 1986). Taking an ecological approach to the study of the development of children from poor families is crucial because these children do not exist in isolation but are in fact exposed to influences that result from their relationships with the institutions in which they live, their families and their environment.

Bronfenbrenner's model of ecological systems consists of five subsystems. These systems are interrelated and cannot be defined separately. To study the development of children from poor families, the model places them (children) at the center of an ecology of five interrelated and layered subsystems: microsystem, mesosystem, exosystem, macrosystem and chronosystem (Bronfenbrenner, 1974; 1977; 1979; 1986). In other words, these systems can be thought of as circles arranged from small to large, like onion rings, with the child at the smallest (Figure 1).

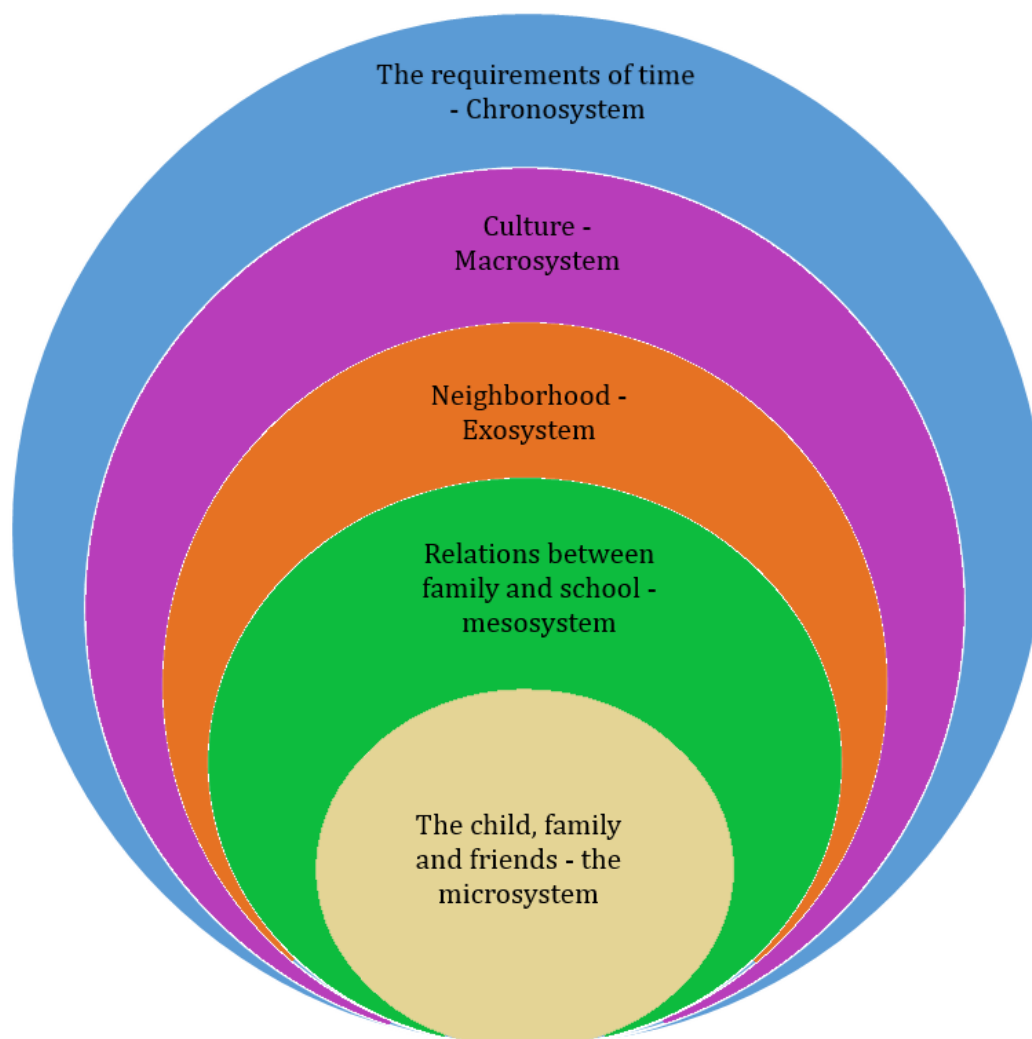


Figure 1. The child and its ecosystem: micro, meso, exo, macro and chrono systems (Bronfenbrenner, 1986).

Looking at this model, it is not possible to analyze the social experiences of children from poor families without considering these various layers of social relationships (Bronfenbrenner, 1979). This model is an effective tool for understanding the risk factors that children from poor families face, as it can address environmental factors from the perspectives of person-process-context-time simultaneously. Each layer has its own explanatory value for understanding the child's developmental process, but it is especially important to address the first three closest subsystems: micro, meso and exo systems.

The innermost layer is the microsystem. In the micro-system, the characteristics of the child's family and close circle of friends and important moments of events with these people are addressed. Within these contexts, poor children experience their everyday reality and are socialized. When it comes to micro-systems, previous studies have focused especially on the mother and father and found that among the factors explaining child development, factors such as parental education levels and parental income levels have explanatory and determinative effects (Aslanargun et al., 2016; Liu & Lu, 2008; Spengler et al., 2018; Turkheimer et al., 2003; Turkheimer et al., 2017).

Another area of microsystems is close friends. There are studies showing that the circle of friends has an impact on children's success in education (Petersen, 1993; Ryan, 2000). Factors such as the socio-economic status of classmates (Vandenberghe, 2002), the diversity of family environments from which friends come from (Angrist and Lang, 2004; Hermansen and Birkelund, 2015), and gender distribution in classes (Hoxby, 2000; Lavy and Schlosser, 2011) have been found to be among the factors affecting students' school success. However, it would not be correct to think that all microsystems are equally influential. For example, in some cases, the influence of the family may be more important than the influence of close friends at turning points in a child's life. In some cases, the opposite may be true. In addition, two or more micro-systems may be formed in broken families. Situations such as mother and her family, father and his family, and the child staying with grandparents are common. There will also be an increase in the diversity of microsystems as the child grows older.

The relationships between the various microsystems in which the child is involved constitute the second layer, the meso-systems. The transitions and interactions between the microsystems in which the child is involved also have the power to position the child within the society (Bronfenbrenner, 1977). The most researched area within meso-systems is family involvement in school. Two types of family involvement have been mentioned in the studies. The first type of family involvement is when the family attends school, participates in meetings, and plays an active role in school decisions. The second type of family involvement is when the family contributes to the child's education by helping the child with school tasks. Studies have shown that families with better socio-economic status are more likely to participate in the first and second types of family involvement. Families with lower socio-economic status show less interest in school and visit school less frequently (Engin-Demir, 2009). The socio-economic level of the family is also effective in determining the second type of stay (Tabak, 2020). Since the education level of parents in poor families tends to be low, they may not be able to help students with their studies. In this respect, it can be said that low socio-economic status shapes students' ecology at the meso-system level in a way that does not support success.

Following the meso-systems, the exo-systems include the neighborhood and the presence of support groups, which may affect the development of children from low socio-economic families in more indirect ways (Bronfenbrenner, 1974). The presence or absence of opportunities in a child's

neighborhood can affect their development. For example, living in neighborhoods where mostly refugees come and settle (Akar, 2010) or teachers not preferring schools in such neighborhoods (Gilpin, 2012) can be given as examples of the indirect effects of the neighborhood on the child's educational life.

The next layer is the macro-systems layer. This layer broadly encompasses the cultural elements, customs and traditions of the society in which the child lives, laws and regulations governing the child's micro, meso and exo-systems (Bronfenbrenner, 1977). The chrono-system, which is above this, is historically related to the characteristics of the environment in which the child lives. Factors that can determine the fate of the child, such as major economic crises, new technological developments, wars and migration are analyzed in this area (Bronfenbrenner, 1977).

In this study, the findings obtained from in-depth interviews with children of urban poor families are included. The aim of the study is to determine the situations affecting the education and training life of children of urban poor families regarding the layers in the ecological system and to reveal their characteristics. A better understanding and definition of the situation of children of urban poor families will pave the way for determining the disadvantaged situations of poor children and taking steps to eliminate them. In this direction, answers to the following research questions were sought:

1. What is the family and household organization of children of urban poor families?
2. What are the characteristics of the neighborhood where the children of urban poor families live?
3. How can the socio-cultural environment of the children of urban poor families be defined?
4. What are the needs of children from urban poor families?

Method

This research was conducted using case study. Creswell (2009) defines case study as "an in-depth exploration of a bounded system (e.g., an activity, event, process, or individuals) based on extensive data collection" (p. 485). In this context, the case of urban poverty was tried to be revealed through in-depth interviews with children experiencing urban poverty. The research data were collected through in-depth interviews with students attending schools in the neighborhoods where urban poverty is experienced intensively in Menteşe district of Muğla province.

Participants

Purposive sampling was utilized in this study, which aims to determine the reflections of urban poverty experienced by students on education. Purposive sampling helps to investigate situations that are thought to have rich information in depth (Patton, 2001/2014). Criterion sampling technique of purposive sampling was used to determine the students. Attention was paid to the students' families being urban poor and having a secondary disadvantage (broken family, imprisoned parents, having a different ethnic origin, etc.). Accordingly, six schools in Menteşe district, located in neighborhoods where poverty is experienced intensively, were included in the study group and 14 students were interviewed. Demographic data about the participants are presented in Table 1.

Table 1 Demographic data of the participants

| Participant Code | Gender | Age | Other Disadvantaged Status |
|------------------|--------|-----|---|
| T1 | Female | 9 | Broken family, many siblings, one brother in a correctional facility |
| T2 | Male | 10 | Father imprisoned, broken family |
| T3 | Female | 9 | Different ethnicity (Syrian) |
| T4 | Male | 8 | Different ethnicity (Syrian) |
| T5 | Female | 11 | Parents are hearing impaired |
| T6 | Male | 14 | Specific learning disabilities |
| T7 | Female | 12 | Broken family, stepfather, poor financial situation |
| T8 | Male | 10 | His father passed away; he is allergic to many foods |
| T9 | Male | 11 | Broken family |
| T10 | Female | 13 | His parents are deceased |
| T11 | Female | 9 | Broken family, non-working family, domestic violence |
| T12 | Female | 11 | Broken family, separated from parents, five siblings, separate household from parents |
| T13 | Female | 13 | Broken family, separated from parents, five siblings, separate household from parents |
| T14 | Female | 12 | Broken family, living separately from their parents, moved to a different city (they came from Kırıkkale) |

Data Collection Tool

In this study, an interview form consisting of open-ended questions was used. Since the research was shaped within the framework of ecological systems theory, while creating the semi-structured interview form, attention was paid specially to include questions related to the micro, exo and meso systems with which the student interacts the most. In this direction, a question pool was prepared by the researchers and then the form was finalized by adding, removing, and editing some questions. Care was taken to ensure that the questions were not judgmental, directive, and complex. The interview form included questions on demographic information, household profile, relations with family and environment (neighborhood), school and home routine, and students' needs. Examples of these questions include "What kind of games do you play with your family?" and "Did anything happen in your neighborhood that scared you, and if so, can you tell us what happened?".

Data Collection

This research was carried out within the scope of The Scientific and Technological Research Council of Türkiye [TUBITAK] 1001- Scientific and Technological Research Projects Support Program, numbered 120K993 and titled "The New Face of Poverty: An Action Research on the Reflections of Urban Poverty on Education". In this context, interviews were conducted with the district governorship, local municipality, social services foundation, and associations in order to identify the neighborhoods where poverty is concentrated in Muğla's Menteşe district. As a result of the interviews, the households receiving assistance to identify poverty were proportioned to the total population living in the neighborhood. Surveys were then conducted with adults living in households in the identified neighborhoods. The questionnaires included questions on demographic information, family and environment (the neighborhood they live in), school life of their children (if any), household profile, employment status and needs. As a result of the analysis of the questionnaires, the poverty profile of these neighborhoods was revealed, and the schools to which parents living in these neighborhoods send their children were determined. In the schools included in the study, teachers and principals were contacted and the students to be interviewed were identified with their guidance. Then, permission was obtained from the parents of the students for the interviews through the "Informed Consent Form". An

appointment was made for the students to be interviewed on a date and time that would not disrupt their school and daily routines. In line with the plans made, two researchers, one female and one male, conducted each interview. The interviews were conducted face-to-face in environments such as the school library and counseling room so that the participants could express themselves more comfortably. Before the interview, the researchers introduced themselves, explained the purpose of the study and informed that the identities of the participants would be kept confidential. In addition, the researchers asked for permission to audio record the interview and reminded the participants that they could end the interview at any time or skip the questions they did not want to answer. While one of the researchers directed the questions, the other took field notes. Then, the transcriptions of the audio recordings were evaluated together with the field notes and transcribed. According to this transcript, the shortest interview was 19 minutes, and the longest interview was 41 minutes, totaling 367 minutes.

Data Analysis

The data obtained from the research were analyzed with the content analysis technique. Content analysis can be expressed as an effort to take the voluminous qualitative material and make sense of the basic consistencies within this material (Patton, 2001/2014). First, the audio-recorded interviews were transcribed and combined with field notes. Afterwards, the data were re-read, and various notes were taken next to them. These notes were evaluated, and the similar ones were written underneath and coded. The codes were grouped into sub-themes according to their similarities. Sub-themes and codes were then reviewed and combined into similar sub-themes. Similar sub-themes were identified and classified thematically. The data analysis process was conducted by one researcher, and the codes, sub-themes and themes were discussed with the other researchers and final arrangements were made. The results of the data analysis are presented in the findings section. Striking data related to sub-theme findings are presented as "Example 1, 2, ..., 14".

Ethical Permits of Research

In this study, all the rules within the scope of the "Higher Education Institutions Scientific Research and Publication Ethics Directive" were followed. None of the actions specified under the heading "Actions Contrary to Scientific Research and Publication Ethics", which is the second part of the directive, were performed.

Ethics Committee Permission Information:

Name of the committee that made the ethical evaluation = Muğla Sıtkı Koçman University Social and Human Sciences Research Ethics Committee

Date of ethical review decision=13.11.2021

Ethics assessment document issue number=200232/41

Findings

The themes and sub-themes that emerged as a result of the data analysis are given below.

Themes and Subthemes Emerging from the Analysis of the Data

1. Findings on the family and home organization of the students who participated in the interview.
 - 1.1. Family members with whom the student lives.

- Nuclear family
 - Single parent family
 - Caregivers other than birth parents
 - Families with extended family members
- 1.2. Distribution of responsibilities in the student's home
- Responsibility for bringing income home
 - Responsibility for household chores
 - Responsibility for the care of young children
 - Responsibility for following children's lessons
- 1.3. How students spend time with their families
- Sitting, chatting
 - Watching TV
 - Going out
 - Doing household chores
 - Playing games
2. Findings related to the neighborhood of the students who participated in the interview
- 2.1. Factors seen as positive for the student's life
- Having parks and playgrounds
 - Houses with gardens
 - Finding peers
 - Good relations with the neighborhood
 - Proximity to the homes of other family members
 - Proximity to school
- 2.2. Factors seen as negative for the student's life
- Lack of space available for play
 - Lack of peers
 - Bad relations with the neighborhood
 - Not feeling safe
3. Findings related to the socio-cultural environment of the students who participated in the interview
- 3.1. Utilizing their free time
- Playing games
 - Television viewing

- Book reading

3.2. Cultural activities

- Cinema
- Theater
- Museum
- Arts and sports activities

3.3. Social activities

- Meeting friends
- Cycling
- Traveling around
- Picnic
- Setting up a tent
- Going to the sea
- Going out of town

4. Findings on the needs of the students who participated in the interviews

4.1. Physiological needs

- Nutrition
- Sleep
- Health

4.2. Emotional needs

- Feeling belonging to the family
- Family union
- Feeling belonging to friends

4.3. Academic needs

- Getting help with homework
- Finding a suitable environment for studying
- Access to course materials
- Good communication with teachers
- Benefiting from the opportunities offered by the school

1. Findings Regarding the Family and Household Organization of the Students Participating in the Interview

In this theme, in line with the statements of the students who participated in the interviews, the findings related to family and home organization were analyzed under the sub-themes of family members, distribution of responsibilities and spending time together.

1.1. Family Members

The students who participated in the interview can live with their own parents and as a nuclear family (T5; T6), or with a single parent (T1; T2; T9; T11) or with caregivers other than their own parents (T7; T8; T10; T12; T13; T14). In addition, there may also be members of the extended family at home (T1; T3; T4; T11).

1.2. Responsibility Allocation

It is clear from the interviews that not only who the family members are, but also how responsibilities are distributed among them affects students' lives. First of all, none of the students in the interviews took the responsibility of bringing home income. In most cases, this responsibility falls to one of the caregivers or adult family members (T2; T3; T4; T5; T6, T7; T8; T9; T10; T12; T13; T14). In some cases, the family has no income and tries to survive with social assistance support (T1; T11).

The responsibility for household chores can fall on the student, especially in single-parent working families (T1; T7; T9; T12). For example, T9 is an 11-year-old male student who lives at home with his mother, his older sister who is in the 8th grade at the same school and his brother who goes to primary school. His mother works in shifts and sometimes she has to leave home very early and sometimes she has to come home very late. The children manage on their own when their mother is away. In this excerpt, T9 describes the housework he does when his mother is not at home: "A: Well, who lights the stove when your mother is at work? T9: Our mother lights it before she goes to work and then we turn it up a little bit. A: Can you put on the top yourself? T9: I can do it myself. A: Who does the cooking? Ö: I do the cooking myself if my mother is not there. A: Do you cook well too? What do you cook, for example? T9: For example, dried beans and rice. A: No way, you can cook! T9: Yes. Cake. A: What do you mean, you make cakes! T9: Yes."

When children are very young, adult family members take responsibility for them (young children). For example, when sharing rooms, the mother stays with the younger children (T1; T2; T10; T11). In another example, the interviewed students were dropped off to and picked up from school by adults if they were young (T11; T12; T13; T14). Or they take their younger siblings to and from school (T4; T9; T10).

Although *the responsibility of following children's lessons* may belong to adult family members in many cases, it is seen that this responsibility is not always fulfilled by adults (T1; T3; T4). In some cases, students had to assume the responsibility of helping their siblings with their lessons (T1; T6; T9; T11; T12; T14). For example, T1 is a 9-year-old girl who lives at home with her mother, three younger siblings and an older brother. Her mother does not work, probably has a low level of education. Their fathers are separated, the student does not give much information. T1 stated that she did not do her homework on the day of the interview and explained the reason as follows: "A: So, do you ever fail to do your homework? T1: I couldn't do it today. A: So why couldn't you do it? T1: One of my brother's homework. A: Well, do you ever have a homework that you cannot do yourself, that you have difficulty with? You don't

know how to do it? T1: Actually, I am good at two of them, one science and one math. A: In the others? T1: I have difficulty in life science and Turkish. A: So, who do you ask when you have difficulty? Do you ask your mother? T1: I ask my mother, but my mother says that if you can't learn by yourself, you can't learn anything. I do it myself, it happens when I push myself."

1.3. Spending time together

When the students were asked how they spend time with their families, they mentioned activities such as *sitting/chatting with their families* (T6; T7); *watching TV together* (T1; T6; T7), *going out together* (T10; T11; T12; T13) and *doing household chores such as cleaning and cooking together* (T7; T14). *Playing games together* was also among the frequently mentioned family activities, but it was understood that in most cases adults in the family did not participate in children's games (T2; T3; T4; T5; T9; T10; T11; T12; T13).

2. Findings Regarding the Neighborhood of the Students Who Participated in the Interview

Since this study focuses on schools with students from poor neighborhoods, all participating students reside in neighborhoods with high levels of urban poverty. The students interviewed were interviewed about their neighborhoods. When these conversations were analyzed, the effects of the neighborhood on the student's life, which can be evaluated as positive or negative, were observed.

2.1. Factors Considered Positive for the Student's Life

None of the 14 students who participated in the interviews stated that they were dissatisfied with their neighborhood. When asked, all of them said that they were satisfied with their neighborhood. For a child, the play opportunities provided by the home are extremely important. *Having parks and playgrounds* in the neighborhood where the house is located (T2; T5; T6; T7; T8; T9; T11; T12; T13; T14) or being in a neighborhood where *houses have gardens* (T1; T6) reinforced this satisfaction. Of course, having playgrounds as well as *having peers to play with* in the neighborhood (T2; T3; T4; T5; T6; T7; T8; T9; T11; T12; T13) has a positive effect on the student's life. *Having good relations with the neighborhood* (T7; T9) was also mentioned among the positive factors for students. *Having other family members (mother who had another marriage, grandparents, etc.) close to the house*, i.e. in the same neighborhood, provided opportunities for students to see their half-siblings (T12; T13) or go to lunch (T7). Thus, the living standards of the students have increased to some extent. For example, T12 is the youngest of 3 sisters from her mother's first marriage. Their mother had a second marriage and had 2 more children. T12 lives in a house with her older sisters and grandfather, and in another house nearby with her mother, husband, and children. T12 explained the reason why he likes the neighborhood he lives in as follows "A: Are your houses close? T12: We live across from each other. For example, we live here, my mom lives across the street. A: Oh, it is very nice that way. Isn't it? T12: Yes. (...) A: So do you like the neighborhood, the neighborhood you live in? T12: I like it very much. A: Why do you like it? T12: Because we can have a picnic there. There is also a park right next to us. We go there with my (step) siblings. And we have friends at my mom's place. We also play there. I like it."

Finally, the fact that most of the students' homes were *close to the school* enabled them to walk to and from school (T2, T3, T4, T5, T6, T7, T8, T9, T10, T11, T14) and to go home at lunchtime (T5, T6, T7, T8, T11).

2.2. Factors Considered Negative for the Student's Life

As a result of the interviews, elements related to the neighborhood that may have negative effects on the student's life were also revealed. Contrary to what was stated before, the lives of the students are negatively affected by reasons such as the park being far away, the roads being slopes and narrow, *the lack of space suitable for play* (T3; T4), *the lack of peers to play with* in the neighborhood (T1; T10) and *the family having bad relations with the neighborhood* (T1; T3; T4).

Not feeling safe in the neighborhood is also a factor that negatively affects students' lives. For example, frequent accidents due to the slope (T9), a kidnapping incident (T3; T4) and the way families reflect their own insecurity to students (T1; T14) can negatively affect students' lives. T14's experience can be an example of this. Ö14 moved to Muğla from Kırıkkale with his brother, grandfather and grandmother. His mother and father married other people and stayed in Kırıkkale. His grandmother takes T14 wherever he wants to go and drops him off. It is understood from the student's narratives that she was affected by her grandmother's feelings and thoughts: "A: Well, do your parents let you play on the street? T14: No. My grandmother does not trust such things. For example, she takes us to and from school. She thinks that it is not very safe outside. A: She picks you up and drops you off from school because of constant trust? T14: Yes. A: I see. So, has there ever been an incident that scared you in this neighborhood? T14: We are not involved in the incident, but there are always men drinking, throwing, yelling and screaming at the corner of the school. Even once a crazy man entered the school. He yelled and screamed. When you enter, there is a place over there and it is very scary."

3. Findings Related to the Socio-Cultural Environment of the Students Participating in the Interview

Under this theme, the socio-cultural activities that the students were involved in as much as they were able to talk about in the student interviews were tried to be analyzed. The main activities other than cultural and social activities that students allocate time for are discussed under the sub-theme of leisure time evaluation.

3.1. Leisure Time Utilization

It is understood that the students who participated in the interviews mainly play games, watch television, and read books in their free time. The activity of playing games, which holds the biggest place in students' lives, can be done with siblings (T1, T2, T3, T4, T7, T14), with friends only from school (T1, T5) or with friends from the neighborhood and school (T2, T3, T4, T9, T11, T12).

Watching TV can be considered as cartoons that the child follows himself/herself (T1, T, T11, T12) and TV series (T7, T8, T10, T11, T12) and movies (T3, T4, T10) that the child watches with his/her family. It is understood that students' families also watch programs such as TV series (T7, T8, T10, T11, T12, T1, T2), movies (T3, T4, T10), competitions/reality shows (T6, T7, T12) and news (T2) at home. When these data are examined, it is observed that the choice of the family can be effective in the choice of programs such as TV series and movies that students watch with their families. It is noteworthy that three different students mentioned the series "Forbidden Apple" (T1-age 9; T7-age 12 and T11-age 10). The conversation with T7 can be given as an example. T7 is 12 years old. The series is about the adventures of two poor sisters to enter high society circles and was fined by the Radio and Television Supreme Council [RTÜK] for normalizing illegitimate relationships. Despite this, the student is allowed to watch the series which is not suitable for her age. The conversation with T7 is as follows "A: So, do

you watch television? T7: Well, it will be like an advertisement, but there is Forbidden Apple on Fox on Mondays. I love them very much, I love watching them with my mom. There are programs on the weekends. Esra ... Yes, I like watching television, to be honest. A: So you like watching TV series. T7: Yes." Although very rare, it was also reported that the student did not watch television at home (T13) and preferred the tablet (T5).

Another leisure time activity that was widely mentioned in students' responses was reading. It is known that reading habits have an impact on academic performance and that there is a relationship between reading habits and academic performance (Owusu-Acheaw & Larson, 2014).

3.2. Cultural Activities

In the interviews, the cultural activities in which students took part were tried to be understood with questions specific to cinema, theater, and museums. In addition, sports and art activities in which students participate were also revealed during the interviews.

In the category of *cinema*, it is understood from the interviews that most of the students have watched a movie in the cinema at least once. However, except for T6 who stated that they went to the cinema frequently, it is understood that the students did not go to the cinema regularly/frequently enough to develop a sense of pleasure about cinema (T1, T2, T3, T4, T5, T7, T8, T9, T10, T11, T12, T13, T14). Some of these students even went to the movies only as a school trip (T3, T4, T8, T9, T12, T13, T14) and never went to the movies with their families or friends on their own time. Depending on whether that single experience was positive or negative for the student, students developed positive or negative attitudes about being a moviegoer. T13 can be given as an example. T13 is a 13-year-old female student. She had only been to the movies as a school trip before. It can be seen that the student understands cinema as a school activity but has not developed a sufficient understanding of going to the cinema in her own private time. The dialog between T9 and the researcher is as follows: "A: Have you ever been to the movies? T9: We went when we were in primary school. (...) A: Well, how did you feel when you went to the movies? Did you like it? T9: It was good. A: Would you like to go again? T9: Yes. A: If you wanted to go, for example, could you go to the movies? T9: I could go, but I don't like that environment much. A: Because it is crowded or because it is dark? T9: Because it is crowded."

A similar situation is observed in the *theater* category as in the cinema category. The only student who is a regular theater viewer is T11. All other students either had never seen a theater before (T1, T2, T3, T6, T12, T13, T14) or had seen it only once or twice. Some of them went to the theater in their own time outside of school (T7, T8, T10), while others went to the theater only as a school trip (T4, T5). During the interviews, it was observed that some students had a negative attitude towards theater (T5, T8, T9). Again, as stated in the cinema category, this situation can be considered to be based on the limited past experiences of the students. At the same time, considering that these negative attitudes may be effective in the selection of the activities to which students will transfer their limited financial resources, it can be thought that the cultural activity experiences spent as a school trip have a critical importance. In this context, the dialog with T5 can be given as an example. T5 is an 11-year-old female student. Her mother is a market worker, and her father is a retired worker. In this conversation, she talks about her views on cinema and theater: "A: Okay. Have you ever been to the movies? T5: Yes. A: Who do you go with? I mean, with school or... T5: With school. A: Have you ever gone to the movies with your family. T5: I don't like going to the movies very much. A: You don't. And theater? T5: I don't like theater either. A: Because you don't like it or because you never had a chance? T5: Because I don't like it at all,

because I can't go. A: Because you don't want to go... T5: I mean I don't want to give money for nothing. A: Oh, you don't want to pay for nothing. T5: That's why I can open something at home and watch it. A: So you prefer to watch it on TV? What do you think would be the difference if it was in the theater? Do you just pay money? T5: Uh-huh."

For the *museum* category, except for T10, who visited both the science museum and Muğla History Museum, the remaining students have never been to a museum (T8, T11, T13, T14) or visited museums only as a school trip (T2, T3, T4, T12). Apart from cinema, theater and museums, as understood from the interviews, *the sports and art activities* that the students took part in consisted of non-compulsory courses and study groups that the students attended voluntarily. For example, T7 takes part in the field hockey team established within another school. T11 mentioned that she goes to judo course on weekends. T4 attends a Quran course on weekends. T8 is in the school choir and is learning to play the baglama. Apart from these, T2 mentioned that he tries to draw with the videos he watches on the internet.

3.3. Social Activities

According to the students' statements, the most important social activity outside of school is the category of *meeting friends for games*. Almost all students talked at length about the time they spent with these friends (T2, T3, T4, T5, T6, T7, T8, T9, T10, T11, T12, T14). As reported earlier, playing games with friends was the most common leisure time activity. Other activities such as *riding bicycles together* (T2, T6) and *traveling around* (T8, T12) were also mentioned. In addition, participation in social activities led by adults in the family is also common. In the interviews, students described having picnics with their families (T5, T7), pitching a tent (T6), *going to the sea* (T5, T9, T13), and *going out of town* (T6, T7, T8, T13).

4. Findings Regarding the Needs of the Students Participating in the Interview

During the interviews, students were asked to describe a school day to understand their basic physiological needs such as sleep, food, and warmth. Asking them what makes them happy and what makes them unhappy gave clues about their emotional needs. At the same time, the general course of the interviews and the clues expressed by the students at different points of the interview were also discussed. In order to understand academic needs, students were asked questions about their relationship with teachers and classes, and their study patterns at home.

4.1. Findings on Students' Physiological Needs

The findings of the *nutrition* category can be explained as follows (It is stated by experts that breakfast should not be skipped in daily routine). Some students have breakfast regularly every day (T8, T10, T12, T13, T14). It is understood that foods such as cheese, olives and bread are accessible for breakfast. Skipping breakfast does not seem to be related to the problem of access to food. Rather, the reasons such as the student not liking breakfast (T5), being late for school (T6, T7, T11) and the mother not being able to prepare it (T1, T3, T9) come to the fore. At this point, it can be said that *the working conditions of the caregiver* are a factor directly reflected on students' food needs and living standards (T2, T9, T12, T13). T9's breakfast routine can be given as an example. T9 is an 11-year-old male student. Single parent family. The mother works shifts. In this excerpt, she explains why they cannot have breakfast some days: "A: Do you have breakfast on the way to school? T9: Uh-huh, sometimes I do and sometimes I don't. A: Why? T9: Sometimes my mom wakes up late when she works at night. Sometimes

when my mother works during the day, she is gone to work by the time we wake up. So sometimes we can't do it. A: So how do you manage breakfast? T9: My mother leaves us pocket money. We take them and eat something at school. A: So do you think you eat a healthy and balanced diet? T9: Uh-huh." At lunchtime, students' preferences such as eating out (T2, T9, T12, T13), taking food to school (T3, T4, T14), going home for lunch (T5, T6, T7, T8, T11) or skipping lunch (T10) are determined by their caregivers' life opportunities.

According to the impressions obtained in the *sleep* category, all students sleep in their own beds. No student stated that they did not have a bed. Only T3 and T4 mentioned that there was a lack of beds and wardrobes in their homes for the new siblings who joined their families. There are students who sleep alone in their own rooms (T6, T7, T8, T9, T14) as well as students who sleep in rooms shared with other family members (T1, T2, T3, T4, T5, T10, T11, T12). Among the interviewed students, only T13 sleeps with his grandfather in the part of the house that is also used as a living room. While some students stated that they were able to get enough sleep (T1, T2, T3, T4, T5, T8, T9, T11, T12, T13), some of them explained that they had the habit of going to bed late (T6, T7, T10, T14). T6, T7 and T8 stated that they had the problem of not being able to wake up in the morning.

Regarding *health*, the interviews revealed that students were able to receive adequate care in case of illness. It was understood that T8 suffered from allergies and therefore her nutrition needed special attention. This student was also able to access the necessary nutrients and special attention. T14 explained that his grandmother warned him to dress warmly and paid special attention to his diet to prevent him from getting sick. T14 moved to Muğla from Kırıkkale with her brother, grandfather and grandmother. His mother and father married other people and stayed in Kırıkkale. The dialog between T14 and the researcher is as follows: "A: Do you have breakfast before coming to school? T14: My grandmother makes me do it even if I don't. A: You mean she makes you eat it. T14: Yes. A: How do you usually have breakfast? T14: She does what we want. She fries potatoes, boils eggs, makes toast... (...) A: So do you clash with your grandmother, do you have any arguments? T14: Clothes. A: What does she say, for example, do you have to wear a headscarf? T14: No. I don't wear much open clothes anyway. I usually like to wear shoes. Since it doesn't snow that much in Muğla like Kırıkkale, maybe he says wear boots. I don't like to wear boots much either. A: You should wear them in the rain. T14: Yes. And a cardigan under my coat. He will definitely make me wear something like he did today."

In the interviews with T3 and T4, it was mentioned that their families were more permissive about personal hygiene than other Syrian families. T3 and T4 are children of a Syrian immigrant family. In this excerpt, the students explain to the researchers why other Syrian families do not allow their children to play outside: "A1: Don't the mothers of Syrians give permission? T4: No. Because of them. Their mothers take a bath every week, so they clean them. A1: I see. Their mothers don't want them to get dirty on the street, right? But do people grow up without playing on the street? A2: Don't you take a bath every week? T3: No. T4: No. A2: Which days do you take a bath? Is there no water at home? T4: Yes. T3: We do it every two weeks. A1: Is there hot water? T4: Yes. A1: They take a bath every 2 weeks. A2: Do you not want to take a bath or do you not like bathing? T3: We like bathing. A2: You like it. It is good."

4.2. Findings on Students' Emotional Needs

According to the impression obtained from the interviews, the students' primary emotional need is the need to feel belonging to the family. When asked "What makes you happy?", the students both listed the activities they did with their families (T1, T2, T8, T11, T12, T14) and when asked "What makes

you unhappy?", they talked about being excluded/removed from their family members (T1, T5, T9). The theme of *family unity* was especially prominent for T11, whose family was in the process of divorce, and for T12 and T13, whose mothers lived across the street from their house with their new spouses and children. T11 expressed his sadness about being subjected to violence from his mother and father. T12 and T13 blamed their fathers for the end of their mothers' first marriage. Since the students were resentful towards the people who caused the breakdown of family unity, they showed behaviors of not meeting with them or acting indifferently towards them (T9, T10, T11, T12, T14). The dialog between T11 and the researchers on this issue can be given as an example. T12 is a female student, 11 years old. Her mother had another marriage after divorcing her father. T12 stayed at his grandfather's house with his older sisters. Her mother lives in the house across the street. The conversation took place as follows: "A: How are your relations with your father? T12: Not very good with my father. My sisters and so on see him, but I don't really want to see him because he left us. A: Does your father make an effort to win your heart? T12: Yes, he does. A: What does he do? T12: He calls. He asks if you have eaten or something like that. He asks about me. A: And you don't talk on the phone? T12: I don't like talking on the phone because I don't want to talk too much because he left us. A: I see. How did you feel when your father left? T12: What did I feel? It was really bad. I cried or something. That's how it was. A: How old were you? T12: How old was I? I was like 2 years old, I mean I was little. A: And you remember? T12: Uh-huh."

In the data obtained from the interviews, the need for belonging sometimes appears as the need to belong to friends. Among the students, there were students who had problems with introversion (T2) and loneliness (T2, T13). Other students mentioned their friends as what made them happy (T3, T4, T7) or stated that they would be unhappy if they were separated from their friends (T12). It is important for students to be accepted by their friends and not to be excluded. Especially T14, who joined the class group later, and T3 and T4, who are children of Syrian immigrant families, mentioned this issue. In this excerpt, T3 told the researchers how they were excluded by their classmate Eda: "A1: How are your friendships in your class? Do you get along well? T3: Yes. There is one girl in our class, her name is Eda. T4: She swears at my parents. A1: Oh my God. A2: Why? T3: Yes, she beats us and stuff. (...) A2: Why does she do that to you? A1: I wonder why he does that? T4: He calls me Syrian and then I beat me. A2: He calls me Syrian. (...) A1: So how do your friends at school approach you? I mean, when I say approach, do your friends at school like you? Do they help you? T3: They do. A1: They do, don't they? Except only Eda. T4: Yes. A1: The others are fine. There is no problem. A2: Is Eda the only one who tells you not to play Syrian? T3: Yes. T4: Her mother is Syrian, we don't call her Syrian. A1: Is her mother Syrian too? Oh my God. T4: But she didn't come from Syria, she came from somewhere else. A1: She came from somewhere else. I see. OK. Are you happy here at school? T3: We are happy."

4.3. Findings Related to Students' Academic Needs

In the parts of the interviews related to academic needs, data were obtained in the categories of *getting help with homework, having a suitable environment for studying, needing course materials, communicating with teachers and benefiting from the school facilities*. Some of the students stated that they could get help with their homework (T6, T7, T8, T10, T12, T13). In cases where they can reach, they ask for help from the educated members of their neighbors or relatives. Some students stated that they had no one to help them with their homework (T1, T2, T3, T4, T9, T11, T14). Reasons such as the low level of education of caregivers (T1, T3, T4, T11) or their old age (T14), working conditions of caregivers (T9) were cited.

Among the students, T5, T6, T8, T9, T10 and T14 stated that they had a *suitable environment for studying at home*. On the other hand, T1, T3, T4, T7, T11, T12 and T13 did not have a suitable environment for studying. Regarding this situation, T7's working environment can be given as an example. T7 lives with her mother, stepfather and stepbrother. She has a room of her own, but she lacks the items in it. In this excerpt, she explains that she works on her homework on the nightstand: "A: *Where do you do your homework in the house? You said you don't have a desk or anything. T7: My mom has a small desk like I said. A little bigger than this, one drawer. It's for one person. A: A bedside table. T7: That is not enough for me, but that is the problem. I do it on the bed, sometimes I do it on the dining table, but I can't get in there much because my brother is awake and he touches my things and loses them.*"

During the interviews, students stated that they *lacked various course materials* such as books, pencils and paints (T1, T3, T4, T6, T9, T10). In addition, some students stated that they needed computers and tablets (T9, T14). Lack of course materials may cause students not to participate in learning activities sufficiently. For example, P14 explains that he could not participate in Teknofest because he did not have a computer and tablet: "A: *I see. So, if you had a computer or a tablet, how would you use it? P14: To be honest, our informatics teacher asked if anyone wanted to participate in Teknofest and I wanted to participate very much and I had a project in mind. If I had a computer or a tablet, I would make a drawing on it, format it and try to turn it into something. A: What was that idea? P14: It was a flower waterer with a smart clock. We researched this a lot, there was no such thing.*

All of the students expressed that they were satisfied with their school. Their communication with their teachers was especially described as very good by T1, T6, T7 and T8. Only T14 needed more help from their teachers for some lessons. Students actively benefit from *the opportunities offered by the school* such as library, courses, and field trips (T1, T3, T4, T6, T9, T10). It is seen that students cannot find these opportunities due to school trips that are canceled or not planned due to the pandemic (T5, T7, T8, T11, T13, T14).

Discussion and Conclusion

In this study, through in-depth interviews with children from urban poor families, it was aimed to determine the situations that may affect the student's education and training life and to reveal their characteristics. In this context, the findings are presented in the following order: regarding the family and home organization of the participant children, regarding the neighborhood they live in, regarding the socio-cultural environment and regarding their needs.

In line with the statements of the students participating in the study, the findings on family and household organization revealed that single-parent, nuclear, caregivers other than the birth mother/father and extended family structures are observed in urban poor families. In addition, it was understood that children in urban poor families assume responsibilities such as contributing to the economic livelihood of the household, helping with housework, taking care of young children, and helping younger children with homework assignments at school. It was also observed from the opinions of the children who participated in the study that they engage in activities such as chatting with their parents, watching television, going out together, doing housework and playing games, but most of the time they are unable to spend quality time with their parents because their parents are working too hard to make ends meet economically. Education and learning are multivariate phenomena, but for children, parents have a great influence on their learning as they are the first teachers and role models.

Research shows that some parents are not aware of their responsibility in their children's education, and their awareness of their role in their children's learning may be very limited (Harris & Goodall, 2008). It is known that many variables such as socio-economic level, parents' level of education, the number (size) of family members, and the family and home environment have a significant impact on children's development. Capra (2009) emphasizes that students from households without a single member with a higher education background tend to attach less importance to schooling and education. However, parents' behavior and attitude towards the child - especially the child's involvement in learning activities at home - is extremely important for the child's success and can outweigh the negative aspects of other factors (Cole, 2011; Harris & Goodall, 2008). Considering the time and energy demands of parents in urban poor families, such as long working hours, living in crowded families, time spent caring for other children and/or the elderly, participation in children's educational lives is limited. As stated by Durgun and Çak (2010), variables such as insufficient income, insufficient and unstable resources, inadequate housing, insufficient public infrastructure services, deprivation of social security, etc. in urban poor families negatively affect the development of children in these families in many ways. Again, in line with the opinions of the children participating in this study, it is understood that different family types are seen in urban poor families. Türkiye's socioeconomic, cultural and demographic transformations affect the process of change as well as the process of family formation. As a result of this process, it is seen that extended family structures, especially patriarchal family structures, are rapidly dissolving in Türkiye; nuclear family structures have stagnated since the 1990s after a rapid increase; and dispersed family structures, especially single-person and single-parent families, are in a rapid increase process (Koç, 2018).

The findings of this study also revealed that children from urban poor families also represent single-parent family structures. According to Macit (2020), the results of the Türkiye Family Structure Survey [TFSS] show that as a result of the socioeconomic change in Türkiye, the tendencies of nuclearization in the family structure and the dissolution of the extended, especially patriarchal extended family structure continue. The results on the welfare status of single-parent families reveal that the welfare level of these families is still more unfavorable than other family structures. These results indicate that changes in family structure are related to poverty in terms of cause and effect. Again, many studies have revealed this situation and stated that with poverty in general and urban poverty in particular, changes and transformations have emerged in traditional family structures, especially fragmented and single-parent family structures have become more common (e.g., Duran, 2022; Kaplan, 2021; Sadıkoğlu, 2022; Topal, 2020; Yavuz & Güllüpinar, 2019).

As stated above in the findings of the study, it was understood that children from urban poor families had to assume different responsibilities. Yavuz and Güllüpinar (2019) emphasized that the sufficiency in the socio-economic context leads to the formation of egalitarian values towards children, the increased importance given to the child's autonomy, individual life and success, and accordingly, the expectation of material benefit from childhood decreases. In Kağıtçıbaşı's (1981) research, three values attributed to children were defined: social, psychological, and economic. As the economic value of the child, situations such as bringing and contributing to the household in terms of economic income, doing housework and providing care for the parents in old age were expressed. In this study, it was observed that similar structures emerged from the views of the participant children in terms of the responsibilities expected of them. In another study conducted by Kağıtçıbaşı (2000), it was found that in low socio-economic family conditions, the family's financial expectations from children were high.

This is because children's financial contributions and economic benefits have vital functions for the family.

The studies conducted by Kağıtçıbaşı focus especially on rural areas and reveal the perspectives of rural poverty on the perception of child value. In addition, some studies indicate that the perception of the economic value of the child decreases with modernization and urbanization (Kağıtçıbaşı, & Ataca, 2017; Yavuz & Güllüođınar, 2019). However, in line with the reproduction of the concept of poverty with urbanization and the urban poor families emerging in cities, different responsibilities can be assigned to the child at home. With the reproduction of poverty in cities, it can be stated that there has been a transformation in the perception of the child's economic contribution to the family. The finding obtained in this study supports this transformation. As stated by Özbek-Sönmez (2007), the challenging economic and social conditions of cities affect families in many ways. The low level of education of the family and the fact that their work experience does not match the demand for urban labor force bring along livelihood difficulties. This situation causes children to be seen as a source of income (Özbek-Sönmez, 2007). The increase in the number of unregistered child laborers in cities in recent years supports this (Berigel & Erođlu, 2019). VB Again, according to Yıldız (2006), urban poverty is a problem that fuels the increase in child labor in Türkiye, and children face problems such as not being able to benefit from social security rights, working under harsh conditions in poor, unhealthy and unsafe environments with long working hours, and submitting to all kinds of mistreatment against the risk of dismissal. The most important finding of Yetim and Çađlayandereli's (2007) study on street children in Mersin is that two out of every five people living in the city have positive-approving social perceptions about the family's use of street labor as a last resort in cases of poverty and deprivation.

One of the findings of the research on family and household organization was how children in urban poor families spend time with their parents. Although children did different activities with their parents, it was understood that most of the time these activities did not take place due to the parents' long hours of work. Tabak (2020) emphasized that the socioeconomic status of families is important for effective family involvement. Again, it has been stated in different studies that economic variables change and transform the role of families in the lives of their children (Won-Kim, 2018; Yenipınar & Yıldırım, 2017). Low socioeconomic status and poverty have significant effects on children's development. Children in poor households face many mental and physical difficulties, have problems with cognitive and executive functions, and show low academic achievement. At the same time, these children have difficulties in establishing positive communication with their parents in the home environment (Pelton, 2015; Russell et al., 2008). Parenting becomes more difficult under conditions of poverty. Poor families have fewer resources and social support, live in unsafe environments, and experience poor and unstable health, nutrition, school, and home conditions (Marcenko et al., 2011). Therefore, they have to give up their own life needs and use more time and resources to meet the needs of their children (Marcenko et al., 2011; Zilberstein, 2016). Duan et al. (2018) also found that socioeconomic status was moderately negatively associated with academic socialization, academic achievement, family involvement, and school-related behaviors. Especially in this study, it was stated that activities to increase family involvement had positive effects on children from poor households.

Under another theme obtained from the interviews conducted with the students in the study, findings related to the neighborhood where the students live were expressed. In this context, while the students stated that having parks and playgrounds in their neighborhood, having a detached garden,

having many friends, having good relationships in the neighborhood, and having a house close to the school were good, they also stated negatively that the environment was not suitable for play and that they could not feel safe. Many studies in the literature emphasize that the context in which the family and school are located affects educational outcomes and that deprivations in these environments limit educational achievements. This creates a disadvantaged school environment as a result of inadequate learning, which in turn triggers a process leading to failure, absenteeism and dropout (Othman et al., 2021; Silva-Laya et al., 2020). Urban poor neighborhoods are also characterized by low achievement or limited gains due to such disadvantages. Experiencing the social ecology in neighborhoods where urban poverty emerges increases stress diseases, and children growing up in these neighborhoods expose them to significant risks (Kiser, 2007).

Feeling safe, healthy affective development and general well-being are priorities. Children living in urban poor neighborhoods have to experience a wide range of dangers at home, at school and in the environment (Black & Krishnakumar, 1998). The problem of safety adversely affects children's physical and affective well-being in urban poor neighborhoods. At the same time, this process also reflects negatively on their parenting. Children living in disadvantaged neighborhoods are also exposed to many family-related negativities. Among these, family chaos, conflict, violence, insolvency and indifference can be cited as examples. In addition, financial instability, home changes, homelessness and parental illnesses often occur in urban poor neighborhoods and are negatively reflected in the child's reflection (Kiser, 2007). As stated by Berman et al. (2018), neighborhoods where urban poor children live face pollution, poor housing conditions, unsafe conditions in and around schools, and other negative social factors. All these have negative effects on children's academic achievement and increase their absenteeism from school. Urbanization in Türkiye is a phenomenon that deepens poverty. Children are among the most affected by this situation. It is known that most children living in poverty do not have safe living spaces and often live in crowded and inadequate housing conditions (Akıllı & Dirikoç, 2017; Konuk-Şener, 2014). Cities have become the places where crimes, which are growing and diversifying, are most commonly committed. According to Fırat (2008), all of these crimes are most directly related to poverty, and unemployment shows a rapid growth as the creator of many crimes. In a study conducted by Avcı (2008) with children under the age of 18 who were under arrest, it was found that the migration of the family, housing and demographic characteristics of the family had an effect on the tendency towards crime. Hancı (1995) investigated the neighborhoods where children involved in crime lived and found that most of the children lived in slums and partially slums in the city. These studies also reveal that there are significant problems in terms of security in urban poor neighborhoods and show that urban poor children living in these neighborhoods have significant disadvantages in this context. This is because the economic constraints of urban poor families have resulted in their living in areas outside the city centers, which in most cases have limited social and infrastructural facilities and are still mostly slum areas. The distance of these areas from the city center, which are deprived of various urban amenities, brings with it various transportation, inability to participate in activities in the city center, and ghettoized housing problems. Public services (schools, health services, security support services, etc.) are often not at the desired level in these areas (Yamanoğlu, 2006).

When the findings regarding the socio-cultural environment of the urban poor students participating in the research are evaluated, it is understood that they engage in activities such as playing games, watching television and reading books in their free time; they go to cinema, theater and museums in the context of cultural activities; they try to spare time for art and sports activities; and in the context

of social activities, they engage in activities such as meeting with friends, cycling, sightseeing, picnics, camping, going to the sea and going out of the city. As can be seen, although not very diverse, it is seen that children of urban poor families are involved in a number of socio-cultural activities. However, variables such as low security and beliefs about this, limited social opportunities and lack of places to meet the need for socialization, distance to the city center, transportation problems, low economic income, etc. in the environments where urban poverty is experienced can negatively affect the social and cultural activities of both urban poor families and their children.

Those living in urban poor environments state that they are deprived of opportunities to realize or advance themselves, and that the low level of education and culture of the environment they live in affects this very much (Yamanoğlu, 2006). As stated by Yılmaz (2006), negative living conditions in the regions where people live produce forms of spatial exclusion, which is a dimension of social exclusion. The unfavorable physical conditions of the areas where people live, the lack of urban facilities and the illegal activities concentrated in these areas make it difficult for urban poor families and their children to break the cycle of social exclusion. Those living in these neighborhoods draw attention to the negative effects of the space they live in by stating that there are no opportunities for them to improve themselves and that there are few people they can look up to as role models.

In another study, it was stated that urban poor environments also bring social exclusion, that individuals cannot take part in the urban and social system sufficiently in the atmosphere of isolation, segregation, segregation, and polarization, and therefore cannot see themselves as a part of the city. The lack or inadequacy of these levels of contact, which is largely due to economic inadequacies, brings alienation (Sümer, 2022). Again in this study, especially when the participants were asked about the social activities they do most in their free time, it was seen that they were more involved in free activities and trips to different places came to the fore (Özbay, 2009). In the study conducted by Tarikci and Eraslan (2015), it was stated that urban poor families and their children cannot benefit sufficiently from the social and cultural activities offered by the city due to deprivation. Therefore, it was suggested that cafes, parks and street activities where children can socialize should be increased especially in urban poor environments, more attention should be paid to the safety and cleanliness of playgrounds and parks in these environments, activities that will enable children to be intertwined with art, sports, science and literature should be increased, social activity projects for children should be implemented, collective trips to places such as museums and zoos should be organized.

In the research, it was also found out from the opinions of the students what their needs are in the context of the urban poverty they live in. In addition to physical needs such as nutrition, sleep and health, students also have emotional needs such as feeling belonging to the family, family unity and belonging to friends. They also have academic needs such as getting support for their homework, finding a suitable environment for studying, accessing course materials, communicating well with teachers, and benefiting from the opportunities offered by the school. In urban poverty, there is a lack of services such as housing, job security and education along with the lack of income in accessing basic necessities, and environmental conditions, health services, consumption preferences, access to public services and civil rights are the main indicators taken into account in urban poverty (Gürler-Hazman, 2010). In this study, it can be stated that the needs expressed by the children of urban poor families point to similar deprivations. The accumulation of families with different cultural values who have not achieved urban integration, who cannot benefit from their rights sufficiently due to the impossibilities brought about by

poverty, who do not have a valid profession and skills to meet the requirements of urban life, and who have different cultural values, brings many problems that trigger each other (Barış, 2009). Children of urban poor families are particularly vulnerable to problems such as experiencing nutritional and health problems, not being able to continue their education to contribute to the family budget, being exposed to violence, as well as risks such as meeting the judicial system, being thrown to the streets, and other dangers brought by urban life and urban environments. As stated by Akıllı and Dirikoç (2017), many problems such as child labor, nutrition and health problems, education problems, social exclusion, street and judicial problems arise in urban poor environments.

In the study conducted by the researchers in the case of Nevşehir province, it was concluded that the children who participated in the interviews could not go to school and tried to contribute to the household income, children were not adequately fed, families could not give their children pocket money or buy clothes, children did not have a room of their own in most of the households, children suffered from lack of technology and internet, children did not have adequate play equipment (e.g. bicycles, etc.) and children struggled with many health problems (e.g. psychological disorders, etc.).

Living in poor areas and depressed areas in cities can mean being exposed to epidemics, health problems and environmental risks that affect poor people the most (Baker, 2008). In the light of all these facts, it is seen that there is a great increase in the rates of informal employment, the number of people living and working on the streets, deaths due to malnutrition, shelter, and deprivation of health services, as well as crime rates in cities due to impoverishment and exclusion in cities. Mutlu (2017) states that urban poor children are deprived of vital human rights such as food, shelter, education, and health due to poverty. Poverty deprives children of the opportunities they need to live, grow, and develop and directly affects child welfare by confronting them with various vital and social problems (Öztürk, 2008). If a poor family cannot educate their children due to lack of financial means and makes them work, then the child who cannot receive education cannot escape from poverty and poverty and deprivation become a vicious circle that breeds and feeds each other (Durgun, 2011; Koray, 2010).

In this study conducted in the context of urban poverty, it was tried to describe how school-going children of urban poor families experience urban poverty. The research was conducted within the scope of two neighborhoods experiencing urban poverty in Muğla province. In this context, although the data was limited to depicting a small segment, the results obtained are important in terms of reflecting the poverty that is reproduced and reproduced day by day in the urban context and through the experiences of children. Because today's economic crisis in Türkiye has led to the emergence of more poor people in both rural and urban contexts. We think that this research is important in terms of contributing to the efforts to keep this process on the agenda by showing how children of urban poor families experience poverty and enriching the knowledge accumulated in similar studies with the findings from Muğla.

Recommendations

The main limitation of this study is that although data was collected from students attending schools in neighborhoods with high levels of urban poverty to reveal how urban poverty affects education, the experiences of children from poor families living in relatively affluent neighborhoods of the city were not included. Another limitation is that although the study tries to understand urban poverty through the experiences of children, it does not include the views of families, teachers, school administrators and other residents of the neighborhood. It is thought that the opinions of groups

directly or indirectly affected by urban poverty will contribute to expanding the literature on this subject. On the other hand, it may be recommended to collect data from such various groups in future studies. On the other hand, data was collected through in-depth interviews and field notes. In future research, different data collection methods and various age groups can be examined.

The main things that teachers can do for the education and development of urban poor children can be listed as follows (Gehrke, 2005): first, self-awareness means that teachers need to be aware of the abilities of urban poor students. This is important for teachers to recognize their students' cultural and social identities, to avoid misconceptions, and to better understand students' identities and experiences. Secondly, the learning needs of urban poor students need to be met by a strong knowledge base. This fulfillment helps teachers to utilize specific resources available in their environment, engage with students affected by poverty, and respond effectively by taking actions to help students and the community. Third, teachers of the urban poor have essentially high expectations of all students, regardless of where they teach or the background of their students.

Of course, the negative effects of urban poverty on students can be ameliorated through the coordinated efforts of teachers, school administrators, families, and other social actors. Therefore, making such improvements is not something that can be achieved by the school alone, but can be seen as problems that can be overcome when addressed together with the family and other actors. Such coordinated efforts, intervention programs and supports can be highly effective in improving academic performance and reducing absenteeism and dropout (Rodríguez & Conchas, 2009; Walsh et al., 2014).

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BIOGRAPHICAL NOTES

Contribution Rate of Researchers

Author 1: 11,1%

Author 2: 11,1%

Author 3: 11,1%

Author 4: 11,1%

Author 5: 11,1%

Author 6: 11,1%

Author 7: 11,1%

Author 8: 11,1%

Author 9: 11,1%

All authors have contributed equally.

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Conflict Statement

The authors have no conflict of interest to disclose.



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Kent Yoksulluğunun Etkileri: Öğrencilerin Deneyimleri Üzerinden Bir Değerlendirme

Giriş

Öğrencilerin okul başarılarının yalnızca bireysel faktörlerin değil aynı zamanda bireyin ailesinin ve bu ailenin içinde yer aldığı toplumsal düzenin de bir ürünü olduğu günümüzde sıkça vurgulanmaktadır. Bu nedenle eğitim-öğretim süreci bireyin öğrenme süreci ve bireyin içinde bulunduğu toplumsal şartların ortak bir bileşkesi olarak değerlendirilirken herhangi bir dezavantajlılık söz konusu olduğunda bireyin öğrenme deneyiminin nasıl etkilendiği sorusu literatürde önemli tartışmalardan birine kaynaklık etmektedir. Bir tür dezavantajlılık durumu olarak kent yoksulluğu bireyin ailesinin toplumsal konumunu belirlerken öğrencinin eğitim sürecini de etkiler. Kent yoksulluğu sadece düşük gelir düzeyi değil; temel ihtiyaçların karşılanmaması, kalabalık haneler, sınırlı sosyalleşme ve kentin sunduğu olanaklardan sınırlı ölçüde yararlanma gibi bir dizi yoksunluk ve iyi oluş halindeki eksikliği ifade etmektedir (Chamhuri vd., 2012; Satterthwaite, 2001). Kentlerde yaşayan ancak kentin sunduğu imkanlara erişim sorunu yaşayan kent yoksulu öğrencilerin başta yaşamın devamı için gerekli temel kaynaklar olmak üzere, çeşitli kaynaklara ulaşmada yaşadıkları güçlükler zekâ, hazır bulunuşluk, iletişim gibi öğrenme sürecini etkileyen çeşitli değişkenler üzerinde önemli sonuçlar doğurur. Bu nedenle bu ailelerin çocuklarının başta nitelikli eğitime erişim ve akademik başarı olmak üzere bir sürü sorunla yüzleştiği bilinmektedir. Kent yoksulu çocukların okula katılım oranları yüksek olsa dahi bu durum nitelikli eğitim aldıklarını ve akademik başarı sağlamalarını garanti etmemektedir.

Eğitim sürecini etkileyen çocuğun içinde bulunduğu yaşam şartları, içinde bulunduğu ortamlar, çevre gibi etmenler çocuğun eğitim başarısına, öğrencinin gelişimine etki eder. Çocuğun gelişimine etki eden bu ortamlar çocuğun ailesi gibi en küçük, mikro-ortamlar olabileceği gibi oturduğu mahalle ve okulu gibi mezo seviyede veyahut içinde bulunulan kültürel ve sosyo-politik durum gibi makro ve içinde bulunulan zamanın gereklilikleri gibi krono ortamlar olarak temsil edilebilir (Bronfenbrenner, 1974).

Yapılan çalışmalarda öğrencilerin gelişimlerini özellikle aile, oturulan mahalle, ailenin okula katılımı gibi daha çok mikro ve mezo ortamların nasıl etkilediği açıkça gösterilmiştir (Ryan & Paquette, 2001).

Bu çalışmada da Muğla ilindeki kent yoksulu ailelerin çocuklarının ağırlıklı olarak devam ettiği okullarda yapılan derinlemesine görüşmeler sonucunda elde edilen veriler aracılığıyla kent yoksulluğunun öğrencilerin eğitim hayatlarına etkilerini araştırmak amaçlanmıştır. Bu çerçevede öğrencilerin durumları mikro, mezo ve makro ortamları ile ilişkili olarak daha net bir şekilde anlaşılabilir.

İlk olarak çocuğu çevreleyen ilk katman olarak mikro-sistemde çocuğun ailesi ve yakın arkadaş çevresinin özellikleri ve bu kişiler ile yaşanan önemli olay anlarına değinilmektedir. Bu bağlamlar içerisinde yoksul çocuklar gündelik gerçekliklerini deneyimler ve sosyalleşirler. Mikro-sistemler sözü konusuna geldiğinde daha önce yapılan çalışmalarda özellikle anne ve babaya odaklanılmış ve çocuk gelişimini açıklayan faktörler arasında anne baba eğitim seviyeleri, anne baba gelir düzeyleri gibi faktörlerin açıklayıcı ve belirleyici etkileri olduğu bulunmuştur (Aslanargun vd., 2016; Liu & Lu, 2008; Spengler vd., 2018; Turkheimer vd., 2003; Turkheimer vd., 2017).

Mikro-sistemlere ait bir başka alan da yakın arkadaşlardır. Eğitimde çocukların başarısına arkadaş çevresinin etkisi olduğunu gösteren araştırmalar bulunmaktadır (Petersen, 1993; Ryan, 2000). Sınıf arkadaşlarının sosyo-ekonomik durumları (Vandenberghe, 2002), arkadaşların geldiği aile ortamlarının çeşitli olup olmaması (Angrist ve Lang, 2004; Hermansen ve Birkelund, 2015) ve sınıflardaki cinsiyet dağılımı (Hoxby, 2000; Lavy ve Schlosser, 2011) gibi faktörler öğrencilerin okul başarısına etkili faktörler arasında bulunmuştur. Fakat mikro-sistemlerin tümünün aynı derecede etkili olduğunu düşünmek doğru olmayacaktır. Örneğin, bazı durumlarda ailenin etkisi çocuğun hayatının dönüm noktalarında yakın arkadaşlarının etkisinden daha önemli olabilir. Bazı durumlarda bunun tam tersi de gerçekleşebilir. Bunun yanında parçalanmış ailelerde iki veya daha fazla mikro-sistem oluşabilmektedir. Anne ve ailesi, baba ve ailesi, çocuğun büyükanne ve büyükbaba yanında kalması gibi durumlar sık sık görülmektedir. Ayrıca çocuk büyüdükçe mikro-sistemlerinin çeşitliliğinde de artış olacaktır.

Çocuğun içinde yer aldığı çeşitli mikro-sistemlerin arasındaki ilişkiler, ikinci tabaka olan mezo-sistemleri oluşturmaktadır. Çocuğun içinde bulunduğu mikro-sistemler arasındaki geçişler ve etkileşimler onu içinde bulunan toplum içinde konumlandırma gücünü de taşımaktadır (Bronfenbrenner, 1977). Mezo-sistemler içerisinde en çok araştırmalara konu olan alan okula aile katılımı konusudur. Yapılan araştırmalarda iki tür aile katılımından bahsedilmiştir. Birinci tür aile katılımı, ailenin okula gitmesi, toplantılara katılması, okul kararlarında aktif rol olması gibi durumlardır. İkinci tür aile katılımı ise okul görevlerinde ailenin çocuğa yardım ederek çocuğun eğitimine katkı sunmasıdır. Yapılan araştırmalarda sosyo-ekonomik düzey olarak daha iyi durumda olan ailelerin birinci ve ikinci türde okula daha fazla katıldıkları görülmüştür. Bu bakımdan sosyo-ekonomik durumun düşük olmasının öğrencilerin mezo-sistem seviyesinde ekolojisini başarıyı desteklemeyecek şekilde şekillendirdiği söylenebilir.

Mezo-sistemleri takip eden ekzo-sistemler, düşük sosyo-ekonomik düzeye sahip ailelerden gelen çocukların gelişimine daha dolaylı yollardan etki edebilecek olan muhit ve destek gruplarının varlığını kapsamaktadır (Bronfenbrenner, 1974). Çocuğun yaşadığı muhitteki imkânların varlığı ya da yokluğu gelişimine etki edebilir. Örneğin daha çok mültecilerin gelip yerleştiği mahallelerde oturmak

(Akar, 2010) veya öğretmenlerin bu tür mahallelerdeki okulları tercih etmemesi gibi durumlar (Gilpin, 2012) muhitin çocuğun öğrenim hayatına dolaylı etkilerine örnek verilebilir.

Bir sonraki tabaka, makro-sistemler tabakasıdır. Bu tabaka geniş olarak çocuğun içinde bulunduğu toplumun kültürel öğelerini, örf ve ananelerini, yasaları ve çocuğun mikro, mezo ve ekzo-sistemlerini düzenleyen yasaları kapsar (Bronfenbrenner, 1977). Bunun da üstünde bulunan krono-sistem ise tarihsel olarak çocuğun içinde bulunduğu ortamın özellikleri ile ilgilidir. Büyük ekonomik krizler, yeni teknolojik gelişmeler, savaşlar ve göç gibi çocuğun kaderini belirleyebilecek olan unsurlar bu alanda incelenmektedir (Bronfenbrenner, 1977).

Bu çalışmanın amacı kent yoksulu ailelerin çocuklarının ekolojik sistemindeki katmanlara ilişkin eğitim ve öğretim hayatına etki eden durumları belirlemek ve özelliklerini ortaya koymaktır. Kent yoksulu ailelerin çocuklarının durumlarının daha iyi anlaşılması ve tanımlanması yoksul çocukların dezavantajlı durumlarının belirlenmesine ve bunları giderecek adımlar atılmasına zemin hazırlayacaktır. Bu doğrultuda aşağıda araştırma sorularına cevaplar aranmıştır:

1. Kent yoksulu ailelerin çocuklarının aile ve ev düzeni nasıldır?
2. Kent yoksulu ailelerin çocuklarının oturdukları mahalleye ilişkin özellikler nelerdir?
3. Kent yoksulu ailelerin çocuklarının sosyo-kültürel ortamı nasıl tanımlanabilir?
4. Kent yoksulu ailelerin çocuklarının ihtiyaçları nelerdir?

Yöntem

Bu araştırma durum çalışması olarak gerçekleştirilmiştir. Creswell (2009) durum çalışmasını "kapsamlı veri toplamaya dayalı olarak sınırlı bir sistemin (örneğin, bir faaliyet, olay, süreç veya bireyler) derinlemesine araştırılması" olarak tanımlamaktadır (s. 485). Bu kapsamda kent yoksulluğu durumu, kent yoksulluğunu deneyimleyen çocuklarla derinlemesine görüşmeler yapılarak ortaya konulmaya çalışılmıştır. Araştırma verileri, Muğla ili Menteşe ilçesinde kent yoksulluğunun yoğun olarak yaşandığı mahallelerdeki okullara devam eden öğrencilerle derinlemesine görüşmeler yapılarak toplanmıştır.

Öğrencilerin deneyimledikleri kent yoksulluğunun eğitime yansımalarını belirlemeyi amaçlayan bu çalışmada amaçlı örneklemeden yararlanılmıştır. Amaçlı örnekleme zengin bilgiye sahip olduğu düşünülen durumların derinlemesine araştırılmasına yardımcı olmaktadır (Patton, 2001/2014). Öğrenciler belirlenirken amaçlı örneklemenin ölçüt örnekleme tekniği kullanılmıştır. Öğrenciler seçilirken ailelerinin kent yoksulu olmasına ve ikincil bir dezavantaja sahip olmalarına (parçalanmış aile, mahkûm ebeveyn, farklı etnik kökene sahip olma vs.) dikkat edilmiştir. Bu doğrultuda Menteşe ilçesinde, yoksulluğun yoğun olarak yaşandığı mahallelerde bulunan altı okul çalışma grubuna dâhil edilmiş, 14 öğrenciyle görüşme yapılmıştır.

Bu çalışmada açık uçlu sorulardan oluşan görüşme formu kullanılmıştır. Araştırma, ekolojik sistemler teorisi çerçevesinde biçimlendirildiği için yarı yapılandırılmış görüşme formu oluşturulurken özellikle öğrencinin en çok etkileşimde bulunduğu mikro, ekzo ve mezo sistemine ilişkin soruların yer almasına dikkat edilmiştir. Bu doğrultuda araştırmacılar tarafından bir soru havuzu hazırlanmış, ardından bazı soruları eklenerek, çıkarılarak ve düzenlenerek forma son hali verilmiştir. Soruların yargılayıcı, yönlendirici ve karmaşık olmamasına özen gösterilmiştir. Görüşme formunda; demografik

bilgiler, hane profili, aile ve çevre (oturdıkları mahalle) ile ilişkiler, okul ve ev rutini, öğrencilerin ihtiyaçlarına ilişkin sorular yer almıştır.

Bulgular

Araştırmaya dâhil edilen okullarda öğretmen ve müdürlerle iletişim kurulmuş, onların yönlendirmeleriyle görüşme yapılacak öğrenciler belirlenmiştir. Daha sonra görüşmelerin yapılabilmesi için öğrencilerin ebeveynlerinden “Aydınlatılmış Onam Formu” aracılığıyla izin alınmıştır. Görüşme yapılacak öğrenciler için onların okul ve günlük rutinlerinin bozulmayacağı bir tarih ve saatte randevu alınmıştır. Yapılan planlamalar doğrultusunda her görüşmeyi biri kadın diğeri erkek olmak üzere iki araştırmacı yürütmüştür. Görüşmeler yüzyüze, katılımcıların kendilerini daha rahat ifade edebilmesi için okul kütüphanesi, rehberlik odası gibi ortamlarda yapılmıştır. Görüşme öncesinde araştırmacılar kendilerini tanıtmış, araştırmanın amacından bahsetmiş ve katılımcıların kimliklerinin gizli tutulacağını bildirmişlerdir. Ayrıca araştırmacılar tarafından görüşmenin ses kaydına alınması için izin istenmiş, katılımcılara istedikleri zaman görüşmeyi bitirebileceklerini ya da cevap vermek istemedikleri soruları geçebilecekleri hatırlatılmıştır. Araştırmacılarından biri soruları yönlendirirken diğeri saha notları almıştır. Ardından ses kayıtlarının deşifreleri saha notlarıyla beraber değerlendirilerek döküm haline getirilmiştir. Bu döküme göre en kısa görüşme 19, en uzun görüşme 41 dakika olmak üzere toplam 367 dakikadır.

Araştırmadan elde edilen veriler içerik analizi tekniği ile analiz edilmiştir. İçerik analizi hacimli olan nitel materyali alarak bu materyal içindeki temel tutarlılıkları anlamlandırma çabası olarak ifade edilebilir (Patton, 2001/2014). İlk olarak ses kaydına alınan görüşmeler deşifre edilerek saha notlarıyla birleştirilmiştir. Sonrasında veriler tekrar okunmuş ve yanlarına çeşitli notlar alınmıştır. Söz konusu notlar değerlendirilmiş ve benzer olanlar alt alta yazılarak kodlanmıştır. Yazılan kodlar benzerliklerine göre alt temalarda toplanmıştır. Ardından alt tema ve kodlar yeniden gözden geçirilerek benzer alt temalarda birleştirilmiştir. Alt temalardan benzer olanlar belirlenerek tematik olarak sınıflandırılmıştır. Verilerin analizi süreci bir araştırmacı tarafından yürütülmüş, diğeri araştırmacılarla beraber kod, alt tema ve temalar tartışılarak bunlara ilişkin son düzenleme yapılmıştır.

Tartışma ve Sonuç

Bu çalışmada kent yoksulu ailelerin çocukları ile yapılan derinlemesine görüşmeler aracılığıyla öğrencinin eğitim ve öğretim hayatına etki edebilecek durumları belirlemek ve özelliklerini ortaya koymak amaçlanmıştır. Bu çerçevede bulgular katılımcı çocukların aile ve ev düzenine ilişkin, oturdıkları mahalleye ilişkin, sosyo-kültürel ortamına ilişkin ve ihtiyaçlarına ilişkin olmak üzere sırasıyla sunulmuştur.

Araştırmaya katılan öğrencilerin ifade ettikleri doğrultusunda aile ve ev düzenine ilişkin bulgular kent yoksulu ailelerde tek ebeveynli, çekirdek, öz anne/baba dışında bakım verenler ve geniş aile yapılarının görüldüğünü ortaya koymuştur. Bunun yanında kent yoksulu ailelerde çocukların evin ekonomik olarak geçinme süreçlerine katkı sağlama, ev işlerine yardım etme, küçük çocukların bakımını üstlenme ve yine daha küçük çocukların okulda verilen ev ödevlerine yardım etme gibi sorumluluklar üstlendikleri anlaşılmıştır. Yine bu bulgular altında çalışmaya katılan çocukların görüşlerinden aileleriyle sohbet etme, televizyon izleme, birlikte dışarı çıkma, ev işleri yapma ve oyun oynama gibi etkinlikler gerçekleştirdikleri ancak çoğu zaman da ebeveynlerinin evin ekonomik olarak geçinebilmesi için çok fazla çalıştıklarından dolayı ebeveynleriyle birlikte kaliteli zaman geçiremedikleri görülmüştür.

Kent yoksulu ailelerdeki ebeveynlerin uzun çalışma saatleri, kalabalık ailelerde yaşamaları, diğer çocukların ve/veya yaşlılara bakım için harcanan zaman gibi zaman ve enerji gerektiren durumlar göz önünde bulundurulduğunda çocukların eğitim hayatlarına katılımın sınırlı olduğu görülmektedir. Durgun ve Çak (2010) tarafından da ifade edildiği üzere kent yoksulu ailelerde yetersiz gelir, yetersiz ve istikrarsız kaynak, yetersiz barınma, kamusal altyapı hizmetlerinin yetersizliği, sosyal güvenlik mahrumiyet vb. ortaya çıkan değişkenler bu ailelerdeki çocukların gelişimini birçok yönden olumsuz şekilde etkilemektedir.

Araştırmaya katılan çocukların görüşleri doğrultusunda kent yoksulu ailelerde farklı aile tiplerinin görüldüğü anlaşılmıştır. Türkiye'nin yaşadığı sosyoekonomik, kültürel ve demografik dönüşümler ailenin kuruluş süreci yanında değişim sürecini de etkilemektedir. Sürecin bir sonucu olarak Türkiye'de geniş aile yapılarının, özellikle de ataerkil aile yapısının hızla çözüldüğü; çekirdek aile yapılarının hızlı bir şekilde arttıktan sonra 1990'lı yıllardan itibaren durağanlaştığı; dağılmış aile yapılarının özellikle de tek kişilik ve tek ebeveynli ailelerin ise hızlı bir artış sürecinde olduğu görülmektedir (Koç, 2018).

Kent yoksulu ailelerin çocuklarının farklı sorumluluklar üstlenmek zorunda kaldıkları anlaşılmıştır. Yavuz ve Güllüpnar (2019) sosyo-ekonomik bağlamdaki yeterliliğin çocuklara yönelik eşitlikçi değerlerin oluşmasına, çocuğun özerkliğine, bireysel yaşantısına ve başarısına verilen önemin artmasına bunun doğrultusunda da çocukluktan maddi fayda beklentisinin azaldığına vurgu yapmışlardır. Kağıtçıbaşı'nın (1981) araştırmalarında çocuğa atfedilen sosyal, psikolojik ve ekonomik olmak üzere üç değer tanımlanmıştır. Çocuğun ekonomik değeri olarak öncelikle eve ekonomik açıdan gelir getirmesi ve katkı yapması, çocuğun ev işleri yapması ve yaşlılıkta ebeveynlerine bakım sağlaması gibi durumlar ifade edilmiştir. Bu araştırmadan da katılımcı çocukların görüşlerinden kendilerinden beklenen sorumluluklar bağlamında benzer yapıların ortaya çıktığı görülmüştür. Günümüz kentlerinde çocuklardan beklentiler yalnızca ev içi bir emek sunmaları ile sınırlı kalmamaktadır. Özbek-Sönmez (2007) tarafından da belirtildiği üzere kentlerin zorlayıcı iktisadi ve toplumsal şartları aileleri çok yönlü etkilemektedir. Ailenin eğitim düzeylerinin düşüklüğü ve iş tecrübelerinin kentsel iş gücü talebine uymaması geçim sıkıntısını da beraberinde getirir. Bu durum çocukların da gelir kaynağı olarak görülmesine neden olmaktadır (Özbek-Sönmez, 2007). Özellikle son yıllardaki kentlerdeki kayıt dışı çocuk işçi sayısındaki artışlar da bunu destekler niteliktedir (Berigel & Eroğlu, 2019). Yine Yıldız'a (2006) göre de kentsel yoksulluk Türkiye'de çocuk işçilerin artışı körükleyen bir sorun olup çocuklar, sosyal güvenlik haklarından yararlanamama, uzun çalışma süreleri ile kötü, sağlıksız ve güvenlikten yoksun ortamlarda ağır şartlarda çalışma, işten çıkarılma riskine karşı her türlü kötü muameleye boyun eğme gibi problemlerle karşı karşıya kalmaktadır.

Araştırmada aile ve ev düzenine ilişkin bulgulardan biri de kent yoksulu ailelerde çocukların ebeveynleri ile nasıl zaman geçirdiklerine yöneliktir. Çocuklar ebeveynleri ile farklı etkinlikler yapmış olsalar da çoğu zaman ebeveynlerin uzun saatlere yayılan çalışma sürelerinden dolayı bu etkinliklerin gerçekleşmediği anlaşılmıştır. Tabak (2020) tarafından yapılan çalışmada ailelerin sosyoekonomik durumlarının etkili aile katılımı noktasında önemli olduğu vurgulanmıştır. Yine farklı çalışmalar da ekonomik değişkenlerin, ailelerin çocuklarının hayatlarındaki rolünü değiştirdiği ve dönüştürdüğü ifade edilmiştir (Won-Kim, 2018; Yenipınar & Yıldırım, 2017). Düşük sosyoekonomik durumların ve yoksulluğun çocukların gelişimi üzerinde önemli etkileri bulunmaktadır. Yoksul hanehalklarında bulunan çocuklar birçok mental ve fiziksel güçlüklerle karşılaşmakta, bilişsel ve yürütücü işlevlerinde

sıkıntılar yaşamakta ve düşük akademik başarı göstermektedirler Aynı zamanda bu çocuklar ev ortamlarında ebeveynleri ile olumlu iletişim kurma noktasında da zorluk yaşamaktadırlar (Pelton, 2015; Russell vd., 2008). Yoksulluk şartları altında ebeveynlik de güçleşmektedir. Yoksul aileler daha az kaynağa ve sosyal desteğe sahip olmakla birlikte güvenli olmayan ortamlarda yaşamakta, niteliği az ve durağan olmayan sağlık, beslenme, okul ve ev şartlarını deneyimlemektedirler (Marcenko vd., 2011). Bundan dolayı kendi yaşam ihtiyaçlarından vazgeçerek daha fazla zaman ve kaynağı çocuklarının ihtiyaçlarını karşılamak için kullanmak zorundadırlar (Marcenko vd., 2011; Zilberstein, 2016).

Araştırmada öğrencilerle yapılan görüşmelerden elde edilen bir diğer tema altında da öğrencilerin oturdukları mahalleye ilişkin bulgular ifade edilmiştir. Bu bağlamda öğrenciler oturdukları mahallede park ve oyun alanlarının olmasını, evlerinin müstakil bahçeli olmasını, çok fazla arkadaşlarının olmasını, mahallede iyi ilişkilerin kurulmasını, evin okula yakın olmasını iyi yönde ifade ederken çevrenin oyuna uygun olmama, güvende hissedememe gibi durumları da olumsuz yönde belirtmişlerdir. Güvende hissetme, sağlıklı bir duyuşsal gelişim ve genel huzur önceliklidir. Kent yoksulu mahallelerde yaşayan çocuklar evde, okulda ve çevrede çok farklı tehlikeleri deneyimlemek zorunda kalmaktadırlar (Black & Krishnakumar, 1998). Güvenlik problemi kent yoksulu çevrelerde çocuklarda fiziksel ve duyuşsal iyi oluşu kötü yönde etkilemektedir. Aynı zamanda bu süreç ebeveynlik durumlarına da olumsuz bir şekilde yansımaktadır.

Dezavantajlı mahallelerde yaşayan çocuklar aile kaynaklı birçok olumsuzluğa da maruz kalmaktadırlar. Bunların arasından ailede kaos, çatışma, şiddet, çözümsüzlük ve ilgisizlik örnek olarak gösterilebilir. Bunun yanında finansal değişkenlik, ev değişiklikleri, evsizlik ve ebeveyn hastalıkları da çok sıkça kent yoksulu mahallelerde ortaya çıkmakta ve çocuğun yansıtışına olumsuz bir şekilde yansımaktadır (Kiser, 2007). Berman vd. (2018) tarafından da ifade edildiği gibi kent yoksulu çocukların oturdukları mahalleler kirlilik, kötü ev şartları, okul ve çevresindeki güvenli olmayan durumlar ve diğer olumsuz sosyal faktörlerle karşı karşıyadır. Tüm bunlar çocukların akademik başarısında olumsuz etkilere sebebiyet vermekle birlikte okula devamsızlıklarını da artırmaktadır.

Araştırmaya katılan kent yoksulu öğrencilerin sosyo-kültürel ortamına ilişkin bulgular değerlendirildiğinde boş zamanlarında oyun oynama, televizyon izleme, kitap okuma gibi etkinlikler gerçekleştirdikleri; kültürel faaliyetler bağlamında sinema, tiyatro, müzeye gittikleri; sanat ve spor faaliyetlerine zaman ayırmaya çalıştıkları ve yine sosyal faaliyetler bağlamında da arkadaşlarla buluşmak, bisiklete binmek, gezip dolaşmak, piknik yapmak, kamp yapmak, denize gitmek ve şehir dışına çıkmak gibi etkinlikler içerisinde oldukları anlaşılmıştır. Görüldüğü üzere çok çeşitlilik göstermese de kent yoksulu ailelerin çocuklarının sosyo-kültürel bağlamda birtakım etkinlikler içerisinde olduğu görülmektedir. Ancak kent yoksulluğunun yaşandığı çevrelerde güvenliğin düşük olduğu yönündeki durumlar ve buna yönelik inançlar, sosyal imkânların kısıtlılığı ve sosyalleşme ihtiyacını gidermeye yönelik mekanların azlığı, kent merkezine olan uzaklık, ulaşım sorunu, düşük ekonomik gelir vb. değişkenler hem kent yoksulu ailelerin hem de çocuklarının sosyal kültürel faaliyetlerini olumsuz yönde etkileyebilmektedir. Kent yoksulu çevrelerde yaşayanlar kendilerini gerçekleştirebilecekleri veya ilerletebilecekleri olanaklardan yoksun olduklarını, yaşadıkları çevrenin eğitim ve kültür seviyesinin düşüklüğünün bunu çok fazla etkilediğini ifade etmektedirler (Yamanoğlu, 2006). Yılmaz (2006) tarafından da belirtildiği üzere yaşanan bölgelerdeki olumsuz yaşam koşulları sosyal dışlanmanın bir boyutu olan mekânsal dışlanma biçimlerini de üretmektedir. Yaşanan bölgelerin olumsuz fiziksel koşulları, kentsel olanakların eksikliği ve bu alanlarda yoğunlaşan yasadışı

faaliyetler kent yoksulu aileler ve çocuklarının sosyal dışlanma döngüsünü kırmalarını güçleştirmektedir. Bu çevrelerde yaşayanlar buldukları çevrede kendilerini geliştirebilecekleri olanakların bulunmadığını, kendilerine örnek olarak alabilecekleri kişilerin az olduğunu söyleyerek, yaşadıkları mekânın üzerlerindeki olumsuz etkilerine dikkat çekmektedirler.

Yine gerçekleştirilen başka bir çalışmada da kent yoksulu çevrelerin sosyal dışlanmayı da beraberinde getirdiği, yoksunluklar yaşayan kesimlerin izole edilmesi, segregasyona tabi tutulmaları, ayrışma ve kutuplaşma atmosferinde bireylerin kentsel ve sosyal sistemin içerisinde yeterince yer alamadıkları ve bundan dolayı kendilerini kentin bir parçası olarak göremedikleri belirtilmiştir. Büyük oranda ekonomik yetersizliklerden kaynaklanan söz konusu temas düzeylerinin eksikliği veya yetersizliği yabancılaşmayı da beraberinde getirmektedir (Sümer, 2022). Yine bu çalışmada özellikle katılımcılara boş zamanlarında en çok gerçekleştirdikleri sosyal etkinlikler sorulduğunda daha fazla ücretsiz etkinliklere dahil oldukları ve farklı mekanlara yönelik gezilerin de ön plana çıktığı görülmüştür (Özbay, 2009). Tarıkci ve Eraslan (2015) tarafından yapılan çalışma da kent yoksulu ailelerin ve çocuklarının yoksunluktan kaynaklı olarak kentin sunmuş olduğu sosyal ve kültürel faaliyetlerden yeterince faydalanamadıkları belirtilmiştir.

Araştırmada öğrencilerin görüşlerinden yaşamış oldukları kent yoksulluğu bağlamında genel olarak ihtiyaçlarının da neler oldukları bulgusuna da ulaşılmıştır. Öğrencilerin beslenme, uyku ve sağlık gibi fiziksel ihtiyaçlarının yanında, aileye aidiyet hissetme, aile birliği ve arkadaşlara aidiyet hissetme gibi duygusal ihtiyaçlarının da olduğuna ulaşılmıştır. Yine bunun yanında ödevleri bağlamında destek alma, ders çalışmaya uygun bir ortam bulabilme, ders malzemelerine ulaşabilme, öğretmenler ile iyi iletişim kurabilme, okulun sunduğu olanaklardan faydalanabilme gibi akademik ihtiyaçlarının da olduğu anlaşılmıştır. Kentsel yoksullukta, temel ihtiyaç maddelerine ulaşmadaki gelir yetersizliği ile birlikte barınma, iş güvenliği, eğitim gibi hizmetlerden yoksunluk söz konusu olup çevresel koşullar, sağlık hizmetleri, tüketim tercihleri, kamusal nitelikte hizmetlere ulaşma ve sivil haklar da kentsel yoksulluk konusunda dikkate alınan temel göstergeleri oluşturmaktadır (Gürler-Hazman, 2010). Bu çalışmada da kent yoksulu ailelerin çocuklarının ifade etmiş oldukları ihtiyaçların benzer yoksunluklara işaret ettiği ifade edilebilir. Kentsel bütünleşmesini sağlayamamış, yoksulluğun getirdiği olanaksızlıklarla, haklarından yeterince yararlanamayan, geçerli bir mesleği ve kentsel yaşamın gereklerini karşılayabilecek becerileri olmayan, kültürel değerleri farklı ailelerin kentlere yığılması, beraberinde birbirini tetikleyen birçok sorunu da gündeme getirmektedir (Barış, 2009). Kent yoksulu ailelerin çocukları, beslenme ve sağlık sorunları yaşama, aile bütçesine katkı sağlamak için eğitime devam edememe, şiddete maruz kalma gibi sorunların yanı sıra yargı sistemiyle tanışma, sokaklara savrulma gibi risklere, kent yaşamı ve kentsel ortamların getirdiği diğer tehlikelere özellikle açık halde bulunmaktadır. Akıllı ve Dirikoç (2017) tarafından da ifade edildiği üzere kent yoksulu çevrelerde çocuğun emeği, beslenme ve sağlık sorunu, eğitim sorunu, sosyal dışlanma, sokakla ve yargıyla tanışma gibi birçok problem ortaya çıkmaktadır.

Yoksulluk çocukları yaşama, büyüme ve gelişme açısından gereksinim duydukları olanaklardan yoksun bırakmakta ve çeşitli yaşamsal ve toplumsal sorunlarla onları karşı karşıya getirerek çocuk refahını doğrudan etkilemektedir (Öztürk, 2008). Yoksul bir aile çocuğunu maddi imkânsızlık nedeniyle okutamıyor ve çalıştırıyorsa, bu durumda eğitim alamayan çocuk yoksulluktan kurtulamamakta ve bu durumda yoksullukla yoksunluk birbirini doğuran ve besleyen bir kısır döngü haline gelmektedir (Durgun, 2011; Koray, 2010).

Öneriler

Bu araştırmanın başlıca sınırlılığı kent yoksulluğunun yoğun olarak yaşandığı mahallerdeki okullara giden öğrencilerden veri toplanarak kent yoksulluğunun eğitimi nasıl etkilediğinin ortaya koyulmuş olmasına karşın kentin görece varlıklı mahallelerinde yaşamakta olan yoksul ailelerin çocuklarının konuyla ilgili deneyimlerine yer verilmemiş olmasıdır. Diğer bir sınırlılık ise çocukların deneyimleri üzerinden kent yoksulluğu anlaşılmaya çalışılsa da, aile, öğretmenler, okul yönetimi, mahalledeki diğer yaşayanların konuya ilişkin görüşünü içermemektedir. Kent yoksulluğundan doğrudan ya da dolaylı olarak etkilenen grupların da konu hakkındaki görüşleri bu konudaki alanyazını genişletmeye katkı sağlayacağı düşünülmektedir. Öte yandan bundan sonraki araştırmalarda bu tür çeşitli gruplardan veri toplanması önerilebilir. Öte yandan bu araştırma kapsamında derinlemesine görüşmeler ve saha notları aracılığıyla veri toplanmıştır. Sonraki araştırmalarda daha farklı veri toplama yöntemleri ve çeşitli yaş grupları irdelenebilir.

Kent yoksulu çocukların eğitimi ve gelişimi için öğretmenlerin başlıca yapabilecekleri şöyle sıralanabilir (Gehrke, 2005): ilk olarak öz-farkındalık; öğretmenlerin kentteki yoksul öğrencilerin yeteneklerinin farkında olmaları gerektiği anlamına gelir. Bu özellik, öğretmenlerin öğrencilerinin kültürel ve sosyal kimliklerini tanımaları, kavram yanılgılarının önüne geçmeleri, öğrencilerin kimliklerini ve deneyimlerini daha iyi anlamaları açısından önemlidir. İkinci olarak kent yoksullu öğrencilerin öğrenme ihtiyaçlarını güçlü bir bilgi kaynaklarıyla karşılanması gerektiğidir. Bu karşılama öğretmenlerin çevrelerinde bulunan belirli kaynakları kullanmalarına, yoksulluktan etkilenen öğrencilerle ilgilenmelerine ve öğrencilere ve topluma yardımcı olmak için eylemlerde bulunarak etkin bir şekilde yanıt vermelerine yardımcı olur. Üçüncü olarak ise, kentsel yoksulların öğretmenlerinin, nerede öğretmenlik yaptıklarına veya öğrencilerinin geçmişlerine bakılmaksızın tüm öğrencilerden esasen yüksek beklentilere sahip olmalarıdır.


Elbette kent yoksulluğunun öğrenciler üzerindeki olumsuz etkileri öğretmenler, okul yöneticileri, aile ve diğer sosyal aktörlerin koordineli bir şekilde çalışmasıyla iyileştirilebilir. Dolayısıyla bu tür gelişimleri kaydetmek sadece okulun tek başına gerçekleştirebileceği bir şey değil, aile ve diğer aktörlerle birlikte ele alındığında üstesinden gelinebilecek sorunlar olarak görülebilir. Böyle koordineli yapılan çalışmalar, müdahale programları ve destekler sayesinde akademik performansın artması, devamsızlığın ve okul terkinin azalmasında son derece etkili olabilmektedir (Rodríguez & Conchas, 2009; Walsh vd., 2014).




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Examination of The Social Emotional Learning Levels of Students Who Education in Sports High School and Different High Schools According to Various Variables

 Metin Tan, Dr., Corresponding Author
The Ministry of National Education, Türkiye
metintan58@hotmail.com
Orcid ID: 0000-0001-7873-2058

 İsrafil Yaşın, Dr.
The Ministry of National Education, Türkiye
israfil_58@hotmail.com
Orcid ID: 0000-0002-9395-8474

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Abstract

This research was carried out to examine the social-emotional learning levels of secondary school students studying at Sports High School and different high schools according to various variables. The population of the research consists of students studying at the secondary education level of Gaziantep in the 2021-2022 academic year. A total of 731, with 211 (28.9%) Sports High Schools, 185 (25.3%) Science High Schools, 163 (22.3%) Anatolian High Schools, 172 (23.5%) Vocational High Schools, which accepted students with a special talent exam. forms. In the study, in which the general screening method was used for volunteer students, the "Social Emotional Learning Scale (SELS)" was used together with the personal information form for the students. As a result of the research, the social-emotional learning skill levels of Science High School, Anatolian High School, Sports High School and Vocational High School students with different academic achievement levels differed in the definition of social-emotional learning skill levels in the sub-dimensions of "Task", "Peer Relationships" and "Self-Control", SEL total score. Although there is a difference in academic achievement between the students of the Science High School and the students of the Sports High School, we can say that the social and emotional learning skills of the students studying at the Sports High School are similar to those of the Science High School, thanks to the regular training and the competitions they participate in.

Keywords: Sports, social emotional learning, sports high school.

Introduction

Social Emotional Learning [SEL], whose value in education has been better understood in recent years, is defined as "the processes of acquiring and effectively applying the knowledge, attitudes and skills necessary to manage the emotions of children and adults, to set and achieve positive goals, to feel and show empathy for others, to establish positive relationships and to make responsible decisions" (Weissberg & Cascarino, 2013). Social-emotional learning skills are the set of abilities such as "problem solving, coping with stress, communication and self-esteem" that are necessary for a successful life in different areas such as social and family life (Elias et al., 2006). Studies show that social-emotional intelligence [EQ] is not dependent on heredity as much as cognitive intelligence [IQ] and that social-emotional learning skills can be developed by learning (Kirtıl, 2009, p. 100). Scientific investigations have unveiled that social-emotional intelligence stands as a pivotal factor in fostering both the academic and social accomplishments of individuals (Durlak et al., 2011; Patrikakou et al., 2005, p. 6). Social emotional learning skills when applied correctly; it prevents a series of undesirable behaviors such as substance abuse, violence and failure at school, and helps all students to become members of society by contributing to their growth as "informed, responsible, caring, productive and non-violent" individuals (Zins, 2001). The most important contribution of social emotional learning skills to educational environments is that they are fun and rewarding. Due to its positive effect on students, social and emotional learning skills are accepted as a missing part of education (Elias et al., 1997, pp. 1-2). Such skills are important factors that increase the success of schools. When students gain social and emotional learning skills, their academic success increases, the frequency of problematic behaviors decreases, and the quality of their relationship with their environment increases (Durlak et al., 2011). An individual who gains social and emotional learning skills considers ethical values while overcoming his daily responsibilities, so he can develop his attitudes and behaviors with a holistic approach (Turkish Industrialists' and Businessmen's Association (TÜSİAD), 2019, p. 23).

Adolescents in the developmental period begin to act independently from their families. In this phase, they experience positive and negative emotions intensely. In this, they need more social and

emotional help. At this stage, they get the help they need from the social environment and school they live in (Greenberg et al., 2017). In addition to learning social emotional skills, students also need environments where they can practice these skills regularly. Thanks to sports and regular training, it develops social and emotional learning skills such as cooperation, developing a positive attitude, recognizing its strengths and weaknesses, making necessary plans in line with the goals it has set, empathy, and responsible decision-making (Göl-Güven., 2021, p. 51). The purpose of sports is always to take steps towards the good, the beautiful and the positive. Developing positive relationships with other people, emphasizing that every person is valuable, being aware of one's own limits, trying to improve himself and trying to excel is an attitude (Erdemli, 2021, p. 339). The individual participating in sports activities learns to become aware of their own abilities, recognize the talents of others, compete on equal terms, accept defeat, appreciate the winner, display humility in victory, help those in need around them, utilize their time and effort effectively, and adhere to the rules (Öztürk, 1998, pp. 18-19). Sports holds a significantly crucial role in shaping social culture due to its capacity for fostering change and transformation in individuals (Güven, 1999, p. 6). Since educational institutions are responsible for the education of children, they are deemed to have accepted that they will support the skills they need to gain by preparing them for the future (Elias, 2003, p. 11). We can achieve our goal of raising individuals who have acquired the skills required by our age, with a comprehensive education that provides the opportunity to practice these skills that support the physical development of the students as well as the acquisition of social and emotional skills (Tan & Çolakoğlu, 2022, p. 124; Ministry of National Education [MoNE], 1973). As a result of the literature study, many characteristics such as multiple intelligence (Güllü and Tekin, 2009), anxiety and mindfulness (Aygün, 2020) of secondary school students studying at sports high schools and high schools with different academic achievement levels are the subject of research; Our research is important because there is a limited number of studies (Kuyulu, 2015) examining social and emotional learning levels.

Based on the provided information, the primary objective of this study was to investigate the social-emotional learning skill levels of students attending Sports High School and those enrolled in various other high schools, with a focus on different variables. Is there a difference between students studying at sports high schools and different high schools in terms of social emotional learning skills? In addition to the problem, answers to the following questions will be sought.

1. The study investigated whether there exists a disparity in the social-emotional learning skills between female students attending sports high schools and those enrolled in other types of high schools.
2. The research aimed to explore potential variations in the social-emotional learning skills of male students between those attending sports high schools and those enrolled in different types of high schools.

Method

Model of the Research

The general survey method was used in the research conducted with the aim of examining the social emotional learning levels of secondary school students studying in sports high schools and different high schools according to various variables (Karasar, 2018, p. 109).

The population of the study consisted of 2950 students in 4 different types of high schools (according to the placement score, Science high school is 1%, Anatolian high school is address-based,

Vocational high school placement score is 68.89% and Sports high school admits students with special talent exam) in the province of Gaziantep in 2021-2022 (G.İ.M.E.M 2022). In the determination of the sample of the research, it was deemed appropriate that the sample number should consist of at least 341 people, in line with the calculations made in the research with a population size of 2950, with a 95% confidence interval and $\alpha = 0.05$ margin of error (Karasar, 2018, pp. 159-163). In the determination of the sample, the appropriate sampling technique, which is the sampling type determined because the participants voluntarily participated in the research and were suitable for the research, was used (Yıldırım & Şimşek, 2006). There are 262 (35.8%) female and 469 (64.2%) male, totally 731 volunteer students, of which 211 (28.9%) students are enrolled in sports high schools, 185 (25.3%) science high schools, 163 (22.3%) Anatolian high schools, 172 (23.5%) and Vocational high schools.

Data Collection Methods and Tools

At the stage of collecting the research data, the "Social Emotional Learning Scale [SELS]", which was developed by Coryn, Spybrook, Evergreen, and Blinkiewicz (2009) and adapted into Turkish by conducting Turkish validity and reliability studies by Arslan and Akin (2013), was used together with the personal information form. In the study conducted by Arslan and Akin (2013), the internal consistency reliability coefficient of the scale was determined as 90, and the test-retest reliability coefficient as 71. The scale is in a 5-point Likert type and questions 1-6 indicate the dimensions of "Task Description", questions 7-13 "Peer Relationships" and questions 14-20 "Self-Regulation". The factor loadings of the SEL are ranged between .41 and .71". "The internal consistency reliability coefficients of the scale vary between .76 and .87 for the sub-dimensions, and the test-retest reliability coefficients range between .72 and .82 for the sub-dimensions". High scores in each sub-dimension indicate that the student has social-emotional learning skills. While the highest score that can be obtained from the scale is 100, the lowest score is 20. There is no reverse scored item in the scale (Arslan & Akin, 2013).

Permission was obtained from Gaziantep University Social and Human Sciences Ethics Committee and Gaziantep Governorship Provincial Directorate of National Education. The researchers went to the schools, made the necessary explanations to the school administration, and the scale form distributed to the students who voluntarily agreed to participate in the research was applied under the supervision of their teachers without interrupting their education and the data were collected.

Data Analysis

The data collected by applying SELS together with the personal information form of the students studying in sports high schools and different high schools were entered into the SPSS 22.0 statistical program and analyzed. Cronbach's Alpha test reliability coefficients for reliability analysis; It was determined as ,74 in the "Task Description" dimension, 74 in the "Peer Relationships" dimension, 80, 78 in the "Self-Regulation" dimension, and 90 in the total of the IDS. In general, it can be said that data collection tools make reliable measurements for the research, considering that Cronbach Alpha values above .70 are acceptable (Pallant, 2017, p. 113).

The normality assumptions of the scores were analyzed according to the skewness and kurtosis values obtained as a result of the descriptive analyzes made on the scores of high school students from the SEL. Considering the skewness values of -1.5 and +1.5, suggested by Tabachnick and Fidell (2013), the distribution was found to be normal (Table 1).

Since the distribution of the groups was normal, one-way analysis of variance (One-Way Anova) was used according to school type and gender variables to compare the students' SEL scores. The homogeneity of the variances was tested with the Levene test in order to determine from which group the significant differences emerged as a result of the One-Way Anova test. As the variances are homogeneous as a result of Levene test, Scheffe test (Taşpınar, 2017), which is one of the Post Hoc tests and used in situations that do not require the sample sizes in the groups to be equal, was determined from which group the differences originated. Analysis results were considered at 95% confidence level, and $p < .05$ values were considered statistically significant.

Ethical Permits of Research

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

Ethics Committee Permission Information:

Name of the committee that made the ethical evaluation= Gaziantep University Social and Human Sciences Ethics Committee

Date of ethical review decision= 05.04.2022

Ethics assessment document issue number= 173863/ 02.

Findings

Table 1. Descriptive information about the students' SELS scores

| Sub-Dimensions | N | Total Points | | | Average Score | | | Skewness | Kurtosis |
|--------------------|-----|--------------|-----|-----------------|---------------|-----|-----------------|----------|----------|
| | | Min | Max | $\bar{X} \pm S$ | Min | Max | $\bar{X} \pm S$ | | |
| Job Description | 731 | 6 | 30 | 21,45±4,76 | 1 | 5 | 3,57±,79 | -,41 | -,01 |
| Peer Relationships | 731 | 7 | 35 | 26,05±5,54 | 1 | 5 | 3,72±,79 | -,62 | ,45 |
| Self Editing | 731 | 7 | 35 | 26,39±5,50 | 1 | 5 | 3,77±,78 | -,62 | ,36 |
| Total | 731 | 23 | 100 | 73,90±13,88 | 1,15 | 5 | 3,69±,69 | -,54 | ,48 |

As can be seen in Table 1, as a result of the descriptive analyzes made according to the scores of the students in SEL, the lowest "6", the highest "30" and \bar{X} = "21.45" points in the Task Description dimension of the SEL, in the Peer Relations dimension, the lowest "7", the highest "35" and \bar{X} = "26.05" points, in the Self-Regulation dimension, the lowest "7", the highest "35" and \bar{X} = "26.39" points, in the Social Emotional Learning Scale, it was determined that they got the lowest "23", the highest "100" and \bar{X} = "73.90" points.

Table 2. One-way anova test analysis according to the school variable of the students

| Sub-Dimensions | Variable | N 731 | $\bar{X} \pm S$ | F | p | Difference | |
|----------------|------------------------|------------------------|-----------------|------------|-------|------------|-----|
| SELS | Job Description | Science High School | 185 | 22,68±4,92 | 16,93 | ,000* | a>b |
| | | Anatolian High School | 163 | 20,82±4,18 | | | a>c |
| | | Vocational high School | 172 | 19,63±4,67 | | | d>b |
| | | Sports High School | 211 | 22,35±4,60 | | | d>c |
| | Peer Relationships | Science High School | 185 | 27,38±5,26 | 11,15 | ,000* | a>c |
| | | Anatolian High School | 163 | 26,14±5,34 | | | b>c |
| | | Vocational high School | 172 | 24,13±5,76 | | | d>c |
| | | Sports High School | 211 | 26,38±5,35 | | | |
| | Self Editing | Science High School | 185 | 27,24±5,02 | 11,97 | ,000* | a>c |
| | | Anatolian High School | 163 | 26,52±5,18 | | | b>c |
| | | Vocational high School | 172 | 24,30±6,12 | | | d>c |
| | | Sports High School | 211 | 27,24±5,17 | | | |
| Total | Science High School | 185 | 77,31±13,67 | 16,42 | ,000* | | |
| | Anatolian High School | 163 | 73,49±12,59 | | | a>c | |
| | Vocational high School | 172 | 68,07±14,40 | | | b>c | |
| | Sports High School | 211 | 75,98±13,12 | | | d>c | |

*p<.05 a= Science High School, b=Anatolian High School, c=Vocational High School, d=Sports High School

When Table 2 is examined, according to the results of the one-way analysis of variance (One-Way Anova), which was made to compare the SEL scores of the students according to the school variables; Task Description (F=16,934, p=.000<.05), Peer Relationships (F=11.148, p=.000<.05), Self-Regulation dimensions (F=11.969, p=.000<.05) and SELS Statistically significant differences were obtained between the groups according to the total score (F=16.425, p=.000<.05). As a result of the Scheffe test to determine the direction of the difference, in the Task Description dimension; Between science high school and Anatolian high school ($\bar{X}_{\text{Science High School}}=22.68 > \bar{X}_{\text{Anadolu High School}}=20.82$) and Vocational high school ($\bar{X}_{\text{Science High School}}=22.68 > \bar{X}_{\text{Vocational High School}}=19.63$) in favor of science high school students, Sports high school and Anatolian high school (Between $\bar{X}_{\text{Sports High School}}=22.35 > \bar{X}_{\text{Anadolu High School}}=20.82$) and Vocational High School ($\bar{X}_{\text{Sports High School}}=22.35 > \bar{X}_{\text{Vocational High School}}=19.63$) in favor of sports high school students, in Peer Relations dimension; Between science high school and vocational high school ($\bar{X}_{\text{Science high school}}=27.38 > \bar{X}_{\text{Vocational high school}}=24.13$) In favor of science high school students, between Anatolian high school and vocational high school ($\bar{X}_{\text{Anatolian High School}}=26.14 > \bar{X}_{\text{Vocational High School}}=24.13$) Anatolian high school students In favor of Sports High School and Vocational High School ($\bar{X}_{\text{Sport High School}}=26.38 > \bar{X}_{\text{Vocational High School}}=24.13$) In favor of Sports high school students, in Self-Regulation dimension; Between science high school and vocational high school ($\bar{X}_{\text{Science high school}}=27.24 > \bar{X}_{\text{Vocational high school}}=24.30$) In favor of science high school students, between Anatolian high school and vocational high school ($\bar{X}_{\text{Anatolian High School}}=26.52 > \bar{X}_{\text{Vocational High School}}=24.30$) Anatolian high school students in favor of, between sports high school and vocational high school ($\bar{X}_{\text{Sport High School}}=27.24 > \bar{X}_{\text{Vocational High School}}=24.30$) In favor of sports high school students, in the total score of SDS; Between science high school and vocational high school ($\bar{X}_{\text{Science high school}}=77.31 > \bar{X}_{\text{Vocational high school}}=68.07$) In favor of science high school students, between Anatolian high school and vocational high school ($\bar{X}_{\text{Anatolian High School}}=73.49 > \bar{X}_{\text{Vocational High School}}=68.07$) Anatolian high school students In favor of sports high school and Vocational high school ($\bar{X}_{\text{Spor High School}}=75.98 > \bar{X}_{\text{Vocational High School}}=68.07$) in favor of sports high school students.

Table 3. One-way anova test results of female students according to school variable

| Sub-Dimensions | Variable | n 262 | $\bar{X} \pm S$ | F | p | |
|----------------|------------------------|------------------------|-----------------|------------|------|-----|
| SELS | Job Description | Science High School | 84 | 21,89±4,81 | 2,37 | ,07 |
| | | Anatolian High School | 99 | 20,58±4,18 | | |
| | | Vocational high School | 26 | 19,50±5,38 | | |
| | | Sports High School | 53 | 21,32±4,33 | | |
| | Peer Relationships | Science High School | 84 | 26,86±5,46 | 1,18 | ,32 |
| | | Anatolian High School | 99 | 26,87±5,15 | | |
| | | Vocational high School | 26 | 25,11±6,71 | | |
| | | Sports High School | 53 | 27,41±3,64 | | |
| | Self Editing | Science High School | 84 | 26,63±4,74 | ,97 | ,40 |
| | | Anatolian High School | 99 | 26,69±5,07 | | |
| | | Vocational high School | 26 | 25,03±5,94 | | |
| | | Sports High School | 53 | 27,01±4,83 | | |
| Total | Science High School | 84 | 75,39±13,34 | 1,61 | ,19 | |
| | Anatolian High School | 99 | 74,16±12,28 | | | |
| | Vocational high School | 26 | 69,65±15,66 | | | |
| | Sports High School | 53 | 75,75±10,31 | | | |

*p<.05 a= Science High School, b=Anatolian High School, c=Vocational High School, d=Sports High School

Upon examining Table 3, the results of the One-Way Analysis of Variance [ANOVA] conducted to compare the SELS scores of female students based on school variables are as follows: There was no statistically significant difference observed between the groups in terms of Task Description ($F=2.371$, $p=0.071>0.05$), Peer Relationships ($F=1.181$, $p=0.318>0.05$), Self-Regulation dimensions ($F=0.974$, $p=0.405>0.05$), and the overall SELS total score ($F=1.608$, $p=0.188>0.05$).

Table 4. One-way anova test results of male students according to school variable

| Sub-Dimensions | Variable | n 469 | $\bar{X} \pm S$ | F | p | Difference |
|--------------------|------------------------|----------|-----------------|-------|------|------------|
| Job Description | Science High School | 101 | 23,33±4,95 | 16,38 | ,000 | a>b |
| | Anatolian High School | 64 | 21,20±4,19 | | | a>c |
| | Vocational high School | 146 | 19,65±4,55 | | | d>c |
| | Sports High School | 158 | 22,69±4,64 | | | |
| Peer Relationships | Science High School | 101 | 27,81±5,07 | 10,24 | ,000 | a>b |
| | Anatolian High School | 64 | 25,00±5,46 | | | a>c |
| | Vocational high School | 146 | 23,95±5,58 | | | d>c |
| | Sports High School | 158 | 26,03±5,78 | | | |
| Self Editing | Science High School | 101 | 27,76±5,21 | 11,13 | ,000 | a>c |
| | Anatolian High School | 64 | 26,26±5,39 | | | d>c |
| | Vocational high School | 146 | 24,17±6,16 | | | |
| | Sports High School | 158 | 27,32±5,30 | | | |
| Total | Science High School | 101 | 78,91±13,81 | 15,20 | ,000 | a>b |
| | Anatolian High School | 64 | 72,46±13,08 | | | a>c |
| | Vocational high School | 146 | 67,79±14,21 | | | b>c |
| | Sports High School | 158 | 76,05±13,96 | | | |

*p<.05 a= Science High School, b=Anatolian High School, c=Vocational High School, d=Sports High School

When Table 4 is examined, according to the results of the one-way analysis of variance (One-Way Anova) performed to compare the SEL scores of male students according to school variables; Task Description ($F=16.384$, $p=.000<.05$), Peer Relationships ($F=10.238$, $p=.000<.05$), Self-Regulation dimensions ($F=11.126$, $p=.000<.05$) and SELS Statistically significant differences were obtained between the groups according to the total score ($F=15.204$, $p=.000<.05$). As a result of the Scheffe test to determine the direction of the difference, in the Task Description dimension; Between Science High

School and Anatolian High School ($\bar{X}_{\text{Science High School}}=23.33>\bar{X}_{\text{Anadolu High School}}=21.20$) and Vocational High School ($\bar{X}_{\text{Science High School}}=23.33>\bar{X}_{\text{Vocational High School}}=19.65$) in favor of Science High School students, between Sports High School and Vocational High School ($\bar{X}_{\text{Sports High School}}=22.69>\bar{X}_{\text{Vocational High School}}=19.65$) In favor of Sports High School students, in Peer Relations dimension; Between Science High School and Anatolian High School ($\bar{X}_{\text{Science High School}}=27.81>\bar{X}_{\text{Anadolu High School}}=25.00$) and Vocational High School ($\bar{X}_{\text{Science High School}}=27.81>\bar{X}_{\text{Vocational High School}}=23.95$) in favor of Science High School students, between Sports High School and Vocational High School ($\bar{X}_{\text{Sports High School}}=26.03>\bar{X}_{\text{Vocational High School}}=23.95$) In favor of Sports High School students, in the Self-Regulation dimension; Between Science High School and Vocational High School ($\bar{X}_{\text{Science High School}}=27.76>\bar{X}_{\text{Vocational High School}}=24.17$) In favor of Science High School students, Between Sports High School and Vocational High School ($\bar{X}_{\text{Sport High School}}=27.32>\bar{X}_{\text{Vocational High School}}=24.17$) Sports High School students in favour, in the total score of SSQ; Between Science High School and Anatolian High School ($\bar{X}_{\text{Science High School}}=78.91>\bar{X}_{\text{Anadolu High School}}=72,46$) and Vocational High School ($\bar{X}_{\text{Science High School}}=78.91>\bar{X}_{\text{Vocational High School}}=67.79$) in favor of Science High School students, between Sports High School and Vocational High School ($\bar{X}_{\text{Sport High School}}=76.05>\bar{X}_{\text{Vocational High School}}=67.79$) Significant differences were found in favor of Sports High School students.

Discussion and Conclusion

As a result of the research conducted with the aim of examining the social-emotional learning levels of sports high school and secondary school students studying in different high schools according to various variables, it was determined that there were significant differences in the total scale and sub-dimensions between Sports high school, Science high school, Anatolian high school and Vocational high school students (Table 2). As a result of the analysis made to determine between which schools the significant differences emerged, no significant difference was found between Sports high school and Science high school students in total and sub-dimensions of SELS, while significant differences were found between Sports high school and Science high school and Anatolian high school students in task definition sub-dimension, and between Sports high school and Science high school and Vocational high school in total and sub-dimensions. In the study he conducted in Kuyulu (2015, p. 61) according to the school variable, he concluded that the social emotional learning levels of the Anatolian high school and Sports high school students were significantly different in favor of Sports high school. He stated that this result is due to the fact that Sports high school students attend more physical education and sports lessons than Anatolian high school students and participate in more sports activities. Tan and Çolakoğlu (2022, p. 111), in their study according to the school type variable, stated that they found a significant result in favor of secondary school students in the total of the SELS and in the sub-dimensions of task definition and self-regulation among the students studying at secondary schools and imam hatip secondary schools. Melikoğlu (2020, p. 35), on the other hand, stated that there was no significant difference in social emotional learning levels between secondary schools and imam hatip secondary schools in his study using the "Social Emotional Learning Skills Scale" developed by Kabakçı and Korkut Owen (2010). We can show that the scales used are different as the reason for this result, which is not parallel to the result of our research obtained by Melikoğlu (2020, p. 35). The student, who trains regularly and participates in the competitions, gains physical and mental strength as well as having fun individually, enabling him to get rid of the negativities he encounters as a natural process of life, integrate with the society he lives in, and create the feeling and consciousness of development, maturation, perfection (Erdemli, 2021, p. 166). Even if there is an academic difference between sports

high school and science high school, it is possible to attribute the lack of difference between social and emotional learning skills to the stated effects of sports.

Upon analyzing the research outcomes, it was ascertained that while there was no statistically significant distinction observed in the Social and Emotional Learning Skills (SELS) sub-dimensions concerning the type of school among female students, the mean scores of female students enrolled in Science high schools and Sports high schools were found to be higher compared to those attending other high schools (Table 3).

According to the school variable, significant differences were found in the sub-dimensions of task definition, peer relations and self-regulation, and the total score of SELS. As a result of the analyzes made to determine which groups the differences were in favor of, no significant difference was found between the Science high school and Sports high school in the total score of SELS and its sub-dimensions. Significant differences were found in favor of Science high school and Sports high school in terms of task definition, peer relations, and self-regulation sub-dimensions between Science high school, Sports high school and Vocational high school students (Table 4). Based on the analysis of the data, it can be inferred that there is no statistically significant distinction between sports high schools and science high schools concerning task definition, peer relations, self-regulation, and the overall composite scale.

The study conducted by Ang and Penney (2013) revealed that providing pedagogical support to children through physical education, sports lessons, and sports activities facilitates the development of their social and emotional competencies within a competitive environment. Moreover, such interventions equip students with essential skills to effectively cope with setbacks and failures in the sporting realm. Kuyulu (2015, p. 65) found a statistically significant difference in task definition, peer relations and self-regulation, which are the sub-dimensions of SEL, according to the variable of students' achievement status. It was seen that this significant difference was between the students whose achievement status was weak, medium and good. When evaluated according to this result, it was found that there is a positive relationship between students' perceived academic success and social emotional learning levels. The research has yielded a conclusion indicating a positive correlation between students' academic achievement levels and their corresponding levels of social-emotional learning. As students' academic performance rises, there is a concurrent increase in their social-emotional aptitude.

Doing regular sports causes many changes by positively affecting endurance, strength, speed, skill and mobility, which are determined as motoric characteristics in humans, and positively affects the mobility of the individual in daily life. The individual learns to obey the rules and respect the opponent in the game and exhibit them in the social life areas. Sports teaches the individual to be excited by success, to rejoice with joy, to accept by experiencing emotions such as sadness in failure. It develops many feelings such as tolerance, cooperation and self-confidence by bringing the spirit of solidarity that exists on the basis of sports to the individual (Yetim, 2000, pp. 117-123).

Social behaviors naturally found in physical education and sports curriculum and practices are fair game behaviors. In this way, the individual can produce knowledge, use it functionally in daily life, overcome the problems he encounters, think critically, develop his entrepreneurial side, be determined, have high communication skills, empathize with his environment, contribute to his environment, etc. describes an individual with qualifications. Fair play entails demonstrating respect towards opposing teams and officials while gracefully accepting victory without engaging in complaints or boastful

behavior. The acquisition of fair play behaviors within the context of physical education holds substantial significance as essential social competencies for students, particularly in the realm of childhood education. (Ministry of National Education [MoNE], 2018, p. 4). Using these skills in sports-related activities outside of school increases these skills in students (Kuter & Kuter, 2012). Durlak et al. (2011) found that SEL participants' academic achievement increased by 11 percentage points, as a result of the findings obtained from the meta-analysis of the social and emotional learning (SEL) program. The researchers' findings led to the inference that the intervention yielded a positive impact on academic achievement, concomitant with noteworthy advancements in social and emotional aptitudes, attitudes, and conduct. Studies show that social emotional learning skills learned through regular training and sports competitions held in and out of school can be applied and acquired (Tan & Çolakoğlu, 2022, p. 126).

As a result, in our study, significant differences were found in favor of Sports high school and Science high school students in the total score and sub-dimensions of SEL among students studying in different types of high schools. According to the gender variable, although the average of female students studying in Sports high school and Science high school is higher than Anatolian high school and Vocational high school students, only in the task definition sub-dimension, it is significant in favor of female students studying in Science high school; Significant differences were found between male students studying at Science and Sports high schools and Anatolian high school and Vocational high school students in favor of Science high school and Sports high school students in the total score and sub-dimensions of SEL. We can say that there is a parallelism between the level of academic achievement and social emotional learning skills between science high school, vocational high school and Anatolian high school students, but there is no significant difference in terms of social emotional learning skills, although there is a general difference in academic achievement between sports high school students and science high school students.

Recommendations

1. Physical education lesson hours in schools can be increased.
2. The support given by school administrations to in-school and out-of-school competitions can be increased.
3. Teachers can be given seminars on social-emotional learning skills and in which activities students can acquire them.
4. Conscious awareness can be created in physical education teachers about social emotional learning.

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Contribution Rate of Researchers

Author 1: 50%

Author 2: 50%

Conflict Statement

We declare that there is no conflict of interest between the persons, institutions and organizations where this research was conducted and the researchers.

Genişletilmiş Türkçe Özet



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Spor Lisesi ile Farklı Liselerde Öğrenim Gören Öğrencilerin Sosyal Duygusal Öğrenme Düzeylerinin Çeşitli Değişkenlere Göre İncelenmesi

Giriş

Eğitimdeki değeri son yıllarda daha iyi anlaşılmaya başlanan Sosyal Duygusal Öğrenme [SDÖ], “çocukların ve yetişkinlerin duygularını yönetmek, olumlu hedefler koymak ve elde etmek, başkaları için duygudaşlık hissedebilmek ve göstermek, olumlu ilişkiler kurmak ve sorumlu kararlar almak için gerekli olan bilgi, tutum ve becerileri edinme ve etkili bir şekilde uygulama süreçleri” olarak tanımlanmaktadır (Weissberg & Cascarino 2013). Bilimsel çalışmalar sonucu bireyin akademik ve sosyal başarısını sağlayan faktörler arasında sosyal duygusal zekanın önemli olduğu ortaya konmuştur (Durlak vd., 2011; Patrikakou vd., 2005, s. 6).

Yapılan literatür çalışması sonucu spor lisesi ile akademik başarı seviyeleri farklı olan liselerde öğrenim gören orta öğretim öğrencilerinin çoklu zeka (Güllü ve Tekin, 2009), kaygı ve bilinçli farkındalık (Aygün, 2020) gibi birçok özellik araştırma konusu olurken; sosyal duygusal öğrenme düzeylerinin incelendiği kısıtlı (Kuyulu, 2015) sayıda araştırma olmasından dolayı araştırmamız önem arz etmektedir. Verilen bilgiler ışığında araştırmada Spor lisesi ile farklı liselerde öğrenim gören öğrencilerin sosyal duygusal öğrenme beceri düzeylerinin çeşitli değişkenlere göre incelenmesi amaçlanmıştır. “Spor lisesi ile farklı liselerde öğrenim gören öğrencilerin arasında sosyal duygusal öğrenme becerileri bakımından fark var mıdır?” problemine yanıt aranacaktır.

Yöntem

Araştırmanın Modeli

Genel tarama yöntemi kullanılmıştır (Karasar, 2018). Araştırmanın evrenini 2021-2022 yılında Gaziantep ilinde 4 farklı lise türünde (yerleştirme puanına göre Fen lisesi %1, Anadolu lisesi adrese

dayalı, Meslek lisesi yerleştirme puanı %68,89 ve Spor lisesi özel yetenek sınavı ile öğrenci almakta) 2950 öğrenci oluşturmuştur (G.İ.M.E.M 2022). Araştırmanın örneklemin belirlenmesinde %95 güven aralığı ve $\alpha = 0,05$ hata payına sahip olmak üzere evren büyüklüğü 2950 olan araştırmada yapılan hesaplamalar doğrultusunda örneklem sayısının en az 341 kişiden oluşması uygun görülmüştür (Karasar, 2018: 159-163). Örneklemi özel yetenek sınavı ile öğrenci alan 211 (%28,9) Spor lisesi, 185 (%25,3) Fen lisesi, 163 (%22,3) Anadolu lisesi 172 (%23,5) ve Meslek lisesi olmak üzere 262 (%35,8) kadın 469 (%64,2) erkek toplam 731 gönüllü öğrenci bulunmaktadır.

Veri Toplama Yöntem ve Araçları

Araştırma verilerinin toplanması aşamasında kişisel bilgi formu ile birlikte Coryn, Spybrook, Evergreen, ve Blinkiewicz (2009) tarafından geliştirilen Arslan ve Akın (2013) tarafından Türkçe geçerlilik güvenilirliği çalışmaları yapılarak Türkçeye uyarlanan "Sosyal Duygusal Öğrenme Ölçeği [SDÖÖ]" kullanılmıştır (Arslan ve Akın, 2013).

Gaziantep Valiliği İl Milli Eğitim Müdürlüğünden 18.05.2022 tarih ve 49884212 sayılı yazı ile izin alınmıştır. Araştırmacılar okullara giderek okul yönetimine gerekli açıklamaları yapmış araştırmaya gönüllü olarak katılmayı kabul eden öğrencilere dağıtılan ölçek formu eğitim öğretim aksatılmadan kendi öğretmenleri gözetiminde uygulanarak veriler toplanmıştır.

Veri Analizi

Grupların dağılımı normal olduğundan dolayı öğrencilerin SDÖÖ puanlarını karşılaştırmak için okul türü ve cinsiyet değişkenlerine göre tek yönlü varyans analizi (One-Way Anova) kullanılmıştır. One-Way Anova testi sonucunda ortaya çıkan anlamlı farklılıkların hangi gruptan kaynaklandığını belirlemek amacıyla Levene testi ile varyansların homojenlik durumu test edilmiştir. Levene testi sonucunda varyanslar homojen olduğu için Post Hoc testlerinden olan, gruplardaki örneklem büyüklüklerinin eşit olmasını gerektirmeyen durumlarda kullanılan Scheffe testi (Taşpınar, 2017) ile farklılıkların hangi gruptan kaynaklandığı tespit edilmiştir. Analiz sonuçları %95 güven seviyesinde ele alınmış olup $p < 0,05$ değerleri istatistiksel olarak anlamlı kabul edilmiştir.

Bulgular

Tablo 2 incelendiğinde öğrencilerin okul değişkenlerine göre SDÖÖ puanlarını karşılaştırmak için yapılan tek yönlü varyans analizi (One-Way Anova) sonuçlarına göre; Görev Tanımlama, Akran İlişkileri, Öz Düzenleme boyutları ile SDÖÖ toplam puanına göre gruplar arasında istatistiksel olarak anlamlı farklar elde edilmiştir. Farklılığın yönünü tespit etmek için yapılan Scheffe testi sonucunda Görev Tanımlama boyutunda; Fen lisesi ile Anadolu lisesi ve Meslek lisesi arasında Fen lisesi öğrencileri lehine, Spor lisesi ile Anadolu lisesi ve Meslek lisesi arasında Spor lisesi öğrencileri lehine, Akran İlişkileri boyutunda; Fen lisesi ile Meslek lisesi arasında Fen lisesi öğrencileri lehine, Anadolu lisesi ile Meslek lisesi arasında Anadolu lisesi öğrencileri lehine, Spor lisesi ile Meslek lisesi arasında Spor lisesi öğrencileri lehine, Öz Düzenleme boyutunda; Fen lisesi ile Meslek lisesi arasında Fen lisesi öğrencileri lehine, Anadolu lisesi ile Meslek lisesi arasında Anadolu lisesi öğrencileri lehine, Spor lisesi ile Meslek lisesi arasında Spor lisesi öğrencileri lehine, SDÖÖ toplam puanında; Fen lisesi ile Meslek lisesi arasında Fen lisesi öğrencileri lehine, Anadolu lisesi ile Meslek lisesi arasında Anadolu lisesi öğrencileri lehine, Spor lisesi ile Meslek lisesi arasında Spor lisesi öğrencileri lehine anlamlı farklar tespit edilmiştir.

Tablo 4 incelendiğinde erkek öğrencilerin okul değişkenlerine göre SDÖÖ puanlarını karşılaştırmak için yapılan tek yönlü varyans analizi (One-Way Anova) sonuçlarına göre; Görev Tanımlama, Akran İlişkileri, Öz Düzenleme boyutları ile SDÖÖ toplam puanına göre gruplar arasında istatistiksel olarak anlamlı farklar elde edilmiştir. Farklılığın yönünü tespit etmek için yapılan Scheffe testi sonucunda Görev Tanımlama boyutunda; Fen lisesi ile Anadolu lisesi ve Meslek Lisesi arasında Fen Lisesi öğrencileri lehine, Spor Lisesi ile Meslek Lisesi arasında Spor Lisesi öğrencileri lehine, Akran İlişkileri boyutunda; Fen Lisesi ile Anadolu Lisesi ve Meslek Lisesi arasında Fen Lisesi öğrencileri lehine, Spor Lisesi ile Meslek Lisesi arasında Spor Lisesi öğrencileri lehine, Öz Düzenleme boyutunda; Fen Lisesi ile Meslek Lisesi arasında Fen Lisesi öğrencileri lehine, Spor Lisesi ile Meslek Lisesi arasında Spor Lisesi öğrencileri lehine, SDÖÖ toplam puanında; Fen Lisesi ile Anadolu Lisesi ve Meslek Lisesi arasında Fen Lisesi öğrencileri lehine, Spor Lisesi ile Meslek Lisesi arasında Spor Lisesi öğrencileri lehine anlamlı farklar tespit edilmiştir.

Tartışma ve Sonuç

Spor lisesi ile farklı liselerde öğrenim gören orta öğretim öğrencilerinin sosyal duygusal öğrenme düzeylerinin çeşitli değişkenlere göre incelenmesi amacı ile yapılan araştırma sonucunda Spor lisesi, Fen lisesi, Anadolu lisesi ve Meslek lisesi öğrencileri arasında ölçek toplamında ve alt boyutlarında anlamlı farklılıklar olduğu tespit edilmiştir (Tablo 2). Ortaya çıkan anlamlı farklılıkların hangi okullar arasında olduğunu tespit etmek için yapılan analiz sonucunda Spor lisesi ile Fen lisesi öğrencileri arasında SDÖÖ toplamı ve alt boyutlarında anlamlı bir fark tespit edilmemişken, Spor lisesi ve Fen lisesi ile Anadolu lisesi öğrencileri arasında görev tanımlama alt boyutunda, Spor lisesi ve Fen lisesi ile Meslek lisesi arasında SDÖÖ toplamı ve alt boyutlarında anlamlı farklar elde edilmiştir. Kuyulu'da (2015, s. 61) okul değişkenine göre yaptığı çalışmada Anadolu lisesi ve Spor lisesi öğrencilerinin sosyal duygusal öğrenme düzeylerinin Spor lisesi lehine anlamlı farklılık olduğu sonucuna ulaşmıştır. Bu sonucun ise Spor lisesi öğrencilerinin Anadolu lisesi öğrencilerine göre daha fazla beden eğitimi ve spor dersi görmeleri ile daha fazla spor etkinliklerine katılmalarından kaynaklandığını ifade etmiştir. Tan ve Çolakoğlu 'da (2022, s. 111) okul türü değişkenine göre yaptıkları çalışmada ortaokullar ile imam hatip ortaokulunda öğrenim gören öğrenciler arasında SDÖÖ'nün toplamında ve görev tanımlama ile öz düzenleme alt boyutlarında ortaokul öğrencileri lehine anlamlı bir sonuç bulduklarını ifade etmişlerdir. Spor lisesi ile Fen lisesi arasında akademik anlamda fark olsa bile sosyal duygusal öğrenme becerileri arasında fark olmamasını sporun belirtilen etkilerine bağlamak mümkündür.

Erkek öğrencilerin okul değişkenine göre görev tanımlama, akran ilişkileri ve öz düzenleme alt boyutları ile SDÖÖ toplam puanında anlamlı farklar bulunmuştur. Elde edilen farkların hangi gruplar lehine olduğunu tespit etmek amacı ile yapılan analizler sonucunda Fen lisesi ile Spor lisesi arasında SDÖÖ toplam puanında ve alt boyutlarında anlamlı bir fark tespit edilmemişken. Fen lisesi ve Spor lisesi ile Meslek lisesi öğrencileri arasında görev tanımlama, akran ilişkileri ve öz düzenleme alt boyutunda Fen lisesi ve Spor lisesi lehine anlamlı farklar bulunmuştur (Tablo 4). Spor lisesi ile Fen lisesi arasında görev tanımlama, akran ilişkileri, öz düzenleme ve ölçek toplamında anlamlı bir fark olmaması, Spor lisesinde öğrenim gören öğrencilerin beden eğitimi dersine ek olarak düzenli yaptıkları antrenmanlar ve katıldıkları spor müsabakaları sayesinde görev tanımlama, ölçek toplamında SDÖ becerilerini geliştirdiğini söyleyebiliriz.

Beden eğitimi ve spor ders müfredatı içinde ve uygulamalarında doğal olarak bulunan sosyal davranışlar adil oyun davranışlarıdır. Bu sayede bireyin bilgiyi üreten, günlük yaşam içerisinde işlevsel

olarak kullanabilen, karşılaştığı problemlerin üstesinden gelen, eleştirel düşünen, girişimci yönünü geliştiren, kararlı, iletişim becerileri yüksek, çevresi ile empati kurabilen, çevresine katkı sağlayan vb. niteliklerdeki bir bireyi tanımlamaktadır. Rakip takımlara ve yetkililere saygı göstermek ve şikâyet etmeden ve övünmeden zaferi kabul etmek gibi. Bu adil oyun davranışları, çocuklar için beden eğitiminde öğrencilere kazandırılması gereken önemli önemli sosyal becerilerdir (Milli Eğitim Bakanlığı [MEB], 2018, s. 4). Spor lisesi öğrencilerinin de aktif olarak sporun içinde bulunmasından dolayı doğal olarak sosyal duygusal öğrenme becerilerini kazandığı için Spor lisesi ile Fen lisesi SDÖ değerleri benzerlik göstermektedir. Durlak, vd. (2011) yaptığı çalışmada, sosyal ve duygusal öğrenme [SDÖ] programının meta-analizinden elde edilen bulguları sonucunda, SDÖ katılımcılarının akademik başarı yüzde 11 puan artırdığını bulmuşlardır. Öğrencilerin düzenli olarak yaptıkları antrenmanlar ile okul içi ve okul dışında yapılan spor müsabakaları sayesinde öğrenilen sosyal duygusal öğrenme becerilerinin uygulama alanı bulmasına bu becerilerin uygulanabilir ve edinilebilir olduğu yapılan çalışmalar göstermektedir (Tan & Çolakoğlu, 2022, s. 126).

Sonuç olarak araştırmamızda farklı lise türlerinde öğrenim gören öğrenciler arasında SDÖÖ toplam puanında ve alt boyutlarında Spor lisesi ve Fen lisesi öğrencileri lehine anlamlı farklar tespit edilmiştir. Cinsiyet değişkenine göre Spor lisesi ve Fen lisesinde öğrenim gören kadın öğrencilerin ortalamaların Anadolu lisesi ve Meslek lisesi öğrencilerine göre yüksek olmasına rağmen sadece görev tanımlama alt boyutunda Fen lisesinde öğrenim gören kadın öğrenciler lehine Anadolu lisesi ve Meslek lisesinden anlamlı çıktığını; Fen lisesi ve Spor lisesinde öğrenim gören erkek öğrenciler ile Anadolu lisesi ve Meslek lisesi öğrencileri arasında SDÖÖ toplam puanında ve alt boyutlarında Fen lisesi ve Spor lisesi öğrencileri lehine anlamlı farklar elde edilmiştir. Fen lisesi ile Meslek lisesi ve Anadolu lisesi öğrencileri arasında akademik başarı düzeyi ile sosyal duygusal öğrenme becerileri açısından paralellik olduğu fakat Spor lisesi öğrencileri ile Fen lisesi öğrencileri arasında akademik başarı bakımından genel olarak fark olmasına rağmen sosyal duygusal öğrenme becerileri açısından anlamlı bir fark olmadığını Spor lisesinde öğrenim gören öğrencilerin düzenli olarak yaptıkları antrenmanlar ve katıldıkları müsabakalar sayesinde sosyal duygusal öğrenme becerilerini geliştirdiğini söyleyebiliriz.

Öneriler

1. Okullarda beden eğitimi ders saatleri artırılabilir.
2. Okul yönetimlerinin okul içi ve okul dışı yarışmalara verdiği destek artırılabilir.
3. Öğretmenlere sosyal-duygusal öğrenme becerileri ve hangi etkinliklerde kazandırılacağı konusunda seminerler verilebilir.
4. Beden eğitimi öğretmenlerinde sosyal duygusal öğrenme konusunda bilinçli farkındalık oluşturulabilir.



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Investigation of the Relationship Between Mindfulness and Competition Status Anxiety with Track Performance

 Rıdvan Ergin, Dr.

Recep Tayyip Erdogan University, Türkiye

rdvnergim.edu@gmail.com

Orcid ID: 0000-0002-6589-272X

 Gökhan Çakır, Dr., Corresponding Author

Recep Tayyip Erdogan University, Türkiye

gokhan.cakir@erdogan.edu.tr

Orcid ID: 0000-0002-6800-9816

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Abstract

This research aim is to it is the examination of the relationship between mindfulness, competitive state anxiety and track performance in athletes. In addition, another aim of the study is to examine the effects of mindfulness levels of athletes on competitive state anxiety and track performance. The study group was determined according to the convenience sampling method in the study, in which the survey model, one of the quantitative research methods, was used. The sample of the research consisted of 292 athletes. The data were collected with the Mindfulness Inventory For Sport, Competition State Anxiety Inventory-2 and track performance information. Before the analysis, the assumption of normality was checked and descriptive statistics were determined. Then, relational (Pearson) and comparative (MANOVA and ANOVA) inferential statistical tests were performed. In athletes, there is a negative aspect weak level between mindfulness with cognitive anxiety and physical anxiety. In addition, positive aspect weak level between mindfulness; track performance and a positive moderate significant relationship was found between mindfulness and self-confidence. Athletes with high levels of mindfulness experienced significantly lower levels of physical anxiety and felt higher levels of self-confidence. Again, it was found that athletes with a high level of conscious awareness had a significantly higher level of track performance. With the high level of mindfulness of the athletes, their self-confidence can increase and their physical anxiety can decrease. Similarly, high mindfulness can increase the performance of athletes.

Keywords: Track performance, mindfulness, competition status anxiety, athlete.

Introduction

Athletes need to keep their psychological characteristics under control in order to reveal their physical performance in competitive situations where some win while others lose. Considering these characteristics, there are many psychological concepts. In this research, the concepts of mindfulness and competitive state anxiety were handled in detail.

The concept of “*mindfulness*” can be understood as the state of being conscious and aware of one’s actions. In common parlance, the question “*Are you aware of what you’re doing?*” may serve as a clarification of the aforementioned definition. Due to the inherent nature of sports, athletes make decisions and perform actions in a matter of seconds, even milliseconds. Consequently, the level of awareness of the athletes with respect to their actions can determine the degree of their mindfulness. Kabat-Zinn defines “*mindfulness*” as the act of performing events within a focus of attention (as cited in Aktepe & Tolan, 2020). Findings regarding the relationship between mindfulness and athletic performance are present in the literature, and furthermore, it is known through implemented practices that mindfulness practices significantly reduce the frequency and intensity of anxiety (Kabat-Zinn, 2021). Additionally, when viewed in terms of athletic performance, it is seen that mindfulness exercises positively affect athletic performance (Bühlmayer et al., 2017). Similarly, experimental studies have shown that mindfulness has a positive effect on sportive performance (Gültekin Arayıcı & Arayıcı, 2022). Roemer and Orsillo (2022) state that mindfulness improves cognitive functions as well as decision-making and problem-solving skills.

Competitive state anxiety can be interpreted as the sensory and emotional reactions of an individual according to the degree of importance s/he attaches to the work that s/he is doing in a momentary period of time. Anxiety can affect the athlete at the point of competing or giving up. In a way, anxiety can affect the athlete positively or negatively. In this case, the athlete needs to keep his/her anxiety under control in the competition. In the literature, performance anxiety is defined as a negative psychological state perceived as a threat to performance during a task being performed under pressure

(Cheng et al., 2009). The statement "Competition increases performance anxiety", by Mullen et al. (2016), can be held up as an example. It can be said that unexpected situations create pressure in athletes and thus negatively affect their performance and emotional characteristics (Roemer & Orsillo, 2022).

Mindfulness reduces athletes' perception of the stress state that occurs when they are exposed to high pressure in a competition (Eubank & Gilbourne, 2003). Mindfulness helps athletes remove negative thoughts and control anxiety. Therefore, it helps athletes focus on their own skills and contributes to their sporting performance (Beşer, 2023). Based on this information, the aim of this study is to investigate the relationship between mindfulness, competition state anxiety, and track performance. Furthermore, another purpose of this research is to examine the impact of athletes' level of mindfulness on their competition state anxiety and track performance.

The hypotheses for this study in line with the stated objectives are as follows:

H₁: There is a significant relationship between athletes' level of mindfulness and the sub-dimensions of competition status anxiety, as well as obstacle track performance.

H₂: Athletes' levels of competition status anxiety differ based on their level of mindfulness.

H₃: Athletes' obstacle track performance differs based on their level of mindfulness.

Method

Research Model

Survey model, one of the quantitative research methods, was used in the study. The conceptual model in Figure 1 was created in order to determine whether the categorical mindfulness levels of athletes make a difference on competitive state anxiety and track performance and to reveal the relationships between these concepts.

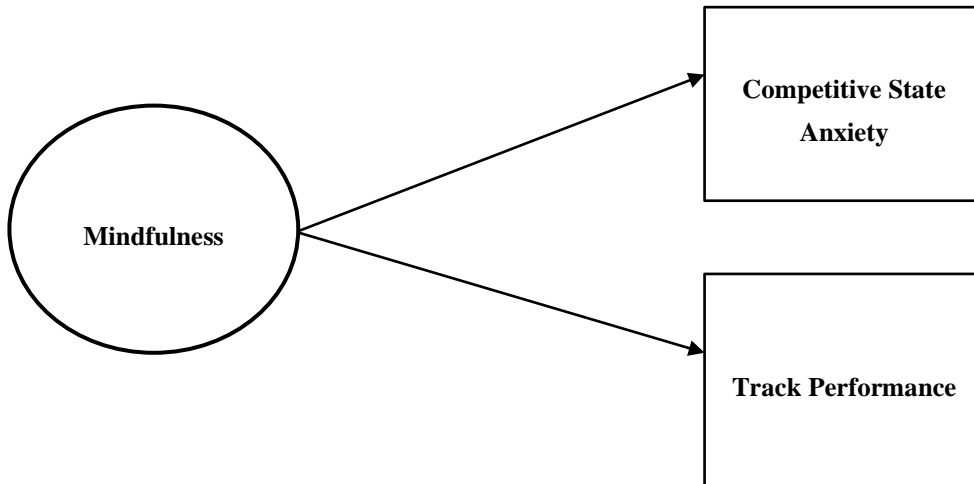


Figure 1. Research model

The conditional effect in the study is that athletes' competitive state anxiety (H_2) and track performance (H_3) will differ according to different mindfulness levels. In addition, significant relationships (H_1) are expected between mindfulness, competitive state anxiety and track performance.

Research Group

Data were collected from 298 athletes among 1,075 candidates who took the Special Talent Test [STT] in 2022-2023 academic year. The responses of 6 athletes (2.0%) were excluded from the analysis. Thus, the data from 292 athletes in total were analysed.

Convenience sampling method was used in this study. The population-sample table was used to determine the required sample size. It is stated that at least 285 participants are needed for sample representation at 95% confidence level and 5% confidence interval on condition that the number of the population is 1,100 (Cohen et al., 2018). Accordingly, it can be said that the sample size is representative of the population.

Data Collection Tools

Data were collected through face-to-face method. In addition to demographic information forms (gender, age, etc.), mindfulness and competitive state anxiety scales were used in the study. In order to evaluate the track performances of the athletes, the results of Kırşehir Ahi Evran University [KAEU] Faculty of Sports Sciences STT were used.

Mindfulness

Athlete Mindfulness Scale [MBAS], developed by Thienot et al. (2014) and adapted into Turkish by Tingaz, (2020) was used in the current study. The 6-point (1- Almost Never, 2- Very Rarely, 3- Rarely, 4- Sometimes, 5- Usually, 6- Almost Always) Likert-type scale consists of 15 items and 3 sub-dimensions. These sub-dimensions are awareness (1, 2, 3, 4, and 5), non-judgment (6, 7, 8, 9, and 10) and refocusing (11, 12, 13, 14, and 15). A score of minimum 40 and maximum 65 can be obtained from the scale. Cronbach's alpha coefficients were calculated as .82 in the total score. In the sub-dimensions on the other hand, awareness was .81, non-judgment was .70 and refocusing was .77 (Tingaz, 2020). In this study, awareness and non-judgment sub dimensions were found to be .80 while refocusing was .83. Thus, it can be said that this inventory used in the study is a reliable measurement tool.

Competitive State Anxiety

Competition State Anxiety Inventory-2 [CSAI-2], developed by Cox et al. (2003) and adapted into Turkish Akgönül Kürkçü et al. (2021) was used applied in the study. The 4-point (1- Not at all, 2- Somewhat, 3- Moderately, 4- Very much) Likert-type scale consists of 14 items and 3 sub-dimensions. These sub-dimensions are cognitive anxiety (1, 3, 8, and 11), physical anxiety (4, 6, 9, 12, and 14) and self-confidence (2, 5, 7, 10, and 13). The scores of the items are summed, divided by the number of items and multiplied by 10 to obtain the sub dimension scores. The score range in the sub dimension is 10-40. If the candidate does not answer one of the items in the sub dimension part, then the scoring is conducted according to the above scoring method over the answered items. It is known that the higher the score a candidate gets, the higher the level of anxiety s/he has and the lower the score is, the lower the level of anxiety is. The application of the inventory is one hour before the competition starts. Cronbach's alpha coefficients were calculated for cognitive anxiety as .71, for physical anxiety as .78, and for self-confidence as .80 in sub-dimensions (Akgönül Kürkçü et al., 2021). Cronbach's alpha coefficients in this study on the other hand, were found to be .81 for cognitive anxiety, .66 for physical anxiety and .81 for self-confidence. Thus, it can be said that this inventory used in the research is a reliable measurement tool.

Special Talent Test (STT)

As seen in STT track, the candidate first performs a straightforward somersault. In the second row, there is a twist (360°). Next comes the obstacles over and under which the candidates have to pass. In the fourth place, the medicine balls in the boxes are moved from the right side to the left side. After that, the handball in the box is thrown three times to the wall at a distance of 5 meters. In the sixth row, a double-foot jump from the jumping table is made five times to the right and left. Later on, it is necessary to step into the car tires on the ground and pass them. Slalom is performed next, and sprints of 3 and 6 meters are performed in the final step (Figure 2). The finish time was determined by a photocell (Smartspeed PT, Australia). For each mistake made on the course, 1 second is added to the finish time of the candidates according to the rule stated in the test guide. In order to get 100 points male candidates must finish in 44 seconds or less while female candidates have to do it in 50.5 seconds or less. In case male candidates finish the course in 53.7 seconds or more and females in 60.2 seconds or more, they receive 0 points (Kırşehir Ahi Evran University, 2022). STT results were received through electronic mail and prepared for data analysis by the researcher after the necessary permission was obtained. In this study, analyses were conducted on the results adjusted for error points.

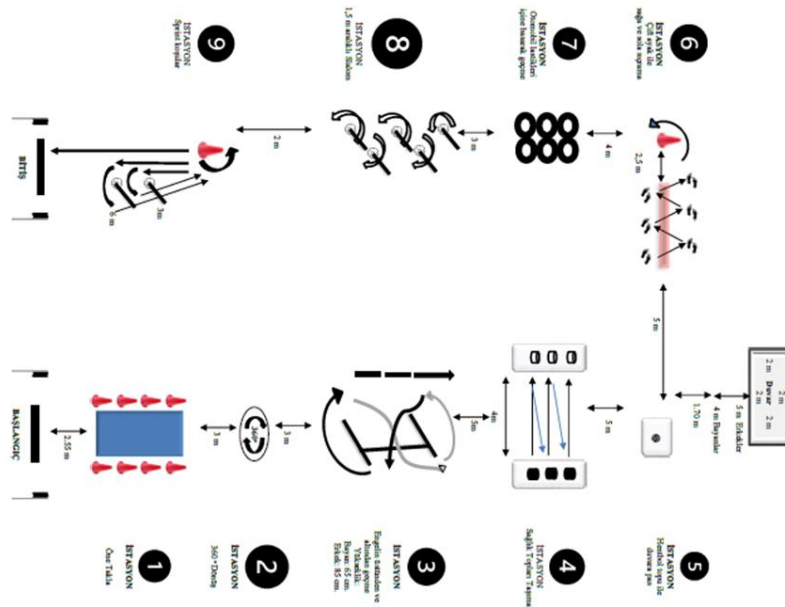


Figure 2. KAEU Faculty of Sport Sciences, 2022-2023 Academic Year Special Talent Test (Kırşehir Ahi Evran University, 2022).

Data Analysis

The data were analyzed using the SPSS 26.0 program. Normality distribution of the data was tested, and it was observed that the data showed a normal distribution. In addition, the assumptions required for MANOVA test were examined before the analysis.

The homogeneity of the variance-covariance matrix, linearity and multicollinearity problems, univariate and multivariate normality of the research data were analyzed (Büyüköztürk, 2013; Pallant, 2005/2017). Kurtosis and skewness values of the dependent variables, histogram graphs, box m test values and Levene's test were analyzed for univariate normality. As a result of the preliminary analyses, the data were found to have appropriate values to be examined in the analysis process (Table 2)

MANOVA test is very sensitive to outliers (Pallant, 2005/2017). In order to detect the outliers, 5% trimmed values in the descriptives table were checked and data from 6 participants (2.0%) were excluded from the analysis.

After the preliminary examinations, descriptive statistics, Pearson correlation test and MANOVA test were utilized in line with the mean scores of the responses of the 292 participants. In addition, Bonferroni adjusted test results were applied to determine the source of significant differentiation. The data were tested at a significance level of $p=0.05$

Ethical Permits of Research

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

Ethics Committee Permission Information:

Name of the committee that made the ethical evaluation = Kirşehir Ahi Evran University Social and Humanities Scientific Research and Publication Ethics Committee

Date of ethical review decision= 22.09.2022

Ethics assessment document issue number= 2022/07/07

Findings

A total of 292 athletes participated in the study. Table 1 shows the distribution with regards to their gender and licensed sports status.

Table 1. *Frequency and percentage distributions of demographic features*

| Demographic Features | | n | Percentage (%) |
|----------------------|------------------|-----|----------------|
| Gender | Female | 95 | 32.5 |
| | Male | 197 | 67.5 |
| Age | Aged 17-18 | 139 | 47.6 |
| | Aged 19-20 | 112 | 38.4 |
| | Aged 21 and over | 41 | 14.0 |

Accordingly, 53.80% (n=197) of the participants were male while 32.50% (n=95) of them were female. 47.60% (n=139) of the participants were aged between 17-18, 32.40% (n=112) of them were between 19-20, and 14.0% (n=41) were 21 years and older. (Table 1).

Descriptive Statistics

Descriptive statistics were applied to determine the level of mindfulness, competitive state anxiety sub-dimension and track performance mean scores of the athletes. The results obtained are shown in Table 2.

Table 2. Average scores of athletes

| Sun Dimensions | n | \bar{x} | ss | Min | Max | Skewness | Kurtosis |
|-------------------|-----|-----------|-------|-------|--------|----------|----------|
| Cognitive Anxiety | 292 | 8.92 | 3.15 | 4.00 | 16.00 | 0.564 | -0.371 |
| Physical Anxiety | 292 | 18.49 | 7.65 | 10.00 | 40.00 | 1.009 | 0.264 |
| Self Confidence | 292 | 33.14 | 5.82 | 10.00 | 40.00 | -0.888 | 0.637 |
| Mindfulness | 292 | 63.32 | 6.71 | 40.00 | 87.00 | -0.014 | 1.355 |
| Track Performance | 292 | 27.59 | 28.69 | 0.00 | 100.00 | 0.748 | -0.565 |

Athletes' mindfulness total score average is found $\bar{x}=63.32\pm 6.71$ while their track performance average score is $\bar{x}=27.59\pm 28.69$. When the competitive state anxiety sub-dimension score averages are examined, it is seen that cognitive anxiety mean score is $\bar{x}=8.92\pm 3.15$, physical anxiety mean score is $\bar{x}=18.49\pm 7.65$, and self confidence mean score is $\bar{x}=33.14\pm 5.82$.

Inferential Statistics

Results Related to Hypothesis 1

Pearson moment-product correlation coefficient at $p=0.05$ significance level was used to determine whether there was a significant relationship between the mindfulness, competitive state anxiety sub-dimensions and track performances of the athletes. The results obtained are shown in Table 3.

Table 3. Correlations of mindfulness, competitive state anxiety and track performance

| Scales | | Cognitive Anxiety | Physical Anxiety | Self Confidence | Track Performance |
|-------------|---|-------------------|------------------|-----------------|-------------------|
| Mindfulness | r | -0.152** | -0.192** | 0.317** | 0.151** |
| | p | 0.009 | 0.001 | 0.000 | 0.010 |
| | n | 292 | 292 | 292 | 292 |

** Correlation is significant at the 0.01 level (2-tailed).

Normality and linearity assumptions were checked by preliminary analysis. When Table 3 is examined, the results show that there is a weak negative correlation between mindfulness, cognitive anxiety and physical anxiety ($r_{\text{Cognitive Anxiety}}=-0.15$, $p<0.01$; $r_{\text{Physical Anxiety}}=-0.19$, $p<0.01$). Despite this, it is also seen that there is a moderate positive correlation between mindfulness and self-confidence ($r=0.31$, $p<0.01$), and a weak positive correlation between mindfulness and track performance ($r=0.15$, $p<0.01$).

Results Related to Hypothesis 2

The MANOVA test performed to determine whether categorical mindfulness levels have an effect on competitive state anxiety sub-dimensions is shown in Table 4.

Table 4. MANOVA results of athletes' competitive state anxiety levels according to their mindfulness levels

| Wilks' Lambda | F | Hypothesis df | Error df | p |
|---------------|-------|---------------|----------|-------|
| 0.878 | 6.450 | 6 | 574 | 0.000 |

The results of MANOVA reveal that there is a significant difference in the sub-dimensions of the CSAS (Competitive State Anxiety Scale) depending on the mindfulness levels of the athletes ($\text{WilksL}(\lambda)=.878$; $F(6,574)=6.450$; $p<0.05$). This finding indicates that the scores to be obtained from the linear component consisting of sub-dimension scores vary depending on the level of mindfulness.

Since there was a significant difference in the MANOVA test, ANOVA test was performed in order to examine how the group averages differed according to mindfulness levels. The results are shown in

Table 5. When the ANOVA results were evaluated at 0.016 significance level using Bonferroni adjusted alpha level, significant differences were found in the dimensions of physical anxiety ($F(2,290)=5.10$, $p=0.007$) and self-confidence ($F(2,449)=14.45$, $p=0.00$).

Table 5. ANOVA results of athletes' competitive state anxiety levels according to their mindfulness levels

| Sub Dimensions | Categorical Mindfulness | n | \bar{x} | ss | F | p | Dif |
|-------------------|-------------------------|-----|-----------|------|-------|-------|-------|
| Cognitive Anxiety | Low ¹ | 33 | 9.24 | 2.85 | 3.85 | 0.022 | No |
| | Moderate ² | 212 | 9.13 | 3.24 | | | |
| | High ³ | 47 | 7.77 | 2.72 | | | |
| Physical Anxiety | Low ¹ | 33 | 21.27 | 7.46 | 5.10 | 0.007 | 1>3 |
| | Moderate ² | 212 | 18.63 | 7.72 | | | |
| | High ³ | 47 | 15.87 | 6.75 | | | |
| Self Confidence | Low ¹ | 33 | 28.79 | 8.10 | 14.45 | 0.000 | 3>2-1 |
| | Moderate ² | 212 | 33.29 | 5.34 | | | |
| | High ³ | 47 | 35.53 | 4.33 | | | |

$p<0.05^*$

Results Related to Hypothesis 3

One-Way ANOVA test was applied at $\alpha=0.05$ significance level in order to determine whether the level of categorical mindfulness makes a difference on the track performance of the athletes. The results of the analysis are shown in Table 6.

Table 6. ANOVA results of athletes' track performances according to mindfulness levels

| Dependent Variable | Categorical Mindfulness | n | \bar{x} | ss | F | p | Dif |
|--------------------|-------------------------|-----|-----------|-------|------|-------|-----|
| Track Performance | Low ¹ | 33 | 16.67 | 23.54 | 3.54 | 0.030 | 3>1 |
| | Moderate ² | 212 | 27.92 | 28.60 | | | |
| | High ³ | 47 | 33.72 | 30.74 | | | |

$p<0.05^*$

The results of the analysis show that the track performances of the athletes differ according to their mindfulness levels ($F(2,289)=3.54$, $p=0.030$). As a result of the Tukey test conducted to determine the source of the difference, the track performance of the athletes with high mindfulness level ($\bar{x}=33.72\pm 30.74$) was found to be significantly higher than the athletes with low mindfulness level ($\bar{x}=16.67\pm 23.54$).

Discussion and Conclusion

Athletes care about the results of a competition or contest. Therefore, it is usual for them to feel anxious before and during sportive activities. On the other hand, having high levels of attention and focus may help them feel more comfortable and increase their performance within the developing and changing conditions during sportive activities. From this point of view, the relationship between athlete mindfulness, anxiety and performance was analysed in the current study.

When the descriptive statistics of the athletes were analysed, it was seen that their self-confidence, attention and focusing levels were slightly above the average. Nevertheless, it can be said that they experience moderate levels of physical and cognitive anxiety. Cerit et al. (2013) found that there was a significant difference ($p<0.05$) between anxiety levels and performances of female basketball players and suggested that anxiety levels of athletes should be kept under control. In his study, carried out with 75 university basketball players, Özerkan (2003) reported that there was a negative relationship between competition anxiety and performance. Based on both the results of the

research and the studies in the literature, it is obvious that anxiety before the competition is a psychological state that occurs at certain levels in athletes.

It can be said that there is a moderate level of relationship between athletes' awareness of their emotions and thoughts and their ability to overcome difficulties. Furthermore, it can be suggested that athletes who do not have problems focusing on their sports performance and who are not easily distracted experience less anxiety and lower levels of physical anxiety regarding their sports performance. In other words, even at a low level, the increase in mindfulness of athletes may lead to a decrease in physical and cognitive anxiety levels. Based on these findings, it can be said that hypothesis H₁ is supported. Kısmetoğlu (2019) states in his study that as the level of mindfulness increases, the level of anxiety decreases. Yalçın et al. (2023) pointed out in their study that mindfulness should be high in order to decrease competition anxiety in female volleyball players. Demir (2017) states that cognitive-based mindfulness practices reduce the anxiety levels of university students. Research results showing that cognitive mindfulness and cognitive mindfulness practices reduce anxiety levels are consistent with the findings of the current study.

Athletes who have high levels of attention and focus, and are aware of their emotions and thoughts, are better able to control their physical reactions and have higher levels of self-efficacy in overcoming difficulties during competitions or races. In other words, high levels of mindfulness in athletes can help them have self-confidence and keep their bodily reactions under control. The results also support hypothesis H₂. Kabat-Zinn (2021) states that mindfulness practices are effective in reducing the frequency and severity of anxiety. In addition, Gültekin Arayıcı and Arayıcı (2022) points to the fact that mindfulness has a positive effect on sportive performance. Thus, in order to reduce and control anxiety in athletes, mindfulness practices should be applied to athletes as well.

Track performances of the athletes who did not have problems in focusing on their instant performance and who did not have problems in refocusing on their instant performance when they were in negative emotions were found to be at higher levels. In other words, it can be said that the mindfulness levels of the athletes were effective on their track performances. This result proves the effect of mindfulness on sportive performance. These findings support hypothesis H₃. Bühlmayer et al. (2017) state that mindfulness positively affects sportive performance. Accordingly, Eubank and Gilbourne (2003) stresses that mindfulness is effective in reducing the stress caused by high pressure in the competition. Therefore, it can be said that mindfulness contributes to athletes to control their stress situations at the moment of competition. In other words, it can be specified that mindfulness has a positive effect on sportive performance.

Recommendations

As a result, it can be said that with the increase in mindfulness, cognitive anxiety and physical anxiety levels may decrease and athletes' self-confidence may increase as well. In addition, there were significant relationships between athletes' mindfulness and their track performance. It was observed that athletes with high levels of mindfulness experienced lower levels of physical anxiety and had higher levels of self-confidence. Similarly, athletes with higher levels of mindfulness had higher track performance.

All of these results suggest that high levels of mindfulness are necessary for athletes to improve their sport performance and reduce competitive anxiety. Therefore, coaches are encouraged to implement mindfulness practices/exercises for their athletes.

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BIOGRAPHICAL NOTES

Contribution Rate of Researchers

Author 1: 50%

Author 2: 50%

Conflict Statement

There is no conflict of interest in the research.



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Bilinçli Farkındalık ve Durumluk Kaygı ile Parkur Performansı Arasındaki İlişkinin İncelenmesi

Giriş

Bilinçli farkındalık kavramı, bireyin yaptığı işin farkında olması şeklinde yorumlanabilir. Halk dilinde; *"Yaptığının farkında mısınız?"* sorusu bir önceki cümledeki tanımın açıklayıcısı olabilir. Sporun doğası gereği, sporcu, saniye ve hatta saliseler içinde karar almakta ve uygulamaktadır. Dolayısı ile sporcunun yapmakta olduğu işin farkındalık derecesi bilinçli farkındalığını belirleyebilir. Literatüre bakıldığında Kabat-Zinn, *"bilinçli farkındalığı yaşantı içindeki olayları dikkat odağı içinde gerçekleştirilmesi"* olarak ifade etmektedir (Akt. Aktepe ve Tolan, 2020). Literatürde bilinçli farkındalık ve sportif performans ilişkisine dair bulgular yer almaktadır; dahası, bilinçli farkındalık uygulamalarının kaygı sıklığını ve şiddetini gözle görünür oranda azalttığı yapılan uygulamalarca bilinmektedir (Kabat-Zinn, 2021). Bunun yanı sıra, bilinçli farkındalık egzersizlerine sportif performans açısından bakıldığında sportif performansı olumlu yönde etkilediği görülmektedir (Bühlmayer vd., 2017). Farkındalık, sporcuların bir müsabakada yüksek baskıya maruz kaldıklarında ortaya çıkan stres durumunu algılamalarını azaltır (Eubank & Gilbourne, 2003). Dahası, farkındalık, sporcuların olumsuz düşünceleri ortadan kaldırmasına ve kaygıyı kontrol etmesine yardımcı olur. Bu nedenle sporcuların kendi becerilerine odaklanmalarına yardımcı olur ve sportif performanslarına katkı sağlar (Beşer, 2023).

Bu bilgiler ışığında bu araştırmanın amacı, bilinçli farkındalık, yarışmasal durumluk kaygı ve parkur performansı arasındaki ilişkinin incelenmesidir. Ayrıca sporcuların bilinçli farkındalık düzeylerinin yarışmasal durumluk kaygı ve parkur performansı üzerindeki etkisini incelemek bu araştırmanın bir diğer amacıdır.

Bu amaç doğrultusunda araştırmanın hipotezleri aşağıdaki gibidir:

H₁: Sporcuların bilinçli farkındalık düzeyleri ile yarışmasal durumluk kaygı alt boyutları ve parkur performansı arasında anlamlı bir ilişki vardır.

H₂: Sporcuların yarışmasal durumluk kaygı düzeyleri bilinçli farkındalık düzeylerine göre farklılaşır.

H₃: Sporcuların parkur performansları bilinçli farkındalık düzeylerine göre farklılaşır.

Yöntem

Araştırmada, nicel araştırma yöntemlerinden tarama modeli kullanılmıştır. Araştırmada sporcuların kategorik bilinçli farkındalık düzeylerinin yarışmasal durumluk kaygı ve parkur performansları üzerinde farklılık yaratıp yaratmadığını belirlemek ve kavramlar arasındaki ilişkileri ortaya koyabilmek amacıyla kavramsal model oluşturulmuştur. Araştırma kapsamında, 2022-2023 eğitim-öğretim döneminde Kırşehir Ahi Evran Üniversitesi (KAEÜ) Özel Yetenek Sınavına (ÖYS) giren toplamda 292 sporcunun verileri analize dâhil edilmiştir. Örneklem sayısının tespiti için popülasyon-örneklem tablosu kullanılmıştır. Evren sayısının 1.100 olması koşuluyla %95 güven düzeyinde ve %5 güven aralığında örneklem temsili için en az 285 katılımcıya ihtiyaç duyulduğu belirtilmektedir (Cohen vd., 2018). Buna göre örneklem büyüklüğünün evreni temsil ettiği söylenebilir. Bu çalışmada kolayda örnekleme yöntemi kullanılmıştır.

Veriler yüz yüze veri toplama tekniği ile toplanmıştır. Araştırmada bireylerin demografik bilgileri (cinsiyet, yaş ve benzeri) tespit edilmiş sonrasında ise bilinçli farkındalık ve yarışmasal durumluk kaygı ölçeği ile kullanılarak veriler toplanmıştır. Ayrıca sporcuların parkur performanslarını değerlendirebilmek için KAEÜ Spor Bilimleri Fakültesi ÖYS sonuçları kullanılmıştır. Sporcuların verileri SPSS 26.0 programı ile analiz edilmiştir. Analizler öncesinde verilerin normallik dağılımları incelenmiş ve verilerin normal dağılım gösterdiği görülmüştür (George & Mallery, 2016). Belirtilen ön incelemelerden sonra 292 sporcunun ölçeklere vermiş oldukları cevapların puan ortalamaları doğrultusunda tanımlayıcı istatistikler, Pearson korelasyon testi ve MANOVA testi kullanılmıştır. Ayrıca anlamlı farklılaşmanın kaynağının tespiti için Bonferroni uyarlanmış test sonuçları uygulanmıştır. Veriler $p=0.05$ anlamlılık düzeyinde sınanmıştır.

Bulgular

Araştırmada yer alan katılımcıların dağılımları incelendiğinde; %53,80'i (n=197) erkek, %32,50'si (n=95) kadındır. Katılımcıların %47,60'ı (n=139) 17-18 yaş aralığında, %32,40'ı (n=112) 9-20 yaş aralığında ve %14,0'ı (n=41) 21 yaş ve üzerinde olduğu görülmüştür. Tanımlayıcı istatistikler incelendiğinde; sporcuların bilinçli farkındalık toplam puan ortalaması $\bar{x}=63.32\pm 6.71$, koşu performans ortalaması $\bar{x}=27.59\pm 28.69$ olarak bulunmuştur. Yarışmasal durumluk kaygı alt boyut puan ortalamaları incelendiğinde bilişsel kaygı puan ortalamasının $\bar{x}=8.92\pm 3.15$, fiziksel kaygı puan ortalamasının $\bar{x}=18.49\pm 7.65$ ve kendine güven puan ortalamasının $\bar{x}=33.14\pm 5.82$ olduğu görülmektedir.

Hipotez test sonuçları ise şu şekildedir: Sporcularda bilinçli farkındalık ile bilişsel kaygı ($r=-0.15$, $p<0.01$) ve bedensel kaygı ($r=-0.19$, $p<0.01$) arasında negatif yönlü zayıf düzeyde; bilinçli farkındalık ile parkur performansı arasında pozitif yönde zayıf düzeyde ($r=0.15$, $p<0.01$); bilinçli farkındalık ile kendine güven arasında pozitif yönde orta düzeyde ($r=0.31$, $p<0.01$) anlamlı ilişkiler tespit edilmiştir. Bilinçli farkındalık düzeyi yüksek sporcuların anlamlı bir şekilde daha düşük düzeyde bedensel kaygı yaşadıkları ($\bar{x}=15.87\pm 6.75$) ve daha yüksek düzeyde kendine güven hissettikleri ($\bar{x}=35.53\pm 4.733$)

görülmüştür. Yine, bilinçli farkındalık düzeyi yüksek sporcuların anlamlı bir şekilde daha yüksek düzeyde parkur becerilerine sahip oldukları görülmüştür ($\bar{x}=33.72\pm 30.74$).

Tartışma ve Sonuç

Sporcuların duygu ve düşüncelerinin farkında olması ile zorlukların üstesinden gelebilme inancının orta düzeyde ilişkili olduğu söylenebilir. Yine, sportif performansına odaklanmada sorun yaşamayan, dikkati dağılmayan sporcuların sportif performans konusunda daha az endişelendikleri ve daha düşük düzeylerde bedensel endişe yaşadıkları söylenebilir. Bu doğrultuda H_1 hipotezinin desteklendiği görülmektedir. Dikkat ve odaklanma düzeyleri yüksek; duygu ve düşüncelerinin farkında olan sporcuların müsabaka veya yarışma sırasında hem beden tepkilerini daha iyi kontrol ettikleri hem de zorlukların üstesinden gelebilme inançlarının daha yüksek seviyelerde olduğu söylenebilir. Elde edilen bu bulgular ile H_2 hipotezinin desteklendiği görülmektedir. Anlık performansına odaklanmada sorun yaşamayan ve negatif duygular içinde olduğunda yeniden anlık performansına odaklanmada sorun yaşamayan sporcuların parkur performanslarının daha yüksek düzeylerde olduğu görülmüştür. Bu sonuç, farkındalığın sportif performans üzerindeki etkisini kanıtlar niteliktedir. Elde edilen bu bulgular ile H_3 hipotezinin desteklendiği görülmektedir. Sonuç olarak, bilinçli farkındalığın artışı ile bilişsel kaygı ve bedensel kaygı düzeylerinin azalabileceğinin yanı sıra sporcuların kendine güveninin artabileceği söylenebilir. Ek olarak, sporcu bilinçli farkındalığı ile parkur performansı arasında da anlamlı ilişkiler olduğu görülmüştür. Bilinçli farkındalık düzeyleri yüksek sporcuların daha düşük düzeylerde bedensel kaygı yaşadıkları ve kendilerine daha yüksek düzeyde güven duydukları görülmüştür. Benzer şekilde, bilinçli farkındalık düzeyleri yüksek sporcuların parkur performansları daha yüksektir.

Öneriler


Tüm bu sonuçlar sporcuların sportif performanslarını artırmaları ve daha düşük düzeylerde yarışmasal durumluk kaygı yaşamaları için bilinçli farkındalık düzeylerinin yüksek olması gerektiğini göstermektedir. Bundan dolayı, özellikle antrenörlere sporcuları için bilinçli farkındalık uygulamaları/alıştırmaları yaptırmaları önerilmektedir.



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Examination of Curriculum Literacy Levels of Secondary School Teachers: A Mixed Method Research

 Gülnur Candan Hamurcu, Asst. Prof. Dr., Corresponding Author
Erciyes University, Türkiye
gcandan@erciyes.edu.tr
Orcid ID: 0000-0001-6828-4538

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Abstract

The aim of this study is to examine the curriculum literacy levels of teachers working in public secondary schools in Kayseri in terms of some variables. In this study, a mixed method, in which qualitative and quantitative research designs are considered together, was used. In the quantitative part of the study, the survey model was preferred, and 504 teachers were reached by using the simple random sampling method. In the quantitative part of the study, the data were collected with the "Curriculum Literacy Scale". In the qualitative part of the research, the case study design was used; data were collected through semi-structured interviews with 21 teachers who participated in the quantitative data collection process. According to the quantitative results of the study, it was concluded that secondary school teachers' perceptions of curriculum literacy level were high and that all teachers were highly curriculum literate regardless of their seniority. It was also identified that the school type variable had no effect on curriculum literacy and that there was no significant difference between the curriculum literacy levels of the teachers according to the branch variable. As for the qualitative result of the research, it was concluded that the knowledge levels of the teachers about the term "curriculum literacy" and 4 components of the curriculum (objectives, content, instructional methods and evaluation) were generally sufficient. Accordingly, it was seen that the qualitative results of the research supported the quantitative results.

Keywords: Curriculum, curriculum literacy, mixed method, explanatory sequential design.

Introduction

Teachers have important roles and responsibilities in teaching applications and raising individuals suitable for the changing needs of society. It is essential for educators, who are one of the crucial components of the education system, to have some knowledge and competencies to educate their students as well-equipped individuals. Preparing teachers qualified enough to organize and maintain high-quality teaching that will help pupils realize their potential is a difficult task for teacher education systems worldwide (Neumann, Kind, & Harms, 2018). First of all, the content of this knowledge that teachers should possess must be determined. According to Shulman (1987), the knowledge that teachers should have can be listed as "Content Knowledge", "General Pedagogical Knowledge", "Curriculum Knowledge", "Pedagogical Content Knowledge", "Knowledge of Learners", "Knowledge of Educational Contexts" and "Knowledge of Educational Aims, Purposes, and Values".

The curriculum is a guiding map for teaching activities; it determines the targeted results for teaching, the content to achieve these goals, the learning-teaching situations and the appropriate measurement tools (Çetinkaya & Tabak, 2019). For this reason, they are the most valuable guides for teachers responsible for the teaching process. However, Cuban (1993) states that what a teacher teaches in practice and the intended curriculum may differ. The implemented curriculum results from teachers' experiences, attitudes, competencies, and interpretations of the official curriculum (Tikkinena, Korkeamäki, & Dreher, 2020). With their practical knowledge and skills, teachers make appropriate adaptations to the curriculum (Duffee & Aikenhead, 1992). Although a single program is sent from the center, most teachers plan the course content themselves, and as a result, students in different classes encounter different applications (Steiner, 2018). Teachers must make decisions by using their professional knowledge at every teaching stage. Each teacher uses their knowledge and skills in this decision stage, which can be regarded as the main factor leading to the differences in the implementation of the programs.

Similarly, Asebiomo (2009) states, "No matter how well-formulated a curriculum is, its effective implementation is a must condition for achieving the desired objectives of education." If a curriculum is not implemented effectively, all the efforts spent in the planning and development will be wasted (Ejike, 2018, p. 64). Since the curriculum is the most important resource for teachers, teachers must be curriculum literate to make maximum use of this resource. Even if all the conditions for education are ideal, the desired teaching success cannot be achieved if the teachers lack the essential knowledge and talent to carry out the curriculum (Wiles, 2009/2016). The concept of curriculum literacy [CL] was first used in Akinoğlu and Doğan's (2012) study titled "A New Concept Suggestion for Curriculum Development in Education: Curriculum" in the Turkish literature. Researchers have suggested the concept of "Curriculum literacy" to describe teachers' understanding of the program, their attitudes towards the program, and their ability to transform it into practice (Akinoğlu & Doğan, 2012). "Curriculum literacy is the teacher's being aware of the specific features of the education programs, using this awareness for practice, using the education program as a guide by making critical evaluations and interpretations" (Keskin & Korkmaz, 2021). Curriculum literacy [CL] refers to the skills of teachers to know, understand and apply all aspects of the program they employ (Erdem & Eđmir, 2018). According to Akyıldız (2020), curriculum literacy has two dimensions: knowledge and skill. The knowledge dimension includes the teachers' knowledge about "The implementation and evaluation processes of the program" and in the skill dimension, the skills related to "Designing, implementing and evaluating the learning-teaching processes" can be listed.

Curriculum implementation, which is the basis of every school's success or failure, is significant (Ogar & Opoh, 2015). The teachers who implement the curriculum must be curriculum literate. After Akinoğlu and Doğan (2012) added the concept of CL to the literature, research on teachers' CL levels gained momentum, and the first scale development study was carried out by Bolat (2017). Bolat's (2017) work was followed by other scale development studies (Akyıldız, 2020; Kasapođlu, 2020; Keskin & Korkmaz, 2021; Yar Yıldırım & Dursun, 2019; Yar Yıldırım, 2020; Yıldırım, 2019). When studies on CL in recent years are reviewed, it is detected that pre-service teachers (Çetinkaya and Tabak, 2019; Demir, Yücesoy and Serttaş, 2020; Erdamar and Akpınar, 2020; Erdem and Eđmir, 2018; Gömleksiz and Erdem, 2018; Kana, Aşçı, Zorlu Kana, and Elkıran, 2018; Şahin and Aşkın Tekkol, 2023) and teachers (Aslan, 2019; Aslan and Gürlen, 2019; Atlı, Kara and Mirzeođlu, 2021; Barut and Gündođdu, 2023; Berkant and Mansurođlu, 2023; Demir and Toraman, 2021; Güneş Şinego and Çakmak, 2021; Kahramanođlu, 2019; Sarıca, 2021; Yar Yıldırım and Dursun, 2019; Yılmaz and Kahramanođlu, 2021) are preferred as the sample. When the literature on CL is examined, the scarcity of mixed-method studies on the subject is striking (Aygün, 2022; Bayrı, 2022; Keskin, 2020). There is no mixed method research examining the CL of secondary school instructors in the literature. This study is expected to fill this gap in the literature.

As the implementation of the curriculum depends on the knowledge and ability of the teachers to comprehend and implement the program, determining the CL levels of the teachers working in the field is very essential to make deductions about the quality of education. Departing from this viewpoint, this study seeks to identify teachers' CL levels in Kayseri's public secondary schools. In relation to the purpose of the study, the researcher will search for responses to the following questions:

1-What is the curriculum literacy level of secondary school teachers?

2-Do the teachers' curriculum literacy levels differ according to their

a) years of service in the profession

b) type of school graduated

c) the branch?

3-What are the teachers' views on curriculum literacy?

Method

Research Design

A mixed method was employed in the present study, conducted to examine the CL levels of secondary school instructors concerning some variables. The mixed method uses the practices of both "qualitative and quantitative research" designs. It is a kind of research which compounds elements of qualitative and quantitative research models (Johnson, Onwuegbuzie, & Turner, 2007, p. 123; Johnson, & Onwuegbuzie, 2004, p. 17). In the present research, "explanatory sequential design", was employed among the mixed method research designs. The basic logic behind this design is that "qualitative data" are used in a way to help explain "quantitative results" (Creswell & Plano Clark, 2011). Explanatory sequential design research consists of two stages: first quantitative data and then, qualitative data are collected and analyzed (Harwell, 2011). Priority is usually given to quantitative data, and findings gathered from both "qualitative and quantitative data" are combined during the interpretation stage of the research (Creswell, 2012, p.542). In the quantitative part of the study, the survey model was preferred. Survey studies describe existing situations or events as they are, without making any changes (Tuncer, 2020). In the research, a case study design was used in the qualitative part. The case study is carried out in a natural environment and provides a holistic interpretation of the events that are the subject of the study (Yıldırım & Şimşek, 2011, p.277).

After the quantitative data were collected, the researcher conducted semi-structured interviews with secondary school teachers. The purpose of the semi-structured interview technique is to determine the parallelism and difference between the interviewees' information and make comparisons accordingly. The researcher prepares the interview questions in advance, providing partial flexibility to the interviewees during the interview and allowing the questions to be rearranged and discussed (Ekiz, 2003, p. 62).

Universe and Sample / Study Group

A sample and study group were formed to collect quantitative and qualitative data. The research population consists of teachers working in secondary schools in 5 central districts of Kayseri (Melikgazi, Talas, Kocasinan, İncesu, Hacılar). Since it is impossible to reach the whole universe in terms of cost, labour and time, it was decided to determine a sample representing the universe. The sample was selected using "simple random sampling". Simple random sampling is a method in which all units in the universe have an equal and independent chance of being selected as a sample (Büyüköztürk et al., 2011, p. 88). In the 2021-2022 academic year, 5703 teachers are serving at secondary schools in 5 central districts in Kayseri province (Akman, Özdemir, & Koca, 2021). Yazıcıoğlu and Erdoğan (2004, p. 48) calculated that for a sample of this number, at least 278 people should be reached at 5% sampling error. Considering this calculation, 504 participants took part in the study. The demographic features of the participants from whom the quantitative data of the research were collected are given in Table 1.

Table 1. Demographic characteristics of the participants

| | | f | % |
|-----------------------|-----------------------------------|-----|------|
| Gender | Female | 324 | 64,3 |
| | Male | 180 | 35,7 |
| Years of Experience | 1-5 years | 28 | 5,6 |
| | 6-10 years | 115 | 22,8 |
| | 11-15 years | 103 | 20,4 |
| | 16-20 years | 106 | 21,0 |
| | 21-25 years | 85 | 16,9 |
| | 26 years and above | 67 | 13,3 |
| Branch | Mathematics | 93 | 18,5 |
| | Turkish | 88 | 17,5 |
| | English | 68 | 13,5 |
| | Social sciences | 58 | 11,5 |
| | Science | 57 | 11,3 |
| | Education of religion and ethics | 38 | 7,5 |
| | Physical education | 29 | 5,8 |
| | Technology design | 26 | 5,2 |
| | Art | 17 | 3,4 |
| | Information technologies | 16 | 3,2 |
| | Music | 14 | 2,8 |
| Undergraduate Program | Faculty of education | 380 | 75,4 |
| | Faculty of science and Literature | 99 | 19,6 |
| | Others | 25 | 5,0 |
| Total | | 504 | 100 |

As seen in Table 1, most participants were women (64.3%) and teachers with a seniority of 6-10 years (22.8%). Looking at the branches, mathematics teachers (18.5%) and Turkish teachers (17.5) mostly participated in the research. Most of the secondary school teachers participating in the research graduated from the faculty of education (75.4%), and only 5% graduated from other faculties (Faculty of Fine Arts and Faculty of Theology). The research study group consisted of 21 teachers from different branches, determined with the purposive sampling method. The demographic features of the participants are given in Table 2.

Table 2. Demographic characteristics of the interviewed participants

| Code | Gender | Age | Educational statuses | Branch | Undergraduate Program |
|------|--------|-----|----------------------|----------------------------------|--|
| T1 | Male | 31 | Undergraduate | Physical Education | Faculty of Education |
| T2 | Female | 34 | Undergraduate | Social sciences | Faculty of Education |
| T3 | Male | 38 | Postgraduate | Mathematics | Faculty of Education |
| T4 | Female | 39 | Postgraduate | Mathematics | Faculty of Education |
| T5 | Female | 42 | Postgraduate | English | Faculty of Education |
| T6 | Male | 55 | Postgraduate | Social sciences | Faculty of Languages and History-Geography |
| T7 | Male | 43 | Undergraduate | Science | Faculty of Education |
| T8 | Male | 38 | Postgraduate | Turkish | Faculty of Education |
| T9 | Male | 41 | Undergraduate | Information technologies | Faculty of Education |
| T10 | Female | 37 | Undergraduate | English | Faculty of Education |
| T11 | Female | 45 | Undergraduate | Art | Faculty of Education |
| T12 | Female | 46 | Postgraduate | Social Sciences | Faculty of Science and Literature |
| T13 | Male | 44 | Undergraduate | English | Faculty of Science and Literature |
| T14 | Male | 27 | Undergraduate | Education of religion and ethics | Faculty of Education |
| T15 | Female | 37 | Postgraduate | Turkish | Faculty of Science and Literature |
| T16 | Female | 41 | Undergraduate | English | Faculty of Science and Literature |
| T17 | Female | 33 | Undergraduate | Science | Faculty of Education |
| T18 | Male | 26 | Postgraduate | English | Faculty of Education |
| T19 | Female | 33 | Undergraduate | Science | Faculty of Science and Literature |
| T20 | Female | 40 | Postgraduate | Turkish | Faculty of Education |
| T21 | Male | 43 | Undergraduate | Social sciences | Faculty of Education |

According to Table 2, 11 of the interviewed teachers were male and 10 were female. 5 teachers were English teachers, 4 were social studies teachers, 3 were science teachers, 3 were Turkish, 2 were mathematics, 1 was physical education, 1 was computer, 1 was visual arts and 1 was a religious culture and moral knowledge teacher. The ages of the teachers ranged from 26 to 55. 12 of the interviewed teachers were undergraduate and 9 graduates. 15 of the teachers were graduates of the Faculty of Education, 5 were graduates of the faculty of science and literature, and 1 was a graduate of the Faculty of Language, History and Geography.

Data Collection Tools

Quantitative data in the research were collected with the "Curriculum Literacy Scale (CLS)" developed by Bolat (2017). The scale consists of 2 sub-dimensions. There are 29 items in total in the reading (15) and writing (14) sub-dimensions. The scale's Cronbach-Alpha value was calculated at 0.888 for the reading sub-dimension, 0.907 for the writing sub-dimension and 0.940 for the entire scale. Qualitative data in the research were collected with a semi-structured interview form prepared by the researcher. The relevant literature was examined before this form was prepared and 11 questions were prepared. Then, three experts were consulted to ensure internal validity. Necessary corrections were made in the interview form in line with the experts' opinions. A pilot application of the form was conducted with three teachers (Turkish, English and Mathematics teachers) apart from the study group, and the clarity of the questions was tested. As a result of the data obtained from the pilot application, 5 questions were included in the final version interview form.

Data Collection Process

The researcher collected the quantitative data of the study. It took an average of 5 minutes for the teachers to answer the scale. The researcher also conducted interviews regarding the qualitative data of the study. Using the prepared interview form, interviews were conducted in an environment where the teacher and the researcher were alone. Each interview lasted between 25-30 minutes. The teachers' answers, whose opinions were taken in written form, were read to the teachers, and the interview ended after their approval.

Analysis of Data

The SPSS package program was used in the analysis of the data. The arithmetic means and standard deviations of the total scale and sub-dimensions were calculated. The skewness and kurtosis values of the data obtained from the scale were examined and it was seen that these values were between +1/-1. The fact that the skewness and kurtosis are within these limits is an indication of the normal distribution (Büyüköztürk et al., 2011, p. 40). Since the mean, median and mode of the scale were close to one another, it was decided that the data were normally distributed for this study and parametric tests were used to analyse the data. In the study, the calculations of the CL level of the teachers according to the branch, the type of school they graduated from and seniority variables were made with ANOVA. The test results were evaluated at the 95% confidence interval at the $p < 0.05$ significance level. Content analysis and descriptive analysis methods were employed in the qualitative data analysis. Content analysis is a systematic, repeatable technique in which some words of a text are summarized with smaller content categories with coding based on certain rules (Büyüköztürk et al., 2011, p. 269). Content analysis scans the text for repetitive words or themes (Patton, 2001/2014, p. 453). The data obtained in the descriptive analysis are summarized and interpreted according to the predetermined themes. In descriptive analysis, direct quotations are frequently used to reflect the views of the interviewees (Yıldırım & Şimşek, 2011, p. 224). In order to keep the participants confidential, each teacher was given codes as T1, T2... During the content analysis, the researcher and another expert in the field analyzed and coded the data separately from each other. After the analyzes were completed, the consistency between the codings made by the researchers was calculated according to Miles and Huberman (1994), and it was determined that the consistency between the coders was 82%. According to Yıldırım and Şimşek (2011), the consistency of researchers' opinions above 70% is sufficient for reliability. Accordingly, it can be stated that reliability among the coders was ensured in the analysis of qualitative data in the present study.

Ethical Permits of Research

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

Ethics Committee Permission Information:

Name of the committee that made the ethical evaluation = Erciyes University Social Sciences Human Research Ethics Committee.

Date of ethical review decision=25.04.2023

Ethics assessment document issue number=166

Findings

Findings Related to the 1st Sub-Problem

In the research, in order to test the first sub-problem, which was stated in the form of "What is the curriculum literacy level of secondary school teachers?", "Curriculum Literacy Scale" was applied to the teachers and the findings are presented in Table 3.

Table 3. *CL levels of secondary school teachers*

| Dimension | N | \bar{x} | S |
|-------------------|-----|-----------|--------|
| Total Scale | 504 | 4,1663 | ,57258 |
| Reading Dimension | 504 | 4,2811 | ,56760 |
| Writing Dimension | 504 | 4,0339 | ,69351 |

Table 3 showed that the CL perceptions of secondary school teachers were high ($\bar{x}=4.1663$). It was determined that the participants had CL perceptions at the level of "I agree" in the reading sub-dimension and at the level of "I agree" in the writing dimension.

Findings Related to the 2nd Sub-Problem

In the second sub-problem of the research, CL levels of secondary school teachers were examined according to seniority, undergraduate program and branch variables, and it was determined whether they showed a significant difference according to these variables.

Examination of CL Levels of Secondary School Teachers According to the Variable of Seniority

6 categories were created for the variable of seniority and the data of secondary school teachers according to this variable were analyzed by one-way analysis of variance. Descriptive statistics regarding the seniority variable of secondary school teachers are presented in Table 4 and ANOVA results in Table 5.

Table 4. *Descriptive statistics of secondary school teachers' curriculum literacy levels by seniority variable*

| | Years of seniority | N | \bar{x} | S |
|-------------------|--------------------|-----|-----------|--------|
| Total Scale | 1-5 years | 28 | 4,1596 | ,44058 |
| | 6-10 years | 115 | 4,0969 | ,53227 |
| | 11-15 years | 103 | 4,1898 | ,62907 |
| | 16-20 years | 106 | 4,0947 | ,65957 |
| | 21-25 years | 85 | 4,2619 | ,49362 |
| | 26 years and above | 67 | 4,2439 | ,52975 |
| Reading Dimension | 1-5 years | 28 | 4,2417 | ,43703 |
| | 6-10 years | 115 | 4,2301 | ,52361 |
| | 11-15 years | 103 | 4,2689 | ,61466 |
| | 16-20 years | 106 | 4,2252 | ,65043 |
| | 21-25 years | 85 | 4,4236 | ,43670 |
| | 26 years and above | 67 | 4,3112 | ,60532 |
| Writing Dimension | 1-5 years | 28 | 4,0659 | ,53855 |
| | 6-10 years | 115 | 3,9431 | ,69799 |
| | 11-15 years | 103 | 4,0986 | ,74700 |
| | 16-20 years | 106 | 3,9441 | ,78054 |
| | 21-25 years | 85 | 4,0754 | ,63333 |
| | 26 years and above | 67 | 4,1665 | ,55577 |

When Table 4 was examined, it was seen that all teachers had a high level of CL regardless of their seniority. Considering the total scale scores, it was observed that the educators of 21-25 years had the highest mean ($\bar{x}=4.2619$), and the lowest mean was the teachers of 16-20 years ($\bar{x}=4.0947$). In the reading dimension, teachers of 21-25 years ($\bar{x}=4.4436$) had the highest mean, while teachers of 16-20 years ($\bar{x}=4.2252$) had the lowest mean. In the writing dimension, teachers working for more than 21 years ($\bar{x}=4.1665$) had the highest mean, while teachers working for 16-20 years ($\bar{x}=3.9441$) had the lowest mean. The variance analysis results regarding the differentiation of teachers' CL levels according to the variable of seniority are given in Table 5.

Table 5. ANOVA results of secondary school teachers' cl levels by seniority variable

| | | Sum of Squares | df | Mean Square | F | P |
|-------------------|----------------|----------------|-----|-------------|-------|------|
| Total Scale | Between Groups | 2,336 | 5 | ,467 | 1,431 | ,211 |
| | Within Groups | 162,571 | 498 | ,326 | | |
| | Total | 164,907 | 503 | | | |
| Reading Dimension | Between Groups | 2,477 | 5 | ,495 | 1,546 | ,174 |
| | Within Groups | 159,574 | 498 | ,320 | | |
| | Total | 162,051 | 503 | | | |
| Writing Dimension | Between Groups | 3,585 | 5 | ,717 | 1,498 | ,189 |
| | Within Groups | 238,336 | 498 | ,479 | | |
| | Total | 241,921 | 503 | | | |

When Table 5 was examined, the F value calculated for teachers' CL levels ($F_{(5-498)}=1,431$, $p>.05$) showed that there was no significant difference. For the reading sub-dimension, it was determined that the mean values of all teachers were above 4 and were very close to each other. Thus, it was observed that the CL levels did not differ significantly among secondary school educators according to seniority ($F_{(5-498)}=1,546$, $p>.05$). When the writing sub-dimension was examined, although the CL levels of educators with 6-10 years of experience ($\bar{x}=3.9431$) and 16-20 years of experience ($\bar{x}=3.9441$) were slightly lower than the others, this difference was not found significant ($F_{(5-498)}=1,498$, $p>.05$). These findings suggest that the variable of seniority does not affect the CL level.

Examination of Secondary School Teachers' CL Levels According to the Graduated School Variable

ANOVA test was conducted to determine the CL levels of secondary school teachers according to the graduated school variable and the data obtained are presented in Table 6 and Table 7.

Table 6. Descriptive statistics of secondary school teachers regarding the graduated school variable

| | Groups | N | \bar{x} | S |
|-------------------|-----------------------------------|-----|-----------|--------|
| Total Scale | Faculty of Education | 380 | 4,1472 | ,59045 |
| | Faculty of Science and Literature | 99 | 4,2493 | ,48597 |
| | Others | 25 | 4,1271 | ,60461 |
| Reading Dimension | Faculty of Education | 380 | 4,2611 | ,58077 |
| | Faculty of Science and Literature | 99 | 4,3680 | ,50343 |
| | Others | 25 | 4,2400 | ,59286 |
| Writing Dimension | Faculty of Education | 380 | 4,0159 | ,72009 |
| | Faculty of Science and Literature | 99 | 4,1127 | ,56637 |
| | Others | 25 | 3,9969 | ,74131 |

When Table 6 was examined, it was seen that the teachers who graduated from the Faculty of Science and Literature had the highest mean in the reading, writing sub-dimensions and in the total scale. The lowest mean belonged to teachers who graduated from other school types. The ANOVA results

regarding the differentiation of CL levels of teachers according to the type of school they graduated from are given in Table 7.

Table 7. *The results of ANOVA regarding the CL levels of the teachers according to the type of school they graduated from*

| | | Sum of Squares | df | Mean Square | F | P |
|-------------------|----------------|----------------|-----|-------------|-------|------|
| Total Scale | Between Groups | ,859 | 2 | ,430 | 1,312 | ,270 |
| | Within Groups | 164,047 | 501 | ,327 | | |
| | Total | 164,907 | 503 | | | |
| Reading Dimension | Between Groups | ,942 | 2 | ,471 | 1,465 | ,232 |
| | Within Groups | 161,109 | 501 | ,322 | | |
| | Total | 162,051 | 503 | | | |
| Writing Dimension | Between Groups | ,772 | 2 | ,386 | ,802 | ,449 |
| | Within Groups | 241,149 | 501 | ,481 | | |
| | Total | 241,921 | 503 | | | |

When Table 7 was examined, the F value calculated for teachers' CL ($F_{(2-501)} = 1,312$, $p > .05$) revealed no significant difference. In the reading sub-dimension, it was observed that CL levels did not differ significantly among secondary school teachers according to the type of school they graduated from ($F_{(5-498)} = 1,546$, $p > .05$). It was observed that the average values of all teachers were above 4 and were very close to each other. In the writing sub-dimension, although the CL level of teachers who graduated from other school types ($\bar{x} = 3.9969$) is slightly lower than those of education faculty ($\bar{x} = 4.0159$) and faculty of science and literature graduates ($\bar{x} = 4.1127$), this difference was not found statistically significant. ($F_{(5-498)} = ,802$, $p > .05$). These results can be interpreted as the school type variable does not affect the CL.

Examination of the CL Levels of Secondary School Teachers According to the Branch Variable

Teachers from 11 different branches working at secondary schools participated in the research and their CL levels were examined by ANOVA according to the branch variable. Descriptive statistics of secondary school teachers regarding the branch variable are given in Table 8 and ANOVA results are given in Table 8.

Table 8. Descriptive statistics of secondary school teachers regarding the branch variable

| | Branch | N | \bar{x} | SS |
|-------------------|----------------------------------|----|-----------|--------|
| Total Scale | Science | 57 | 4,2011 | ,52418 |
| | Mathematics | 93 | 4,2221 | ,48421 |
| | Social sciences | 58 | 4,2106 | ,54013 |
| | Music | 14 | 4,2755 | ,63833 |
| | English | 68 | 4,1206 | ,55574 |
| | Turkish | 88 | 4,0349 | ,73014 |
| | Technology design | 26 | 4,3393 | ,50581 |
| | Physical education | 29 | 4,2259 | ,45183 |
| | Art | 17 | 4,1597 | ,61615 |
| | Education of religion and ethics | 38 | 4,0547 | ,59456 |
| | Information technologies | 16 | 4,2612 | ,50889 |
| | Science | 57 | 4,2912 | ,53402 |
| | Mathematics | 93 | 4,3441 | ,46549 |
| Reading Dimension | Social sciences | 58 | 4,3529 | ,54946 |
| | Music | 14 | 4,3476 | ,47298 |
| | English | 68 | 4,2997 | ,50176 |
| | Turkish | 88 | 4,1015 | ,76714 |
| | Technology design | 26 | 4,4436 | ,50065 |
| | Physical education | 29 | 4,3048 | ,49720 |
| | Art | 17 | 4,2196 | ,50814 |
| | Education of religion and ethics | 38 | 4,2202 | ,56460 |
| | Information technologies | 16 | 4,3708 | ,52997 |
| | Science | 57 | 4,0972 | ,61238 |
| | Mathematics | 93 | 4,0813 | ,64402 |
| | Social sciences | 58 | 4,0464 | ,65509 |
| | Music | 14 | 4,1923 | ,90251 |
| Writing Dimension | English | 68 | 3,9140 | ,72509 |
| | Turkish | 88 | 3,9580 | ,80364 |
| | Technology design | 26 | 4,2189 | ,63793 |
| | Physical education | 29 | 4,1353 | ,51873 |
| | Art | 17 | 4,0905 | ,81237 |
| | Education of religion and ethics | 38 | 3,8644 | ,71926 |
| | Information technologies | 16 | 4,1346 | ,52360 |

According to Table 8, when the mean scores for the whole scale were examined based on branches, it was detected that Technology design teachers ($\bar{x}=4.3393$) had the highest mean and Turkish teachers ($\bar{x}=4.0349$) had the lowest mean. Similarly, Technology design teachers ($\bar{x}=4.4436$) had the highest mean and Turkish teachers ($\bar{x}=4.1015$) had the lowest mean in the reading dimension. In the writing dimension, Technology design teachers ($\bar{x}=4.2189$) had the highest average, while Education of Religion and Ethics teachers ($\bar{x}=3.8644$) had the lowest average. The variance analysis results regarding the differentiation of teachers' CL levels according to the branch variable are presented in Table 9.

Table 9. The ANOVA results regarding the CL levels of the teachers according to the branches

| | | Sum of Squares | df | Mean Square | F | P |
|-------------------|----------------|----------------|-----|-------------|-------|------|
| Total Scale | Between Groups | 3,800 | 10 | ,380 | 1,163 | ,314 |
| | Within Groups | 161,106 | 493 | ,327 | | |
| | Total | 164,907 | 503 | | | |
| Reading Dimension | Between Groups | 4,634 | 10 | ,463 | 1,451 | ,155 |
| | Within Groups | 157,417 | 493 | ,319 | | |
| | Total | 162,051 | 503 | | | |
| Writing Dimension | Between Groups | 4,778 | 10 | ,478 | ,993 | ,448 |
| | Within Groups | 237,143 | 493 | ,481 | | |
| | Total | 241,921 | 503 | | | |

As seen at Table 9, there was no significant difference between the curriculum literacy levels of secondary school teachers according to the branch variable ($(F_{(10-503)} = 1,163, p > .05)$). The branch groups didn't differ from each other in the reading sub-dimension ($(F_{(10-503)} = 1,451, p > .05)$) and the writing sub-dimension ($(F_{(10-503)} = ,993, p > .05)$).

Findings Related to the Third Sub-Problem

The third sub-problem of the research was "What are the teachers' views on curriculum literacy?" For this purpose, content analysis and descriptive analysis were made, and the findings were tabulated.

Secondary School Teachers' Views on "Curriculum Literacy"

Within the scope of this category, the teachers were asked the question, "What does the term curriculum literacy suggest to you?". The answers are presented in Table 10.

Table 10. *Teachers' views on "Curriculum Literacy"*

| Thematic Codes | Participants | f |
|--|--|---|
| Understanding, interpreting and application skills | T4, T6, T7, T11, T13, T15, T18, T19, T21 | 9 |
| Having knowledge of the curriculum | T1, T2, T3, T5, T10, T12, T15 | 7 |
| Being knowledgeable about the components of the curriculum | T3, T4, T8 | 3 |
| I don't know | T16, T9, T20 | 3 |
| Ability to criticize the curriculum | T1 | 1 |
| Analyzing the curriculum | T14 | 1 |
| Acting like an expert | T15 | 1 |
| Content list | T17 | 1 |

As seen in Table 10, when teachers were asked what they understood from the term "Curriculum literacy" the teachers mostly expressed their ideas ($f=9$) as "Understanding, interpreting and application skills". On this subject, T7 said, "*The interpretation and prediction of the educational program and its transfer to the educational environment includes curriculum literacy.*" 6 teachers regarded CL as "Having program knowledge". On this subject, T5 said, "*When curriculum literacy is mentioned, I think of teachers knowing the curriculum they implement. Teachers should understand the program of their branch and be able to reflect it in their classroom practices as planned.*" T17, who described the curriculum literacy as the distribution of topics, expressed his opinion on CL as "The ability to arrange the distribution of the topics". T15 said, "*We can say that CL is having curriculum knowledge, using it, transferring it to the environment and acting as if we are an expert on that program.*" 3 of the teachers expressed frankly that they didn't know anything about CL.

Secondary School Teachers' Knowledge about the "Objectives"

Within the scope of this category, the teachers were asked what they knew about the objective component of the curriculum. The answers are presented in Table 11.

Table 11. *Coding of teachers' opinions on "objectives"*

| Thematic Codes | Participants | f |
|---|---|----|
| Qualities to be acquired by the student | T1, T2, T3, T4, T5, T6, T7, T8, T9, T10, T13, T14, T17, T16, T18, T19, T20, T21 | 18 |
| The answer to the question "Why should we teach?" | T11, T15 | 2 |
| Attainable qualifications | T15 | 1 |
| I don't know | T12 | 1 |

As seen in Table 11, 18 teachers stated that the objectives are "The qualities that the students should acquire". In this regard, T3 said, "Objectives are the desired features that can be gained by students through education". In contrast, T8 said "The objectives represent every skill, behavior and value that is desired to be acquired by the students related to that course". 2 teachers said that the objectives are the answer to the question "Why we should teach". One of the participants expressed that he had no information about "objectives".

Secondary School Teachers' Knowledge about the "Content"

Within the scope of this category, the question "What do you know about the content element of the curriculum?" has been asked to the secondary school teachers and the answers are presented in Table 12.

Table 12. Coding of teachers' opinions on "content"

| Thematic codes | Participants | f |
|---|-------------------------------------|---|
| The answer to the question what we can teach | T1, T3, T7, T10, T15, T17, T18, T19 | 8 |
| Units and topics | T13, T14, T16, T18, T19, T21 | 6 |
| Knowledge about the subject area | T4, T5, T8, T9, T12 | 5 |
| The knowledge, skills, attitudes, etc. to be taught, gained | T2, T10, T11, T20 | 4 |
| Elements that enrich the teaching | T6 | 1 |

As seen in Table 12, 8 teachers stated that the content answered the question "What we can teach". T3 regarded content as "What should be in teaching activities and what should be taught to students". At the same time, T7 said that content is "All of the knowledge, skills, attitudes, behaviours and practices that are within the scope of the curriculum objectives and that determine what should be taught." 6 teachers stated that the content consists of units and topics and similarly T13 said that "In short, content is the units and subjects to be explained. The content is about the aims of the curriculum. The contents are prepared following the educational philosophy." T16 said that "The content element covers all that we teach while applying the curriculum. It is a collection of all information that helps students learn: Units, themes, learning areas, topics etc." 4 teachers said that the content is knowledge about the subject area. T4 expressed his ideas on this subject by saying "It is knowledge about the subject area. Although the framework is determined in the curriculum, the content is organized under the control of the teacher, sorted, and the questions to be solved are determined." T6 emphasized that the content is the elements that enrich the meaning by saying "The elements that will enrich the teaching by addressing the topics are our content items. However, they should also be suitable for student levels, listed from simple to difficult, from local to general."

Secondary School Teachers' Knowledge about the "Instructional methods"

Within the scope of this category, the teachers were asked, "What do you know about Instructional methods component of the curriculum?" The answers given by the teachers regarding this question are presented in Table 13.

Table 13. Coding of teachers' opinions on "instructional methods"

| Thematic Codes | Participants | f |
|---|--|----|
| Teaching-learning process | T1, T2, T3, T5, T7, T8, T9, T10, T13, T16, T17, T20, T21 | 13 |
| Utilizing teaching methods and techniques | T1, T4, T5, T10, T11, T12, T13, T15, T17 | 9 |
| The answer to the question how to teach | T4, T13, T15, T19 | 4 |
| Instruction | T1 | 1 |
| Planning the time | T6 | 1 |
| The actualization of learning | T14 | 1 |
| The use of materials | T15 | 1 |
| Everything in the class | T18 | 1 |

As seen in Table 13, 9 teachers stated that Instructional method means "Utilizing teaching methods and techniques". T1 stated his opinion: "Various teaching methods and techniques are used for the students to achieve the objectives and the teaching process takes place here". 8 teachers emphasized that the Instructional method is the "Teaching and learning process", that is, the teaching process, and on this subject, T21 said "Learning and Instructional methods can be defined as the teaching process that aims to provide knowledge, skills, attitudes and behaviours determined within the curriculum. During this process, some learning-teaching activities are carried out." He mentioned that both the teaching process and the learning-teaching activities are carried out in this process. According to T15, instructional methods include both the use of teaching-learning methods, the answer to the question of how to teach and the use of materials in the process by saying, "We should be able to find the answers to the questions of how and with what we will teach. Determining what kind of strategy, method and technique we will use is very important. In addition, determining which tools, technology or material we will use directly affects the learning process."

Secondary School Teachers' Knowledge about the "Evaluation"

Within the scope of this category, the researcher asked, "What do you know about the evaluation component of the curriculum?" and the answers are presented in Table 14.

Table 14. Coding of teachers' opinions on "assessment"

| Thematic Codes | Participants | f |
|--|--|----|
| Determining the achievement level of the goals | T1, T2, T3, T5, T7, T8, T10, T11, T13, T15, T16, T18, T19, T21 | 14 |
| Determining the lack of knowledge and false learning | T2, T6, T9, T20 | 4 |
| Exams | T12, T17 | 2 |
| Decision making | T13, T14 | 2 |
| Determining the efficiency of the curriculum | T4, T18 | 2 |
| The answer to the question "how much" | T4 | 1 |

As seen in Table 14, 15 teachers stated that evaluation is "determining the achievement level of the goals". T1 regarded evaluation as "The section where we check how much of the determined objectives are achieved at the end of the learning-teaching process." 4 teachers defined the evaluation as "Determining the lack of knowledge and false learning". T14 defined evaluation as "Decision-making process according to a criterion/criteria after measuring desired qualities." T4 said, "The last element of the program is evaluation. It is the answer to the question "How much". It is done systematically to determine the effect, value and adequacy of the process." and thus he identified determination the Curriculum efficiency as one of the roles of evaluation.

Discussion and Conclusion

In the study, the curriculum literacy levels of the teachers working at secondary schools were examined in terms of various variables. In line with the first sub-problem of the research, CL levels of the secondary school teachers were examined, and it was concluded that the CL levels of the secondary school teachers were high. It can be said that the secondary school teachers participating in the research consider themselves to be highly curriculum literate. From this point of view, it can be stated that secondary school teachers have mastery of the four curriculum elements, namely the objectives, content, instructional methods and evaluation dimensions. It is essential for teachers, who are the curriculum implementers, to see themselves as competent about the programs. When the literature is examined, studies with similar results are encountered (Aslan, 2019; Aslan & Gürlen, 2019; Atlı, Kara & Mirzeoğlu, 2021; Aygün, 2019; Bayrı, 2022; Barut & Gündoğdu, 2023; Boncuk, 2021; Çetinkaya & Tabak, 2019; Dağ, 2021; Demir & Toraman, 2021; Erdem & Eđmir, 2018; Gömleksiz & Erdem, 2018; Güneş Şinego & Çakmak, 2021; Kale, 2022; Kana et al., 2018; Sarıca, 2021; Sural & Dedeşali, 2018; Şahin & Aşkın Tekkol, 2023; Yılmaz & Kahramanođlu, 2021). However, the results of some studies in the literature do not show similarity with the results of this study. Kahramanođlu (2019), in his study with teachers working at different levels, revealed that teachers' CL perceptions are at a moderate level. Yıldız (2019) and Kızılaslan Tunçer and Şahin (2019) concluded that the participants were moderately literate and knowledgeable in the studies they conducted with pre-service teachers.

According to the research, it was concluded that teachers had curriculum literacy perceptions at the level of "completely agree" in the reading sub-dimension and at the level of "agree" in the dimension of writing. According to Erdem and Eđmir (2018), the "reading" dimension includes the competencies to understand and interpret the elements of the program, while the "writing" dimension includes the skills to design tools suitable for the "objectives, content, learning-teaching processes and measurement-evaluation" steps. The mean on the reading sub-dimension was higher than on the writing sub-dimension. Çetinkaya and Tabak (2019), Erdem and Eđmir (2018) and Yıldız (2019) found that the reading dimension had a higher mean than the writing dimension in their studies. These findings can be interpreted as the teachers' knowledge about the program is higher than their application knowledge. Contrary to the findings of this study, Ekawati (2016) determined in his research that teachers have a lack of knowledge at both conceptual (reading dimension) and practical (writing dimension) levels.

Within the scope of the second sub-problem of the research, it was examined whether the literacy levels of the secondary school teachers differed according to the variables of seniority, the type of school they graduated from and the branch. According to the research results, it was determined that all teachers, regardless of their seniority, had a high level of CL. In light of these data, it can be said that the variable of seniority does not affect the CL level. A thorough review of the literature has revealed studies with similar results (Aslan & Gürlen, 2019; Boncuk, 2021; Demir & Toraman, 2021; Güneş Şinego & Çakmak, 2021; Kahramanođlu, 2019; Kale, 2022). In the study, when the total scale scores were examined, it was seen that the teachers of 21-25 years had the highest mean and the teachers of 15-20 years had the lowest average. Superfine (2008) stated that experienced teachers adhere to their own experiences. Kauffman, Johnson, Kardos, Liu, and Peske (2002) revealed that the more experienced teachers become, the less they need the programs. Bayrı (2022) concluded in his study that as the years of professional seniority of special education teachers increase, their CL levels increases. Sarıca (2021)

determined that teachers with a seniority of 21 years and above had a higher level of curriculum literacy than teachers with a seniority of 1-10 years. Barut and Gündoğdu (2023) concluded in their study that teachers with a professional seniority of 6-10 years had a lower level of CL than teachers with a professional seniority of 11-15 years and more than 25 years. Dağ (2021) concluded that the CL levels of teachers with seniority between 1-5 years were lower than those between 11-15 years and 16-20 years. Boncuk (2021), on the other hand, concluded that CL levels of the teachers who worked in their first five years and over twenty years in their profession were high. Similarly, Atlı, Kara and Mirzeoğlu (2021), in their study with physical education teachers, determined that teachers with 1-5 years of seniority had the highest curriculum literacy perception. According to Özkan (2016), as the seniority of the teachers increases, their knowledge and awareness decrease. The study conducted by Cornett, Yeotis, and Terwilliger (1990) concluded that as the seniority of the teachers increased, they consulted less to the program and their abilities in the "writing" dimension increased by playing the role of program developer.

According to the results of the study, it was determined that the school type variable did not affect curriculum literacy. Similar to this result, Demir and Toraman (2021) and Aslan and Gürten (2019) found no difference in their study between the faculty the teachers graduated from and their perceptions of CL. The education courses in the Faculty of Education and in the pedagogical formation programs taken by science and literature graduates have almost the same content. However, education is spread over a longer period in education faculties, success criteria are higher, relatively more comprehensive, and the opportunity to apply the developed skills is more. For this reason, education faculties allow writing skills to be developed more (Erdem & Eçmir, 2018). While this expectation was in this direction, it was determined in the study that the teachers who graduated from the faculty of science and literature had the highest average in the reading and writing sub-dimensions of the whole scale. At the same time, the lowest means belonged to the teachers who graduated from other school types. Aslan and Gürten's (2019) research revealed a different result. The researchers determined that there was no difference between the graduates of the faculty of education, science and literature and other school types at the total CL level. Still, there was a significant difference in favour of the teachers who graduated from other faculties in the planning dimension. In their study conducted with the prospective teachers, Gömleksiz and Erdem (2018) concluded that the CL level of the education faculty students was significantly different from those enrolled in the formation education program in favor of the education faculty.

According to the results of the study, it was determined that branch groups didn't differ from each other in terms of CL levels. The branches of secondary school teachers do not affect their curriculum literacy. Literature review has revealed studies with similar results (Aslan, 2019; Aslan & Gürten, 2019; Boncuk, 2021; Demir & Toraman, 2021; Güneş Şinego & Çakmak, 2021; Kahramanoğlu, 2019; Kale, 2022). In the study, although there was no significant difference between the teachers based on the branch, when the total means of the scale were examined, it was seen that the technology design teachers had the highest average and the Turkish teachers had the lowest average. Güneş Şinego and Çakmak (2021) concluded that the Information Technologies and Software branch had the highest average among the branches in their study. In their study with Turkish teachers, Kırmızı and Akkaya (2009) determined that teachers did not consider themselves sufficient in practice. In the study conducted by Kana, Aşçı, Zorlu Kana, and Elkiran (2018), it was concluded that Turkish teacher

candidates had sufficient knowledge about the elements of the education program. Similarly, Gömleksiz and Erdem (2018) concluded in their study that Turkish teacher candidates had high CL levels.

In the research, the results obtained from the qualitative data related to the third sub-problem, expressed as “What are teachers' views about curriculum literacy?” have been examined. First of all, teachers were asked what they understood from the term curriculum literacy. Teachers generally regarded CL as understanding, interpreting and being able to apply the curriculum and having knowledge of the curriculum. It can be said that teachers' knowledge of curriculum literacy is sufficient. Similarly, Bayrı (2022) concluded in his study that teachers' knowledge of the curriculum was sufficient. Aygün (2022) concluded that the knowledge level of special education teachers about CL was low and moderate. The research results showed that the knowledge levels of the educators about the four components of the curriculum (objectives, content, instructional methods, evaluation) were sufficient.

When the quantitative and qualitative data were examined, it was identified that there was a parallelism in the results and that the teachers were curriculum literate. From this point of view, it has been seen that the qualitative results of the research support the quantitative results.

Recommendations

This study examined CL levels of secondary school teachers in Kayseri. Similar studies can be conducted with different school grades and in different regions of Türkiye. CL is one aspect of the implementation of the curriculum. Further studies can be conducted to determine to what extent the curriculum is implemented in the classroom by the curriculum literate teachers. There are very few qualitative or mixed method studies on the subject. More studies can be conducted employing qualitative and mixed method. The researcher can develop the scale used in the research or similar studies can be conducted using different scales. Similar studies can be carried out with teachers in different branches, as well with pre-service teachers studying in different fields. Since the teachers' curriculum literacy levels were found a bit lower in the writing dimension in the present study, in-service trainings can be organized for teachers on designing tools suitable for the four curriculum elements.

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Ortaokul Öğretmenlerinin Program Okuryazarlık Düzeylerinin İncelenmesi: Karma Yöntem Araştırması

Giriş

Eğitim programları öğretim etkinlikleri için yol gösterici bir haritadır; çünkü öğretim için hedeflenen sonuçları, bu hedeflere ulaşmak için belirlenen içeriği, öğrenme-öğretme durumlarını ve uygun ölçme araçlarını programlar belirler (Çetinkaya & Tabak, 2019). Bu sebeple öğretim sürecinden sorumlu olan öğretmenlerin en değerli rehberi programlarıdır. Ancak Cuban (1993) bir öğretmenin uygulamada öğrettikleri ile resmi olarak uygulanması amaçlanan olan programın farklı olabileceğini belirtmektedir. Uygulanan program, öğretmenlerin deneyimlerinden, tutumlarından, yeterliliklerinden ve resmi programı yorumlamalarından kaynaklanan bir uygulama sürecidir (Tikkinena, Korkeamäki, & Dreher, 2020). Öğretmenler uygulama bilgi ve becerileri ile programlarda sınıfa uygun uyarlamalar yaparlar (Duffee & Aikenhead, 1992). Her ne kadar merkezden tek bir program gönderilip uygulanması beklense de çoğu öğretmen ders içeriği kendisi planlamakta ve bu durumun sonucunda farklı sınıflardaki öğrenciler farklı uygulamalarla karşılaşmaktadırlar (Steiner, 2018). Öğretmenlerin öğretimin her aşamasında mesleki bilgilerini kullanarak kararlar alması gerekir (Duffee & Aikenhead, 1992) Her öğretmen bu karar aşamasında kendi bilgi ve becerisini kullanır ki bu durum programların uygulanışındaki farkların temel sebebidir. Eğer bir öğretim programı etkili uygulanmaz ise planlama ve geliştirme sürecinde harcanan tüm çabalar boşa gitmiş olacaktır (Ejike, 2018, s. 64).

Program okuryazarlığı kavramı ilk olarak Akınoğlu ve Doğan'ın (2012) "Eğitimde Program Geliştirme Alanına Yeni Bir Kavram Önerisi: Program Okuryazarlığı" isimli çalışmalarında kullanılmıştır. Araştırmacılar, öğretmenlerin programları uygularken programı anlamaları, programa karşı tutumları ve uygulamaya dönüştürebilme becerileri nitelikle için de "program okuryazarlığı" kavramını önermişlerdir (Akınoğlu & Doğan, 2012). Eğitim programı okuryazarlığı, eğitim programının öğeleri olan hedef, içerik, öğrenme öğretme süreçleri ve değerlendirme ile ilgili yeterli bilgiye sahip

olmaktır (Bolat, 2017). “Program okuryazarlığı; öğretmenin eğitim programlarına özgü özelliklerin farkında olması, bu farkındalığı uygulamaya dönük kullanabilmesi, eleştirel bakış açısıyla değerlendirmeler ve yorumlamalar yaparak eğitim programını kendine rehber olarak kullanabilmesidir” (Keskin & Korkmaz, 2021). Program okuryazarlığı, eğitim sürecinde en temel rollerden birini üstlenen öğretmenlerin, işe koştukları programın tüm boyutlarını bilme anlama ve uygulama becerilerini ifade eder (Erdem & Eğmir, 2018). Öğretim programı okuryazarlığı, öğretmenlerin üst düzey zihinsel becerilerle resmi programı anlamlandırma ve çözümleme sürecidir. Çünkü programların öğrenme öğretme sürecine yansıtılmasında temel etken öğretmenlerdir (Kahramanoğlu, 2019). Program okuryazarlığı kavramın “bilgi” ve “beceri” olarak iki gruba ayırmıştır. Bilgi boyutunda öğretmenlerin, “programı anlama, uygulama ve değerlendirme süreçleri” ile ilgili bilgilerinin; beceri boyutunda ise “programın uygulanması ile ilgili öğrenme-öğretme süreçlerinin tasarlanması, uygulanması ve değerlendirilmesi” ile ilgili becerilerin yer aldığını belirtmiştir (Akyıldız, 2020).

Öğretim programları, öğretmenler için en önemli kaynaktır. Bu kaynaktan maksimum seviyede yararlanmak için, öğretmenlerin program okuryazarı olmaları gerekir. Program uygulaması, öğrenci başarısı ve başarısızlığının temeli olduğundan müfredat sürecinin çok önemli bir yönüdür (Odey & Opoh, 2015). Eğitim için tüm koşullar ideal olsa bile öğretmenler program uygulama ile ilgili gerekli bilgi ve beceriye sahip değilse istenilen öğretim başarısına ulaşamaz (Wiles, 2009/2016). Program okuryazarlığı ile ilgili alan yazın incelendiğinde konuyla ilgili karma yöntem çalışmalarının azlığı dikkat çekicidir (Keskin, 2020; Aygün, 2022; Bayrı, 2022). Literatürde ortaokul öğretmenlerinin program okuryazarlığını inceleyen herhangi bir karma yöntem araştırmasına rastlanmamıştır. Bu araştırmayla literatürdeki bu eksikliğin giderileceği düşünülmektedir. Ayrıca bu araştırmanın sonuçları, öğretmen yetiştirme ve mesleki gelişim konularında alana katkı sağlaması açısından önemlidir. Programların tasarlandığı şekliyle uygulanması öğretmenlerin programı anlama ve uygulama bilgi ve becerisine bağlı iken sahada görev yapan öğretmenlerin program okuryazarlık düzeylerinin belirlenmesi eğitimin kalitesi için oldukça önemlidir.

Bu çalışmanın amacı, Kayseri ilinde resmi ortaokullarda görev yapmakta olan öğretmenlerin program okuryazarlığı düzeylerini bazı değişkenler açısından incelemektir. Çalışmanın amacı doğrultusunda aşağıdaki soruların cevapları aranmıştır:

- 1-Ortaokul öğretmenlerinin program okuryazarlık düzeyleri nedir?
- 2-Ortaokul öğretmenlerinin program okuryazarlık düzeyleri arasında
 - a) meslekteki hizmet yılı
 - b) mezun olunan okul türü
 - c) branş değişkenlerine göre anlamlı bir farklılık var mıdır?
- 3-Öğretmenlerin program okuryazarlığı hakkındaki görüşleri nelerdir?

Yöntem

Bu araştırmada karma yöntemler araştırma tasarımlarından açıklayıcı sıralı tasarım kullanılmıştır. Açıklayıcı sıralı tasarım araştırmaları iki aşamalı bir karma yöntem tasarımıdır. Bu tasarımın tüm amacı, nitel verinin, nicel sonuçları açıklamaya yardım etmesidir (Creswell & Plano Clark, 2011). Araştırmanın nicel bölümünde tarama modeli tercih edilmiştir. Tarama araştırmaları herhangi

bir değişiklik yapmadan, var olan durum veya olayları olduğu şekliyle betimleyen çalışmalardır (Tuncer, 2020, s. 223). Araştırmanın nitel bölümünde durum çalışması deseni kullanılmıştır. Durum çalışması, doğal bir ortam içerisinde gerçekleştirilir ve çalışmaya konu olan olayların bütüncül bir yorumunun yapılmasını sağlar (Yıldırım & Şimşek, 2011, s. 277).

Araştırmada nicel veriler toplandıktan sonra ortaokul öğretmenleriyle yarı yapılandırılmış görüşmeler yapılmıştır. Yarı yapılandırılmış görüşme tekniğinde amaç, görüşülen bireylerin verdikleri bilgiler arasındaki paralelliği ve farklılığı saptamak ve buna göre karşılaştırmalar yapmaktır (Ekiz, 2003, s. 62). Araştırmanın nicel örneklemini “basit seçkisiz örnekleme” yöntemi kullanılarak seçilen 504 ortaokul öğretmeni oluşturmaktadır. Araştırmanın nitel çalışma grubunu amaçlı örnekleme yöntemi ile belirlenen, nicel veri toplama sürecine katılmış, farklı branşlardan 21 öğretmen oluşturmaktadır. Nicel veriler Bolat (2017) tarafından geliştirilen “Eğitim Programı Okuryazarlığı Ölçeği [EPOÖ]” ile toplanmıştır. Ölçek 2 alt boyuttan oluşmaktadır. Okuma (15) ve yazma (14) alt boyutlarında toplam 29 madde bulunmaktadır. Ölçeğin Cronbach-Alfa değeri okuma alt boyutu için 0,888; yazma alt boyutu için 0,907; ölçeğin tamamı için 0,940 olarak hesaplanmıştır. Nitel veriler araştırmacı tarafından hazırlanan ve 5 sorudan oluşan yarı yapılandırılmış görüşme formu ile toplanmıştır. Çalışmanın nicel ve nitel verileri araştırmacı tarafından toplanmıştır. Verilerin analizinde SPSS 26 paket programı kullanılmıştır. Ölçeğin toplam ve alt boyutlarının aritmetik ortalamaları ve standart sapmaları hesaplanmıştır. Araştırmada öğretmenlerin branş, mezun oldukları okul türü ve kıdem değişkenlerine göre program okuryazarlık düzeylerinin hesaplanması ANOVA ile yapılmıştır. Test sonuçları %95 güven aralığında, $p < 0,05$ anlamlılık düzeyinde değerlendirilmiştir. Nitel verilerin analizinde içerik analizi ve betimsel analiz yöntemleri kullanılmıştır. İçerik analizi, metnin tekrar eden kelimeler veya temalar açısından taranmasıdır (Patton, 2001/2014, s. 453). Betimsel analizde elde edilen veriler, daha önceden belirlenen temalara göre özetlenir ve yorumlanır (Yıldırım & Şimşek, 2011, s. 224).

Katılımcıların gizliliğini sağlayabilmek için araştırmaya katılan her öğretmene Ö1, Ö2... şeklinde kodlar verilmiştir. İçerik analizi sırasında, araştırmacı ve alanında uzman başka bir araştırmacı birbirlerinden ayrı olarak analizleri ve kodlamaları yapmışlardır. Analizler bittikten sonra araştırmacıların yaptıkları kodlamalar arasındaki tutarlılık Miles ve Huberman’a (1994) göre hesaplanmış ve kodlayıcılar arasındaki tutarlılığın %82 olduğu belirlenmiştir. Yıldırım ve Şimşek’e (2011) göre araştırmacıların görüşlerindeki tutarlılığın %70’in üzerinde olması güvenilirlik için yeterlidir. Buna göre bu araştırmada nitel verilerin analizinde kodlayıcılar arasında güvenilirliğin sağlandığı belirtilebilir.

Bulgular

Araştırmada “Ortaokul öğretmenlerinin program okuryazarlık düzeyleri nedir?” şeklinde belirtilen birinci alt problemine göre ortaokul öğretmenlerinin PO düzey algılarının ($\bar{x}=4,1663$, $SS=,57258$) yüksek olduğu görülmüştür. Katılımcıların okuma alt boyutunda “çok katılıyorum” düzeyinde, yazma boyutunda ise “katılıyorum” düzeyinde program okuryazarlığı algılarına sahip oldukları saptanmıştır. Araştırmanın ikinci alt problemi kapsamında ortaokul öğretmenlerinin eğitim programı okuryazarlık düzeylerinin meslekteki hizmet yılı, mezun olunan okul türü ve branş değişkenlerine göre farklılaşıp farklılaşmadığı incelenmiştir. Kıdem yılı fark etmeksizin tüm öğretmenlerin yüksek düzeyde program okuryazarı olduğu görülmüştür. Toplam ölçek puanlarına bakıldığında en yüksek ortalamaya 21-25 yıllık öğretmenlerin ($\bar{x}= 4,2619$), en düşük ortalamaya ise 15-20 yıllık öğretmenlerin ($\bar{x}= 4,0947$) sahip olduğu görülmüştür. Öğretmenlerin program okuryazarlık

düzeylerinin kıdem yılı değişkenine göre farklılaşmasına ilişkin varyans analizi sonucuna göre okuma alt boyutunda ortaokul öğretmenleri arasında kıdem değişkenine göre program okuryazarlık düzeylerinin anlamlı bir şekilde farklılık göstermediği görülmüştür ($F_{(5-498)} = 1,546, p > .05$). Yazma alt boyutu incelendiğinde de 6-10 yıllık ($\bar{x}=3,9431$) ve 16-20 ($\bar{x}=3,9441$) kıdeme sahip öğretmenlerin program okuryazarlık düzeyinin diğerlerine göre biraz daha düşük olmasına rağmen bu fark istatistiksel olarak anlamlı değildir ($F_{(5-498)} = 1,498, p > .05$). Bu veriler ışığında kıdem değişkeninin program okuryazarlık düzeyi üzerinde bir etkisinin olmadığı söylenebilir.

Ölçeğin tamamında, okuma ve yazma alt boyutlarında en yüksek ortalamaya fen edebiyat fakültesinden mezun olan öğretmenlerin sahip olduğu görülmüştür. En düşük ortalamalar ise diğer okul türlerinden mezun olan öğretmenlere aittir. Öğretmenlerin mezun oldukları okul türüne göre program okuryazarlık düzeylerinin farklılaşmasına ilişkin varyans analizi sonucuna göre okuma alt boyutunda ortaokul öğretmenleri arasında mezun oldukları okul türü değişkenine göre program okuryazarlık düzeylerinin anlamlı bir şekilde farklılık göstermediği görülmüştür ($F_{(5-498)} = 1,546, p > .05$). Yazma alt boyutu ise diğer okul türlerinden mezun olan öğretmenlerin program okuryazarlık düzeyi ($\bar{x}=3,9969$) eğitim fakültesi ($\bar{x}=4,0159$) ve fen edebiyat mezunlarına ($\bar{x}=4,1127$) göre biraz daha düşük olmasına rağmen bu fark istatistiksel olarak anlamlı değildir ($F_{(5-498)} = ,802, p > .05$). Bu sonuçlar okul türü değişkeninin program okuryazarlık üzerinde etkisinin olmadığı şeklinde yorumlanabilir.

Branş bazında ortalamalara bakıldığında okuma boyutunda Teknoloji tasarım öğretmenleri ($\bar{x}=4,4436$) en yüksek ortalamaya, Türkçe öğretmenleri ($\bar{x}=4,1015$) ise en düşük ortalamaya sahiptir. Yazma boyutunda da Teknoloji tasarım ($\bar{x}=4,2189$) en yüksek ortalamaya, Dün Kültürü ve Ahlak Bilgisi öğretmenleri ($\bar{x}=3,8644$) ise en düşük ortalamaya sahiptir. Ölçeğin toplam ortalamalarına bakıldığında Teknoloji tasarım öğretmenlerinin ($\bar{x}=4,3393$) en yüksek ortalamaya, Türkçe öğretmenlerinin ($\bar{x}=4,0349$) ise en düşük ortalamaya sahip olduğu görülmüştür. Öğretmenlerin program okuryazarlık düzeylerinin branş değişkenine göre farklılaşmasına ilişkin varyans analizi sonucuna göre ortaokul öğretmenlerinin branş değişkenine göre program okuryazarlık düzeyleri arasında anlamlı bir farklılık mevcut değildir ($F_{(6-508)} = 1,383, p > .05$). Okuma alt boyutunda ($F_{(6-508)} = 1,023, p > .05$) ve yazma alt boyutunda ($F_{(6-508)} = 1,540, p > .05$) da branşlar arasında anlamlı bir fark bulunamamıştır.

Araştırmanın üçüncü alt problemini "Öğretmenlerin program okuryazarlığı hakkındaki görüşleri nelerdir?" sorusu oluşturmaktadır. Öğretmenlere "Program okur yazarlığı denilince ne anlıyorsunuz?" diye sorulduğunda öğretmenler en çok ($f=9$) "Anlama, yorumlama ve uygulamayı bilme" şeklinde görüş bildirmişlerdir. "Öğretim programındaki hedef ögesi ile ilgili neler biliyorsunuz?" sorusu sorulduğunda 18 öğretmen hedeflerin "Öğrenciye kazandırılması gereken özellikler" olduğunu belirtmiştir. "Öğretim programındaki içerik ögesi ile ilgili neler biliyorsunuz?" sorusu sorulduğunda 7 öğretmen içeriğin "Ne öğretebilirim sorusunun cevabı" olduğunu belirtmiştir. "Öğretim programındaki eğitim durumları ögesi ile ilgili neler biliyorsunuz?" sorusu sorulduğunda 9 öğretmen eğitim durumlarının "Öğretim yöntem ve tekniklerinden yararlanılması" olduğunu belirtmiştir. "Öğretim programındaki değerlendirme ögesi ile ilgili neler biliyorsunuz?" sorusu sorulduğunda 14 öğretmen değerlendirmenin "Kazanım veya hedeflere ulaşılma düzeyini belirleme" olduğunu belirtmiştir.

Tartışma ve Sonuç

Araştırmanın ilk alt problemi doğrultusunda ortaokul öğretmenlerinin program okuryazarlık düzeyleri incelenmiş, ortaokul öğretmenlerinin program okuryazarlık düzey algılarının yüksek olduğu sonucuna ulaşılmıştır. Araştırmaya katılan ortaokul öğretmenlerinin kendilerini yüksek seviyede eğitim programı okuryazarı olarak gördükleri söylenebilir. Alanyazın incelendiğinde bu sonuca benzer olan çalışmalara rastlanmaktadır (Aslan, 2019; Aslan & Gürten, 2019; Atlı, Kara & Mirzeoğlu, 2021; Aygün, 2019; Bayrı, 2022; Barut & Gündoğdu, 2023; Boncuk, 2021; Çetinkaya & Tabak, 2019; Dağ, 2021; Demir & Toraman, 2021; Erdem & Eğmir, 2018; Gömleksiz & Erdem, 2018; Güneş Şinego & Çakmak, 2021; Kale, 2022; Kana vd., 2018; Sarıca, 2021; Sural & Dedeşali, 2018; Şahin & Aşkın Tekkol; 2023; Yılmaz & Kahramanoğlu, 2021). Ancak alanyazında bulunan bazı çalışmaların sonuçları bu araştırmanın sonuçları ile benzerlik göstermemektedir. Kahramanoğlu (2019) farklı kademedeki çalışan öğretmenlerle yapmış olduğu çalışmasında öğretmenlerin program okuryazarlığı algılarının orta düzeyde olduğu sonucuna varmıştır. Yıldız (2019) ve Kızılaslan Tunçer ve Şahin (2019) öğretmen adayları ile yaptıkları çalışmalarda katılımcıların orta düzeyde program okuryazarı ve bilgi düzeyinde oldukları sonucuna ulaşmışlardır.

Araştırma sonucuna göre, kıdem yılı fark etmeksizin tüm öğretmenlerin yüksek düzeyde program okuryazarı olduğu belirlenmiştir. Bu veriler ışığında kıdem değişkeninin program okuryazarlık düzeyi üzerinde bir etkisinin olmadığı söylenebilir. Alanyazında yapılan çalışmalar incelendiğinde benzer sonuçlara ulaşılmıştır (Aslan & Gürten, 2019; Boncuk, 2021; Demir & Toraman, 2021; Güneş Şinego & Çakmak, 2021; Kahramanoğlu, 2019; Kale, 2022). Yapılan çalışmada toplam ölçek puanlarına bakıldığında en yüksek ortalamaya 21-25 yıllık öğretmenlerin, en düşük ortalamaya ise 15-20 yıllık öğretmenlerin sahip olduğu görülmüştür. Superfine (2008) deneyimli öğretmenlerin kendi deneyimlerine bağlı kaldıklarını ifade etmiştir. Kauffman, Johnson, Kardos, Liu ve Peske (2002) tecrübeli öğretmenlerin eğitim programına olan ihtiyaçlarının azaldığını ortaya koymuşlardır. Bayrı (2022) yaptığı çalışmada özel eğitim öğretmenlerinin mesleki kıdem yılı arttıkça program okuryazarlık durumlarının yükseldiği sonucuna ulaşmıştır.

Araştırmanın sonucuna göre okul türü değişkeninin program okuryazarlık üzerinde etkisinin olmadığı belirlenmiştir. Bu sonuca benzer şekilde Demir ve Toraman (2021) ve Aslan ve Gürten (2019) yaptıkları çalışmada öğretmenlerin mezun oldukları fakülte ile program okuryazarlığı algıları arasında bir farklılık tespit etmemişlerdir. Aslan ve Gürten'in (2019) çalışması farklı bir sonuç ortaya koymuştur. Araştırmacılar toplam PO düzeyinde eğitim fakültesi, fen edebiyat ve diğer okul türünden mezun olanlar arasında fark olmadığını ancak planlama boyutunda diğer fakültelerden mezun olan öğretmenler lehine manidar bir farkın olduğunu saptamışlardır. Gömleksiz ve Erdem (2018) öğretmen adayları ile yürüttüğü çalışmasında eğitim fakültesi öğrencilerin program okuryazarlık düzeyinin formasyon eğitimi programına kayıtlı öğrencilerden anlamlı bir şekilde eğitim fakültesi lehine farklı olduğu sonucuna ulaşmıştır.

Araştırmanın sonucuna göre ortaokul öğretmenlerinin branş değişkenine göre program okuryazarlık düzeyleri arasında anlamlı bir farklılık olmadığı belirlenmiştir. Ortaokul öğretmenlerinin branşlarının program okuryazarlıkları üzerinde bir etkisi yoktur. Alanyazın incelendiğinde bu sonuca benzer olan çalışmalara rastlanmaktadır (Aslan, 2019; Aslan & Gürten, 2019; Boncuk, 2021; Demir & Toraman, 2021; Güneş Şinego & Çakmak, 2021; Kahramanoğlu, 2019; Kale 2022). Yapılan çalışmada, her ne kadar branş bazında öğretmenleri arasında anlamlı bir farklılık olmasa da elde edilen sonuca

göre ölçeğin toplam ortalamalarına bakıldığında Teknoloji tasarım öğretmenlerinin en yüksek ortalamaya, Türkçe öğretmenlerin ise en düşük ortalamaya sahip olduğu görülmüştür. Güneş Şinago ve Çakmak (2021) çalışmalarında branşlar arasında yaptığı sıralamada en yüksek ortalamaya Bilişim Teknolojileri ve Yazılım branşının sahip olduğu sonucuna ulaşmıştır. Kırmızı ve Akkaya (2009) Türkçe öğretmenleri ile yaptıkları çalışmada uygulama boyutu açısından öğretmenlerin kendilerini yeterli görmediklerini belirlemiştir. Kana, Aşçı, Zorlu Kana ve Elkıran (2018) tarafından yürütülen çalışmada, Türkçe öğretmeni adaylarının eğitim programı öğeleri hakkında yeterli bilgiye sahip oldukları sonucuna ulaşmıştır. Benzer şekilde Gömleksiz ve Erdem (2018) yaptıkları çalışmada Türkçe öğretmeni adaylarının program okuryazarlık düzeylerini yüksek olduğu sonucuna ulaşmışlardır.

Araştırmada “Öğretmenlerin program okuryazarlığı hakkındaki görüşleri nelerdir?” şeklinde ifade edilen üçüncü alt problemle ilgili nitel verilerden elde edilen sonuçlar incelenmiştir. Öğretmenlere ilk olarak program okuryazarlığı denildiğinde ne anladıkları sorulmuştur. Öğretmenler genel olarak anlama, yorumlama ve uygulamayı bilme ve program bilgisine sahip olma şeklinde cevap vermişlerdir. Öğretmenlerin program okuryazarlığı kavramına yönelik bilgilerinin yeterli olduğu söylenebilir. Bayrı (2022) yaptığı çalışmada öğretmenlerin eğitim programı kavramına ilişkin bilgilerinin yeterli olduğu sonucuna ulaşmıştır. Aygün (2022) özel eğitim öğretmenlerinin program okuryazarlık kavramı hakkında bilgi düzeylerinin düşük ve orta düzeyde olduğu sonucuna ulaşmıştır. Araştırmada öğretmenlerin eğitim programının öğeleri olan hedef, içerik, eğitim durumları ve değerlendirme kavramları ile ilgili bilgi düzeylerinin genel olarak yeterli olduğu sonucuna ulaşılmıştır.

Yapılan araştırmanın nicel ve nitel verileri incelendiğinde ortaokul öğretmenlerinin ifadelerinde paralellik görülmekte, öğretmenler program okuryazarlığı konusunda kendilerini yeterli olarak ifade etmişlerdir. Bu açıdan bakıldığında araştırmanın nitel sonuçlarının, nicel sonuçları desteklediği görülmektedir.

Öneriler


Bu çalışmada Kayseri ilindeki ortaokul öğretmenlerinin program okuryazarlık düzeyleri incelenmiştir. Benzer çalışmalar farklı okul kademelerinde ve Türkiye'nin farklı bölgelerinde yapılabilir. Program okuryazarlığı, müfredatın uygulanmasının bir yönüdür. Program okuryazarı olan öğretmenler tarafından programın sınıflarda ne ölçüde uygulandığının belirlenmesi için ileri çalışmalar yapılabilir.




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Decision-Making Skill: How to Make Better Decisions?

 Osman Samancı, Prof. Dr.
Atatürk University, Türkiye
osamanci@atauni.edu.tr
Orcid ID: 0000-0003-3620-7604

 Merve Mazlumoğlu, Teacher, Corresponding Author
Provincial Directorate of National Education, Türkiye
mzlmglm@hotmail.com
Orcid ID: 0000-0003-2275-7429

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Abstract

We encounter many situations that require lifelong decision making. Decision making is that the individual prefers the most suitable one from different options. Individuals shape their own future in line with their decisions. Decisions taken not only produce personal results for the individual but also cause social consequences. Therefore, decision making is important in terms of affecting both individual and social life. Decision making is a gradual process that is affected by many individual and environmental factors. It is very important for decision makers to recognize the steps of this process and consider the variables that affect the decision making process. The fact that individuals make forward-looking, positive and personalized decisions is largely related to decision-making processes. The proliferation of options in every field in today's world makes it difficult to make the right decision. Depending on the development and change experienced, individuals need to manage the decision making process well, know what factors have an impact on the decisions, make timely decisions and think rationally about the options. In this study, recent studies that stand out in the literature on decision-making processes and the factors affecting decisions are examined and it is emphasized how more effective and better decisions can be made in this direction.

Keywords: Decision making, decision making process, decision making style, the right decision.

Introduction

Individuals are faced with numerous situations throughout their lives that require decision-making. These decisions can be related to daily desires and needs, as well as social, economic, educational, or political issues. Therefore, to achieve life satisfaction and enhance qualitative changes and development in society's future, every individual needs to make better and more effective decisions. Good decisions can positively impact a person's life while incorrect decisions can lead to undesirable outcomes, which indicates that decision-making is one of the most important life skills for individuals.

Decision-making is a higher-level cognitive attribute as it requires the collaboration of various mental and psychological functions (Küçükay, 2018). In recent years, the importance of the decisions made by individuals has been increasing due to developments and changes. As social life becomes more complex, it expands the options available to individuals in their environment by necessitating effective decision-making for managing individual life (Mazlumoğlu, 2019). In addition, good decisions made by individuals help to reduce their anxiety and facilitate happiness (Çakır, 2004). This further emphasizes the significance of decision-making as an essential aspect of human life.

While making decisions about a specific issue or event may seem easy in daily life, individual or societal variables can influence our decisions. As a result, even when aiming for the same goal, decisions can vary. Sometimes decisions are made after considering multiple possibilities while other times they may be impulsive. Each individual's life is shaped variously in terms of this aspect of decision-making (Mazlumoğlu, 2019).

In general, decision-making is described as the process of gathering the necessary information to solve a problem, generating options, and selecting the most appropriate option among them (Demirbaş-Nemli, 2018). In other words, it involves the individual choosing, implementing, and being able to reevaluate the alternative that will produce the most effective outcome for themselves when needed (Marco, Hartung, Newman, & Parr, 2003). Therefore, decision-making is seen as a process-oriented toward resolving a need or problem rather than a sudden occurrence (Ada, & Baysal, 2012). It

can be seen as a rational and subjective action. Accordingly, the conditions requiring individuals to make decisions can be summarized as follows (Kuzgun, 2000):

- There should be a problem that necessitates decision-making, and the individual should perceive it.
- Different alternatives that can eliminate the problem should exist.
- The individual should have the freedom to choose one of the available options.

After the decision-making process, a judgment or decision is reached, therefore, individuals should first clearly define the problem situations they encounter. This allows for purposeful actions and realistic evaluations of options by enabling individuals to make more effective decisions. Decision-making skill is one of the most crucial life skills individuals need to possess because good decisions allow individuals to obtain a more desirable life. This study examines decision-making processes and factors influencing those processes to explore how individuals can make better decisions. In this regard, the concept of decision-making is examined within the relevant literature and presented in a general framework. Thus, the aim is to facilitate more effective decision-making for individuals and address how to make more appropriate decisions, which constitutes the main problem of the study.

The Decision-Making Process

Decision-making refers to the cognitive process individuals undergo to determine the most suitable option among alternatives aligned with their goals (Kardaş, 2013). This indicates that decision-making is not merely a choice but rather a process that involves exploring and generating relevant options and selecting them for use at the right time (Uçar, 2019). Therefore, it is crucial for decision-makers to understand the characteristics of the decision-making process and how it unfolds. It is emphasized that individuals should focus more on the process of decision-making rather than the decisions to make good and reliable decisions (Dawson, 1995). The characteristics of the decision-making process can be expressed as follows (Acıbozlar, 2006):

The decision-making process:

- Is rational.
- Requires costs.
- Can be planned and executed.
- Involves risks.
- Establishes a connection between the past and the future.
- Includes problem-solving.
- Is influenced by the environment.

When examining research on the decision-making process, it can be seen that different classifications are mentioned. However, despite the various classifications made regarding the decision-making process, it can be revealed that this process generally consists of common stages. The decision-making process, in its most general form, includes the following common stages (Kuzgun, 2006):

- Perception of the problem.
- Definition of the problem.

- Generation of alternatives.
- Gathering information about the alternatives.
- Evaluation of the obtained information in terms of meeting desires.
- Determination of the appropriate option for the individual.
- Implementation of the plan.
- Evaluation of the outcome.

Individuals act to meet both internal and external expectations during the decision-making process. Therefore, the effective use of personal and environmental resources is necessary (Marco, Hartung, Newman, & Parr, 2003). Additionally, it is crucial to have a general understanding of the stages of the decision-making process (Çimşir, 2019).

Components of Decision-Making

Although each decision-making action has its unique concepts and qualities, the fundamental components of decision-making are generally expressed as follows (Güngör, & Uzcan, 2022):

- **Decision maker:** The individual or individuals who select among alternatives and assume responsibility for the outcomes.
- **Goal:** One of the critical components that shape the decision-making problem. Individuals make decisions with a specific goal in mind.
- **Criteria:** Determining the criteria allows decision-makers to evaluate alternatives accurately.
- **Alternatives:** At least two alternatives are required for the emergence of a decision-making problem. Alternatives represent the approach, attitude, and objects of the decision-maker.
- **Decision matrix:** Matrices that represent the combination of criteria and alternatives.
- **Environmental factors:** Uncontrollable situations that are expected to arise in the future but with uncertain outcomes.
- **Probabilities:** Decision-making involves uncertainty as it is oriented toward the future. Therefore, predictions about the future can be made by utilizing data from the past. These are reflected as probabilities in the decision-making process.
- **Outcomes:** Values related to the selection of a specific alternative and the emergence of criteria.
- **Decision:** The output of the decision-making process.

Factors Influencing the Decision-Making Process

Our decisions can vary in terms of individual or environmental reasons. With this in mind, although decision-making is defined as a rational choice process, it is observed that certain factors beyond rational considerations affect the decision-making process (Sağır, 2006). Therefore, it is essential to know those factors to make good decisions (Çolakkadioğlu, 2010). Factors influencing the decision-making process can be discussed under two headings:

Individual Factors: While diverse variables have impacts on our decisions, the characteristics of the decision-maker are also crucial in this process. Psychological characteristics, personality traits,

values, perceptions, risk-taking tendencies, age, gender, and decision-making style (Demirbaş-Nemli, 2018) of the decision-maker can directly or indirectly influence decisions. In addition, individuals' emotional state, shyness or excitement, feelings of inexperience, lack of self-confidence, and reliance on negative thoughts can also change the direction of decisions (Kuzgun, 2006). Furthermore, the influence of certain skills that individuals possess on decisions can be mentioned. To illustrate, it is stated that having self-regulation skills positively affects decision-making styles and processes (Mazlumoğlu, 2019). Similarly, a study emphasizes that problem-solving skills contribute to making better decisions (Develioğlu, 2006).

Environmental Factors: Besides personal factors, it is crucial to know what environmental factors are in the decision-making process. Accordingly, the characteristics of the society one lives in, socioeconomic opportunities, and technological developments are regarded as impacts on decisions (Atsan, 2017). Additionally, it is emphasized that individuals feeling responsible toward family members and close circles also influence decisions (Kardaş, 2013). According to researchers, time is another environmental factor that affects our decisions. Lack of time to evaluate alternatives adequately may lead to inefficient decision-making (Can, 2009).

Characteristics of a Good Decision

It is essential for individuals to make correct, effective, and reliable decisions both personally and socially. Therefore, the best option should be chosen in the decision-making process. It can be stated that a decision can be described as "good" based on the problem, existing conditions, environmental characteristics, and satisfaction with the outcome. When examining the literature, it is emphasized that a decision needs certain characteristics to be considered "good." In this regard, the characteristics of a good decision can be expressed as follows (İmrek, 2003):

- Effectiveness: For a decision to be considered good, it should be oriented towards solving the problem and eliminating it.
- Quality: Implementable decisions provide a solution to the problem.
- Efficiency: Our decisions incur costs, but a good decision does not exceed the expected cost.
- Widespread acceptance: A good decision is more accepted by group members.
- Timeliness: Making a decision ahead of time can lead to missed opportunities while decisions made after the appropriate time may lose their validity.
- Considered good and accepted by the individual's judgments: A good decision should be accepted by the decision-maker. This is important in terms of the feasibility of the decision.

All in all, good decisions can be described as decisions that lead to desired outcomes. Therefore, for individuals to have more qualitative decisions, they need to consider different factors and make decisions accordingly. Knowing how a good decision should be can benefit the management of the decision-making process and the more rational evaluation of outcomes.

Decision-Making Styles

Many situations in daily life require decision-making. Each individual tends to make the best decision for themselves in matters such as school choice, career preferences, or the kind of life they want to lead. Although the options encountered throughout life and the uncertainties to be resolved may be

similar, individuals' decisions can vary. One of the most important reasons for this variety is related to decision-making styles associated with personal characteristics. The decision-making styles refer to the reactions or actions displayed by individuals in situations where they need to make decisions (Phillips, Paziienza, & Ferrin, 1984). At this point, five different decision-making styles are mentioned (Scott, & Bruce, 1995).

- Rational decision-making style: Individuals with this style conduct research and investigations regarding the subject they want to decide about. By doing so, they carefully determine what is most appropriate for them.
- Intuitive decision-making: Intuitive decision-makers make decisions based on their feelings. Depending on their intuition, they can make decisions quickly.
- Dependent decision-making: Individuals who make dependent decisions make decisions based on the reference and guidance of others. These individuals often delegate the responsibility for their decisions to others.
- Avoidant decision-making: Individuals with this style are generally inclined to avoid making decisions and taking responsibility for their decisions.
- Spontaneous decision-making: Spontaneous decision-makers act according to the circumstances they are in, and therefore, their decisions emerge spontaneously.

Considering the influence of decision styles on our decisions, it can be stated that how individuals behave in a situation where a decision needs to be made is crucial. It is certain that considering the positive and negative aspects of the situation to be decided, having sufficient knowledge about the subject, and evaluating the potential outcomes more realistically will help individuals make better decisions. In other words, decision-makers can act more solution-oriented and conclude the decision-making process as desired by combining rational behaviors.

Although decision styles are among the fundamental reasons for individuals encountering different outcomes despite the similarity of situations requiring decisions throughout life, it can be thought that individuals who cannot prioritize their expectations over the desires of others and cannot control their emotions and instant reactions may experience negative consequences in their decisions. However, it is important to note that reaching a decision, even if the result is not desired, is necessary. In this way, individuals can make plans or make certain adjustments. It is believed that this situation, by allowing the decision process to be reviewed, contributes to improving the outcomes of decisions. On the other hand, the individual's procrastination in decision-making, indecisiveness, or failure to take responsibility for their decisions can cause both individual and societal problems.

Decision-Making Theories

Different theories have been developed to explain the decision-making action and process in the related literature. They can generally be analyzed into three main categories (Doğan, 2010). Intuitive Decision-Making Theories argue that decision-makers make their decisions quickly based on intuition, experience, and emotions, without relying on any evidence or criteria. Rational Decision-Making Theories, on the other hand, focus on scientific and analytical methods, determining calculations, assumptions, data, and judgments based on objectivity that require the most appropriate decision-making. Multi-Criteria Decision-Making Theories, which have been considered more in recent years, are

highly effective in situations where a choice (evaluation, prioritization, preference, etc.) needs to be made among multiple available options by combining the best aspects of the two former theories.

Effective Decision- Making

The quality of our decisions is crucial for shaping our lives. In fact, the decisions we made in the past determine the course of our present lives. Therefore, it is important to know what can be done to make effective decisions. According to Hammond, Keeney, and Raiffa (1999), in order to increase the likelihood of making good decisions, the decision-making process needs to be effectively managed. Accordingly, here are the things that a competent decision-maker should do:

- **Avoid procrastination in decision-making:** Individuals should search for what they need to decide and make decisions without procrastination to avoid time pressure.
- **Focus on important points:** It is necessary for individuals to identify the points that are important to them in the decision-making process to determine the aspects they should pay attention to.
- **Develop alternative plans:** Individuals should be flexible in the decision-making process. They should remain open to new developments as the problem definition may change during the process.
- **Avoid complexity:** When making decisions on complex issues, individuals need to move from generalities to more specific situations in order to make decisions.
- **Avoid getting stuck:** In situations where individuals struggle to make decisions, they need to find someone to talk to about the problem or to identify the reasons for their uncertainty.
- **Avoid perfectionism:** Trying to find a perfect alternative that will produce the best outcome can delay decision-making. This is one of the main reasons why decision-making becomes difficult.
- **Seek advice:** Individuals can seek advice from experts in the relevant field or from more experienced individuals when making decisions. By analyzing the opinions of others, they can make the most suitable decision for themselves.
- **Improve decision-making style:** Having an efficient and effective decision-making style is crucial in managing the decision process effectively. Therefore, individuals should constantly strive to improve their decision-making style.

The desire to make the most appropriate decision in every aspect demonstrates the importance of effective decision-making. Therefore, decision-makers need to clearly identify the problem and manage their time effectively throughout the process. It can also be stated that individuals who want to make effective decisions should first have self-confidence and avoid procrastination in decision-making.

Considering the contribution of effective decisions to human life, it can be seen that decision-makers have an important role in both individual and societal futures. Based on this point, it is necessary to know how to make better decisions from an early age. Therefore, it can be emphasized that it is crucial for individuals to improve themselves in order to become effective decision-makers.

The Role of Decision-Making in Education

Decision-making is one of the most crucial life skills for individuals. The existence of positive or negative outcomes resulting from decisions made on various concerns throughout life, and the ability of individuals to achieve their goals and objectives through making correct decisions, demonstrate the importance of decision-making skills. Hence, it is stated that individuals can make better decisions with the acquisition of decision-making skills from early childhood education to university (Yağcı, 2022).

The decision-making skill, which affects an individual's lifestyle, represents personal abilities. Being proficient in decision-making requires the cognitive and psychological consideration of individual competence, self-esteem, and problem-solving skills. Therefore, decision-making skill education should be present at all levels of education (Çolakkadıoğlu, & Güçray, 2012). Similarly, Yalın, and Oğuz (2022) emphasize that the acquisition of effective decision-making skills by individuals is a matter of responsibility for education. In this regard, the review of the literature indicates that decision-making skill education contributes to individuals' acquisition of decision-making skills (Çolakkadıoğlu, & Güçray, 2012; Şeyhun, 2000).

Decision-making has been included in the curriculum of the Ministry of National Education [MoNE] since 2005 and has been retained in the life skills content of the Ministry of National Education curriculum without any changes in the later curricula revealed in 2013 and 2018 (Yağcı, 2022). When examining the Ministry of National Education curriculum, it can be seen that decision-making skill is addressed in terms of determining the issue to be decided, generating decision options, predicting the outcomes of possible decisions, identifying data, making the most accurate decision, implementing decisions, and taking responsibility for the decisions made (Baysal, 2015).

Schools play a significant role in the upbringing of individuals according to the characteristics of the era they live in. Therefore, decision-making skills should be included in the content of the curriculum from the early years of education. It is believed that individuals who can make their own decisions, adapt to changes, and achieve their goals will be raised as a result.

Method

This study, which focuses on decision-making skills, has a review design. Review articles organize studies conducted on a specific topic or field within the framework of the author's research approach. The aim of review studies is to summarize the approaches and ideas of other researchers regarding the research topic at hand and create a synthesis (Herdman, 2006). In this study, the aim was to conduct a review study by examining recent studies highlighted in the literature regarding decision-making skills. National and international literature was searched, and the concept of decision-making and the factors that can help individuals make better decisions were compiled.

Ethical Permits of Research

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

Ethics Committee Permission Information:

This study is within the scope of activities that do not require ethical permission.

Discussion and Conclusion

This study, which examines the scope of decision-making and how effective decisions can be made, aims to create a general framework for decision-making. Individuals try to determine what is best for them when faced with uncertain situations or problems throughout their lives. Accordingly, decision-making is defined as the selection of one option among different alternatives in its most general form. The quality of the decisions made is among the determinants of how one's life will be conducted, which makes decision-making one of the most important life skills.

Evaluating decision-making as a process and managing it correctly is crucial for making rational and effective decisions. In this regard, when facing a decision-making situation, it is essential to first determine the nature of the problem and identify appropriate alternatives to solve it. However, it should not be forgotten that this process can be influenced by various factors. Therefore, individuals who aim to be successful in decision-making need to consider those factors that can negatively impact their decisions and adopt an attitude of improving their decision-making skills. In this regard, the related literature emphasizes that making decisions under stress or panic can have a negative impact on effective decision-making (Ateş, 2008; Öztapak, 2013). Sheppard, and Levy (2019) also state that emotions play an important role in the decision-making process and can influence it.

For decision-making problems, the application of decision analysis, which is defined as quantitative and qualitative approaches that provide finding the best solution within a logical framework, is also crucial for decision-makers. According to decision analysis, a good decision should be effective, efficient, rational, feasible, and timely (Lezki et al., 2016). Thus, it is believed that individuals can encounter more desirable situations and that leads to successful lives.

Another point to be considered in the decision-making process is decision-making styles which represent the behavioral patterns of individuals in situations requiring decision-making and are among the reasons for the differentiation of our decisions. In this regard, individuals who aim to make qualified decisions should make rational assessments and take responsibility for their decisions, which will positively influence the decision-making process. While doing so, the use of decision-making methods that ensure the adoption of rational decisions by taking into account all variables and criteria constitutes an important potential (Güngör, & Özcan, 2022). On the other hand, acting hastily or being under time constraints while making decisions can have negative effects, especially on important decisions. Therefore, research suggests that individuals should avoid the strategy of indecisiveness. Indecisiveness damages individuals' self-confidence and puts them in a passive position in society (Alver, 2003; Bacanlı, 2000). Additionally, instead of expecting predetermined rules and stages to yield effective results in the decision-making process for every situation, individuals should be ready for each situation and be able to update their approach if necessary (Tozlu, 2016). Based on the general framework of the concept of decision-making, it is evident that making good decisions, both in simple and routine matters and in important situations, contributes to a fulfilling life. Therefore, individuals should be aware of the stages they go through in order to make effective decisions. Besides, decision-makers need to behave rationally, evaluate the positive and negative aspects of events, obtain the outcomes of their decisions, and manage their time effectively. Thus, they can take the right steps towards the future and obtain a happier and more meaningful life.

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Karar Verme Becerisi: Nasıl Daha İyi Karar Verilir?

Giriş

Bireyler, yaşamları boyunca karar vermesi gereken pek çok durumla karşı karşıya kalırlar. Bu kararlar günlük istek ve ihtiyaçların karşılanmasına yönelik olabileceği gibi toplumsal, ekonomik, eğitsel ya da siyasal konulara ilişkin de olabilir. Dolayısıyla yaşam doyumunun sağlanması, toplumsal gelecekte nitelikli değişim ve gelişimin gerçekleşebilmesi için her bireyin daha iyi ve etkili karar vermesi gerekir. İyi kararlar, kişilerin yaşamını olumlu yönde etkilerken yanlış alınan kararlar istenmedik sonuçları da beraberinde getirebilir. Bu durum karar vermenin bireyin en önemli yaşam becerilerinden biri olduğunu göstermektedir.

Son yıllarda yaşanan gelişim ve değişimlerle birlikte bireylerin verdiği kararların önemi giderek artmaktadır. Çünkü daha karmaşık hale gelen toplumsal yaşam, bireyin yaşadığı çevredeki seçenekleri çoğaltmakta ve bireysel yaşamın yönetilebilmesi için iyi karar vermeyi gerekli kılmaktadır. Günlük yaşamda bir konuya ya da olaya ilişkin karar vermek her ne kadar kolay gözükse de kararlarımız üzerinde bireysel veya toplumsal pek çok değişken de etkili olabilir. Böylelikle aynı amaca yönelik olsa dahi alınan kararlar farklılaşabilir. Kimi zaman birçok olasılık değerlendirilerek karar verilirken kimi zaman aceleci davranılabilir. Karar verme konusunda yaşanan bu duruma bağlı olarak her bireyin yaşamı farklı şekillenir (Mazlumoğlu, 2019). Bu durum karar verme eyleminin insanlar için oldukça önemli olduğunun bir diğer göstergesidir.

Karar verme, bireyin kendisi için en etkili sonucu ortaya çıkaracak alternatifi seçmesi, uygulaması ve ihtiyaç duyduğunda yeniden seçim yapabilmesidir (Marco, Hartung, Newman, & Parr, 2003). Dolayısıyla karar vermenin aniden ortaya çıkan bir durum değil ihtiyaç ya da problemin çözümüne yönelik bir sürece sahip olduğu görülmektedir (Ada, & Baysal, 2012). Bu bağlamda bireylerin karar verme sürecinin özelliklerini ve bu süreci etkileyen faktörleri bilmesi gerekmektedir.

Karar verme süreci birçok bireysel ve çevresel faktöre göre değişiklik göstermektedir. Günlük yaşamda benzer durumlara ilişkin alınan kararlardaki farklılık, karar sürecini etkileyen faktörlerle ilgilidir. Özellikle bireyin kişisel özellikleri ile ilgili olan karar verme stilleri karar vermede oldukça önemlidir. Çünkü karar verme stili, bireyin karar verme sürecinde sergilediği yaklaşım, tepki veya eylemleri ifade etmektedir (Phillips, Paziienzae, & Ferrin, 1984). Bu doğrultuda rasyonel, sezgisel, bağımlı, kaçınan ve kendiliğinden olmak üzere beş farklı karar verme stilinden söz edilmektedir (Scott, & Bruce, 1995). Karar verme sürecinde bireyin hangi karar stiliyle hareket ettiği kararlarının niteliğini de etkileyecektir. Bununla birlikte karar verirken nasıl daha iyi karar verileceğinin bilinmesinin karar sürecini yönetmeye ve daha rasyonel sonuçlar elde etmeye yardımcı olacağı söylenebilir.

Karar verme eylemi sonucunda bir yargıya yani karara varıldığından bireylerin öncelikle karşılaştıkları problem durumlarını açık ve net bir şekilde belirlemeleri gerekmektedir. Bu durum amaca yönelik hareket edilmesini ve seçeneklerin gerçekçi bir şekilde değerlendirilmesini sağlayacağından bireylerin daha etkili kararlar verebileceği söylenebilir. Karar verme becerisi bireylerin sahip olması gereken en önemli yaşam becerilerinden biridir. Çünkü iyi kararlar sayesinde bireyler daha istedik bir yaşam sürebilir.

Bu çalışmada, karar verme süreçleri ile karar vermeyi etkileyen faktörler incelenerek bireylerin nasıl daha iyi kararlar alabileceği üzerinde durulmuştur. Bu doğrultuda karar verme kavramı ilgili alanyazın kapsamında incelenmiş ve genel bir çerçevede değerlendirilerek sunulmuştur. Böylelikle bireylerin daha etkili kararlar alabilmesine fayda sağlanması amaçlanmış ve nasıl daha uygun kararlar alınabileceği çalışmanın ana problemini oluşturmuştur.

Yöntem

Karar verme becerisinin ele alındığı bu çalışma derleme türündedir. Derleme makaleler, belirli bir konu veya alana yönelik yapılan çalışmaların yazarın kendi araştırma yaklaşımı çerçevesinde düzenlenmesidir. Derleme çalışmalarındaki amaç ele alınan konu hakkında diğer araştırmacıların yaklaşım ve fikirlerini özetlemek ve bir sentez oluşturabilmektir (Herdman, 2006). Bu çalışmada da karar verme becerisi üzerine alanyazında öne çıkan yakın tarihli araştırmalar incelenerek bir derleme çalışması yapılması amaçlanmıştır. Araştırmada ulusal ve uluslararası alanyazın taranarak karar verme kavramı ve bireylerin nasıl daha iyi karar verebileceği konusunda etkili olan unsurlar derlenmeye çalışılmıştır.

Tartışma ve Sonuç

Karar vermenin kapsamının ve nasıl etkili kararlar alınabileceğinin incelendiği bu çalışmada karar vermeye dair genel bir çerçeve oluşturulmaya çalışılmıştır. Bireyler yaşam boyu karşılaştığı belirsizlik durumları ya da problemler karşısında kendileri için en doğru olanı belirlemeye çalışmaktadır. Buna göre karar verme en genel haliyle farklı seçeneklerden birinin tercih edilmesi olarak tanımlanmaktadır. Alınan kararların niteliği nasıl bir yaşam sürdürüleceğinin belirleyicileri arasındadır. Bu durum karar vermeyi en önemli yaşam becerilerinden biri kılmaktadır.

Akılcı ve etkili kararlar alınabilmesi için karar vermenin bir süreç olarak değerlendirilmesi ve bu sürecin doğru bir biçimde yönetilmesi oldukça önemlidir. Bu anlamda karar vermeyi gerektiren durumlarda öncelikle problemin ne olduğunun belirlenmesi ve buna uygun seçeneklerin ortaya konması gerekmektedir. Ancak bu sürecin pek çok faktörden etkilenebileceği de unutulmamalıdır. Dolayısıyla karar verme konusunda başarılı olmak isteyen bireylerin kararları üzerinde olumsuz etki

yaratabilecek faktörleri göz önünde bulundurması ve karar verme becerilerini geliştirmeye yönelik bir tutum sergilemesi gerekmektedir. Bu bağlamda ilgili alanyazın incelendiğinde özellikle bireyin stres altında ya da panik halde karar vermesinin etkili karar vermeyi olumsuz yönde etkileyeceğinin altı çizildiği görülmektedir (Ateş, 2008; Öztapak, 2013). Sheppard ve Levy (2019) de duyguların karar verme sürecinde önemli rol oynadığını ve duyguların karar verme sürecini etkilediğini ifade etmiştir.

Karar verme problemlerinde, mantık çerçevesi içinde en iyi çözümü bulmayı sağlayan nicel ve nitel yaklaşımlar olarak tanımlanan karar analizlerinin uygulanması da karar vericiler için oldukça önemlidir. Çünkü karar analizlerine göre iyi bir karar, etkili, verimli, rasyonel, uygulanabilir ve zamanında alınmış olmalıdır. (Lezki vd., 2016). Böylelikle bireyin, daha istendik durumlarla karşılaşılabilceği ve başarılı bir hayat sürdürebileceği düşünülmektedir.


Karar verme sürecinde ele alınması gereken bir diğer nokta karar verme stilleridir. Bireyin karar vermesi gereken durumlardaki davranış örüntülerini ifade eden karar stilleri kararlarımızın farklılaşmasının sebeplerindedir. Buna göre nitelikli karar vermek isteyen kişilerin akılcı değerlendirmeler yaparak, kararlarının sorumluluğunu almaları karar sürecini olumlu yönde etkileyecektir. Bu bağlamda, bütün değişken ve ölçütler dikkate alınarak rasyonel kararların alınmasını sağlayan karar verme yöntemlerinin kullanımı önemli bir potansiyel oluşturmaktadır (Güngör, & Özcan, 2022). Öte yandan karar verirken aceleci davranmak ya da zaman baskısı altında kalmak özellikle önemli kararlar üzerinde olumsuz etkiler oluşturabilir. Bu bağlamda yapılan araştırmalar değerlendirildiğinde bireylerin özellikle kararsızlık stratejisini tercih etmemesi gerektiği üzerinde durmaktadır. Çünkü kararsızlık, bireylerin özgüvenlerine zarar vererek kişiyi toplumda pasif bir konuma sürüklemektedir (Alver, 2003; Bacanlı, 2000). Bununla birlikte her durum için önceden belirlenmiş kural ve aşamaların karar verme sürecinde etkili sonuç vermesini beklemek yerine, her duruma hazırlıklı olunmalı, gerektiğinde çözüm yaklaşımı güncellenebilmelidir (Tozlu, 2016). Karar verme kavramının genel çerçevesinden hareketle, gerek basit ve rutin konularda gerekse önemli durumlarda alınan kararların iyi bir hayat sürdürülmesine katkı sağlayacağı açıktır. Dolayısıyla bireyler etkili kararlar verebilmek için hangi aşamalardan geçerek karar verdiklerini bilmelidirler. Bu durumun yanı sıra karar vericilerin rasyonel davranabilmeleri, olayların olumlu ve olumsuz yönlerini değerlendirebilmeleri, kararlarının sonuçlarını alabilmeleri ve zamanı iyi yönetebilmeleri gerekmektedir. Böylelikle geleceğe yönelik doğru adımlar atılarak daha mutlu ve anlamlı bir yaşam sürdürülebilecektir.




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Decision-Making Skill: How to Make Better Decisions?

 Osman Samancı, Prof. Dr.
Atatürk University, Türkiye
osamanci@atauni.edu.tr
Orcid ID: 0000-0003-3620-7604

 Merve Mazlumoğlu, Teacher, Corresponding Author
Provincial Directorate of National Education, Türkiye
mzlmglm@hotmail.com
Orcid ID: 0000-0003-2275-7429

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Abstract

We encounter many situations that require lifelong decision making. Decision making is that the individual prefers the most suitable one from different options. Individuals shape their own future in line with their decisions. Decisions taken not only produce personal results for the individual but also cause social consequences. Therefore, decision making is important in terms of affecting both individual and social life. Decision making is a gradual process that is affected by many individual and environmental factors. It is very important for decision makers to recognize the steps of this process and consider the variables that affect the decision making process. The fact that individuals make forward-looking, positive and personalized decisions is largely related to decision-making processes. The proliferation of options in every field in today's world makes it difficult to make the right decision. Depending on the development and change experienced, individuals need to manage the decision making process well, know what factors have an impact on the decisions, make timely decisions and think rationally about the options. In this study, recent studies that stand out in the literature on decision-making processes and the factors affecting decisions are examined and it is emphasized how more effective and better decisions can be made in this direction.

Keywords: Decision making, decision making process, decision making style, the right decision.

Introduction

Individuals are faced with numerous situations throughout their lives that require decision-making. These decisions can be related to daily desires and needs, as well as social, economic, educational, or political issues. Therefore, to achieve life satisfaction and enhance qualitative changes and development in society's future, every individual needs to make better and more effective decisions. Good decisions can positively impact a person's life while incorrect decisions can lead to undesirable outcomes, which indicates that decision-making is one of the most important life skills for individuals.

Decision-making is a higher-level cognitive attribute as it requires the collaboration of various mental and psychological functions (Küçükay, 2018). In recent years, the importance of the decisions made by individuals has been increasing due to developments and changes. As social life becomes more complex, it expands the options available to individuals in their environment by necessitating effective decision-making for managing individual life (Mazlumoğlu, 2019). In addition, good decisions made by individuals help to reduce their anxiety and facilitate happiness (Çakır, 2004). This further emphasizes the significance of decision-making as an essential aspect of human life.

While making decisions about a specific issue or event may seem easy in daily life, individual or societal variables can influence our decisions. As a result, even when aiming for the same goal, decisions can vary. Sometimes decisions are made after considering multiple possibilities while other times they may be impulsive. Each individual's life is shaped variously in terms of this aspect of decision-making (Mazlumoğlu, 2019).

In general, decision-making is described as the process of gathering the necessary information to solve a problem, generating options, and selecting the most appropriate option among them (Demirbaş-Nemli, 2018). In other words, it involves the individual choosing, implementing, and being able to reevaluate the alternative that will produce the most effective outcome for themselves when needed (Marco, Hartung, Newman, & Parr, 2003). Therefore, decision-making is seen as a process-oriented toward resolving a need or problem rather than a sudden occurrence (Ada, & Baysal, 2012). It

can be seen as a rational and subjective action. Accordingly, the conditions requiring individuals to make decisions can be summarized as follows (Kuzgun, 2000):

- There should be a problem that necessitates decision-making, and the individual should perceive it.
- Different alternatives that can eliminate the problem should exist.
- The individual should have the freedom to choose one of the available options.

After the decision-making process, a judgment or decision is reached, therefore, individuals should first clearly define the problem situations they encounter. This allows for purposeful actions and realistic evaluations of options by enabling individuals to make more effective decisions. Decision-making skill is one of the most crucial life skills individuals need to possess because good decisions allow individuals to obtain a more desirable life. This study examines decision-making processes and factors influencing those processes to explore how individuals can make better decisions. In this regard, the concept of decision-making is examined within the relevant literature and presented in a general framework. Thus, the aim is to facilitate more effective decision-making for individuals and address how to make more appropriate decisions, which constitutes the main problem of the study.

The Decision-Making Process

Decision-making refers to the cognitive process individuals undergo to determine the most suitable option among alternatives aligned with their goals (Kardaş, 2013). This indicates that decision-making is not merely a choice but rather a process that involves exploring and generating relevant options and selecting them for use at the right time (Uçar, 2019). Therefore, it is crucial for decision-makers to understand the characteristics of the decision-making process and how it unfolds. It is emphasized that individuals should focus more on the process of decision-making rather than the decisions to make good and reliable decisions (Dawson, 1995). The characteristics of the decision-making process can be expressed as follows (Acıbozlar, 2006):

The decision-making process:

- Is rational.
- Requires costs.
- Can be planned and executed.
- Involves risks.
- Establishes a connection between the past and the future.
- Includes problem-solving.
- Is influenced by the environment.

When examining research on the decision-making process, it can be seen that different classifications are mentioned. However, despite the various classifications made regarding the decision-making process, it can be revealed that this process generally consists of common stages. The decision-making process, in its most general form, includes the following common stages (Kuzgun, 2006):

- Perception of the problem.
- Definition of the problem.

- Generation of alternatives.
- Gathering information about the alternatives.
- Evaluation of the obtained information in terms of meeting desires.
- Determination of the appropriate option for the individual.
- Implementation of the plan.
- Evaluation of the outcome.

Individuals act to meet both internal and external expectations during the decision-making process. Therefore, the effective use of personal and environmental resources is necessary (Marco, Hartung, Newman, & Parr, 2003). Additionally, it is crucial to have a general understanding of the stages of the decision-making process (Çimşir, 2019).

Components of Decision-Making

Although each decision-making action has its unique concepts and qualities, the fundamental components of decision-making are generally expressed as follows (Güngör, & Uzcan, 2022):

- **Decision maker:** The individual or individuals who select among alternatives and assume responsibility for the outcomes.
- **Goal:** One of the critical components that shape the decision-making problem. Individuals make decisions with a specific goal in mind.
- **Criteria:** Determining the criteria allows decision-makers to evaluate alternatives accurately.
- **Alternatives:** At least two alternatives are required for the emergence of a decision-making problem. Alternatives represent the approach, attitude, and objects of the decision-maker.
- **Decision matrix:** Matrices that represent the combination of criteria and alternatives.
- **Environmental factors:** Uncontrollable situations that are expected to arise in the future but with uncertain outcomes.
- **Probabilities:** Decision-making involves uncertainty as it is oriented toward the future. Therefore, predictions about the future can be made by utilizing data from the past. These are reflected as probabilities in the decision-making process.
- **Outcomes:** Values related to the selection of a specific alternative and the emergence of criteria.
- **Decision:** The output of the decision-making process.

Factors Influencing the Decision-Making Process

Our decisions can vary in terms of individual or environmental reasons. With this in mind, although decision-making is defined as a rational choice process, it is observed that certain factors beyond rational considerations affect the decision-making process (Sağır, 2006). Therefore, it is essential to know those factors to make good decisions (Çolakkadioğlu, 2010). Factors influencing the decision-making process can be discussed under two headings:

Individual Factors: While diverse variables have impacts on our decisions, the characteristics of the decision-maker are also crucial in this process. Psychological characteristics, personality traits,

values, perceptions, risk-taking tendencies, age, gender, and decision-making style (Demirbaş-Nemli, 2018) of the decision-maker can directly or indirectly influence decisions. In addition, individuals' emotional state, shyness or excitement, feelings of inexperience, lack of self-confidence, and reliance on negative thoughts can also change the direction of decisions (Kuzgun, 2006). Furthermore, the influence of certain skills that individuals possess on decisions can be mentioned. To illustrate, it is stated that having self-regulation skills positively affects decision-making styles and processes (Mazlumoğlu, 2019). Similarly, a study emphasizes that problem-solving skills contribute to making better decisions (Develioğlu, 2006).

Environmental Factors: Besides personal factors, it is crucial to know what environmental factors are in the decision-making process. Accordingly, the characteristics of the society one lives in, socioeconomic opportunities, and technological developments are regarded as impacts on decisions (Atsan, 2017). Additionally, it is emphasized that individuals feeling responsible toward family members and close circles also influence decisions (Kardaş, 2013). According to researchers, time is another environmental factor that affects our decisions. Lack of time to evaluate alternatives adequately may lead to inefficient decision-making (Can, 2009).

Characteristics of a Good Decision

It is essential for individuals to make correct, effective, and reliable decisions both personally and socially. Therefore, the best option should be chosen in the decision-making process. It can be stated that a decision can be described as "good" based on the problem, existing conditions, environmental characteristics, and satisfaction with the outcome. When examining the literature, it is emphasized that a decision needs certain characteristics to be considered "good." In this regard, the characteristics of a good decision can be expressed as follows (İmrek, 2003):

- Effectiveness: For a decision to be considered good, it should be oriented towards solving the problem and eliminating it.
- Quality: Implementable decisions provide a solution to the problem.
- Efficiency: Our decisions incur costs, but a good decision does not exceed the expected cost.
- Widespread acceptance: A good decision is more accepted by group members.
- Timeliness: Making a decision ahead of time can lead to missed opportunities while decisions made after the appropriate time may lose their validity.
- Considered good and accepted by the individual's judgments: A good decision should be accepted by the decision-maker. This is important in terms of the feasibility of the decision.

All in all, good decisions can be described as decisions that lead to desired outcomes. Therefore, for individuals to have more qualitative decisions, they need to consider different factors and make decisions accordingly. Knowing how a good decision should be can benefit the management of the decision-making process and the more rational evaluation of outcomes.

Decision-Making Styles

Many situations in daily life require decision-making. Each individual tends to make the best decision for themselves in matters such as school choice, career preferences, or the kind of life they want to lead. Although the options encountered throughout life and the uncertainties to be resolved may be

similar, individuals' decisions can vary. One of the most important reasons for this variety is related to decision-making styles associated with personal characteristics. The decision-making styles refer to the reactions or actions displayed by individuals in situations where they need to make decisions (Phillips, Paziienza, & Ferrin, 1984). At this point, five different decision-making styles are mentioned (Scott, & Bruce, 1995).

- Rational decision-making style: Individuals with this style conduct research and investigations regarding the subject they want to decide about. By doing so, they carefully determine what is most appropriate for them.
- Intuitive decision-making: Intuitive decision-makers make decisions based on their feelings. Depending on their intuition, they can make decisions quickly.
- Dependent decision-making: Individuals who make dependent decisions make decisions based on the reference and guidance of others. These individuals often delegate the responsibility for their decisions to others.
- Avoidant decision-making: Individuals with this style are generally inclined to avoid making decisions and taking responsibility for their decisions.
- Spontaneous decision-making: Spontaneous decision-makers act according to the circumstances they are in, and therefore, their decisions emerge spontaneously.

Considering the influence of decision styles on our decisions, it can be stated that how individuals behave in a situation where a decision needs to be made is crucial. It is certain that considering the positive and negative aspects of the situation to be decided, having sufficient knowledge about the subject, and evaluating the potential outcomes more realistically will help individuals make better decisions. In other words, decision-makers can act more solution-oriented and conclude the decision-making process as desired by combining rational behaviors.

Although decision styles are among the fundamental reasons for individuals encountering different outcomes despite the similarity of situations requiring decisions throughout life, it can be thought that individuals who cannot prioritize their expectations over the desires of others and cannot control their emotions and instant reactions may experience negative consequences in their decisions. However, it is important to note that reaching a decision, even if the result is not desired, is necessary. In this way, individuals can make plans or make certain adjustments. It is believed that this situation, by allowing the decision process to be reviewed, contributes to improving the outcomes of decisions. On the other hand, the individual's procrastination in decision-making, indecisiveness, or failure to take responsibility for their decisions can cause both individual and societal problems.

Decision-Making Theories

Different theories have been developed to explain the decision-making action and process in the related literature. They can generally be analyzed into three main categories (Doğan, 2010). Intuitive Decision-Making Theories argue that decision-makers make their decisions quickly based on intuition, experience, and emotions, without relying on any evidence or criteria. Rational Decision-Making Theories, on the other hand, focus on scientific and analytical methods, determining calculations, assumptions, data, and judgments based on objectivity that require the most appropriate decision-making. Multi-Criteria Decision-Making Theories, which have been considered more in recent years, are

highly effective in situations where a choice (evaluation, prioritization, preference, etc.) needs to be made among multiple available options by combining the best aspects of the two former theories.

Effective Decision- Making

The quality of our decisions is crucial for shaping our lives. In fact, the decisions we made in the past determine the course of our present lives. Therefore, it is important to know what can be done to make effective decisions. According to Hammond, Keeney, and Raiffa (1999), in order to increase the likelihood of making good decisions, the decision-making process needs to be effectively managed. Accordingly, here are the things that a competent decision-maker should do:

- **Avoid procrastination in decision-making:** Individuals should search for what they need to decide and make decisions without procrastination to avoid time pressure.
- **Focus on important points:** It is necessary for individuals to identify the points that are important to them in the decision-making process to determine the aspects they should pay attention to.
- **Develop alternative plans:** Individuals should be flexible in the decision-making process. They should remain open to new developments as the problem definition may change during the process.
- **Avoid complexity:** When making decisions on complex issues, individuals need to move from generalities to more specific situations in order to make decisions.
- **Avoid getting stuck:** In situations where individuals struggle to make decisions, they need to find someone to talk to about the problem or to identify the reasons for their uncertainty.
- **Avoid perfectionism:** Trying to find a perfect alternative that will produce the best outcome can delay decision-making. This is one of the main reasons why decision-making becomes difficult.
- **Seek advice:** Individuals can seek advice from experts in the relevant field or from more experienced individuals when making decisions. By analyzing the opinions of others, they can make the most suitable decision for themselves.
- **Improve decision-making style:** Having an efficient and effective decision-making style is crucial in managing the decision process effectively. Therefore, individuals should constantly strive to improve their decision-making style.

The desire to make the most appropriate decision in every aspect demonstrates the importance of effective decision-making. Therefore, decision-makers need to clearly identify the problem and manage their time effectively throughout the process. It can also be stated that individuals who want to make effective decisions should first have self-confidence and avoid procrastination in decision-making.

Considering the contribution of effective decisions to human life, it can be seen that decision-makers have an important role in both individual and societal futures. Based on this point, it is necessary to know how to make better decisions from an early age. Therefore, it can be emphasized that it is crucial for individuals to improve themselves in order to become effective decision-makers.

The Role of Decision-Making in Education

Decision-making is one of the most crucial life skills for individuals. The existence of positive or negative outcomes resulting from decisions made on various concerns throughout life, and the ability of individuals to achieve their goals and objectives through making correct decisions, demonstrate the importance of decision-making skills. Hence, it is stated that individuals can make better decisions with the acquisition of decision-making skills from early childhood education to university (Yağcı, 2022).

The decision-making skill, which affects an individual's lifestyle, represents personal abilities. Being proficient in decision-making requires the cognitive and psychological consideration of individual competence, self-esteem, and problem-solving skills. Therefore, decision-making skill education should be present at all levels of education (Çolakkadıoğlu, & Güçray, 2012). Similarly, Yalın, and Oğuz (2022) emphasize that the acquisition of effective decision-making skills by individuals is a matter of responsibility for education. In this regard, the review of the literature indicates that decision-making skill education contributes to individuals' acquisition of decision-making skills (Çolakkadıoğlu, & Güçray, 2012; Şeyhun, 2000).

Decision-making has been included in the curriculum of the Ministry of National Education [MoNE] since 2005 and has been retained in the life skills content of the Ministry of National Education curriculum without any changes in the later curricula revealed in 2013 and 2018 (Yağcı, 2022). When examining the Ministry of National Education curriculum, it can be seen that decision-making skill is addressed in terms of determining the issue to be decided, generating decision options, predicting the outcomes of possible decisions, identifying data, making the most accurate decision, implementing decisions, and taking responsibility for the decisions made (Baysal, 2015).

Schools play a significant role in the upbringing of individuals according to the characteristics of the era they live in. Therefore, decision-making skills should be included in the content of the curriculum from the early years of education. It is believed that individuals who can make their own decisions, adapt to changes, and achieve their goals will be raised as a result.

Method

This study, which focuses on decision-making skills, has a review design. Review articles organize studies conducted on a specific topic or field within the framework of the author's research approach. The aim of review studies is to summarize the approaches and ideas of other researchers regarding the research topic at hand and create a synthesis (Herdman, 2006). In this study, the aim was to conduct a review study by examining recent studies highlighted in the literature regarding decision-making skills. National and international literature was searched, and the concept of decision-making and the factors that can help individuals make better decisions were compiled.

Ethical Permits of Research

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

Ethics Committee Permission Information:

This study is within the scope of activities that do not require ethical permission.

Discussion and Conclusion

This study, which examines the scope of decision-making and how effective decisions can be made, aims to create a general framework for decision-making. Individuals try to determine what is best for them when faced with uncertain situations or problems throughout their lives. Accordingly, decision-making is defined as the selection of one option among different alternatives in its most general form. The quality of the decisions made is among the determinants of how one's life will be conducted, which makes decision-making one of the most important life skills.

Evaluating decision-making as a process and managing it correctly is crucial for making rational and effective decisions. In this regard, when facing a decision-making situation, it is essential to first determine the nature of the problem and identify appropriate alternatives to solve it. However, it should not be forgotten that this process can be influenced by various factors. Therefore, individuals who aim to be successful in decision-making need to consider those factors that can negatively impact their decisions and adopt an attitude of improving their decision-making skills. In this regard, the related literature emphasizes that making decisions under stress or panic can have a negative impact on effective decision-making (Ateş, 2008; Öztapak, 2013). Sheppard, and Levy (2019) also state that emotions play an important role in the decision-making process and can influence it.

For decision-making problems, the application of decision analysis, which is defined as quantitative and qualitative approaches that provide finding the best solution within a logical framework, is also crucial for decision-makers. According to decision analysis, a good decision should be effective, efficient, rational, feasible, and timely (Lezki et al., 2016). Thus, it is believed that individuals can encounter more desirable situations and that leads to successful lives.

Another point to be considered in the decision-making process is decision-making styles which represent the behavioral patterns of individuals in situations requiring decision-making and are among the reasons for the differentiation of our decisions. In this regard, individuals who aim to make qualified decisions should make rational assessments and take responsibility for their decisions, which will positively influence the decision-making process. While doing so, the use of decision-making methods that ensure the adoption of rational decisions by taking into account all variables and criteria constitutes an important potential (Güngör, & Özcan, 2022). On the other hand, acting hastily or being under time constraints while making decisions can have negative effects, especially on important decisions. Therefore, research suggests that individuals should avoid the strategy of indecisiveness. Indecisiveness damages individuals' self-confidence and puts them in a passive position in society (Alver, 2003; Bacanlı, 2000). Additionally, instead of expecting predetermined rules and stages to yield effective results in the decision-making process for every situation, individuals should be ready for each situation and be able to update their approach if necessary (Tozlu, 2016). Based on the general framework of the concept of decision-making, it is evident that making good decisions, both in simple and routine matters and in important situations, contributes to a fulfilling life. Therefore, individuals should be aware of the stages they go through in order to make effective decisions. Besides, decision-makers need to behave rationally, evaluate the positive and negative aspects of events, obtain the outcomes of their decisions, and manage their time effectively. Thus, they can take the right steps towards the future and obtain a happier and more meaningful life.

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Karar Verme Becerisi: Nasıl Daha İyi Karar Verilir?

Giriş

Bireyler, yaşamları boyunca karar vermesi gereken pek çok durumla karşı karşıya kalırlar. Bu kararlar günlük istek ve ihtiyaçların karşılanmasına yönelik olabileceği gibi toplumsal, ekonomik, eğitsel ya da siyasal konulara ilişkin de olabilir. Dolayısıyla yaşam doyumunun sağlanması, toplumsal gelecekte nitelikli değişim ve gelişimin gerçekleşebilmesi için her bireyin daha iyi ve etkili karar vermesi gerekir. İyi kararlar, kişilerin yaşamını olumlu yönde etkilerken yanlış alınan kararlar istenmedik sonuçları da beraberinde getirebilir. Bu durum karar vermenin bireyin en önemli yaşam becerilerinden biri olduğunu göstermektedir.

Son yıllarda yaşanan gelişim ve değişimlerle birlikte bireylerin verdiği kararların önemi giderek artmaktadır. Çünkü daha karmaşık hale gelen toplumsal yaşam, bireyin yaşadığı çevredeki seçenekleri çoğaltmakta ve bireysel yaşamın yönetilebilmesi için iyi karar vermeyi gerekli kılmaktadır. Günlük yaşamda bir konuya ya da olaya ilişkin karar vermek her ne kadar kolay gözükse de kararlarımız üzerinde bireysel veya toplumsal pek çok değişken de etkili olabilir. Böylelikle aynı amaca yönelik olsa dahi alınan kararlar farklılaşabilir. Kimi zaman birçok olasılık değerlendirilerek karar verilirken kimi zaman aceleci davranılabilir. Karar verme konusunda yaşanan bu duruma bağlı olarak her bireyin yaşamı farklı şekillenir (Mazlumoğlu, 2019). Bu durum karar verme eyleminin insanlar için oldukça önemli olduğunun bir diğer göstergesidir.

Karar verme, bireyin kendisi için en etkili sonucu ortaya çıkaracak alternatifi seçmesi, uygulaması ve ihtiyaç duyduğunda yeniden seçim yapabilmesidir (Marco, Hartung, Newman, & Parr, 2003). Dolayısıyla karar vermenin aniden ortaya çıkan bir durum değil ihtiyaç ya da problemin çözümüne yönelik bir sürece sahip olduğu görülmektedir (Ada, & Baysal, 2012). Bu bağlamda bireylerin karar verme sürecinin özelliklerini ve bu süreci etkileyen faktörleri bilmesi gerekmektedir.

Karar verme süreci birçok bireysel ve çevresel faktöre göre değişiklik göstermektedir. Günlük yaşamda benzer durumlara ilişkin alınan kararlardaki farklılık, karar sürecini etkileyen faktörlerle ilgilidir. Özellikle bireyin kişisel özellikleri ile ilgili olan karar verme stilleri karar vermede oldukça önemlidir. Çünkü karar verme stili, bireyin karar verme sürecinde sergilediği yaklaşım, tepki veya eylemleri ifade etmektedir (Phillips, Paziienzae, & Ferrin, 1984). Bu doğrultuda rasyonel, sezgisel, bağımlı, kaçınan ve kendiliğinden olmak üzere beş farklı karar verme stilinden söz edilmektedir (Scott, & Bruce, 1995). Karar verme sürecinde bireyin hangi karar stiliyle hareket ettiği kararlarının niteliğini de etkileyecektir. Bununla birlikte karar verirken nasıl daha iyi karar verileceğinin bilinmesinin karar sürecini yönetmeye ve daha rasyonel sonuçlar elde etmeye yardımcı olacağı söylenebilir.

Karar verme eylemi sonucunda bir yargıya yani karara varıldığından bireylerin öncelikle karşılaştıkları problem durumlarını açık ve net bir şekilde belirlemeleri gerekmektedir. Bu durum amaca yönelik hareket edilmesini ve seçeneklerin gerçekçi bir şekilde değerlendirilmesini sağlayacağından bireylerin daha etkili kararlar verebileceği söylenebilir. Karar verme becerisi bireylerin sahip olması gereken en önemli yaşam becerilerinden biridir. Çünkü iyi kararlar sayesinde bireyler daha istedik bir yaşam sürebilir.

Bu çalışmada, karar verme süreçleri ile karar vermeyi etkileyen faktörler incelenerek bireylerin nasıl daha iyi kararlar alabileceği üzerinde durulmuştur. Bu doğrultuda karar verme kavramı ilgili alanyazın kapsamında incelenmiş ve genel bir çerçevede değerlendirilerek sunulmuştur. Böylelikle bireylerin daha etkili kararlar alabilmesine fayda sağlanması amaçlanmış ve nasıl daha uygun kararlar alınabileceği çalışmanın ana problemini oluşturmuştur.

Yöntem

Karar verme becerisinin ele alındığı bu çalışma derleme türündedir. Derleme makaleler, belirli bir konu veya alana yönelik yapılan çalışmaların yazarın kendi araştırma yaklaşımı çerçevesinde düzenlenmesidir. Derleme çalışmalarındaki amaç ele alınan konu hakkında diğer araştırmacıların yaklaşım ve fikirlerini özetlemek ve bir sentez oluşturabilmektir (Herdman, 2006). Bu çalışmada da karar verme becerisi üzerine alanyazında öne çıkan yakın tarihli araştırmalar incelenerek bir derleme çalışması yapılması amaçlanmıştır. Araştırmada ulusal ve uluslararası alanyazın taranarak karar verme kavramı ve bireylerin nasıl daha iyi karar verebileceği konusunda etkili olan unsurlar derlenmeye çalışılmıştır.

Tartışma ve Sonuç

Karar vermenin kapsamının ve nasıl etkili kararlar alınabileceğinin incelendiği bu çalışmada karar vermeye dair genel bir çerçeve oluşturulmaya çalışılmıştır. Bireyler yaşam boyu karşılaştığı belirsizlik durumları ya da problemler karşısında kendileri için en doğru olanı belirlemeye çalışmaktadır. Buna göre karar verme en genel haliyle farklı seçeneklerden birinin tercih edilmesi olarak tanımlanmaktadır. Alınan kararların niteliği nasıl bir yaşam sürdürüleceğinin belirleyicileri arasındadır. Bu durum karar vermeyi en önemli yaşam becerilerinden biri kılmaktadır.

Akılcı ve etkili kararlar alınabilmesi için karar vermenin bir süreç olarak değerlendirilmesi ve bu sürecin doğru bir biçimde yönetilmesi oldukça önemlidir. Bu anlamda karar vermeyi gerektiren durumlarda öncelikle problemin ne olduğunun belirlenmesi ve buna uygun seçeneklerin ortaya konması gerekmektedir. Ancak bu sürecin pek çok faktörden etkilenebileceği de unutulmamalıdır. Dolayısıyla karar verme konusunda başarılı olmak isteyen bireylerin kararları üzerinde olumsuz etki

yaratabilecek faktörleri göz önünde bulundurması ve karar verme becerilerini geliştirmeye yönelik bir tutum sergilemesi gerekmektedir. Bu bağlamda ilgili alanyazın incelendiğinde özellikle bireyin stres altında ya da panik halde karar vermesinin etkili karar vermeyi olumsuz yönde etkileyeceğinin altı çizildiği görülmektedir (Ateş, 2008; Öztapak, 2013). Sheppard ve Levy (2019) de duyguların karar verme sürecinde önemli rol oynadığını ve duyguların karar verme sürecini etkilediğini ifade etmiştir.

Karar verme problemlerinde, mantık çerçevesi içinde en iyi çözümü bulmayı sağlayan nicel ve nitel yaklaşımlar olarak tanımlanan karar analizlerinin uygulanması da karar vericiler için oldukça önemlidir. Çünkü karar analizlerine göre iyi bir karar, etkili, verimli, rasyonel, uygulanabilir ve zamanında alınmış olmalıdır. (Lezki vd., 2016). Böylelikle bireyin, daha istendik durumlarla karşılaşılabilceği ve başarılı bir hayat sürdürebileceği düşünülmektedir.

Karar verme sürecinde ele alınması gereken bir diğer nokta karar verme stilleridir. Bireyin karar vermesi gereken durumlardaki davranış örüntülerini ifade eden karar stilleri kararlarımızın farklılaşmasının sebeplerindedir. Buna göre nitelikli karar vermek isteyen kişilerin akılcı değerlendirmeler yaparak, kararlarının sorumluluğunu almaları karar sürecini olumlu yönde etkileyecektir. Bu bağlamda, bütün değişken ve ölçütler dikkate alınarak rasyonel kararların alınmasını sağlayan karar verme yöntemlerinin kullanımı önemli bir potansiyel oluşturmaktadır (Güngör, & Özcan, 2022). Öte yandan karar verirken aceleci davranmak ya da zaman baskısı altında kalmak özellikle önemli kararlar üzerinde olumsuz etkiler oluşturabilir. Bu bağlamda yapılan araştırmalar değerlendirildiğinde bireylerin özellikle kararsızlık stratejisini tercih etmemesi gerektiği üzerinde durmaktadır. Çünkü kararsızlık, bireylerin özgüvenlerine zarar vererek kişiyi toplumda pasif bir konuma sürüklemektedir (Alver, 2003; Bacanlı, 2000). Bununla birlikte her durum için önceden belirlenmiş kural ve aşamaların karar verme sürecinde etkili sonuç vermesini beklemek yerine, her duruma hazırlıklı olunmalı, gerektiğinde çözüm yaklaşımı güncellenebilmelidir (Tozlu, 2016). Karar verme kavramının genel çerçevesinden hareketle, gerek basit ve rutin konularda gerekse önemli durumlarda alınan kararların iyi bir hayat sürdürülmesine katkı sağlayacağı açıktır. Dolayısıyla bireyler etkili kararlar verebilmek için hangi aşamalardan geçerek karar verdiklerini bilmelidirler. Bu durumun yanı sıra karar vericilerin rasyonel davranabilmeleri, olayların olumlu ve olumsuz yönlerini değerlendirebilmeleri, kararlarının sonuçlarını alabilmeleri ve zamanı iyi yönetebilmeleri gerekmektedir. Böylelikle geleceğe yönelik doğru adımlar atılarak daha mutlu ve anlamlı bir yaşam sürdürülebilecektir.