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TÜRK AKADEMİK YAYINLAR DERGİSİ

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Türk Akademik Yayınlar Dergisi, eğitim bilimleri alanında çevrim içi olarak yılda üç kez İngilizce dilinde makaleler yayımlamaktadır.

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Letter from the Chief Editor/Baş Editörden Mektup

Dear Readers,

Forest fires! Unfortunately, this has become a common occurrence in Türkiye. Every year, especially during the summer months, we face major forest fires. These fires are not only an ecological disaster, but also an important issue that must be assessed in terms of its social, economic, and cultural dimensions. When considering the social dimension of forest fires, the first issues that come to mind are the displacement caused by damage to residential areas and the resulting loss of social ties, fatalities and injuries, as well as the psychological processes experienced during and after the fire. These are some of the negative social consequences resulting from forest fires. Nevertheless, the coming together of people to alleviate the negative conditions caused by forest fires and to share the pain can also strengthen social solidarity.

Forest fires affect many sectors, especially forestry, agriculture and livestock and tourism, and cause significant economic losses. Moreover, the damage to infrastructure (roads, water and electricity, etc.) further expands the economic impact and results in substantial costs. Additional economic challenges such as firefighting, rehabilitation, and reforestation are some of the negative effects of forest fires on the economy. Another dimension to consider when addressing forest fires is the cultural dimension. Forests are not only natural resources but also an important part of a society's cultural characteristics. This is because settlements established around forests have, over time, laid the groundwork for the development of a specific cultural structures. Forests are home to a cultural structure that includes rural life, traditions based on forest products, and handicrafts based on the forest. Each of these dimensions shows that forest fires are a complex problem with not only environmental but also widespread social, economic, and cultural impacts. Therefore, the prevention of fires and post-fire rehabilitation processes are not only environmental responsibilities but also humanitarian and cultural obligations. In this context, education in general, and disaster education in particular, gain importance. Disaster education encompasses the knowledge and skills provided to individuals and communities to reduce the potential impacts of natural or human-caused disasters such as forest fires, prepare for such disasters, and manage post-disaster processes more effectively. Another issue related to forest fires is patriotism.

A strong and deep connection can be established between forest fires and patriotism. Patriotism is not just about respecting the flag or singing the national anthem; it also involves protecting the natural resources, land, and future of the homeland. Patriotism encompasses not only the present but also the future. Forest fires directly affect the environment in which future generations will live, the resources they will consume, and the air they will breathe. Therefore, being sensitive to fires and protecting forests is considered part of the responsibility of leaving a livable homeland for future generations and a patriotic duty. In this context, reforestation of areas destroyed by fire and restoration of the ecosystem are also important indicators of patriotism. In conclusion, protecting forests is actually protecting the homeland. TAY Journal will prioritize studies related to disaster education, particularly forest fires.

The second issue of TAY Journal in 2025 will feature articles on special talent exams and training, periodicals and social studies, story writing skills and writing attitudes, preschool children with autism spectrum disorder and the attitudes of preschool teachers, STEAM and critical thinking in music lessons, and immigrant students and the teaching profession. We would like to thank our authors who sent their original works to our journal, our referees for their detailed reviews and reports, the academicians who took part in our editorial and editorial advisory boards and who did not spare their help in every step of the articles, Asst. Prof. Dr. Murat Baş (Editor), who meticulously prepared the articles for publication, Res. Asst. Eylem Çoban (Copy Editing Editor) and Res. Asst. Esra Nihlenur Şen (Copy Editing Editor). We hope that our journal will contribute to scientific accumulation and we look forward to your comments and suggestions.

Letter from the Chief Editor/Baş Editörden Mektup

Değerli Okuyucularımız,

Orman yangınları! Ne yazık ki Türkiye'de sık karşılaşılan bir durum hâline gelmiştir. Her yıl, özellikle yaz aylarında, büyük orman yangınlarıyla karşı karşıya kalıyoruz. Bu yangınlar sadece ekolojik bir felaket değil, aynı zamanda sosyal, ekonomik ve kültürel boyutlarıyla da değerlendirilmesi gereken önemli bir konudur. Orman yangınlarının sosyal boyutu düşünüldüğünde akla ilk gelenlerin; yerleşim alanlarının zarar görmesi ile ortaya çıkan göçler ve kaybolan sosyal ilişkiler, can kayıpları ve yaralanmalar, yangın anı ve sonrasını içeren psikolojik süreçler olduğu söylenebilir. Bunlar orman yangınları sonucunda ortaya çıkan olumsuz sosyal boyutlardan bazılarıdır. Buna karşın, orman yangınlarının sebep olduğu olumsuz koşulları hafifletmek ve acıları paylaşmak için insanların bir araya gelmesi de toplumsal dayanışmayı pekiştirebilmektedir.

Orman yangınları; ormancılık, tarım ve hayvancılık ile turizm başta olmak üzere pek çok sektörü etkilemekte ve ekonomik kayıpların oluşmasına sebep olmaktadır. Bununla birlikte alt yapının (yol, su, elektrik vb.) hasar görmesi ile ekonomik etki daha geniş bir alana yayılmakta ve büyük maliyetler söz konusu olmaktadır. Yangın söndürme, rehabilitasyon ve ağaçlandırma gibi ek ekonomik zorluklar da orman yangınlarının ekonomiye olan olumsuz etkilerinden bazılarıdır. Orman yangınları ele alındığında düşünülmesi gereken bir diğer boyut ise kültürel boyuttur. Ormanlar, sadece doğal varlıklar değil, aynı zamanda bir toplumun kültürel özelliklerinin de önemli bir parçasıdır. Çünkü ormanların çevresinde kurulan yerleşimler, zamanla belirli bir kültürel yapının da gelişmesine zemin hazırlamıştır. Ormanlar; kırsal yaşamı, orman ürünlerine dayalı gelenekleri, yine ormana dayalı el sanatlarını içeren kültürel yapıya ev sahipliği yapmaktadır. Bu boyutların her biri, orman yangınlarının yalnızca çevresel değil; aynı zamanda geniş çaplı sosyal, ekonomik ve kültürel etkileri olan karmaşık bir sorun olduğunu göstermektedir. Bu nedenle, yangınların önlenmesi ve yangın sonrası rehabilitasyon süreçleri, sadece çevresel değil, aynı zamanda insani ve kültürel bir sorumluluktur. Bu çerçevede genelde eğitim, özelde ise afet eğitimi önem kazanmaktadır. Afet eğitimi, orman yangınları gibi doğa veya insan kaynaklı afetlerin olası etkilerini azaltmak, bu afetlere karşı hazırlıklı olmak ve afet sonrası süreçleri daha etkin yönetmek için bireylere ve topluluklara verilen bilgi ve becerileri kapsar. Orman yangınları ile ilişkili bir diğer husus vatanseverliktir.

Orman yangınları ile vatanseverlik arasında güçlü ve derin bir bağ kurulabilir. Vatanseverlik, sadece bayrağa saygı duymak veya millî marşı söylemekten ibaret değildir; aynı zamanda vatanın doğal varlıklarına, topraklarına ve geleceğine sahip çıkmayı da içerir. Vatanseverlik, bugünün yanı sıra geleceği de kapsar. Orman yangınları, gelecek nesillerin yaşayacağı çevreyi, tüketeceği kaynakları ve soluyacağı havayı doğrudan etkiler. Bu nedenle, yangınlara karşı duyarlı olmak ve ormanları korumak, gelecek nesillere yaşanabilir bir vatan bırakma sorumluluğunun parçası ve vatanseverlik görevi olarak kabul edilir. Bu bağlamda, yangınla tahrip olan alanların yeniden ağaçlandırılması ve ekosistemin onarılması da vatanseverlik anlayışının önemli bir göstergesidir. Sonuç olarak ormanlara sahip çıkmak, aslında vatana sahip çıkmaktır. TAY Journal orman yangınları başta olmak üzere afet eğitimi ile ilgili çalışmaları öncelikli kabul edecektir.

TAY Journal 2025 yılının ikinci sayısında; özel yetenek sınavı ve formasyon eğitimi, süreli yayınlar ve sosyal bilgiler, hikâye yazma becerileri ve yazma tutumu, otizm spektrum bozukluğu olan okul öncesi çocukları ve okul öncesi öğretmenlerinin tutumları, müzik dersinde STEAM ve eleştirel düşünme, göçmen öğrenciler ve öğretmenlik mesleği konularını içeren makaleler yer almaktadır. Özgün eserlerini dergimize gönderen yazarlarımıza, detaylı incelemeleri ve raporları için hakemlerimize, editör ve yayın danışma kurullarımızda yer alan ve makalelerin her bir adımında yardımlarını esirgemeyen akademisyenlere, makaleleri titizlikle yayına hazırlayan Dr. Öğretim Üyesi Murat Baş'a (Editör), Araş. Gör. Eylem Çoban'a (Dizgi ve Mizanpaj Editörü) ve Araş. Gör. Esra Nihlenur Şen'e (Dizgi ve Mizanpaj Editörü) teşekkür ederiz. Dergimizin bilimsel birikime katkı sağlamasını diler, görüş ve önerilerinizi bekleriz.

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Metaphorical Perceptions of Students Placed in University with Aptitude Test Regarding 800 Thousand Threshold and Formation Education

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Abstract

This study examines the metaphorical perceptions of students enrolled in higher education programs that admit candidates through special talent exams, focusing on the 800 thousand success ranking threshold and pedagogical formation. Conducted as a qualitative case study, the research involved 83 students from Fine Arts Education, Faculty of Fine Arts, Conservatory, and Sports Sciences departments. Each participant produced one metaphor for each topic, resulting in 166 expressions. Data were analyzed using content analysis and categorized as positive or negative. Regarding the 800 thousand threshold, 43 positive and 40 negative metaphors were identified. Positive metaphors emphasized themes like "distinctiveness" and "difficulty," suggesting the threshold serves as a legitimate quality filter for teacher selection. Negative metaphors focused on "injustice," "worthlessness," and "obstruction," especially from students in talent-based fields who felt disadvantaged by standardized exams. For pedagogical formation, 24 positive and 59 negative metaphors were recorded. Positive metaphors portrayed it as a "necessity," a path to "experience," and a means to "realizing dreams." In contrast, negative metaphors described it as "inadequate," "unfair," and "lacking value," often seen as a shortcut undermining formal teacher training. Overall, students viewed the 800 thousand threshold more positively than pedagogical formation. While the threshold was seen as necessary for teacher quality, formation drew criticism for its perceived unfairness and weak legitimacy. The study recommends aligning teacher education curricula with threshold standards, encouraging Basic Proficiency Test [TYT] preparation, and restructuring pedagogical formation to ensure fairness and higher quality.

Keywords: Special ability exam, 800 thousand threshold, pedagogical formation education, metaphor.

Introduction

Education has played a crucial role in discovering and developing individuals' skills and enabling self-expression since the beginning of human existence. It is one of the fundamental tools that allows societies to adapt to innovations and reach the level of contemporary civilization. Therefore, the process of planning education and determining its objectives must be carried out with careful consideration (Boduroğlu, 2010). Just as education has accompanied humanity throughout history, art has also been an inseparable part of the human experience. Art is a fundamental human practice that reflects, shapes, and transforms individual and collective identities. It plays a significant role not only in aesthetic pleasure but also in the spiritual and moral development of people. In this context, Bilirdönmez and Karabulut (2016) define art as a unique way of learning, emphasizing its influence on human perception and cognition. In the process of supporting individual development through education, art emerges as a key component that fosters creativity, critical thinking, and emotional intelligence. It helps individuals construct meaning, understand the world around them, and communicate in ways that transcend linguistic or cultural barriers (Eisner, 2003; Winner et al., 2013).

Education is provided in various fields, and one of the most impactful among these is art education. When the findings of Bilirdönmez and Karabulut (2016) on the relationship between humans and art are examined, it becomes evident that art is a natural and indispensable part of human life. From prehistoric cave paintings to modern digital media, art has served both communicative and transformative purposes. In this sense, art and human

beings are deeply intertwined. Unlike traditional or classical forms of education, art education offers a dynamic and holistic approach to learning. It nurtures individuals who are more original, solution-oriented, and equipped with creative thinking skills. Balcı (2024) suggests that art education breaks away from rigid traditionalism, instead bringing vibrancy and flexibility to educational processes. It empowers students to express themselves freely and to approach problems from diverse perspectives.

Individuals raised through art education are known to generate creative and effective solutions to societal problems, produce goal-oriented works, and act consistently in line with their values. According to Eisner (2002), art education enhances individuals' capacity for critical thinking, problem-solving, and personal expression, all of which are essential for active participation in modern society. Art education is closely linked to personality development; it contributes to the formation of self-identity, emotional intelligence, and moral values (Winner, et al., 2013).

In the Turkish context, emphasize that students who receive systematic art education exhibit higher levels of aesthetic perception and are more sensitive to social and cultural values. These individuals tend to value art and the artist, appreciate aesthetic experiences, and become more conscious and reflective in their interactions with their surroundings. Furthermore, as stated by Duncum (2009), art education supports the development of visual literacy and the ability to interpret the world critically, empowering individuals to actively engage in societal discourse. In this sense, individuals trained in the arts are not only more creative but also more socially aware and solution-oriented in addressing the challenges of daily life.

Eldemir (2011), on the other hand, defines the definition of the fine arts department as training educators who promote and popularize art and, in time, creating an artist-teacher profile. There are educational faculties that train art teachers in these institutions. Faculties of education aim to train teachers fine arts faculties and conservatories aim to train artists (Yalçın, 2017). Fine arts faculties are one of the leading institutions where art education is given. The importance of these faculties is that they can provide art education and raise individuals who can direct the artistic development of society. Conservatories aim to train music scientists, researchers, and technologists, that is, artists who can understand the social, cultural and artistic geography of both our country and the world (Korkmaz & Karkın, 2023). Fine arts teachers and music teachers study at faculties of education, but students from faculties of fine arts can also receive formation both during and after completing their undergraduate studies. Institutions that provide sports education in our country develop individuals' abilities in the field of sports and ensure that sports become widespread in society. Education faculties, sports academies and various sports science faculties that train physical education teachers play an important role in this field. These institutions aim to increase the physical capacity of individuals and create a healthy life awareness by training both professional athletes and sports trainers (Devecioğlu et al., 2011). To become teachers, graduates from fine arts, conservatories, and sports sciences faculties (outside education faculties) are often required to complete additional "pedagogical formation education". This training is designed to equip them with the pedagogical skills, competencies, and professional readiness necessary for effective teaching. Pedagogical formation education is essential for

developing both subject-specific and transversal teaching competencies, as well as fostering professional growth and readiness for the classroom (Bolzan et al., 2013).

Pedagogical formation education is a certificate program given to graduates of undergraduate programs that constitute a source for a teaching career (Council of Higher Education [CoHE], 2023). Pedagogical formation programs in Türkiye offer graduates of fine arts faculties, conservatories, and physical education and sports sciences programs an alternative pathway into the teaching profession, especially for those who do not meet the 800 thousand ranking threshold required for direct admission into faculties of education. This threshold, implemented by the CoHE (CoHE, 2023), aims to enhance teacher quality but has inadvertently limited access for students from specialized disciplines such as music, visual arts, and physical education. Through pedagogical formation, these students can still obtain teaching qualifications and contribute to the education system.

Until 2019, a Basic Proficiency Test [TYT] score of 150 or higher was sufficient to apply to teacher training programs that accept students through special talent exams. However, as of 2020, this condition has been changed to "having the lowest 800 thousandth success rank" (Demirel & Sözer, 2023). With this regulation, success based on numerical and verbal skills has been brought to the forefront; success in the general culture exam has become a filter rather than artistic/sports talent.

This change has made the application process more difficult for students who graduated from talent-based education institutions such as Fine Arts High Schools and Sports High Schools, and has even led to some students losing their right to take the special talent exam. In addition, structural problems such as quotas not being filled have arisen. Due to the requirement of a high TYT ranking, there has been a serious decrease in the number of students who can apply for the talent exam; talented students who cannot succeed in TYT have been pushed out of the system. This situation negatively affects the training of qualified teachers in fields such as art-craft, music and physical education teaching; and creates a loss of motivation in orientation towards the teaching profession (Atar & Yılmaz, 2012; Demirel & Sözer, 2023; Kandemir, 2007). Since the TYT threshold prioritizes general cultural success rather than measuring artistic/sporting talent, it creates an external obstacle that has no distinguishing function in talent assessments. This damages the reliability of the talent measurement process (Sağer, 2007). Especially for individuals who receive art-based education, the curriculum differences in TYT create disadvantages and lead to talent atrophy (Demirel & Sözer, 2023).

While the institution responsible for teacher appointments is the Ministry of National Education [MoNE], pedagogical formation education is provided by universities operating under the supervision and regulation of the CoHE (CoHE, 2023). In this way, the program serves as a formal but flexible path to teacher qualification for students who are restricted by national university entrance criteria. However, research shows that this alternative path may not fully meet the competencies required for effective teaching. For example, a study by Özgul (2023) found that the pedagogical formation education process did not meet the expected competencies in music teaching, emphasizing the need to re-evaluate teacher training structures and policies in Türkiye. A study by Kasap et al. (2024) also revealed that this threshold positively affects students' performance in cultural courses but negatively affects

field courses. Students aiming to meet the threshold often focus on extracurricular studies and standardized tests, which leaves less time for practical training, which reduces their interest and motivation in the teaching profession.

Furthermore, the Music Educators Association [MÜZED] and similar professional organizations have expressed concerns that the 800 thousand threshold hinders graduates of fine arts and sports high schools from pursuing teaching careers, despite their specialized training. This situation underscores the need for a more inclusive approach that considers the unique educational backgrounds of students in creative and physical.

The 800 thousand success rank threshold introduced for placement in the music, visual arts and physical education teaching departments of education faculties has caused a decrease in the number of students in these fields. Especially graduates of Fine Arts High Schools and Sports High Schools could not apply to education faculties due to this threshold, which led to the quotas in the relevant departments not being filled. As a result of these developments, students turned to conservatories, fine arts faculties and sports sciences faculties as alternatives (Başbuğ & Kaya, 2022). While teacher candidates in education faculties prepare for the teaching profession by taking pedagogical formation courses for four years, individuals who graduate from other faculties usually receive this education in intensive programs lasting one year. This difference has an impact on the professional competence and application skills of teacher candidates.

Given the policy implications of the 800 thousand university entrance ranking threshold and the alternative route of pedagogical formation for graduates of fine arts, conservatories, and physical education faculties, it becomes crucial to understand how these prospective teachers perceive their educational and professional futures under such structural limitations (Öztürk et al., 2025). The implementation of the threshold, while aiming to ensure quality, may unintentionally affect the motivation, career planning, and professional identity of teacher candidates who pursue pedagogical formation as their only route into teaching (Zepke, 2013).

In this context, exploring how these individuals conceptualize the threshold and the formation education they receive offers valuable insights into their inner worlds and educational experiences. Therefore, this study focuses on uncovering the metaphorical perceptions of teacher candidates regarding the 800 thousand threshold and pedagogical formation, which can reveal their emotional, cognitive, and professional positioning toward these policies. Metaphor analysis is a powerful qualitative method that allows researchers to investigate how individuals make sense of complex and abstract phenomena through symbolic language. In educational research, metaphors offer a window into participants' inner experiences, values, and emotions, going beyond what traditional survey tools can capture (Saban, 2008).

Moreover, teacher identity development is an inherently emotional and cognitive process, often shaped by policy pressures and institutional structures. By using metaphorical expressions, participants articulate their experiences in more vivid, expressive, and insightful ways, helping researchers identify patterns of perception that may otherwise remain hidden.

For example, perceiving pedagogical formation as a "lifeline", "maze", or "last chance" reveals different emotional orientations that can inform policy revisions or program improvements. In this sense, metaphor analysis serves not only as a descriptive tool but also as a reflective and diagnostic lens into the realities faced by prospective teachers. Understanding students' metaphorical perceptions towards the "800 thousand threshold" application and formation education is important in terms of evaluating the effects of these decisions. This type of study can reveal how students perceive these practices and how these perceptions are reflected in their educational processes. Additionally, research using the metaphor analysis method will help us understand more deeply the effects of educational practices on student experiences.

Metaphors are a powerful communication tool that people use when describing their feelings, beliefs, and experiences, and therefore offer researchers a more in-depth look into the inner worlds of participants (Fainsilber & Ortony, 1987). By analysing metaphors, researchers can better understand participants' emotional reactions, thoughts and experiences, which helps them understand the results of the study more deeply. Since pedagogical formation and the 800 thousand threshold are perceived differently by various stakeholders -some viewing them as barriers, others as opportunities- it is important to grasp the subjective interpretations and deeper meanings that teacher candidates assign to these concepts.

This study is an original study in the sense that it is the first study planned to determine the metaphorical perceptions of students in institutions that take students with special talent exams towards the 800 thousand threshold application and formation education. The study was conducted with the participation of many students from music education department, art education department, state conservatories, fine arts faculties and physical education teaching departments. It is thought that the study will contribute to the literature in terms of being a rare study in which metaphors were taken from both music, fine arts and physical education department students. This aspect constitutes the original value of the study.

The purpose of this study is to explore the metaphorical perceptions of teacher candidates studying in higher education institutions that admit students through special talent examinations, regarding the implementation of the 800 thousand threshold and pedagogical formation education. Investigating teacher candidates' perceptions of these two significant practices through metaphors is important for understanding their emotional, cognitive, and professional perspectives. In line with this purpose, answers to the following questions were sought:

1. What are the metaphorical perceptions of teacher candidates regarding the 800 thousand threshold application?

2. What are the metaphorical perceptions of teacher candidates regarding pedagogical formation education?

Method

Research Design

This study was conducted using a case study model, which is a qualitative research approach. A case study is a holistic qualitative research model that involves an in-depth investigation of one or several situations (Öztuna Kaplan, 2013).

Working Group

In this study, the sample was determined using purposeful sampling, specifically the maximum variation sampling technique. The aim was to include participants from diverse fields related to arts and sports to capture several perspectives while maintaining a thematic focus on creative and performance-based disciplines.

The following departments were included in the sample:

- Department of Music Education, Faculty of Fine Arts Education, Japan
- Department of Art Teaching, Faculty of Fine Arts Education
- Department of Painting, Faculty of Fine Arts
- Department of Performing Arts, State Conservatory
- Department of Sports Management, Faculty of Sports Sciences

A total of 114 students participated in the study. However, the forms that did not contain any metaphorical expressions were excluded from the research. The study was conducted using the metaphors provided by 83 students. Information about the study group is presented in Tables 1.

Table 1.

Demographic information of participants

Demographic data		Gender		Total
		Female (n)	Male (n)	
Type of high school graduated from	Anatolian high school	26	22	48
	Fine arts high school	10	3	13
	Vocational and technical anatolian high school	4	2	6
	Anatolian imam hatip high school	2	1	3
	Science high school	1	3	4
	Sports high school	-	1	1
	Other	6	2	8
Total				83
Undergraduate education department and program	Department of fine arts education/music education	19	12	31
	Faculty of sports sciences/department of sports management	6	13	19
	Department of fine arts education/painting education program	8	2	10
	Conservatory/Department of music	6	5	11
	Conservatory/Department of performing arts	1	1	2
	Conservatory/Musicology	5	-	5
	Faculty of Fine Arts/ Department of painting	4	1	5
Total				83

Table 1 presents the demographic characteristics of the 83 undergraduate students who participated in the study, all of whom were enrolled in programs related to arts and sports. The participants came from various high school backgrounds and academic disciplines, contributing to the diversity of the sample.

A total of 48 students graduated from Anatolian High Schools, making this group the most represented. 13 students completed their education at Fine Arts High Schools, while 8 came from other types of high schools. 6 students graduated from Vocational and Technical Anatolian High Schools, 4 from Science High Schools, 3 from Anatolian Imam Hatip High Schools, and 1 from Sports High School. This distribution indicates a strong representation of students from academically oriented high school institutions.

In terms of gender, female students were more prominently represented in art programs. For example, in the Department of Fine Arts Education -Music Education Program, 19 out of the 31 enrolled students were female, while 12 were male. In contrast, male students were more dominant in sports-related programs. In the Faculty of Sports Sciences-Department of Sports Management, 13 of the 19 students were male, and 6 were female.

Regarding undergraduate programs, the largest group of students was 31 enrolled in the Music Education Program. This was followed by 19 students in Sports Management, 10 in the Painting Education Program, and another 11 in the Department of Music at the State Conservatory. Additionally, 5 students were studying Musicology, 5 were enrolled in the Faculty of Fine Arts, Department of Painting, and 2 students were part of the Department of Performing Arts at the Conservatory.

Data Collection Tool

In this study, the "Data Collection Form Through Metaphor" was used to determine the metaphorical perceptions of the students in institutions that take students with special talent exam towards the 800 thousand threshold practice and formation education. "Metaphors (analogies, metaphors, metaphors, metaphors) are one of the most powerful mental tools that structure, direct and control our thoughts about the formation and functioning of events" (Saban, 2004; as cited in Güler et al., 2012). In order to determine the metaphorical perceptions of the students towards the 800 thousand threshold practice and formation education, students were asked to complete the sentences "The 800 thousand threshold is like ……….. because ………" and "Formation education is like ………. because ………" A metaphor form was distributed to the participants, who were asked to fill in the blanks accordingly. In addition to these metaphor prompts, the form also included questions regarding the students' personal information such as gender, department, and other demographic details to support the analysis of their responses in relation to their academic and personal backgrounds.

Data Collection Process

While collecting the data, the form was sent to the participants via Google forms. Only volunteer students participated in the study. While collecting data, the form was sent to students from different universities.

Data Analysis

The data of the study were analyzed by content analysis, and the findings are presented in tables. "Content analysis is a technique that is not directly related to the determination of human behaviour and nature, but rather consists of bringing together a series of separate aspects... Content analysis is a repeatable technique in which some words of a text are summarised into smaller content categories according to certain rules (Büyüköztürk et al., 2019)".

The data obtained from the teacher candidates were analyzed through the following stages of content analysis following a systematic approach suggested by Miles and Huberman (1994) and Yıldırım and Şimşek (2018):

a. Coding Stage

At this stage, the data were coded as PM for male participants, PF for female participants, and P for participants whose gender was not specified (e.g., PM1, PF2, P3...). All metaphorical expressions were carefully read and analyzed in detail by the researcher.

b. Elimination Stage

A total of 114 forms completed by students were examined. Sentences that did not contain a metaphorical expression or whose explanations did not reflect a metaphorical meaning were not included in the study. As a result, 83 valid forms and 166 metaphors were obtained.

c. Classification Stage

166 metaphors were re-examined at this stage. First, metaphors are classified under two headings: positive and negative.

d. Category Development Stage

The metaphors identified in the previous stage as either positive or negative were grouped under specific themes, resulting in the creation of distinct categories. For metaphors related to the 800 thousand threshold, 5 positive and 8 negative categories were identified. Regarding metaphors associated with pedagogical formation, 5 categories were derived from positive views and 7 from negative views. During the analysis phase of the metaphorical statements, only the responses of participants who completed both parts of each metaphor prompt were included in the study. Participants who completed only one part of the sentence and left the other blank were excluded from the analysis.

Secondly, responses that did not contain a metaphorical expression were also excluded. For instance, in response to the prompt

"The 800 thousand threshold is like ………. because ………."

A participant wrote, *"Since there is formation, entering a teaching program doesn't really matter anymore."*

Similarly, in response to the prompt

"Formation education is like ………. because ………."

Another participant wrote, *"This is nothing but a joke; there will be a KPSS backlog, and this is my personal opinion, and I hope not." It's as if they're sitting around talking about how to make it even worse."* These examples exclude metaphorical comparisons and instead reflect personal opinions or critiques. Therefore, such responses were excluded from the scope of this research.

To ensure the reliability of the relationship between metaphors and categories, the researcher and an expert in qualitative research independently categorised a sample of metaphors. Then, inter-coder reliability was calculated using the formula [Consensus/(Consensus+Disagreement)×100] (Miles & Huberman, 1994). The agreement rate was found to be above 86%, which is acceptable for ensuring coding reliability in qualitative research. The data are presented in tables supported by direct quotations from the participants' responses. Finally, the results and recommendations of the research are provided.

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 = Recep Tayyip Erdoğan Üniversity, Social and Human Sciences Ethics Board

Date of ethical review decision= 10/01/2024

Ethics assessment document issue number= 2024/003

Findings

In the research, the data obtained from the data collection form via the metaphor sent to the participants were collected in two main categories: positive and negative metaphors. The subcategories of metaphors are tabulated along with their metaphors.

Table 2.

Distribution of Positive Metaphors Regarding 800 thousand Threshold Applications by Category

Category	Metophor	f
Distinctiveness	Scale (PM2), (PF61) Vedat Milör (PF3) Country visa (PF4) Capacity limits (PF12) Prescription glasses (PF15) Shield (PF19) A real stream dam (PM20) Quality personnel selection scale (PF22) Strainer (PF26), (PM32), (PF49), (PM83) Projector (PF36) Aptitude test (PF41) Window (PM43) Door (PF52) Filter (PF55) Solid pile (PM59) Sirat bridge (PF67) The difference between science and Anatolian High schools (PF70) Merit (PM79)	22
Degree of difficulty	Slope (PF1) Rampart (PM5) Wall (PF16) Door threshold (PF17) Dam (PF23) Stairs (PF27) A wooden set (PM31) A long way (PM35) Steep border gate (PM64) Don Volga canal (PM69) The month of Ramadan (PF71) Division race in the league (PM76) Jet (PM80)	13
Food and beverage	Spice (PF39) Medicine (PM74) Healthy apple (PM77)	3
Achieving dreams	Driving license (PF11) Reach the target (PM48) Stepping stone (PF60)	3
Experience	Swimming of fish in water (PF25) Mount Everest (PM38)	2
Total		43

Table 2 shows the distribution of positive metaphors by category. As seen from the table data, it was determined that the most positive metaphors were produced in the study data. Participants produced 43 positive metaphors. Among these categories, metaphors referring to distinctiveness and degree of difficulty were seen the most. When the data were analyzed, it was determined that the metaphors were included in 5 categories. The metaphors that constitute these categories and their related categories are as follows;

Distinctiveness

This category includes metaphors that emphasize the threshold as a tool for distinguishing qualified teacher candidates from unqualified ones. The metaphors reflect a

belief that the threshold contributes to quality assurance in teacher education by filtering, measuring, and selecting those who possess the necessary qualities.

PM2 *"is like scales because it separates the missing from the missing"*;

PF3 *"The 800 thousand threshold application is similar to Vedat Milor because it distinguishes between what tastes good and what doesn't taste good"*;

PM4 *"The 800 thousand threshold application is like a country visa. Because teaching requires an individual to be successful in some subjects in order to study"*;

PF12 *"The 800 thousand threshold application is like capacity limits because students who will enter the teaching department must have at least a certain capacity and a certain knowledge"*;

PF15 *"The 800 thousand threshold application is like numbered glasses, because, for someone with an eye problem, glasses with a feature that will improve the problem are required. It must carry certain characteristics. With the dam application, those who have certain characteristics at a certain level of teacher candidates are selected"*;

PF19 *"The 800 thousand threshold is like a shield, because it doesn't make teachers out of the unnecessary and unsuccessful, except for the ones that are effective"*;

PF20 *"The 800 thousand threshold is like a real dam, because without it, all the water would flow away uselessly and no electricity would be generated"*;

PF2*: "The 800 thousand threshold application is like a quality staff selection scale. Because we will graduate as teachers, we can at least see that the student contributes to himself from his education at a certain level"*;

PF26 *"The 800 thousand threshold application acts like a strainer, because if there is no exam to eliminate candidates, there will be chaos and crowding in school registration"*;

PM32 "The 800 thousand threshold acts as a strainer, separating those who possess at least a basic level of knowledge from those who do not, thereby regulating university applications";

PF36 *"The 800 thousand threshold application is like a special projector used to select the main character of a movie. Because this exam limits candidates' access to teaching programs in education faculties, opening the doors only to the brightest and most potential students"*;

PF41 "The *800 thousand threshold is like an aptitude test. Because a person expresses how good his education is because he will become a teacher, the better the education, the better it reflects"*;

PM43 *"The application of 800 thousand threshold is similar to a window. Because the window needs to be opened for the wind to enter the room (to the student) (more potential)"*;

PF49 *"The 800 thousand threshold application is like a strainer, because it serves to separate what is desired from what is not"*;

PF52 *"The 800 thousand threshold applications are like a door. Because it is a selection point for university entrance"*;

PF55 *"The 800 thousand threshold application is like a filter. Because those who cannot pass turn to the alternative"*;

PM59 *"The 800 thousand threshold is like a solid pile, as teaching is a profession that requires certain essential abilities"*;

PF61 *"The 800 thousand threshold application is like a scale. Because it is a situation of measuring those who have knowledge and those who do not (in the academic sense)"*;

PF67 *"The 800 thousand threshold application is like a sirat bridge. Because if you don't pass, if you pass to hell, you will go to heaven"*;

PF70 *"The 800 thousand threshold application is like the difference between science and Anatolian high schools. Because it reveals the level of success"*;

PM79 *"The 800 thousand threshold application is like merit. Because more qualified people are selected"*;

PM83 *"The 800 thousand threshold application is like a strainer because it eliminates those who are unsuitable"*.

Degree of Difficulty

This category includes metaphors representing the threshold as a challenging, demanding, or difficult process. Participants describe it as something that requires persistence, readiness, and capability to overcome. It is considered a legitimate test of competence.

PF1 *"The 800 thousand threshold is like a slope because you relax when you finish the slope"*;

PM5 *"A rampart-only the determined can overcome it"*;

PF16 *"The 800 thousand threshold application is like a wall, because not everyone can pass through it"*;

PF17 *"It is like the threshold of a door, because becoming a teacher requires meeting certain criteria such as reading comprehension"*;

PF23 *"The 800 thousand threshold is like a dam, because once the water level is exceeded, it spills over"*;

PF27 *"The 800 thousand threshold application is like stairs, because it is a step that must be taken on the way to the goal"*;

PM31 *"The 800 thousand threshold application is like a wooden barrier, because while it appears to hold, we expect it to be stronger"*;

PM35 *"The 800 thousand threshold application is a long way because it requires effort, desire, strength, and perseverance"*;

PM64 *"The 800 thousand threshold application is like a steep border gate, as there is a limitation, and one must go through certain stages to meet the requirements in order to cross beyond it"*;

PM69 *"The application of the 800 thousand threshold is like the Don–Volga Canal: if the water rises, you pass; if it doesn't, unfortunately, you can't"*;

PF71 *"800 thousand threshold application is like Ramadan because 1 comes in 11 months"*;

PM76 *"The 800 thousand threshold is like a league survival race, as everyone strives to avoid being left out"*;

PM80 *"The 800 thousand threshold application is like a jet, because if you make it past the threshold, you move towards becoming a teacher quickly and directly"*.

Food and Beverage

In this category, participants use metaphors related to nutrition and taste to describe how the threshold enriches or strengthens the teacher selection process. It is considered an element that adds value, quality, or balance.

PF39 *"800 thousand threshold application is similar to the spice we put in the dish. Because we can serve food without spices, but our food without spices will not be delicious; we will feel like we missed something"*;

PM74 *"800 thousand threshold application is a good medicine. Since it is an application that increases the quality of education, the"*;

PM77 *"800 thousand threshold application is like a healthy apple. Because he is separate from the wolves"*.

Achieving Dreams

This category frames the threshold as a step towards reaching professional goals. The metaphors reflected the perception of the threshold as an opportunity rather than an obstacle.

PF11 *"The 800 thousand threshold is like a driver's license because everyone can do it"*.

PM48 *"800 thousand threshold application is like reaching the target. Because working is like achieving what we want to achieve and achieve successfully"*;

PF60 *"The 800 thousand threshold application is like a stepping stone. Because the steps are coming out slowly and the goal is being achieved"*.

Experience

This smaller category includes metaphors that view the threshold as a natural, logical experience within the teacher education journey. It is seen as essential and meaningful.

PF25 *"The 800 thousand threshold is like a fish swimming in water because it makes perfect sense and it is a situation that should be"*;

PM38 *"The implementation of the 800 thousand threshold is like Mount Everest, it sounds very difficult, but if you struggle, you will succeed".*

Table 3.

Distribution of Negative Metaphors Towards 800 thousand Threshold Implementation by Category

Category	Metaphor	ƒ
Degree of difficulty	Dam (PM13) A road without traffic lights (PM21) Barrier (PM30) Turtle (PM33) A load carried on the back (PM44) Limitations in education (PF45) Slope (PF46) Conditioning (PF47) Military training (PF50) Life (PF54) The set that is placed in front of the water (PF63) Hell (PF66) Schoolyard (PF72) Economic crisis (PM78) Wall (PM81)	15
Making worthless	Wooden bridge((PM6) A person who thinks that only she has the right knowledge (PF9) Unwanted person (PF18) Prepositions (PF28) Put in the cluster (PF40) Band-aid on a severed arm (PF57) Garbage (PF58)	7
Food and beverage	Fruit (PM7) Rotten fruit (PF51) Hot pepper (PM53) Okra (PM56) Tomate (PM65) Kiwi (PF75)	6
Distinctiveness	Foreign language (PM10) A stone in rice (PF14) Written exam (PF42) Purgatory (PF68) Strainer (PF73)	5
Injustice	Fight (PM8) Türkiye (PF29) Interview (PM37)	3
The labor that remains unrequited	Landmine (PM24) Dandelion (PF62)	2
Luck	Tide (PF83)	1
Achieving dreams	Dream (PF35)	1
Total		40

Table 3 shows the distribution of negative metaphors. When the data were examined, it was determined that the metaphors were in total. In total, the participants produced 40 negative metaphors. When the data were analyzed, it was determined that the metaphors were included in 8 categories. The most common categories were metaphors indicating difficulty levels and worthless categories. The metaphors that comprise the table and their related categories are as follows;

Degree of Difficulty

This category includes metaphors that emphasize the 800 thousand threshold as a restrictive, burdensome, and demotivating challenge. Participants often see the threshold as an arbitrary barrier that impedes progress, especially for students in the arts and talent-based disciplines. It is associated with frustration, inequality, and emotional fatigue.

PM13 *"800 thousand threshold applications are like a dam. Because it prevents the water from flowing comfortably, it interferes with the life inside"*;

PM21 *"The 800 thousand threshold is like a road without traffic lights. Because it causes confusion"*;

PM30 *"The 800 thousand threshold application is like a barrier in front of students. It is difficult to pass for fine arts students"*;

PM33 *"is like a turtle because it slows things down"*;

PM44 *"800 thousand threshold applications are like a load carried on the back. Because no matter how much we try to straighten up and move forward, you will remain under that burden; you will not be able to move forward"*;

PF45 *"The application of 800 thousand threshold is similar to the limitation in the field of education. Because it limits talent"*;

PF46 *"The 800 thousand threshold is like a slope. Because it is a difficult exam process for those who have not completed Anatolian high school and have not taken many courses, and there has been a decrease in students with music knowledge in the teaching departments"*;

PF47 *"The 800 thousand threshold application is similar to conditioning. Because students who study fine arts or field courses must do extra work for university exams. Students who study the courses that are in the university exam instead of field courses do not have as much difficulty as we do. We, those on the arts etc. side, are subjected to this conditioning."*

PF50 *"The application of 800 thousand threshold is similar to military training. Because the ability to constantly prove is an effort to get to a certain rank"*;

PF54 *"800 thousand threshold applications are like my life. Because there is always a difficulty"*;

PF63 *"The 800 thousand threshold is like a set placed in front of the water, as it prevents reaching the destination"*;

PF66 *"The 800 thousand threshold is like hell, because students' futures should not be messed with just by looking at the 800 thousand threshold"*;

PF7 *"The 800 thousand threshold application is like a school playground. Because boundaries are set and it is forbidden to go outside the garden according to the rules. Although this situation favours those who receive education, it is a kind of limitation"*;

PM78 *"The 800 thousand threshold is similar to an economic crisis, because as inflation rises, purchasing power decreases"*;

PM81 *"The 800 thousand threshold application is like a wall. Because it is an obstacle"*.

Making Worthless

This category reflects the perception that the threshold devalues students' existing talents and efforts. Participants interpret the threshold as meaningless, exclusionary, and unconnected to the real competencies needed for teaching. They liken it to superficial or irrelevant concepts.

PM6 *"800 thousand threshold application looks like a wooden bridge. Because it is a criterion made only to say that there is a threshold that is unrelated to teaching"*;

PF9 *"The 800 thousand threshold application is similar to a person who thinks that the correct knowledge is only in him. Because in practice, it makes it mandatory for students who want to become teachers to have only one difference from other students' academic achievements"*;

PF18 *"The 800 thousand threshold application is like an unwanted person who appears to you at any moment"*;

P28 *"The 800 thousand threshold application is like a preposition, it has no meaning by itself"*;

PF40 "It's *like putting people in a cluster and stressing them out. Because it is unnecessary"*;

PF57 *"800 thousand threshold application is like a band-aid glued to a severed arm. Because it is an unreasonable, deceptive measure taken by ignoring the actual emergency."*;

PF58 *"800 thousand threshold applications are like garbage. Because TYT is about music, fine arts, etc. It is related to. It is not an exam that requires talent or is weighted by talent. Instead of TYT, a TYT-style exam should be conducted for the ability scale. Then to sift again, to hear, to write, to solfege, etc. it could be another test for skills"*.

Food and Beverage

These metaphors express strong personal dislike, discomfort, or dissatisfaction, often using imagery related to food that looks appealing but tastes unpleasant. The threshold is described as something externally attractive but internally unpalatable.

PM7 *"800 thousand threshold application is like fruit. Because when you collect a lot of income, you eat less"*;

PF51 *"800 thousand threshold applications are like rotten fruit. Because it spoils and rots other fruits as well as it is rotten"*;

PM53 *"800 thousand threshold applications are like hot pepper. Because you have difficulty eating, you suffer; it's like persecution, just like trying to cross a threshold"*;

PM56 *"The 800 thousand threshold application is like okra. Because I don't like it"*;

PM65 *"It's like a big/small tomato. Because the big one passes, the small one stays"*;

PF75 *"800 thousand threshold applications are like kiwi." Because kiwi is beautiful from the outside, but when it is eaten, it has a sour taste, and you cannot eat it. The 800 thousand threshold makes a lot of sense when you look at it, but people who are prepared for school of physical education and sports cannot get high scores as a result of the exam, and it gives a bad taste-feeling like kiwi"*.

Distinctiveness

Although "distinctiveness" was also used for positive metaphors, in this context, it carries a negative connotation. The threshold is an abstract, confusing, or alienating mechanism—difficult to understand and poorly suited to identify true potential.

PM10 *"It is like a foreign language. Because the one who can understand it speaks"*;

PF14 *"The 800 thousand threshold application is like a stone in a pile of rice. It's very difficult to select talented students from it"*;

PF42 *"The 800 thousand threshold application is like a written exam because without proper training, education cannot be given. To become a teacher, it is not enough to be good; you also need to have the language skills, general knowledge, and historical awareness to convey it to others"*;

PF6 *"The 800 thousand threshold application is like a purgatory. Because if you spit up, it is like a moustache; if you spit down, it is like a beard"*;

PF73 *"The 800 thousand threshold is like a strainer. Because big stones do not fall through it"*.

Injustice

Metaphors in this category highlight participants' perceptions of unfairness and lack of meritocracy in the implementation of the threshold. They suggest that success under this system depends more on external factors than on individual competence. PM8 *"The 800 thousand threshold application is like a fight. Because those who have the power win and those who don't lose"*;

PF29 *"The 800 thousand threshold application is like Türkiye. Because it has nothing to do with merit"*;

PM37 *"It is like an interview because conditions are stipulated, merit is not sought"*.

The Labour that Remains Unrequited

This category includes metaphors that reflect deep discouragement because participants feel that their efforts and potential are not rewarded under the current system.

PM24: *"800 thousand threshold applications are like landmines. When you think there is no problem, you suddenly explode"*;

PF62: *"800 thousand threshold applications are like dandelions. Because actually being able to enter the 800 thousandth ranking cannot be an indicator of success. Even if they*

can enter the 800 thousandth ranking, students without teaching qualifications and cannot demonstrate proficiency will disperse in leaps and bounds just like dandelion feathers".

Luck

The metaphor in this category highlights the arbitrary or uncontrollable nature of threshold applications.

PF83 *"The 800 thousand threshold is like a tide. It comes and goes during certain periods. When I took the university entrance exam, the 800 thousand threshold was in effect, so I couldn't apply for the music teaching program".*

Achieving Dreams

The metaphor here presents the threshold as an unreachable aspiration.

PF35 *"The 800 thousand threshold feels like a dream because it's very difficult for graduates of fine arts high schools".*

Table 4.

Distribution of Positive Metaphors for Pedagogical Formation According to Their Categories

Category	Metaphor	*f*
Need	To get a driver's license (PF15) Bread (PM31) Glasses (PM44) Vegetable (PM48) Water (PF57) Whole apple (PF60) The seed planted in the ground (PF62) Vitamina D (PM74) The watermelon at the greengrocer's (PM76)	9
Experience	The candle on the cake (PM5) The preface to teaching (PF18) A newborn baby (PF39) Driver's license (PM43) Medicine (PF45) Drinking water after a steep uphill climb (PF54) Training (PM56)	7
Achieving dreams	The freedom to color in the unfinished areas of a painting (PF28) The teaching of Mevlana (PM33) The flower that blooms in spring (PF47) Flower (PM64) Honey (PM77) Light (PM82)	6
Luck	Four-leaf clover (PF9) Honey (PM77)	2
Degree of difficulty	Marathon run (PM53)	1
Total		24

Table 4 presents the distribution of positive metaphors by category. Upon examination of the data, it was determined that the metaphors fall into a total of 5 distinct categories. A total of 24 positive metaphors were produced by the participants. The metaphors constituting these categories and their corresponding classifications are presented below;

Need

This category includes metaphors that reflect pedagogical formation as a basic and indispensable requirement for becoming a teacher. Participants likened it to essential life

elements such as water, bread, and vitamins, emphasizing that while teaching might be possible without it, true effectiveness and completeness come through formal pedagogical preparation.

PF15 *"Pedagogical formation is like getting a driver's licence because it is necessary to know the rules before going on the road"*;

PM31 *"Pedagogical formation is like bread because you can make it yourself at home, but you can also buy it easily from the market"*;

PM44 *"Pedagogical formation is like glasses because it helps you see more clearly ahead"*;

PM48 *"Pedagogical formation is like vegetables because they are different. For example, conservatory music teaching involves different courses, but formation courses are the same. Both are music schools. Those who do not pass the 800 thousand threshold cannot be considered unsuccessful"*;

PF57 *"Pedagogical formation is like water. Because it is necessary for everyone"*;

PF60 *"Pedagogical formation is like a whole apple because it cannot be considered complete without all its parts. When it is like a half apple, it eventually decays over time; however, when it is whole, the desired outcome can be achieved"*;

PF62 *"Pedagogical formation is like a seed sown in the soil because if the individual is suitable for teaching and manages to improve themselves under the necessary conditions, their contribution to the students they will raise will be significant"*;

PM74 *"Pedagogical formation is like vitamin D because even when we go outside, it can be absorbed from the sun unintentionally"*;

PM76 "Pedagogical formation is like the watermelon at the greengrocer's because the greengrocer gives you the right to taste the watermelon you like and choose".

Experience

In this category, pedagogical formation is portrayed as a process that enhances one's teaching abilities through experience and development. Participants emphasize its formative role in preparing individuals for real-life classroom settings.

PM5 *"The candle in the cake increases the experience increases as the candle increases"*;

PF18 *"It is the preface to teaching because it contains the key expressions that will serve as a guide when practicing the profession"*;

PF39 *"Pedagogical formation is like a newborn baby because life is just beginning"*;

PM43 *"Pedagogical formation is like a license because it means knowing how to transfer knowledge to education and teaching with certain rules and order"*;

PF45 *"Pedagogical formation is like medicine because it helps you reach the same level as healthy (successful) people"*;

PF54 *"Pedagogical formation is like the water drunk after a steep uphill because it is the ease that comes after difficulties"*;

PM56 *"Pedagogical formation is like training because both focus on the development of individual skills"*.

Achieving Dreams

This category includes metaphors that associate pedagogical formation with hope, opportunity, and the realization of professional dreams. It is often described as a second chance or a means of self-fulfillment.

PM33 "*Pedagogical formation is similar to Mevlana's teaching because it accepts all parts and is similar to the teaching of come as you are, whoever you are"*;

PF47 *"Pedagogical formation is like a flower blooming in spring. Pedagogical formation gives a new chance and brings happiness to those who did not study music teaching but want to become music teachers"*;

PM64 *"Pedagogical formation is like a flower because a flower that does not bloom on time can bloom with Pedagogical formation. Teaching is reinforced by the subjects taught, but teaching is a feeling that comes from within"*;

PM77 *"Pedagogical formation is like honey because it increases the possibility of becoming a teacher"*;

PM82 *"Pedagogical formation is like light because it illuminates the path to teaching"*.

Degree of Difficulty

This single metaphor reflects pedagogical formation as a long and demanding journey.

PM53 *"Pedagogical formation is like a marathon run because both are journeys that require a long preparation process and continuous effort"*.

Luck

Metaphors in this category reflect the view that access to pedagogical formation sometimes depends on external circumstances or chance rather than solely on effort or merit

PF9 *"The formation application is like finding a four-leaf clover among three-leaf clovers. Because a teacher cannot be made only by the scores received and the exams passed. Maybe it is a changing door of luck"*.

Table 5.

Distribution of Negative Metaphors Towards Pedagogical Formation According to Their Categories

Category	Metaphor	*f*
Injustice	A rich person eating meat while a poor person eats dry bread (PM2) Contradicting one's own words (PM4) Favoritism (PM6) Mine (PM8) Theft (PM10) Overtaking on the wrong lane (PF11) Financial trap (PF12) A public space (PF19) Writing in a notebook with an empty pen (PF22) Teaching in a private school in a field other than the one we studied (PF23 Evening market (PM24) Roken sieve (PF27) Someone cutting ahead of you and stealing your turn (PF29) İnjustice (PF35) Favoritism (PF42) A student who does not contribute in a group project (PF49) An athlete who uses performance-enhancing drugs (PF50) Spider-Man having oil on his feet (PM59) Counterfeit teaching (PM65) Theft (PF70) Paradox (PF72)	21
Degree of difficulty	Nonsensical (PF16) Modified vehicle (PF25) Türkiye (PM30) Racing a horse and a donkey under identical conditions (PM34) Broken glass (PM37) Movie (PF52) Reminds me of friends who try to limit me (PF55) Partially disabled (PF58) Smoking (PF67) Purgator (PF68) Child (PM69) The Great Wall of China (PF75) NAS economy system (PM78) Bitter food (PM79) Downhill road (PM80) Sledgehammer (PM81) Tide (PF83)	17
Worthless	Appetizer (PF1) Garbage (PF14) Money falling from the sky (PF26) Murky water (PF36) Money laundering scheme (PM38) Stepchild (PF40) Weed (PF51) A garden with a gate but no fence (PF63) Weed (PF71)	9
Achieving dreams	Rainbow (PF3) A fake happiness bought with money (PM13) Interest (PF17) National Lottery (PF32) Hopelessness PF41) Rose (PF73)	6
Luck	Dice in a backgammon game (PM20) Gambling (PM21) Your luck in Türkiye (PF46)	3
Lack	A dessert without sugar (PF61) Seedless olive (PF66)	2
Experience	Advice (PM7)	1
Total		59

Table 5 presents the distribution of negative metaphors. As observed from the data, the highest number of metaphors produced in the study were negative. Participants generated a total of 59 negative metaphors. Upon examining the data, it was determined that the metaphors fall into 7 distinct categories. The most frequently preferred category was injustice, followed by the difficulty level category. The metaphors and their associated categories presented in the table are as follows:

Justice

This category contains metaphors that portray pedagogical formation as a mechanism of unfairness, inequality, and injustice, particularly in relation to access, effort, and outcomes. Participants express frustration that those who have not met official thresholds or who have not undergone a full teaching degree are still granted access to the profession—undermining the value of formal education and hard work.

PM2 *"Pedagogical formation is like a rich person eating meat while a poor person eats dry bread, because it represents an unfair practice and a wrong decision"*;

PM4 *"Pedagogical formation is like someone who contradicts their own words. While admission criteria are set for students entering the faculty of education, these criteria are neither applied to those receiving pedagogical formation nor is there any significant effort required to become a teacher through this route. In fact, those who complete pedagogical formation take almost the same courses as students enrolled in the faculty of education. It's similar to the example I gave earlier: while I can only enter the country after obtaining a visa, those who issue visas knowingly allow visa-free entry for others. Therefore, either the pedagogical formation system should be abolished, or the ranking requirement of 800 thousand should be enforced"*;

PM6 *"Pedagogical formation is like favoritism in an interview because a student who studies and works hard for four years is equated with a student who completes just one year of formation, and the one-year formation student gains access to a profession that typically requires a four-year degree"*;

PM8 *"Pedagogical formation is like a mine because it contains both valuable and worthless materials"*;

PM10 *"Pedagogical formation is like theft because our efforts are being stolen"*; PF11 *"Pedagogical formation is like overtaking on the wrong lane because it involves taking a path that is not rightfully deserved"*;

PF12 *"Pedagogical formation is like a financial trap because it dims the emotions and futures of young people. It undermines the importance of passing the teaching program entrance exams and causes difficulties during the transition to the profession. Furthermore, students participating in the formation program have often failed to meet the threshold of the teaching faculty and, due to limited capacity, will face challenges in their professional careers, leading to hopelessness about their future. Whether students who pay for the formation program become teachers or not has never truly mattered to anyone"*;

PF19 *"Pedagogical formation is like a public space where no one knows who comes in or goes out"*; PF22 *"It is like writing in a notebook with an empty pen because it disregards the efforts of those who struggled to rank within 800 thousand"*;

PF23 *"Pedagogical formation is like teaching in a private school outside of the branch we studied. Given its current conditions, it is the very embodiment of injustice. The quality of education provided cannot even be compared to that of someone who studied teaching for four years"*;

PF24 *"Pedagogical formation is like an evening market, where anyone can buy whatever they want"*;

PF27 *"Pedagogical formation is like a broken sieve because it provides an open and unfair gateway for those who cannot achieve a rank within the top 800 thousand in the university entrance exam"*;

PF29 *"Pedagogical formation is like someone cutting in front of you while you're waiting in line, taking away what is rightfully yours"*;

PF35 *"Pedagogical formation is like injustice itself. While students who enter faculties of education demonstrate talent and pass difficult exams, taking heavy coursework to graduate, those who take formation often have no knowledge of the subjects we study."* However, by attending only a few of the same classes, students earn two diplomas. In a system in which individuals who have barely presented a proper project receive two diplomas, those of us who have worked under far more demanding conditions are not even considered equally qualified. If this is not injustice, what is"*;

PF42 *"Pedagogical formation is like favoritism. Some fight tooth and nail to become teachers, while others treat it as a backup profession to fall back on"*;

PF49 *"Pedagogical formation can be compared to a student who does not contribute in a group project. In both cases, while some individuals work hard, strive, and invest significant effort, others receive the same reward without making any contribution pedagogical formation can be compared to a student who does not contribute in a group project. In both cases, while some individuals work hard, strive, and invest significant effort, others receive the same reward without making any contribution"*;

PF50 *"Pedagogical formation is analogous to an athlete who uses performance-enhancing drugs. Among two individuals at the same professional level, one attains their position through genuine personal effort, while the other benefits from an artificially enhanced path"*;

PM59 *"Pedagogical formation is like Spider-Man having oil on his feet, preventing him from sticking to buildings."* You set high standards to ensure only quality students become teachers, yet you end up placing those who fail to meet the standards on equal footing with others"*;

PF70 *"Pedagogical formation is like theft, because no matter how attractive it seems, it infringes upon others' rights"*;

PF72 *"Pedagogical formation is like a paradox, because on one hand it sets boundaries, while on the other hand it is completely open to everyone"*.

Degree of Difficulty

This category frames pedagogical formation as a confusing, burdensome, and emotionally draining experience, full of contradictions and inefficiencies. Participants report struggling with a system that feels incomplete, misaligned, or overly demanding-especially when added to their existing workload.

PF16 *"Pedagogical formation is nonsensical. It places obstacles in front of students who have already been admitted to teaching programs"*;

PF25 *"Pedagogical formation can be likened to a modified vehicle, as it diverges from the intended original path"*;

PM30 *"Pedagogical formation resembles Türkiye in that there is always a loophole in the law, allowing one to find a way around the obstacles placed before the intended actions"*;

PM34 *"Pedagogical formation is like racing a horse and a donkey under the same conditions (in colloquial terms, roughly) because it allows those who receive mostly practical training without the same theoretical education and effort to take the same exam and qualify for the same profession"*;

PM37 *"It is like trying to fix a broken glass. I believe pedagogical formation is not being delivered properly"*;

PF52 *"Pedagogical formation is like a movie trailer because no matter how many trailers you watch you can never truly understand the full film or grasp its content"*;

PF55 *"Pedagogical formation is like my friends who try to hold me back because there is always a sense of hope even within that struggle"*;

PF67 *"Pedagogical formation is like smoking, because you want to quit, but you can't since you have to think about your future"*;

PF68 *"Pedagogical formation is like purgatory because whatever you choose to do you are stuck in a no win situation"*;

PM69 *"Pedagogical formation is like a child because you cannot just throw it away nor easily give it up"*;

PF75 *"Pedagogical formation is like the Great Wall of China. From the outside, it looks magnificent and makes you want to visit, but the path is so long that you cannot finish it all at once. Receiving pedagogical formation is valuable, yet being given too much at once causes difficulties both in other courses and the formation classes"*;

PM78 *"Pedagogical formation is like the NAS economy system because you try to save an economic crisis with one last effort but it doesn't help"*;

PM79 *"Pedagogical formation is like a bitter dish because despite being unfair, its taste is good"*; PM80 *"Pedagogical formation is like a downhill road because the faster you go into teaching, the more tired you become"*;

PM81 *"Pedagogical formation is like a sledgehammer because it destroys the system it does not approve of"*;

PF83 *"Pedagogical formation is like a tide because it comes and goes in certain periods. When the formation program is available, courses are often not opened to us, causing delays in my semester and postponing my graduation"*.

Worthless

Metaphors in this category reflect perceptions that pedagogical formation lacks substance, meaning, or educational value. Participants describe it as "garbage," "murky water," or "a stepchild", indicating that it is neglected, superficial, or seen as an afterthought in the broader education system.

PF1 *"Pedagogical formation is like an appetiser because whatever your meal is, it comes with it"*;

PF14 *"Pedagogical formation is likened to garbage, as it is perceived to be unnecessary"*;

PF26 *"Pedagogical formation is likened to money falling from the sky, as it is granted to anyone who asks for it, without requiring any significant effort"*;

PF36 *"Pedagogical formation is like murky water, as the suspended particles within the water spoil its taste. It is also comparable to potted plants at home, which, without receiving the nutrients from their natural environment, share the same name as other plants but lack their full potential"*;

PM38 *"Pedagogical formation is like a money laundering scheme designed with reduced quality accelerated education, primarily focused on the financial returns"*;

PF40 *"Pedagogical formation is likened to a stepchild, as it lacks the necessary care and sensitivity"*;

PF51 *"Pedagogical formation is likened to a weed growing in a garden, as no one appreciates it"*;

PF63 *"Pedagogical formation is like a garden with a gate but no fence, because both paths lead to the same entrance"*

PF71 *"Pedagogical formation is like weed because no one wanted to consume it"*.

Achieving Dreams

This category is marked by disillusionment. While pedagogical formation might promise career fulfillment, the metaphors reflect how this promise often fails to materialize. Participants suggest that formation creates false hope or unattainable dreams, much like a rainbow or a lottery ticket. These metaphors imply that formation often sells an ideal that does not match reality.

PF3 *"Pedagogical formation is like a rainbow because you think you will become rich if you pass under it, but neither can you pass under it nor does passing under it guarantee*

wealth, just like how everyone who completes the formation thinks they can become a true teacher";

PM13 *"Pedagogical formation resembles a fake happiness bought with money, because someone who takes a shortcut and obtains formation may see themselves as superior to those who have studied and worked hard for years in that field"*;

PF17 *"Pedagogical formation is like interest because you consider it forbidden but still cannot give it up"*;

PF32 *"Pedagogical formation is like a national lottery because you become a teacher without putting in any effort"*;

PF73 *"Pedagogical formation is like a rose because it looks beautiful and appealing from a distance, but when you hold it, its thorns prick you"*.

Luck

These metaphors highlight the random, unpredictable, and arbitrary nature of pedagogical formation opportunities. Access to teaching through formation is perceived as depending more on chance than merit. The process is likened to gambling or rolling the dice, suggesting a lack of clear, fair criteria.

PM20 *"Pedagogical formation is like dice in backgammon. Because the Decrement of good teachers depends on luck"*;

PM21 *"Pedagogical formation is like gambling because the teaching qualifications of people who can become teachers without a full education depend on luck"*;

PF46 *"Pedagogical formation is like your luck in Türkiye because you never know when or how it will happen"*.

Lack

This category conveys that pedagogical formation lacks essential qualities needed for quality teaching. The metaphors suggest incompleteness or deficiency.

PF61 **"***Pedagogical formation is like a dessert without sugar because it lacks the essential element that gives it its true taste. Without pedagogical formation, effective learning cannot occur. Just like a sugarless dessert, education without formation lacks flavor and impact"*;

PF66 *"Pedagogical formation is like a seedless olive, because without it, effective teaching methods cannot exist"*.

Experience

Only one metaphor falls into this category, but it still carries a negative connotation. It is concern that not all students receiving formation are ready or capable of understanding its content or applying it effectively, questioning its universal applicability.

PM7 *"Pedagogical formation is like advice because you have to be careful about who you give it to and who will understand it"*.

Discussion and Conclusion

This study aimed to explore the metaphorical perceptions of students from institutions admitting students through special talent examinations concerning the implementation of the 800 thousand threshold and pedagogical formation education. The findings reveal that metaphorical expressions vary significantly depending on participants' academic backgrounds, program types, and professional trajectories.

Regarding the 800 thousand thresholds, it was observed that the majority of positive metaphors were produced by pre-service teachers enrolled in faculties of education. These students generally perceived the threshold as a mechanism for ensuring quality and merit in the teaching profession. They conceptualized it as a legitimate filtering tool-contributing to educational standards and societal welfare. On the other hand, negative metaphors were predominantly produced by students from other disciplines, such as fine arts faculties, conservatories, and sports sciences faculties. These students frequently framed the threshold as a restrictive, exclusionary, and unjust system that undermines talent and creates unnecessary barriers to entry.

This distribution suggests that students engaged in formal teacher education tend to regard the threshold positively-as a step toward professional development and an assurance of educational qualification. Conversely, students outside of education faculties -particularly those in performance- and skill-based programs- often interpret it as a structural impediment that fails to account for diverse forms of intelligence and ability.

Similarly, metaphorical perceptions regarding pedagogical formation differed based on institutional affiliation and context. Students who gained teaching qualifications through the pedagogical formation program produced more positive metaphors, often conceptualizing formation as a necessity, a foundational element, or a transformative journey toward becoming a teacher. These metaphors emphasized personal development, opportunity, and readiness for professional life. However, despite these positive perspectives, participants from practice-oriented disciplines (e.g., conservatories and sports sciences) frequently expressed negative views, emphasizing the insufficiency, structural inconsistency, and temporary nature of the formation process.

The analysis revealed that metaphors regarding the 800 thousand threshold were grouped under six positive and nine negative categories. Among the positive metaphors, the most frequently recurring themes were "distinctiveness," "degree of difficulty," and "food and beverage." These metaphor categories reflect perceptions of the threshold as a meaningful distinction mechanism, a challenge worth overcoming, and an enriching supplement to the educational system. Notably, these themes resonate with the findings of Demirel and Sözer (2023), who emphasized that the development of qualified teachers relies not only on talent and subject knowledge but also on general cultural competence. Similarly, Yetim (2004) highlighted that well-trained teachers play a critical role in the advancement of societal welfare-lending theoretical support to the prominence of the "distinctiveness" metaphor category in the present study.

When analyzing negative metaphors concerning the threshold, the most frequently preferred categories were "degree of difficulty," "worthlessness," and "food and beverage." These categories indicate a perception of the threshold as overly burdensome, meaningless, or unpleasant. In line with these findings, Üçer et al., (2023) emphasized that the 800 thousand threshold posed a barrier for highly talented students, while Başbuğ and Kaya (2022) observed a decline in the number of applicants, successful candidates, and registered students in talent-based programs following the implementation of the TYT threshold. Similarly, Atar and Yılmaz (2012) noted that students with high talent scores were unable to enroll in relevant programs due to threshold restrictions. These findings align with the frequent recurrence of the "degree of difficulty" category in this study's metaphor data.

Based on these results, it may be concluded that the negative metaphors concerning the 800 thousand threshold point to its function as a barrier that hinders access for talented students, while at the same time enabling the admission of students from unrelated fields, thereby creating a paradox. Nonetheless, the larger number of positive metaphors overall suggests that participants held a generally favorable view of the threshold application. This suggests that many students believe the individual who becomes a teacher should not be an ordinary person, but someone who is well-equipped, intellectually capable, and professionally competent.

In terms of pedagogical formation, the data revealed that positive metaphors were categorized into five groups, while negative metaphors were classified under thirteen categories. Importantly, participants produced a higher number of negative metaphors, suggesting that their overall perception of formation education was largely negative. These negative views focused on themes such as "worthlessness," "injustice," and "fraud," indicating that students frequently questioned the legitimacy, effectiveness, and fairness of the formation process.

This contrasts with the findings of Köybaşı and Uğurlu (2018) in their study titled "Metaphors Developed by Undergraduate Students for Pedagogical Formation Courses," where the majority of metaphors were positive. This difference may be attributed to the sample characteristics of the present study, which included a higher proportion of students from faculties other than education. These students likely have a more external, critical perspective on the formation process. Additionally, Yapıcı and Yapıcı (2013) found that the dominant negative metaphors among pre-service teachers were categorized under "obligation," "wasted time," and "torture," which aligns with this study's negative metaphor categories, particularly those highlighting structural contradictions and perceived inefficacy.

In conclusion, the metaphorical perceptions revealed in this study highlight how institutional affiliation, academic discipline, and educational pathway significantly influence students' attitudes toward both the 800 thousand threshold and pedagogical formation. While students in teacher education programs tend to view the threshold as a necessary and meaningful qualification process, students in talent-based fields express concern about exclusion, inequality, and the misalignment between policy and potential. Furthermore, although pedagogical formation is perceived positively by some as a vital tool for professional

preparation, many students from non-education faculties consider it to be an ineffective or superficial measure that lacks depth, consistency, and fairness.

These insights underscore the importance of re-evaluating teacher qualification policies, including threshold criteria and pedagogical formation practices, with greater sensitivity to disciplinary diversity, equity in access, and the unique needs of students across educational contexts.

Recommendations

High schools in fine arts and sports should present culture courses with content and resources that will support students' success in the TYT exam.

Guidance and support programs should be created to ensure that students who will take the talent exam understand the importance of the TYT threshold and prepare for this exam appropriately.

In order for the 800-threshold application to be more effective and fair, it should be applied to candidates who have graduated from different departments and received formation education, and equality should be ensured among the candidates.

It is recommended that the research be expanded to include more teacher candidates and repeated with participants from different regions or groups.

The research should be applied to different education faculties and departments that can receive pedagogical formation education, thus diversifying the results and increasing their scope.

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Author 2: 30%

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The authors declare that there is no conflict of interest or any material or individual organic link with any person or institution involved in the research.

Notice of Use of Artificial Intelligence

The authors utilised artificial intelligence tools for the purposes of literature review, translation of the written text into English, and refinement of paragraph structures to ensure clarity and academic tone in the authorship and publication of this article.

Yetenek Sınavı ile Üniversiteye Yerleşen Öğrencilerin 800 Bin Barajı ve Formasyon Eğitimine Yönelik Metaforik Algıları

Özet

Bu çalışma, özel yetenek sınavlarıyla öğrenci kabul eden yükseköğretim programlarında öğrenim gören öğrencilerin 800 bin başarı sıralaması barajı ve pedagojik formasyon eğitimine ilişkin metaforik algılarını incelemeyi amaçlamaktadır. Nitel araştırma desenine sahip bu durum çalışmasına Güzel Sanatlar Eğitimi, Güzel Sanatlar Fakültesi, Konservatuvar ve Spor Bilimleri Fakültesi'nden toplam 83 öğrenci katılmıştır. Her katılımcı, her iki konuya ilişkin birer metafor üretmiş ve toplamda 166 metafor toplanmıştır. Veriler içerik analizi yöntemiyle değerlendirilmiş, metaforlar olumlu ve olumsuz olarak sınıflandırılmıştır. 800 bin barajına ilişkin 43 olumlu, 40 olumsuz metafor belirlenmiş; olumlu metaforlar özellikle "ayırt edicilik" ve "zorluk düzeyi" temaları etrafında toplanmış ve barajın öğretmen kalitesini artırmaya yönelik bir filtre olarak görüldüğü anlaşılmıştır. Öte yandan, olumsuz metaforlar "adaletsizlik", "değersizlik" ve "engelleyicilik" temalarında yoğunlaşmış; özellikle yetenek temelli bölümlerdeki öğrencilerin merkezi sınav sisteminden olumsuz etkilendiği görülmüştür. Pedagojik formasyonla ilgili 24 olumlu ve 59 olumsuz metafor üretilmiştir. Olumlu metaforlar formasyonu bir "gereklilik", "deneyim kazanma" ve "hayallere ulaşma aracı" olarak değerlendirmiştir. Olumsuz metaforlar ise formasyonu "yetersiz", "geçici", "hakkaniyetsiz" ve öğretmenlik mesleğinin niteliğini zayıflatan bir uygulama olarak tanımlamıştır. Genel olarak öğrenciler, 800 bin barajını öğretmen seçimi açısından daha olumlu karşılarken, pedagojik formasyon eğitimine dair algılar daha çok olumsuzdur. Araştırma sonunda, barajın öğretmen yetiştirme programlarıyla uyumlu hâle getirilmesi, Temel Yeterlilik Testi [TYT] hazırlığının desteklenmesi ve formasyon sürecinin daha adil ve nitelikli biçimde yeniden yapılandırılması önerilmektedir.

Anahtar Kelimeler: Özel yetenek sınavı, 800 bin başarı sıralaması, pedagojik formasyon eğitimi, metafor.

Giriş

Eğitim, insanlığın varoluşundan bu yana bireylerin yeteneklerini keşfetmeleri, geliştirmeleri ve kendilerini ifade etmeleri için temel bir araç olmuştur. Toplumların yeniliklere uyum sağlaması ve çağdaş medeniyet seviyesine ulaşması açısından da büyük önem taşır. Bu nedenle, eğitimin planlanması ve amaçlarının belirlenmesi dikkatle yapılmalıdır (Boduroğlu, 2010). Eğitim kadar sanat da insanlık tarihi boyunca önemli bir yer tutmuş; bireysel ve toplumsal kimlikleri yansıtan, şekillendiren ve dönüştüren temel bir insan etkinliği olmuştur. Sanat sadece estetik değil, ruhsal ve ahlaki gelişim açısından da önemlidir. Bilirdönmez ve Karabulut (2016), sanatı öğrenmenin özgün bir yolu olarak tanımlar. Sanat, eğitimin bireysel gelişimi destekleme sürecinde yaratıcılığı, eleştirel düşünmeyi ve duygusal zekâyı besleyen önemli bir unsurdur. Aynı zamanda bireylerin anlam inşa etmelerine, çevrelerini kavramalarına ve dil ya da kültür farklarını aşarak iletişim kurmalarına yardımcı olur (Eisner, 2002; Winner vd., 2013).

Eğitim birçok alanda verilmektedir ve bunlar arasında en etkili olanlardan biri sanat eğitimidir. Bilirdönmez ve Karabulut'un (2016) insan ve sanat ilişkisine dair bulguları, sanatın

insan yaşamının doğal ve vazgeçilmez bir parçası olduğunu ortaya koymaktadır. Sanat, tarih öncesi mağara resimlerinden günümüz dijital medyasına kadar hem iletişim hem de dönüşüm aracı olarak hizmet etmiştir. Bu nedenle insan ile sanat arasında güçlü bir bağ bulunmaktadır.

Sanat eğitimi, geleneksel eğitimden farklı olarak dinamik ve bütüncül bir öğrenme yaklaşımı sunar. Yaratıcı, özgün düşünebilen ve çözüm odaklı bireyler yetiştirir. Balcı'ya (2024) göre sanat eğitimi, katı gelenekçilikten uzaklaşarak eğitime canlılık ve esneklik kazandırır; öğrencilerin kendilerini özgürce ifade etmelerini ve sorunlara farklı açılardan yaklaşmalarını sağlar. Sanat eğitimi alan bireyler, toplumsal sorunlara yaratıcı ve etkili çözümler üretebilen, hedef odaklı çalışmalar yapabilen ve değerleri doğrultusunda tutarlı davranabilen kişiler olarak bilinmektedir. Eisner'a (2002) göre sanat eğitimi, bireylerin eleştirel düşünme, problem çözme ve kendini ifade etme becerilerini geliştirir; bu beceriler modern toplumda aktif katılım için oldukça önemlidir. Sanat eğitimi, kişilik gelişimiyle de yakından ilişkilidir; bireyin kimlik oluşumuna, duygusal zekâsına ve ahlaki değerlerine katkı sağlar (Winner, vd., 2013).

Türkiye bağlamında, sistemli sanat eğitimi alan öğrencilerin estetik algılarının daha yüksek olduğu ve sosyal-kültürel değerlere karşı daha duyarlı oldukları vurgulanmaktadır. Bu bireyler sanata ve sanatçıya değer verir, estetik deneyimleri takdir eder ve çevreleriyle daha bilinçli ve düşünceli bir etkileşim kurarlar. Duncum'un (2009) belirttiği gibi, sanat eğitimi görsel okuryazarlığı ve dünyayı eleştirel bir bakışla yorumlayabilme yetisini geliştirir; böylece bireylerin toplumsal söylemlere aktif katılımını destekler. Bu anlamda sanat eğitimi almış bireyler sadece daha yaratıcı değil, aynı zamanda toplumsal sorunlara karşı daha duyarlı ve çözüm odaklıdır.

Eldemir'e (2011) göre güzel sanatlar bölümü, sanatı tanıtan ve yaygınlaştıran, zamanla sanatçı-öğretmen profili oluşturan bireyler yetiştirmeyi amaçlamaktadır. Eğitim fakülteleri öğretmen, güzel sanatlar fakülteleri ve konservatuvarlar ise sanatçı yetiştirir (Yalçın, 2017). Güzel sanatlar fakülteleri, sanat eğitimi vererek toplumun sanatsal gelişimine yön verebilecek bireyler yetiştirir. Konservatuvarlar ise müzik bilimcisi, araştırmacı ve sanat teknolojistleri yetiştirerek hem ulusal hem de küresel sanatsal ve kültürel anlayışı olan sanatçılar yetiştirmeyi hedefler (Korkmaz & Karkın, 2023). Eğitim fakültelerinde güzel sanatlar ve müzik öğretmenleri yetiştirilirken, güzel sanatlar fakültesi öğrencileri de lisans sırasında veya sonrasında formasyon eğitimi alabilmektedir. Spor eğitimi veren kurumlar, bireylerin fiziksel gelişimini destekleyerek topluma spor bilinci kazandırmayı amaçlar. Bu alanda eğitim fakülteleri, spor akademileri ve spor bilimleri fakülteleri önemli rol oynar (Devecioğlu vd., 2011). Güzel sanatlar, konservatuvar ve spor bilimleri fakültelerinden mezun olup öğretmen olmak isteyen bireylerin formasyon eğitimi almaları gereklidir. Bu eğitim, öğretim yeterliklerini kazandırarak mesleki gelişim ve sınıf içi hazırbulunuşluğu destekler (Bolzan, vd., 2013).

Pedagojik formasyon eğitimi, öğretmenlik mesleğine kaynaklık eden lisans programlarından mezun olanlara verilen bir sertifika programıdır (Yükseköğretim Kurulu [YÖK], 2023). Türkiye'deki formasyon programları, güzel sanatlar fakülteleri, konservatuvarlar ve spor bilimleri fakültelerinden mezun olanlara öğretmenliğe alternatif bir geçiş imkânı sunar. Bu durum özellikle eğitim fakültelerine doğrudan yerleşmek için gerekli

olan 800 bin başarı sıralamasını karşılayamayan öğrenciler için önemlidir. YÖK tarafından uygulanan bu baraj, öğretmen niteliğini artırmayı hedeflese de müzik, görsel sanatlar ve beden eğitimi gibi alanlardaki öğrencilerin öğretmenliğe erişimini zorlaştırmıştır. Ancak formasyon eğitimi sayesinde bu öğrenciler öğretmenlik yeterliliği kazanarak eğitim sistemine katkıda bulunabilmektedir.

2020 yılında yapılan düzenlemeyle, özel yetenek sınavlarına başvuruda Temel Yeterlilik Testi'nden [TYT] 150 puan alma şartı yerine "en düşük 800 bin başarı sırası" şartı getirilmiştir (Demirel & Sözer, 2023). Bu değişiklik, sayısal-sözel başarıyı ön plana çıkararak sanatsal ve sportif yetenekleri geri planda bırakmıştır. Güzel Sanatlar ve Spor Liseleri mezunları için başvuru süreci zorlaşmış, bazıları sınava girme hakkını kaybetmiş ve kontenjanlar boş kalmıştır. Bu durum, yetenekli ancak TYT'de başarılı olamayan öğrencilerin sistem dışına itilmesine, sanat, müzik ve beden eğitimi gibi alanlarda nitelikli öğretmen yetiştirilmesinde sorunlara ve motivasyon kaybına yol açmaktadır (Atar & Yılmaz, 2012; Sağer, 2007). TYT müfredatı, sanat eğitimi almış bireyler için dezavantaj yaratmakta ve yetenek kaybına neden olmaktadır (Demirel & Sözer, 2023).

Öğretmen atamalarından Milli Eğitim Bakanlığı [MEB] sorumlu olsa da, pedagojik formasyon eğitimi YÖK denetimindeki üniversiteler tarafından verilmektedir (YÖK, 2023). Bu program, merkezi sınav koşullarından dolayı öğretmenlik fakültelerine giremeyen öğrenciler için esnek bir alternatif sunmaktadır. Ancak araştırmalar, bu yolun etkili öğretmenlik için gereken yeterlikleri tam olarak karşılamadığını göstermektedir. Örneğin Özgül'ün (2023) çalışması, formasyon sürecinin müzik öğretmenliği için yeterli olmadığını ortaya koymuş ve öğretmen yetiştirme yapılarının yeniden değerlendirilmesi gerektiğini vurgulamıştır. Kasap, Balsüzen ve Dinç Altun'un (2024) araştırması ise, başarı sırası barajının kültürel derslerde olumlu, alan derslerinde ise olumsuz etkiler yarattığını göstermiştir. Öğrenciler sınavlara odaklandıkları için uygulamalı eğitime ve öğretmenlik mesleğine olan ilgileri azalmaktadır. Ayrıca Müzik Eğitimcileri Derneği [MÜZED] gibi meslek örgütleri, 800 bin başarı sırasının güzel sanatlar ve spor liselerinden mezun olan öğrencilerin öğretmenlik yapmalarını engellediğini belirtmekte ve daha kapsayıcı bir yaklaşımın gerekliliğini vurgulamaktadır.

Eğitim fakültelerinin müzik, görsel sanatlar ve beden eğitimi öğretmenliği bölümlerine yerleştirmede uygulanan 800 bin başarı sırası barajı, bu alanlardaki öğrenci sayısında azalmaya neden olmuştur. Özellikle Güzel Sanatlar ve Spor Liseleri mezunları bu baraj nedeniyle eğitim fakültelerine başvuramamış; kontenjanlar boş kalmıştır. Bunun sonucunda öğrenciler alternatif olarak konservatuvarlara, güzel sanatlar ve spor bilimleri fakültelerine yönelmiştir (Başbuğ & Kaya, 2022).

Eğitim fakültelerinde öğretmen adayları dört yıl boyunca pedagojik formasyon alırken, diğer fakültelerden mezun olanlar genellikle bu eğitimi bir yıllık yoğun programlarla tamamlamaktadır. Bu durum, mesleki yeterlilik ve uygulama becerilerinde farklılık yaratmaktadır. 800 bin barajı ve formasyonun alternatif bir öğretmenlik yolu olması, bu yapısal sınırlamalar altında öğretmen adaylarının eğitim ve mesleki gelecek algılarının anlaşılmasını önemli kılmaktadır (Öztürk vd., 2025). Kaliteyi artırma amacı taşıyan bu uygulama, pedagojik formasyonu tek seçenek olarak gören adayların motivasyonunu, kariyer planlamasını ve mesleki kimlik gelişimini olumsuz etkileyebilmektedir (Zepke, 2013).

Bu bağlamda, öğretmen adaylarının 800 bin başarı sırası barajı ve formasyon eğitimine dair algılarını incelemek, onların eğitim deneyimlerini ve duygusal dünyalarını anlamak açısından önemlidir. Bu çalışma, adayların bu uygulamalara yönelik metaforik algılarını ortaya koymayı amaçlamaktadır. Metafor analizi, bireylerin soyut ve karmaşık kavramları simgesel ifadelerle nasıl anlamlandırdıklarını gösteren güçlü bir nitel yöntemdir. Eğitim araştırmalarında metaforlar, geleneksel ölçme araçlarının ötesine geçerek katılımcıların duygu ve deneyimlerini daha derinlemesine ortaya çıkarır (Saban, 2008). Öğretmen kimliği, duygusal ve bilişsel süreçlerle şekillenir; metaforlar bu süreci görünür kılar. Örneğin formasyonun "can simidi" ya da "son şans" gibi görülmesi, farklı duygusal yaklaşımları yansıtır ve eğitim politikalarına yön verebilir. Metafor analizi yalnızca betimleyici değil, aynı zamanda değerlendirme ve çözüm üretme aracı olarak da işlev görür. Bu tür bir çalışma, öğrencilerin uygulamaları nasıl algıladığını ve bunun eğitim süreçlerine etkisini ortaya koyar. Böylece eğitim uygulamalarının öğrenci deneyimleri üzerindeki etkileri daha iyi anlaşılabilir.

Metaforlar, bireylerin duygu, düşünce ve deneyimlerini ifade ederken kullandıkları güçlü bir iletişim aracıdır ve bu yönüyle araştırmacılara katılımcıların iç dünyasına daha derinlemesine ulaşma imkânı sunar (Fainsilber & Ortony, 1987). Metafor analizi, katılımcıların duygusal tepkilerini, düşüncelerini ve deneyimlerini anlamayı kolaylaştırarak araştırma sonuçlarının daha kapsamlı değerlendirilmesine yardımcı olur. Pedagojik formasyon ve 800 bin başarı sırası barajı, farklı paydaşlar tarafından kimi zaman bir engel, kimi zaman bir fırsat olarak algılandığından, öğretmen adaylarının bu kavramlara yüklediği öznel anlamların anlaşılması önemlidir.

Bu çalışma, özel yetenek sınavı ile öğrenci alan kurumlardaki öğrencilerin 800 bin barajı ve formasyon eğitimine yönelik metaforik algılarını belirlemeye yönelik planlanan ilk araştırma olması açısından özgün bir nitelik taşımaktadır. Araştırmaya müzik eğitimi, resim-iş eğitimi, devlet konservatuvarları, güzel sanatlar fakülteleri ve beden eğitimi öğretmenliği bölümlerinden birçok öğrenci katılmıştır. Müzik, güzel sanatlar ve beden eğitimi alanlarındaki öğrencilerden metafor toplanmış olması, çalışmayı alanyazında nadir görülen ve özgün kılan önemli bir katkı sağlamaktadır.

Bu amaçla şu sorulara cevap aranmıştır:

1. Öğretmen adaylarının 800 bin baraj uygulamasına ilişkin metaforik algıları nedir?

2. Öğretmen adaylarının formasyon eğitimine ilişkin metaforik algıları nedir?

Yöntem

Araştırma Modeli

Bu çalışma nitel araştırma yaklaşımlarından durum çalışması modelinde yönetilmiştir. "Durum çalışması, bir ya da birkaç durumun derinlemesine araştırılmasını içeren holistik (bütüncül) bir nitel araştırma modelidir (Öztuna Kaplan, 2013).

Çalışma Grubu

Araştırmanın çalışma grubunu farklı üniversitelerden güzel sanatlar eğitimi bölümü müzik eğitimi programı, güzel sanatlar eğitimi bölümü resim-iş öğretmenliği programı, güzel sanatlar fakültesi resim bölümü, konservatuvar sahne sanatları bölümü, spor bilimleri

fakültesi spor yöneticiliği bölümü öğrencileri oluşturmaktadır. Çalışmaya toplam 114 öğrenci katılmıştır. Ancak geçerli metafor cümleleri üreten 49'si kadın, 34'ü erkek toplamda 83 öğrenci çalışmaya dahil edilmiştir.

Öğrencilerin 800 bin barajı ve formasyon eğitimine yönelik algılarını belirlemek amacıyla metafor formu dağıtılmış ve aşağıdaki cümlelerdeki boşlukları kendilerine göre doldurmaları istenmiştir:

"800 bin barajı … gibidir, çünkü …"

"Formasyon eğitimi … gibidir, çünkü …"

Saban'a (2004) göre metaforlar, bireylerin olayların oluşumu ve işleyişine dair düşüncelerini yapılandırma, yönlendirme ve kontrol etmede etkili zihinsel araçlar arasında yer almaktadır. Ayrıca veri toplama formunda öğrencilerin cinsiyet ve bölüm gibi demografik bilgilere ilişkin sorulara da yer verilmiştir.

Verilerin Analizi

Araştırmanın verileri, içerik analizi yöntemiyle çözümlenmiş ve bulgular tablolar halinde sunulmuştur. İçerik analizi, insan davranışlarını ve doğasını doğrudan olmayan yollarla anlamaya imkân tanıyan bir tekniktir. Bu teknik, belirli kurallara dayalı kodlamalarla metindeki bazı sözcükleri daha küçük içerik kategorileriyle özetleyen sistematik ve yinelenebilir bir yöntem olarak tanımlanır (Büyüköztürk vd., 2019). Öğretmen adaylarından elde edilen veriler, Miles ve Huberman (1994) ile Yıldırım ve Şimşek'in (2018) önerdiği sistematik yaklaşıma uygun olarak içerik analizi aşamaları doğrultusunda analiz edilmiştir.

a) Kodlama Aşaması

Veriler, KK1 (Katılımcı Kadın 1), KE1 (Katılımcı Erkek 1), KK2… şeklinde kodlanmıştır. Araştırmacı tarafından tüm metaforlar detaylı bir şekilde okunmuş ve kodlanmıştır.

b) Eleme Aşaması

Öğrenciler tarafından doldurulan toplam 114 form incelenmiştir. Metaforik bir ifade içermeyen ya da açıklamaları metaforik bir anlam taşımayan cümleler çalışmaya dâhil edilmemiştir. Bu doğrultuda, 83 geçerli form ve 166 metafor elde edilmiştir.

c) Tasnif Etme Aşaması

166 metafor yeniden değerlendirilmiş ve olumlu ile olumsuz olmak üzere iki ana başlık altında sınıflandırılmıştır.

d) Kategori Geliştirme Aşaması

Önceki aşamada olumlu ya da olumsuz olarak belirlenen metaforlar, belirli temalar altında gruplanarak ayrı kategoriler oluşturulmuştur. 800 bin barajı ile ilgili metaforlar için 5 olumlu ve 8 olumsuz kategori belirlenmiştir. Pedagojik formasyonla ilgili metaforlar açısından ise olumlu görüşlerden 5, olumsuz görüşlerden ise 7 kategori türetilmiştir.

Metaforik ifadelerin analiz sürecinde, her bir metafor cümlesinin de (örneğin, "800 bin barajı … gibidir çünkü …" gibi) eksiksiz dolduran katılımcıların yanıtları çalışmaya dâhil edilmiştir. Sadece bir kısmı doldurulan ya da boş bırakılan yanıtlar analiz dışında bırakılmıştır.

Ayrıca, metafor içermeyen, kişisel görüş ya da eleştiri niteliğindeki ifadeler de değerlendirme dışı tutulmuştur. Örneğin "Formasyon olduğu için bir öğretmenlik kazanmanın pek bir önemi kalmıyor." ya da "Bu dalga geçmekten başka bir şey değildir KPSS yığılması yaşanacak aynı zamanda kişisel görüşüm ki umarım öyle değildir. Sanki oturup nasıl daha da berbat hale getiririz diye konuşuyorlar herhalde" gibi yanıtlar, benzetme içermediği ve doğrudan metafor oluşturmadığı için çalışma kapsamına alınmamıştır.

Araştırmanın verileri, içerik analizi yöntemiyle değerlendirilmiş ve bulgular tablolar hâlinde sunulmuştur. Tablolar, katılımcıların doğrudan ifadeleriyle desteklenmiştir. Araştırmaya ilişkin sonuç ve önerilere de yer verilmiştir.

Metaforlarla kategoriler arasındaki ilişkiyi güvenilir hâle getirmek amacıyla, araştırmacı ve nitel araştırma alanında uzman bir kişi tarafından bağımsız olarak yapılan kodlamalar karşılaştırılmış; Miles ve Huberman (1994) tarafından önerilen [Görüş birliği/(Görüş birliği+Görüş ayrılığı)×100] formülüyle kodlayıcılar arası güvenirlik oranı hesaplanmıştır. Elde edilen %86'nın üzerindeki uyum oranı, nitel araştırmalarda kabul edilebilir düzeyde görülmüştür. Veriler tablolar hâlinde, doğrudan alıntılarla desteklenerek sunulmuş; araştırmanın sonuç ve önerilerine yer verilmiştir.

Araştırmanın Etik İzinleri:

Bu çalışmada "Yükseköğretim Kurumları Bilimsel Araştırma ve Yayın Etiği Yönergesi" kapsamında uyulması gerektiği belirtilen tüm kurallara uyulmuştur. Yönergenin ikinci bölümü olan "Bilimsel Araştırma ve Yayın Etiğine Aykırı Eylemler" başlığı altında belirtilen eylemlerin hiçbiri gerçekleştirilmemiştir.

Etik Kurul İzin Bilgileri:

Etik değerlendirmeyi yapan kurulun adı = Recep Tayyip Erdoğan Üniversitesi, Sosyal ve Beşeri Bilimler Etik Kurulu

Etik Kurul Etik inceleme karar tarihi = 10/01/2024

Etik değerlendirme belgesi konu numarası = 2024/003

Bulgular

Bu araştırmada, özel yetenek sınavıyla yükseköğretim kurumlarına yerleşen öğrencilerin 800 bin başarı sıralaması barajı ve pedagojik formasyon uygulamasına yönelik metaforik algıları incelenmiştir. Elde edilen veriler, olumlu ve olumsuz metaforlar olmak üzere iki ana tema altında toplanmış, her bir tema altında ise içerik analizi yoluyla çeşitli alt kategoriler belirlenmiştir. Metaforların içeriksel benzerlikleri göz önünde bulundurularak yapılan sınıflamalarda hem baraj uygulamasına hem de formasyon eğitimine dair algılar çok boyutlu ve anlam yüklü bir şekilde ortaya konmuştur. Araştırma kapsamında öğrenciler tarafından 800 bin baraj uygulamasına yönelik toplam 43 olumlu ve 40 olumsuz olmak üzere 83 metafor üretilmiştir. Olumlu metaforlar beş tematik kategori altında toplanırken; olumsuz metaforlar dokuz farklı kategoriye ayrılmıştır.

Olumlu Metaforlar

Katılımcılar 800 bin baraj uygulamasını genellikle öğretmen adaylarının niteliğini artıran bir filtreleme mekanizması olarak değerlendirmiştir. En sık tekrar eden kategoriler "ayırt edicilik" ve "zorluk derecesi" olarak öne çıkmaktadır. "Ayırt edicilik" kategorisindeki metaforlar (örneğin: süzgeç, mercek, vize, kapı) öğrenciler tarafından bu uygulamanın öğretmenlik mesleği için gerekli temel yeterlikleri belirleme ve uygun adayları seçme işlevini yerine getirdiğine işaret etmektedir. "Zorluk derecesi" kategorisi ise barajın, belirli bir akademik ve zihinsel yeterliliği temsil eden, ancak aşılması zorlayıcı olan bir eşik olduğunu ortaya koymaktadır.

Diğer yandan "deneyim", "yiyecek-içecek" ve "hayallere ulaşma" kategorileri de öğrencilerin barajı öğretmenliğe hazırlık sürecinin bir parçası, çaba ve disiplin gerektiren bir gelişim aşaması, ya da mesleki ideallerine ulaşma yolunda bir kilometre taşı olarak değerlendirdiğini göstermektedir.

Olumsuz Metaforlar

Baraj uygulamasına yönelik olumsuz metaforlar ise öğrencilerin bu sistemin özellikle yetenek odaklı alanlarda faaliyet gösteren bireyler için adaletsiz, dışlayıcı ve motivasyon kırıcı olduğu yönündeki görüşlerini yansıtmaktadır. "Zorluk derecesi" ve "değersizleştirme" en çok tekrar edilen kategoriler olup, barajın öğrencilerin bireysel potansiyelini göz ardı eden, yapısal engeller oluşturan bir sistem olarak algılandığını göstermektedir. "Adaletsizlik" kategorisindeki metaforlar ise barajın, farklı disiplinlerde eğitim gören öğrenciler açısından eşitlik ilkesine aykırı olduğunu ortaya koymuştur.

"Emeğin karşılıksız kalması" kategorisinde öğrenciler, yıllarca yetenek geliştirmek için harcadıkları emeğin bir genel yetenek sınavı sonucu ile göz ardı edildiğini ifade etmişlerdir. "Şans" ve "hayallere ulaşma" gibi daha duygusal temalarda ise baraj, öğrencilerin gelecek planlarını engelleyen ya da başarıyı rastlantısal hale getiren bir sistem olarak görülmüştür. Özellikle güzel sanatlar liseleri ve spor liselerinden gelen öğrenciler barajın kendi alanlarının doğasına uygun olmadığını ve bu nedenle sistemin dışında bırakıldıklarını dile getirmiştir.

Formasyon eğitimine yönelik olarak katılımcılar toplam 24 olumlu ve 59 olumsuz olmak üzere 83 metafor üretmişlerdir. Olumlu metaforlar beş, olumsuz metaforlar ise on üç farklı tematik kategori altında toplanmıştır.

Olumlu Metaforlar

Öğrenciler formasyon eğitimini genel olarak öğretmenliğe hazırlık sürecinin bir parçası ve öğretmenlik mesleğine giden yolda tamamlayıcı bir adım olarak görmektedir. En yoğun metafor üretimi "ihtiyaç", "deneyim" ve "hayallere ulaşma" kategorilerinde toplanmıştır. "İhtiyaç" kategorisindeki metaforlar (örneğin: su, ekmek, gözlük) formasyonu öğretmenlik için vazgeçilmez bir gereklilik olarak tanımlar. "Deneyim" kategorisi, formasyonun bireylerin mesleki donanımını artıran bir süreç olduğunu; "hayallere ulaşma" kategorisi ise bu eğitimin öğrenciler için bir umut ve gelecek inşası anlamına geldiğini ortaya koymuştur. "Şans" ve "zorluk derecesi" temaları da daha az sıklıkla dile getirilmiş ancak öğrencilerin bazıları için bu eğitimin ulaşılması zor ama değerli bir fırsat olduğuna işaret etmiştir.

Olumsuz Metaforlar

Formasyon eğitimine ilişkin olumsuz metaforlar ise çoğunlukla "değersizleştirme" ve "adaletsizlik" temaları etrafında şekillenmiştir. Bu kategorilerde yer alan metaforlar, formasyonun öğretmenlik mesleğini sıradanlaştırdığı, niteliği düşürdüğü ve eğitim fakültesi öğrencilerinin emeklerini göz ardı ettiği yönündeki eleştirileri içermektedir.

"Sahtecilik" kategorisinde öğrenciler, bu eğitimi öğretmenlik mesleğine ilişkin gerçek bir hazırlık süreci olarak görmemekte, sahte bir kimlik ve diploma üretimi olarak değerlendirmektedir. "Emeğin karşılıksız kalması" kategorisi ise özellikle eğitim fakültesinde dört yıl boyunca yoğun akademik ve mesleki eğitim alan öğrencilerin, kısa süreli formasyon alan bireylerle aynı statüde görülmesinin yarattığı memnuniyetsizliği yansıtmaktadır.

Ayrıca "şans", "zorluk derecesi", "deneyim" ve "doğa" temalarıyla da metaforlar üretilmiş; formasyonun sistemde rastlantısal, zorlu, kontrolsüz ve bazen anlamsız bir süreç olarak algılandığı ortaya çıkmıştır. Özellikle "formasyon bir zorunluluktur" şeklindeki metaforlar, bu eğitimin gönüllülükten çok mecburiyetle sürdürüldüğünü düşündürmektedir.

Elde edilen bulgular, öğrencilerin 800 bin baraj uygulamasına daha çok anlam yüklediğini ve onu öğretmenlik mesleği için bir ayıklama süreci olarak değerlendirdiklerini, ancak uygulamada çeşitli sorunlar ve adaletsizlikler gördüklerini göstermektedir. Buna karşın, formasyon eğitiminin ise olumlu işlevlerine rağmen öğrenciler nezdinde meşruiyet ve yeterlilik açısından daha çok eleştiriye maruz kaldığı anlaşılmaktadır. Bu durum, formasyonun yeniden yapılandırılması, standartlarının belirginleştirilmesi ve öğretmenlik mesleğinin niteliğini düşürmeyecek biçimde planlanması gerektiğini ortaya koymaktadır.

Tartışma ve Sonuç

Bu çalışma, özel yetenek sınavlarıyla öğrenci kabul eden kurumlarda öğrenim gören öğrencilerin 800 bin başarı sıralaması barajı uygulaması ve pedagojik formasyon eğitimine yönelik metaforik algılarını incelemeyi amaçlamıştır. Elde edilen bulgular, metaforik ifadelerin katılımcıların akademik geçmişlerine, program türlerine ve mesleki yönelimlerine bağlı olarak önemli ölçüde farklılık gösterdiğini ortaya koymuştur.

800 bin barajına ilişkin olarak, olumlu metaforların büyük çoğunluğunun eğitim fakültelerinde öğrenim gören öğretmen adayları tarafından üretildiği gözlemlenmiştir. Bu öğrenciler barajı, öğretmenlik mesleğinde kaliteyi ve liyakati güvence altına alan bir mekanizma olarak algılamaktadır. Baraj uygulamasını meşru bir eleme aracı olarak görmüşler; bu aracın eğitim standartlarına ve toplumsal refaha katkı sunduğunu belirtmişlerdir. Buna karşılık, olumsuz metaforlar çoğunlukla güzel sanatlar fakülteleri, konservatuvarlar ve spor bilimleri fakülteleri gibi diğer disiplinlerden gelen öğrenciler tarafından üretilmiştir. Bu grup, barajı çoğunlukla sınırlayıcı, dışlayıcı ve adaletsiz bir sistem olarak tanımlamış; yeteneği göz ardı eden ve girişe gereksiz engeller koyan bir uygulama olarak değerlendirmiştir.

Bu dağılım, öğretmen eğitimi sürecine dahil olan öğrencilerin baraj uygulamasını genellikle mesleki gelişime yönelik olumlu bir adım ve akademik yeterlilik güvencesi olarak değerlendirdiğini göstermektedir. Buna karşılık, öğretmenlik dışındaki alanlarda (özellikle

performans ve beceri temelli programlarda) öğrenim gören öğrenciler, barajı çeşitlenen zekâ ve yetenek türlerini dikkate almayan yapısal bir engel olarak görmektedir.

Pedagojik formasyona yönelik metaforik algılar da kurumsal bağlılık ve bağlam temelinde farklılık göstermektedir. Pedagojik formasyon yoluyla öğretmenlik yeterliği kazanmış olan öğrenciler genellikle formasyonu bir gereklilik, temel unsur ya da öğretmenliğe dönüşen dönüştürücü bir yolculuk olarak kavramsallaştırmıştır. Bu metaforlar kişisel gelişim, fırsat ve mesleki yaşama hazırlık gibi temaları öne çıkarmıştır. Ancak, olumlu görüşlere rağmen, konservatuvar ve spor bilimleri gibi uygulama temelli disiplinlerden gelen katılımcılar çoğunlukla olumsuz görüşler bildirmiş; formasyonun yetersizliği, yapısal tutarsızlıkları ve geçici niteliğine vurgu yapmışlardır.

Yapılan analizde, 800 bin barajına ilişkin metaforların altı olumlu ve dokuz olumsuz kategoriye ayrıldığı görülmüştür. Olumlu metaforlar arasında en sık tekrar eden temalar "ayırt edicilik," "zorluk derecesi" ve "yiyecek-içecek" olmuştur. Bu kategoriler, barajın anlamlı bir ayıklama mekanizması, aşılması gereken değerli bir zorluk ve eğitime katkı sunan bir unsur olarak algılandığını ortaya koymuştur. Özellikle Demirel ve Sözer'in (2023) çalışmaları, nitelikli öğretmen gelişiminin yalnızca yetenek ve alan bilgisinden değil, aynı zamanda genel kültürel yeterlilikten de beslendiğini vurgulamaktadır. Benzer şekilde Yetim (2004), iyi yetişmiş öğretmenlerin toplumsal refahın gelişiminde kritik rol oynadığını belirtmiş ve bu da bu çalışmadaki "ayırt edicilik" temasıyla kuramsal olarak örtüşmektedir.

Baraj uygulamasına dair olumsuz metaforlar incelendiğinde, en sık karşılaşılan kategorilerin "zorluk derecesi," "değersizleştirme" ve "yiyecek-içecek" olduğu görülmektedir. Bu temalar, barajın aşırı yük bindiren, anlamını yitirmiş veya nahoş bir deneyim olduğu yönündeki algılara işaret etmektedir. Üçer, Gürer, Yılmaz ve Sonsel'in (2023) bulguları da baraj uygulamasının yüksek yetenekli öğrenciler için bir engel teşkil ettiğini vurgularken, Başbuğ ve Kaya (2022) barajın yürürlüğe girmesiyle birlikte yetenek temelli programlara başvuran, başarılı olan ve kayıt yaptıran öğrenci sayısında ciddi düşüşler olduğunu belirtmiştir. Benzer şekilde, Atar ve Yılmaz (2012), yüksek yetenek puanı almış öğrencilerin baraj nedeniyle alanlarına yerleşemediğini ortaya koymuştur. Bu bulgular, çalışmadaki "zorluk derecesi" temasının sık tekrar edilmesiyle örtüşmektedir.

Bu veriler ışığında, baraj uygulamasına yönelik olumsuz metaforların büyük ölçüde, sistemin yetenekli öğrencilerin erişimini kısıtladığı ve öğretmenlikle ilgisi olmayan alanlardan gelen bireylerin girişine imkân sağladığı için bir çelişki yarattığı sonucuna varılabilir. Bununla birlikte, genel olarak olumlu metaforların sayıca daha fazla olması, katılımcıların baraj uygulamasına yönelik genel görüşlerinin olumlu olduğunu göstermektedir. Bu durum, öğretmen olacak bireyin sıradan değil, donanımlı, entelektüel kapasitesi yüksek ve mesleki yeterliliğe sahip biri olması gerektiği yönünde yaygın bir kanaatin varlığını göstermektedir.

Pedagojik formasyon bağlamında ise veriler, olumlu metaforların beş kategoride; olumsuz metaforların ise on üç farklı kategoride toplandığını göstermektedir. Katılımcılar, formasyon eğitimine yönelik daha fazla sayıda olumsuz metafor üretmiş; bu da formasyon sürecine ilişkin genel algının olumsuz olduğunu ortaya koymuştur. Olumsuz görüşlerin en çok "değersizleştirme," "adaletsizlik" ve "sahtecilik" temaları etrafında yoğunlaştığı görülmektedir.

Bu metaforlar, öğrencilerin formasyon sürecinin meşruiyetini, etkililiğini ve adilliğini sıklıkla sorguladıklarını göstermektedir.

Bu bulgular, Köybaşı ve Uğurlu'nun (2018) "Lisans Öğrencilerinin Pedagojik Formasyon Derslerine Yönelik Geliştirdikleri Metaforlar" başlıklı çalışmasındaki bulgularla çelişmektedir. Söz konusu çalışmada, metaforların çoğu olumlu iken, bu farklılığın mevcut çalışmanın örnekleminin büyük kısmının eğitim fakültesi dışındaki bölümlerden oluşmasına bağlı olduğu düşünülmektedir. Bu öğrenciler, formasyon sürecine daha dışsal ve eleştirel bir bakış açısıyla yaklaşmaktadır. Ayrıca Yapıcı ve Yapıcı'nın (2013) çalışmasında, öğretmen adayları arasında baskın olumsuz metaforların "zorunluluk," "boşa geçen zaman" ve "işkence" temaları etrafında yoğunlaştığı, bu çalışmada da yapısal çelişkiler ve yetersizlik algısına dair metaforlarla benzerlik taşıdığı görülmektedir.

Sonuç olarak, bu çalışmada ortaya konan metaforik algılar, kurumsal bağlılığın, akademik disiplinin ve eğitim yolunun, öğrencilerin 800 bin barajı ve pedagojik formasyon hakkındaki tutumlarını önemli ölçüde etkilediğini ortaya koymaktadır. Öğretmen yetiştirme programlarında yer alan öğrenciler baraj uygulamasını anlamlı ve gerekli bir yeterlilik süreci olarak değerlendirirken; yetenek temelli alanlarda okuyan öğrenciler daha çok dışlayıcılık, eşitsizlik ve politika ile potansiyel arasında uyumsuzluk gibi sorunlara odaklanmıştır. Benzer şekilde, formasyon eğitimi bazı öğrenciler tarafından mesleki hazırlık için önemli bir araç olarak görülse de eğitim fakültesi dışındaki birçok öğrenci tarafından yetersiz, yüzeysel ve adaletsiz bir uygulama olarak değerlendirilmiştir. Bu bulgular, öğretmen yeterlilik politikalarının özellikle baraj kriterlerinin ve formasyon uygulamalarının alanlar arası farklılıklara, erişim eşitliğine ve öğrencilerin özgün ihtiyaçlarına daha duyarlı olacak şekilde yeniden değerlendirilmesi gerektiğini ortaya koymaktadır.

Öneriler

Tüm bu değerlendirmelerin sonuçları, yapılan çalışmalarla bulgular arasında örtüşme olduğunu göstermektedir. Elde edilen bulgular ışığında;

Güzel sanatlar ve spor liselerinin kültür dersleri öğrencilerin TYT sınavda başarılı olmalarını destekleyecek içerik ve kaynaklarla sunulmalıdır.

Yetenek sınavına girecek öğrencilerin, TYT barajının önemini kavrayarak, bu sınava uygun bir şekilde hazırlanmalarını sağlayacak rehberlik ve destek programları oluşturulmalıdır.

800 bin baraj uygulaması daha etkili ve adil olabilmesi için farklı bölümlerden mezun olarak formasyon eğitimi alan adaylar için de uygulanmalı ve adaylar arasında eşitlik sağlanmalıdır.

Araştırmanın, daha fazla öğretmen adayını kapsayacak şekilde genişletilmesi ve farklı bölge ya da gruplardan katılımcılarla tekrarlanması önerilmektedir.

Araştırmanın, farklı eğitim fakülteleri ve pedagojik formasyon eğitimi alabilen bölümlerle yürütülerek sonuçların çeşitlendirilmesi ve kapsamının artırılması önerilmektedir.

Social Studies Topics in Periodicals: The Example of The Meraklı Minik Magazine

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Abstract

Magazines play an important role in children's development in many areas, especially cognitive development. It is also possible to utilize this function of magazines for educational purposes. The aim of study was to determine which topics within the social studies curriculum the content of Meraklı Minik magazine could be related to. In this context, a qualitative research approach was adopted in the study. The study examined the Meraklı Minik magazine in detail through document review. The data source for the study consists of thirteen issues of Meraklı Minik magazine published during the first week of each month from February 2024 to February 2025. In the analysis of the data obtained in the study, the document analysis method was used. For the validity of the study, expert opinions were obtained regarding the categories created. To ensure the reliability of the study, the categories and codes created by the researcher were compared with the expert opinions. The research found that Meraklı Minik magazine covers a variety of topics in the categories of history, geography, sociology, economy, folklore, art, and citizenship. Geography was the category with the most topics, with thirty four. There were fourteen topics in the arts category, six in history, four in economy, two in folklore, one in sociology, and one in citizenship. According to this study, it is observed that the topics in Meraklı Minik magazine appear mostly in the category of geography, followed by art. It is recommended that Meraklı Minik magazine be used in social studies course.

Keywords: Social studies curriculum, Meraklı Minik magazine, children.

Introduction

Magazines have always played a significant role in the development of children, particularly in enhancing various aspects of their cognitive development. The diverse content and language found in magazines encourage creative thinking skills (Emirhan & Kara, 2024). Additionally, the qualitative features of magazines offer numerous positive contributions to children. According to Güney and Yalman Polatlar (2023), "While the stories in magazines contribute to the development of concepts and language, activities such as cutting, painting, and pasting help develop fine motor skills and hand-eye coordination. Moreover, these activities foster the child's concentration and focus." Magazines not only support children's education but also enrich their social lives (Aşkar et al., 2024; Çam Türkan, 2024). Furthermore, they create a foundation for new learning experiences (Aksüt, 2021). Ergin and Özkan (2021) assert, "When a child's social and emotional aspects are healthy, they are more likely to develop positive social behaviours." Various activities in a child's environment can foster these positive behaviours, with magazines being among the most influential. Moreover, magazines can cultivate a positive attitude towards reading (Erbasan, 2023). An increase in the frequency of book reading has been shown to positively impact a child's cognitive, social, and linguistic development (Alabay et al., 2018). Driven by their natural curiosity, children often develop a favourable perception of reading through their engagement with magazines.

To effectively contribute to a child's development, magazines designed for children must have carefully curated content. Enriching these magazines with diverse activities distinguishes them from other literary genres (Duran & Dolaylar Özkul, 2018). When selecting content, it is essential to present a realistic depiction of the current situation (Gurbetoğlu, 2024). Consequently, the content should reflect real-life experiences and situations (Karakaya & Akın, 2022). The overall structure of children's magazines includes macro elements such as

cartoon characters, animations, illustrations, colour usage, and typography. In contrast, "the micro elements pertain to sentence structures, their expression, and vocabulary choices" (Olgundeniz, 2011, p. 237).

One of the most valuable types of content found in children's magazines is that of popular science magazines. These publications play a significant role in categorizing magazines for children based on their content (Elmalı, 2019). The purposes for using science magazines in schools can be outlined as follows (Yopp & Yopp, 2000; as cited in Eren, 2022):

1. They enable children to observe the structures and features of various texts.

2. They enhance children's vocabulary related to the subject.

3. They lay the groundwork for students to learn new concepts.

4. They support the reading process and activities that help improve comprehension and understanding of the discussion's nature and its objectives.

5. They serve as a catalyst for literacy education.

Children's magazines should be an integral part of a child's life. The benefits of these magazines can be outlined as follows (Yılar & Celepoğlu, 2007):

1. Children enjoy reading and engaging in thinking activities, thanks to the captivating images found in magazines.

2. Magazines help children understand and prepare for the world around them.

3. They aid children in using the Turkish language effectively and expressively.

4. Children cultivate social awareness by staying informed about current events.

5. Magazines significantly contribute to children's creativity by encouraging them to write, draw, and provide their insights.

6. They help expand children's vocabulary.

7. Magazines facilitate social development by serving as a medium for information and conversation among peers.

8. They stimulate children's curiosity by sparking interest in various topics and connecting them to art and literature.

This research focused on analyzing the Meraklı Minik magazine, published by The Scientific and Technological Research Council of Türkiye [TÜBİTAK], in relation to social studies course topics. The aim of study was to determine which topics within the social studies curriculum the content of Meraklı Minik magazine could be linked to.

In this context, answers were sought to the following questions.

Which social science disciplines related to the social studies curriculum are included in Meraklı Minik magazine?

Method

Research Design

The study focused on the magazine Meraklı Minik as an example of using periodicals in social studies. The research was conducted using a qualitative research approach. The qualitative model is defined as "research that employs qualitative data collection techniques, such as observation, interviews, and document analysis, and follows a qualitative process to present perceptions and events in a realistic and holistic manner within a natural environment" (Yıldırım & Şimşek, 2013, p. 39). Additionally, qualitative research is described as "one of the ways of producing information that individuals develop to solve their own mysteries and uncover the complexities of the social systems they shape through their own efforts" (Özdemir, 2010, p. 326). The research was conducted using document review, one of the qualitative research designs. Document review is defined as "a method based on analyzing a specific document. These documents may include official and organizational records, reports, program records, as well as personal documents and records of responses to open or unrestricted questions, encompassing a wide range of materials" (Patton, 1990, p. 10).

Data Source

The data source for the study consists of thirteen issues of Meraklı Minik magazine published during the first week of each month from February 2024 to February 2025. In determining the data source, criterion sampling was used from among the types of purposeful sampling. The first criterion was determined to be that the magazine was published by an official institution/organization. In this regard, Meraklı Minik magazine, published by TÜBİTAK, was selected for its ease of access. Subsequently, the use of the most recently published issues formed the second criterion, and the data source was determined to be the issues of Meraklı Minik magazine from February 2024 to February 2025.

Data Analysis

In the analysis of the data obtained in the study, the document analysis method was used. Document analysis is a qualitative method used to analyze the written content of documents meticulously and systematically (Wach & Ward, 2013). In the data analysis process, categories were created based on the social science disciplines that form the foundation of social studies. The magazine was then analyzed in depth using closed coding according to these categories.

Validity and Reliability of the Research

For the validity of the study, expert opinions were obtained regarding the categories created. To ensure the reliability of the study, the categories and codes developed by the researcher were compared with the expert opinions. During the comparison, the number of agreements and disagreements was determined, and the reliability of the study was calculated using the formula provided by Miles and Huberman (1994) [Agreement/(Agreement+Disagreement) x 100]. As a result of the evaluation conducted by the expert and the researcher, the reliability of the study was found to be 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:

Since the research was conducted with publicly available documents, it does not require ethics committee permission.

Findings

This section contains the findings regarding the research. The topics identified as belonging to the geography category in Meraklı Minik magazine as a result of the investigations are shown in Table 1.

Table 1.

Topics Included in the Geography Category

Category	Issue	Content title
Geography	April 2024 (208)	How Are Craters on the Moon Formed? (pp. 20-21)
	May 2024 (209)	Bee-Eaters Building Their Nests (pp. 2-5)
		Hello Bee-Eater! (pp. 8-10)
		Why Do Birds Migrate? (pp. 12-13)
		Birdwatching at the Aras River Bird Paradise (pp. 14-15)
	June 2024 (219)	How Does a Cuttlefish Hide? (pp. 2-5)
		Are You Ready to Meet Cuttlefish? (pp. 8-11)
		Find the Camouflaged Sea Creatures (pp. 12-15)
		These Animals Inspire Technology (pp. 16-17)
		Look for the Solution in Nature (pp. 18-19)
		Have You Ever Seen These Sea Creatures Before? (pp. 20-21)
	July 2024 (220)	A Kite in Asia (pp. 2-5)
		The Continent of Asia (pp. 6-7)
		Steppe Landscapes and Deserts in Asia (pp. 10-11)
		Rainforests in Asia (p. 12)
		Tundra in Asia (p. 13)
		Giant Panda Sanctuary (pp. 22-23)
	August 2024 212	Becoming a Tree (pp. 2-5)
		Would You Like to Get to Know Trees? (pp. 8-11)
		Where Are These Seeds? (pp. 12-14)
		Their Homes Are Trees (pp. 16-19)
	October 2024 (214)	Come, Let's Visit Our Village (pp. 2-5)
		Farmers at Work in Villages (pp. 8-10)
		Animals in the Village (pp. 14-15)
		Would You Like to Meet the Shepherd? (p. 16)
	December 2024 (216)	Anatolian Leopard and Its Cubs (pp. 2-7)
		The Great Great Great Cats (pp. 8-9)
		Is It a Leopard? (p. 14)
		Or Is It a Jaguar? (p. 17)
	January 2025 (217)	Journey to the Summit (pp. 2-5)
		When We Say Mountains (pp. 8-9)
		Life in the Mountains (pp. 10-13)
		Sports Practiced in the Mountains (pp. 16-17)
		Crossing the Mountains (pp. 20-21)
	February 2025 (218)	Exploring with My Senses (pp. 2-5)

When Table 1 is examined, there are a total of thirty four topics in nine issues in the geography category.

Below are the statements found in the magazine for the geography category:

Why Do Birds Migrate?: *"Migratory birds fly from their home to another place at certain times of the year. They stay at their destination for a while and then return..."* (May 2024, p. 12).

Are You Ready to Meet Cuttlefish?: *"Cuttlefish live in temperate and warm seas. Although most species are found in shallow waters, there are also species that inhabit the deep parts of the oceans..."* (June 2024, p. 8).

Look for the Solution in Nature: *"When scientists look for solutions to various problems, drawing inspiration from nature is called biomimicry..."* (June 2024, p. 18).

The Continent of Asia: *"The Earth is covered by waters and large landmasses known as continents. Asia is the largest of these landmasses..."* (July 2024, p. 6).

Steppe in Asia: *"This is the Mongolian steppe. Do you see it? There are no trees, and everything is lush and green. The summers here are hot and dry..."* (July 2024, p. 10).

Journey to the Summit: *"...they encountered a lush green forest. They were now very high up. The air was colder than below..."* (January 2025, p. 4).

The topics identified as belonging to the art category in Meraklı Minik magazine as a result of the investigations are shown in Table 2.

Table 2.
Topics Included in the Art Category

Category	Issue	Content title
Art	February 2024 (206)	Bade and Her Friends' Art Day (pp. 2-5)
		In the Art Workshop (pp. 6-7)
		What Is Art? (pp. 8-13)
		The World of Colours (pp. 14-15)
		Which Colour Is Needed? (pp. 16-17)
		Different Colours, Different Emotions (pp. 18-19)
		Extraordinary Art (pp. 21-23)
		Time to Move! (pp. 24-25)
		I'm Very Curious (pp. 26-27)
	August 2024 212	The Trees in the Paintings (pp. 22-23)
		Song of Asia (pp. 14-15)
	December 2024 s. 216	The Big Cats Choir (pp. 18-19)
		Photographing Wild Animals (pp. 20-21)
	February 2025, s. 218	The Five Senses (p. 9)

When Table 2 is examined, there are a total of fourteen topics in four issues in the art category.

Below is the statement found in the magazine in the art category:

Time to Move!: *"How about imagining that you're painting on a huge canvas? Come on, roll up your sleeves..."* (February 2024, p. 24).

The topics identified as belonging to the history category in Meraklı Minik magazine as a result of the investigations are shown in Table 3.

Table 3.

Topics Included in the History Category

Category	Issue	Content title
History	July 2024 (211)	A Kite in Asia (pp. 2-5)
		The Continent of Asia (pp. 6-7)
		Türkiye: A Bridge Between Continents (pp. 8-9)
		Steppe Landscapes in Asia (pp. 10-11)
		Deserts in Asia (pp. 10-11)
	October 2024 (214)	On the Way to School (pp. 6-7)

When Table 3 is examined, there are six topics in total in two issues directly related to the history category.

Below is the statement found in the magazine regarding the history category:

Türkiye: A Bridge Between Continents: *"A portion of our country's land is located in Europe, while another portion lies within the continent of Asia. For this reason, Türkiye resembles a bridge connecting two continents…"* (July 2024, p. 8).

The topics identified as belonging to the economy category in Meraklı Minik magazine as a result of the investigations are shown in Table 4.

Table 4.

Topics Included in the Economy Category

Category	Issue	Content title
Economy	October 2024 (214)	Come, Let's Visit Our Village (pp. 2-5)
		Animals in the Village (pp. 14-15)
		Would You Like to Meet the Shepherd? (p. 16)
	January 2025 (217)	Crossing the Mountains (pp. 20-21)

When Table 4 is examined, there are a total of four topics in two issues.

Below is the statement found in the magazine in the economy category:

Come, Let's Visit Our Village: *"…we are putting the pumpkins into the trailers. They will be sold tomorrow…"* (October 2024, p. 4).

The topics identified as belonging to the folklore category in Meraklı Minik magazine as a result of the investigations are shown in Table 5.

Table 5.

Topics Included in the Folklore Category

Category	Issue	Content title
Folklore	October 2024 (214)	Have You Ever Heard of This Village? (pp. 18-19)
		Different Villages, Different Houses (pp. 20-22)

When Table 5 is examined, there are a total of two topics in one issue.

Below is the statement found in the magazine in the folklore category:

Have You Ever Heard of This Village?: *"The bird language has been protected in our country to ensure it is not forgotten and can be passed down from generation to generation…"* (October 2024, p. 19).

The topics identified as belonging to the sociology category in Meraklı Minik magazine as a result of the investigations are shown in Table 6.

Table 6.

Topics Included in the Sociology Category

Category	Issue	Content title
Sociology	July 2024 (220)	Steppe in Asia, Desert in Asia (p. 10-11)

When Table 6 is examined, there is a total of one topic in one issue in the sociology category.

Below is the statement found in the magazine for the sociology category:

Desert in Asia: *"The nomads living in the Arabian Desert are called Bedouins..."* (July 2024, p. 10).

The topics identified as belonging to the citizenship category in Meraklı Minik magazine as a result of the investigations are shown in Table 7.

Table 7.

Topics Included in The Citizenship Category

Category	Issue	Content title
Citizenship	September 2024 (213)	To be safe in traffic (p. 14-15)

When Table 7 is examined, there is a total of one topic in one issue in the citizenship category.

Below is the statement found in the magazine in the citizenship category:

Being Safe in Traffic: *"When we go to school, the park, shopping, or visit a friend, sometimes we travel by vehicle, and sometimes we walk..."* (September 2024, p. 14).

Discussion and Conclusion

The study analyzed the Meraklı Minik magazine, which is published monthly by TÜBİTAK, focusing on its coverage of social studies course topics. This examination revealed that the magazine included various topics categorized into history, geography, sociology, economy, folklore, art, and citizenship. Geography was the category with the most topics, with thirty four. There were fourteen topics in the arts category, six in history, four in economy, two in folklore, one in sociology, and one in citizenship. According to this study, it is observed that the topics in Meraklı Minik magazine appear mostly in the category of geography, followed by art.

Children's magazine should aim to develop higher order thinking skills, including creative thinking and problem-solving abilities (Emirhan & Kara, 2024). The activities featured in the social science sections of the Meraklı Minik magazine provide opportunities for skill development in these areas. According to a study by Ergin and Özkan (2021), the magazine also enhances social skills. Additionally, the activities included in early childhood magazines positively contribute to psychomotor development and language acquisition (Güney & Yalman Polatlar, 2023). While preparing children's magazines, children's cognitive and psychological characteristics are taken into account (Erinçmen Kânoğlu, 2018). Therefore, the content of the magazines is of a nature that will develop the child. Children's magazines also teach children many literacy skills (Yeter & Kurtdede Fidan, 2021). In order for these skills to be acquired, the goal is to provide motivation to the child so that reading can meet her various needs (Adamski,

2019). Magazines can enrich children's lives (Chick & Hunter, 2009). It is possible to say that magazines with educational content have positive effects on children (Staniow & Licznar, 2013). Resources such as magazines for children also help learn about the culture (Spinner et al., 2023). At the same time, children's magazines have always been important in terms of instilling reading habits in children (Balcı, 2003). The content of children's magazines that are appropriate to the child's development level allows for greater benefit from them (Gezmen, 2019).

There are numerous benefits to using children's magazines in social studies courses. In addition to providing children with various skills, it also contributes significantly to the child's socialization. It also contributes significantly to the child's effective use of his/her native language and the positive development of his/her thinking skills. At the same time, children's magazines provide an opportunity to develop their literary tastes by taking into account their developmental levels (Yıldız & Karaca, 2020). Many students have no idea how to access children's magazines or how to read them. At this point, teachers have important duties. The use of magazines in social studies courses can also enrich teaching.

The use of children's magazines in the field of education enables the dissemination of new research on education (Terzieva & Papancheva, 2019).

The content of children's magazines is vital for facilitating learning (Aşkar et al., 2024). Children can gain numerous benefits from reading these magazines (Gurbetoğlu, 2024). In this context, the Meraklı Minik magazine offers a rich variety of content that effectively covers social science disciplines.

Recommendations

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

Science magazines such as Meraklı Minik can be used alongside social studies courses to help students make productive use of their free time.

Magazines should be used in social studies courses.

More research, both practical and theoretical, should be conducted on the use of children's magazines in social studies courses.

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Author 1: 100%

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

Notice of Use of Artificial Intelligence

The author did not utilise any artificial intelligence tools for the research, authorship and publication of this article.

Süreli Yayınların Sosyal Bilgiler Konularına Yer Verme Durumu: Meraklı Minik Dergisi Örneği

Özet

Dergilerin, bilişsel gelişim başta olmak üzere çocukların pek çok alandaki gelişimlerinde önemli bir yeri vardır. Dergilerin bu işlevinden eğitsel amaçlarla yararlanmak da mümkündür. Bu çalışmanın amacı, Meraklı Minik dergisinin içeriğinin sosyal bilgiler öğretim programındaki hangi konularla ilişkilendirilebileceğini belirlemektir. Bu bağlamda araştırmada nitel araştırma yaklaşımı benimsenmiştir. Araştırmada Meraklı Minik dergisi doküman incelemesine göre derinlemesine incelenmiştir. Araştırmanın veri kaynağını Meraklı Minik dergisinin 2024 şubat ayından 2025 şubat ayına kadar her ayın ilk haftası yayımlanan on üç sayısı oluşturmaktadır. Araştırmadan elde edilen verilerinin analizinde doküman analizi yöntemi kullanılmıştır. Araştırmanın geçerliği için oluşturulan kategorilere ilişkin uzman görüşü alınmıştır. Araştırmanın güvenirliğini sağlamak için ise uzman görüşü ile araştırmacının oluşturduğu kategori ve kodlar karşılaştırılmıştır. Araştırma sonucunda Meraklı Minik dergisinde; tarih, coğrafya, sosyoloji, ekonomi, halkbilim, sanat ve vatandaşlık kategorilerine uygun olarak çeşitli konuların yer aldığı tespit edilmiştir. Coğrafya, otuz dört konu ile en fazla konunun yer aldığı kategori olmuştur. Sanat kategorisinde on dört konu, tarih kategorisinde altı konu, ekonomi kategorisinde dört konu, halkbilim kategorisinde iki konu, sosyoloji kategorisinde bir konu, vatandaşlık kategorisinde bir konu yer almıştır. Yapılan bu araştırmaya göre Meraklı Minik dergisinde en fazla coğrafya, ardından sanat kategorisinde konuların bulunduğu görülmektedir. Meraklı Minik dergisinin sosyal bilgiler dersinde kullanılması önerilmektedir.

Anahtar Kelimeler: Sosyal bilgiler öğretim programı, Meraklı Minik dergisi, çocuklar.

Giriş

Geçmişten günümüze dergiler, çocukların gelişiminde daima etkili olmuştur. Dergilerin başta bilişsel gelişim olmak üzere çocukların pek çok alandaki gelişimlerinde önemli bir yeri vardır. Dergilerin içeriğini oluşturan bileşenler ve dergilerde kullanılan dil sayesinde çocukların yaratıcı düşünme becerileri gelişmektedir (Emirhan & Kara, 2024). Bunların yanı sıra derginin niteliksel özellikleri çocuklara çeşitli olumlu katkılar sağlamaktadır. Dergiler, çocuklara eğitsel anlamda olumlu katkı sağlar ve sosyal yaşantılarını zenginleştirebilir (Aşkar vd., 2024; Çam Türkan, 2024). Aynı zamanda dergiler sayesinde çocukların yeni öğrenmelerine temel oluşturulmaktadır (Aksüt, 2021). Çocuğun çevresinde pek çok etkinlik bu pozitif sosyal davranışları geliştirebilir.

Çocuklar için hazırlanan dergilerin çocuğun gelişimine katkı sağlayabilmesi için içeriğinin dikkatle hazırlanması gerekmektedir. Çocuklara yönelik dergilerin içeriğinin etkinliklerle zenginleştirilmesi, onu diğer edebi türlerden farklı kılmaktadır (Duran & Dolaylar Özkul, 2018). Bu dergilere yönelik içerik seçilirken güncelin yeterli düzeyde sunulması gerekmektedir (Gurbetoğlu, 2024). Bu nedenle içeriğin gerçekçi olması beklenmektedir (Karakaya & Akın, 2022).

Bu araştırmada Türkiye Bilimsel ve Teknolojik Araştırma Kurumu [TÜBİTAK] tarafından yayımlanan Meraklı Minik dergisinin sosyal bilgiler dersi konularına göre incelenmesi amaçlanmıştır. Araştırmada "Meraklı Minik dergisinin içeriği, sosyal bilgiler dersinin hangi konularıyla ilişkilendirilebilir?" sorusuna cevap aranmıştır.

Yöntem

Araştırmanın Deseni

Araştırmada sosyal bilgiler dersinde süreli yayınların kullanımına örnek olması açısından Meraklı Minik dergisi incelenmiştir. Bu bağlamda araştırmada nitel araştırma desenlerinden doküman inceleme kullanılmıştır.

Veri Kaynağı

Araştırmanın veri kaynağını Meraklı Minik dergisinin 2024 Şubat ayından 2025 Şubat ayına kadar her ayın ilk haftası yayımlanan on üç sayısı oluşturmaktadır. Veri kaynağının belirlenmesinde amaçlı örnekleme türlerinden ölçüt örneklemeye başvurulmuştur. İlk ölçüt derginin resmî bir kurum/kuruluşça yayımlanıyor olması olarak belirlenmiştir. Bu doğrultuda TÜBİTAK tarafından yayımlanan Meraklı Minik dergisi erişim kolaylığı da göz önünde bulundurularak seçilmiştir. Daha sonra, son yayımlanan sayıların kullanılması ikinci ölçütü oluşturmuş ve veri kaynağı, Meraklı Minik dergisinin 2024 Şubat'tan 2025 Şubat'a kadar olan sayıları olarak belirlenmiştir.

Verilerin Analizi

Araştırmada elde edilen verilerinin analizinde doküman analizi kullanılmıştır. Sosyal bilgiler dersinin içeriğini oluşturan sosyal bilim disiplinlerine göre kategoriler oluşturulmuştur. Bu kategoriler doğrultusunda dergi kapalı kodlama ile derinlemesine incelenmiştir.

Araştırmanın Geçerlik ve Güvenirliği

Araştırmanın geçerliği için oluşturulan kategorilere ilişkin uzman görüşü alınmıştır. Araştırmanın güvenirliğini sağlamak için ise uzman görüşü ile araştırmacının oluşturduğu kategori ve kodlar karşılaştırılmıştır.

Araştırmanın Etik İzinleri:

Bu çalışmada "Yükseköğretim Kurumları Bilimsel Araştırma ve Yayın Etiği Yönergesi" kapsamında uyulması gerektiği belirtilen tüm kurallara uyulmuştur. Yönergenin ikinci bölümü olan "Bilimsel Araştırma ve Yayın Etiğine Aykırı Eylemler" başlığı altında belirtilen eylemlerin hiçbiri gerçekleştirilmemiştir.

Etik Kurul İzin Bilgileri:

Araştırma, kamuya açık dokümanlarla gerçekleştirildiği için etik kurul izni gerektirmemektedir.

Bulgular

Coğrafya kategorisinde derginin dokuz sayısında toplam otuz dört konu yer almaktadır. Aşağıda, coğrafya kategorisine yönelik dergide bulunan örnek ifade yer almaktadır:

Kuşlar Neden Göç Eder?: *"Göçmen kuşlar yılın belli zamanlarında yaşadıkları yerden ayrılıp başka bir yere uçar. Bir süre gittikleri yerde kalır sonra geri dönerler. İşte bu yolculuklar göç denir. Bazı kuşlar göçleri sırasında binlerce km yol gider"* (Mayıs, 2024, s. 12).

Sanat kategorisinde derginin dört sayısında toplam on dört konu yer almaktadır. Aşağıda, sanat kategorisinde dergide bulunan örnek ifade yer almaktadır:

Şimdi Hareket Zamanı: *"Kocaman bir tuvale, resim yaptığını hayal etmeye ne dersin? Haydi kolları sıva. Dilersen bir müzik de sana eşlik etsin"* (Şubat 2024, s. 24).

Doğrudan tarih kategorisine yönelik derginin iki sayısında toplam altı konu yer almaktadır. Aşağıda, tarih kategorisine yönelik dergide bulunan örnek ifade yer almaktadır:

Kıtalar Arası Bir Köprü Türkiye: *"Ülkemizin topraklarının bir kısmı Avrupa bir kısmıysa Asya kıtasındadır. Bundan dolayı Türkiye, iki kıtayı birbirine bağlayan bir köprüye benzer. Yeryüzündeki konumu nedeniyle ülkemiz hem tarihi hem de doğası açısından çok özeldir. Bugün bizim yaşadığımız yerlerde çok eski zamanlardan beri farklı toplumlar yaşamış. Bu yüzden ülkemizin hemen her yerinde çok sayıda tarihi eser bulunur"* (Temmuz 2024, s. 8).

Ekonomi kategorisinde derginin iki sayısında toplam dört konu yer almaktadır. Aşağıda, ekonomi kategorisinde dergide bulunan örnek ifade yer almaktadır:

Gel Gidelim Bizim Köye: *"....bal kabaklarını römorklara koyuyoruz. Yarın satılacaklar..."* (Ekim 2024, s. 4).

Halkbilim kategorisinde derginin bir sayısında toplam iki konu yer almaktadır. Aşağıda, halkbilim kategorisinde dergide bulunan örnek ifade yer almaktadır:

Bu Köyü Hiç Duydun mu?: *"Kuş dili unutulmaması ve nesilden nesile aktarılabilmesi için ülkemizde koruma altına alınmış. Öyle ki bu dil bölgede kimi okullarda öğrencilere öğretiliyor"* (Ekim 2024, s. 19).

Sosyoloji kategorisinde derginin bir sayısında toplam bir konu yer almaktadır. Aşağıda, sosyoloji kategorisine yönelik dergide bulunan örnek ifade yer almaktadır:

Asya'da Çöl: *"Arabistan çölünde yaşayan göçebelere bedevi denir. Bedevilerde hayvancılıkla uğraşır"* (Temmuz 2024, s. 10).

Vatandaşlık kategorisinde derginin bir sayısında toplam bir konu yer almaktadır. Aşağıda, vatandaşlık kategorisinde dergide bulunan ifade yer almaktadır:

Trafikte Güvende Olmak İçin: *"Okula, parka, alışverişe ya da arkadaşımızı ziyarete giderken bazen bir taşıtla yolculuk yaparız bazen de yürürüz. Her iki durumda da güvenli yolculuk yapmak önemlidir. Bunun için trafik kurallarına uymamız gerekir..."* (Eylül 2024, s. 14).

Tartışma ve Sonuç

Araştırmada TÜBİTAK tarafından aylık olarak yayımlanan Meraklı Minik dergisi, sosyal bilgiler dersi konularına göre incelenmiştir. Yapılan bu inceleme sonucunda; dergide tarih, coğrafya, sosyoloji, ekonomi, halkbilim, sanat ve vatandaşlık kategorilerine uygun olarak çeşitli konuların yer aldığı tespit edilmiştir. Coğrafya, otuz dört konu ile en fazla konunun yer aldığı kategori olmuştur. Sanat kategorisinde on dört konu, tarih kategorisinde altı konu, ekonomi kategorisinde dört konu, halkbilim kategorisinde iki konu, sosyoloji kategorisinde bir konu, vatandaşlık kategorisinde bir konu yer almıştır. Yapılan bu araştırmaya göre Meraklı Minik dergisinde en fazla coğrafya, ardından sanat kategorisinde konuların yer aldığı görülmektedir.

Öneriler

Araştırmanın sonuçlarından hareketle şu öneride bulunabilir:

Meraklı Minik gibi bilim dergilerinden, sosyal bilgiler dersinin yanı sıra öğrencilerin boş zamanlarını verimli değerlendirmeleri için yararlanılabilir.

The Examination of the Relationship Between Primary School Students' Story Writing Skills and Writing Attitudes

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Abstract

It is believed that story writing, an important skill that enables children to express their feelings, thoughts, and imagination, may be related to students' attitudes toward writing. The aim of this study is to examine the relationship between writing attitudes and story writing skills of primary school students. The research, in which the relational survey model was used, was conducted in Keçiören district of Ankara. In study, which involved 379 elementary school students in the fourth grade, "Student Personal Information Form, Writing Attitude Scale, Free Story Writing Form, Story Completion Form, Story Writing with Story Map Form and Story Writing Evaluation Rubric" were used as data collection tools. Independent groups t-test, one-way analysis of variance test [ANOVA], Kruskal-Wallis H test, Pearson correlation analysis were applied to the data obtained. As a result of the study, it was determined that fourth grade primary school students' attitudes towards writing were positive, while their skills in free story writing, story completion and story writing with story map were weak. It was found that the students' attitudes towards writing did not differ significantly according to gender, whereas the skills of free story writing, completing story and writing a story with a story map differed significantly in favour of female students. The study revealed a meaningful, positive, and low-level relationship between the writing attitudes of the participating students and their skills in free story writing, story completion, and writing a story with story map. Writing activities can be made enjoyable for students, thereby developing their attitude toward writing.

Keywords: Story writing, writing attitude, writing education.

Introduction

Writing is a means of expression that enables individuals to articulate a wide variety of ideas, sentiments, observations, aspirations and necessities. In this way, others learn what the writer thinks or feels. As an idea-finding activity (Pratiwi & Rohmanurmeta, 2018), writing is directly related to the level and quality of personal experiences and cognitive knowledge in different fields and is one of the productive abilities of language (Golestani & Nourabadi, 2019). As a complex and productive skill, writing requires the writer to manage the writing environment skilfully. At the same time, writing, which is a cognitive activity that requires the process, knowledge and skills related to reflecting the limits imposed by the subject of writing, the author's intentions, thoughts and feelings, is shaped according to the social context in which it takes place as a social activity since it provides a liaison between the writer and the reader.

The structure and content of written texts vary according to the purpose of the text, the characteristics of the audience and the requirements of the writer. The types of written texts include informative, persuasive, questioning, descriptive and entertaining texts. Some people use narrative language to describe events. These stories may be about life experiences and memories, or they may be completely fictionalised. Memories can take the form of images, sounds or symbols in human memory. Since recalling memories or recognizing symbols can become easier through narrative writing (Kuruyer, 2010). A story is a literary genre with a simple plot structure that presents brief events, a short time frame, and minimally detailed characters while keeping the elements of time, place, and character limited (Kolcu, 2010). According to Yıldız (2021), a story is a type of text that narrates real events or those with a strong likelihood of occurring within a fictional framework has a short and simple structure and evokes a strong impact through a significant event and a limited number of characters. A

story is a fictional form of written expression that narrates events people experience in their lives from their perspective, as if they were the ones living the event. It includes a specific event, the setting where it takes place, the time period in which it occurs, and the characters involved (Aktaş & Gündüz, 2005). In narrative texts, an event is recounted to evoke thought and emotion in the reader, the feelings and thoughts of the characters experiencing the event are conveyed, and the narrative gains dynamism through flashbacks and forward jumps in time (Babacan, 2007). Thanks to this dynamism, stories become more engaging. This feature encourages children to take an interest in and develop curiosity about stories, leading them to engage in story writing. Story writing can be functionally used in different learning areas to develop children's language skills both in school settings and daily life (Akyol, 2006). A child who becomes familiar with the concept of storytelling from an early age can both create their own stories and retell those they hear. Stories are important for people of all ages, but story writing as a shortcut for helping children acquire desired behaviors (Aytaş, 2006), and listening is particularly noteworthy. Stories, which introduce the power of language by enriching children's vocabulary and can be used as a creative way to convey messages (Akyol, 2014), support children's language development and help them intuit the possibilities of using their mother tongue (Sever, 2013). In fact, in educational environments where story activities are utilized, students' language skills -such as reading, writing, listening, and speaking (Speaker et al., 2004)- improve. Since writing becomes enjoyable through story writing activities, students' written expression skills are strengthened, and their vocabulary is enriched (Bozkurt, 2005).

> Incorporating stories into the learning environment makes students much more productive. When writing stories, students enhance their creativity by using their imagination. As they write, they learn how to structure sentences effectively and express themselves more clearly. Story listening and writing activities not only develop students' imagination but also foster their creativity. (Kurmanali & Chakyroglu, 2021, p.203)

The early years of primary school are particularly important for the development of basic language skills. Writing is a language skill used for learning. Students who can write skillfully (Pratiwi & Rohmanurmeta, 2018) are better able to follow the learning process. Narrating the plot of a story in a specific order strengthens students' chronological perception. Children who understand the relationships between time, place, characters, and other story elements will find it easier to construct a new event and communicate it in a logical sequence. This, in turn, will make a positive contribution to the student's language development (İpek Eğilmez & Berber, 2017). Story writing supports children's emotional development. Additionally, children turn to story writing for reasons such as having fun, expressing themselves through art, organizing their thoughts, revealing their dreams, explaining their ideas, discovering their identity, and learning to read and write (Tompkins, 1982). When writing stories, children find creative ways to solve the problems faced by the characters. Writing their own stories helps children experience a sense of achievement and develop their self-confidence. The child's approach to writing is also crucial in the story-writing process. Whether a child loves or avoids writing can impact their writing success. At this stage, writing attitude -referring to one's orientation toward writing- affects writing skills through factors such as cognitive engagement and emotions. Students with more positive attitudes write more effortlessly than those with less positive attitudes (Mazeh & Moukarzel, 2018). Attitude can be

seen as a summary of past experiences that determine an individual's behaviour and can influence the formation of present or future behaviour (Susar Kırmızı & Beydemir, 2012). Since attitudes are not innate, positive life experiences related to writing skills will also foster a positive perspective toward this skill. Once acquired, attitudes toward writing are very difficult to change. Students who develop positive attitudes towards writing enjoy it without worrying about success. Students who develop negative attitudes toward writing will avoid it as much as possible, fearing failure. As a result, they will struggle both in their writing and in acquiring writing skills (Bruning & Horn, 2000). In all educational environments, especially in Turkish lessons, when primary school students do not struggle with fictionalizing elements such as subject, character, and setting while writing stories, positive writing attitudes can develop concurrently. This study examines the story writing skills of fourth grade primary school students and aims to determine the effects of certain variables thought to influence these skills. Identifying the factors that influence story writing can provide guidance in developing writing skills, fostering enjoyment of writing, and creating a positive attitude toward it. In this regard, it is believed that the research will contribute to writing education efforts. The aim of the research is to examine the relationship between primary school students' writing attitudes and their story-writing skills. The problems and sub-problems of the study are listed below:

1. What is the level of writing attitudes among fourth-grade primary school students?

2. What is the level of fourth-grade primary school students' skills in free writing, completing an unfinished story, and writing stories using a story map?

3. Do fourth-grade primary school students' writing attitudes and story-writing skills show significant differences based on:

3.1. Gender?

3.2. Educational background of parents?

3.3. Whether they attended preschool education?

4. Is there a significant relationship between fourth-grade primary school students' writing attitudes and their story-writing skills?

Method

Research Model

In this study, the relationship between primary school students' story-writing skills and their writing attitudes was examined using the relational scanning design. Relational studies are a type of research that effectively reveal the relationship between variables, determine the strength of these relationships, and provide essential insights for conducting more advanced research on these connections (Büyüköztürk et al., 2018). The relational survey model was chosen for this study to explore the relationship between primary school students' story-writing skills and their writing attitudes. Additionally, another reason for selecting this model is its ability to examine and reveal connections between variables without intervening in them.

Universe and Sample

The research was conducted in the Keçiören district of Ankara, which has 57 official primary schools. The study population consisted of 12,488 fourth-grade students enrolled in these schools. A simple random sampling method was used, ensuring that each participant had an equal probability of being selected, making the application process more straightforward (Arıkan, 2007). Using the confidence levels and intervals chart, the required sample size for a 99% confidence level among fourth-grade students was determined to be at least 640 students (Cohen et al., 2007). Due to distance learning, the research was completed using data collected from 379 fourth grade primary school students in a face to face, school environment before the COVID-19 pandemic began. Table 1 presents the demographic characteristics of the students in the sample group.

Table 1.

Demographic Characteristics of Sample

Demographic characteristics	Subcriteria	*n*	%
Gender	Girl	203	53.6
	Boy	176	46.4
Keeping a diary	Yes	75	19.8
	No	304	80.2
Having preschool education	Yes	279	73.6
	No	100	26.4
Become a member of the public library	Yes	39	10.3
	No	340	89.7
Mother's educational status	Primary school	80	21.1
	Middle school	113	29.8
	High school	116	30.6
	Bachelor's and postgraduate	70	18.5
Father's educational status	Primary school	54	14.2
	Middle school	119	31.4
	High school	121	32
	Bachelor's and postgraduate	85	22.4

Data Collection Tools

This study utilized six distinct data collection instruments. The following section outlines their characteristics:

Student Personal Information Form

This form, prepared by researchers, contains questions about students' gender, daily writing, pre-school education status, library membership, and parents' education status.

Writing Attitude Scale

This scale was developed by Graham et al. (2007) as 7 items and new items were added by Can (2016) while adapting it to Turkish. The 18-item Writing Attitude Scale has a single-factor structure and its Cronbach Alpha coefficient was calculated as .83. The items of the four-point likert-type scale were scored as "Very happy (1)", "Happy (2)", "Unhappy (3)", "Very unhappy (4)" in four different expressions accompanied by a cat visual. The calculated Cronbach's Alpha coefficient of this scale, which was used to measure the attitudes towards writing of primary school fourth grade students within the scope of this study, was determined as .78. The score ranges to be used to determine the level of the scores obtained from the writing attitude scale were calculated using the formula "Range Width (a)=Range

width/Number of groups to be made" proposed by Tekin (2000). Accordingly, the range of 18-36 was considered as low attitude, 36.01-54 as medium, and 54.01-72 as high attitude.

The Free Story Writing Form

The Free Story Writing Form was developed by Bulut (2018) with the objective of encouraging students to compose a story on a topic of their own choosing, with the task of determining the story elements themselves.

The Story Writing Form based on Story Map

In the form developed by Bulut (2018), students were provided with a set of story elements and were tasked with creating a story based on these elements. The students were tasked with designing and writing a story that was to be based on the main character, subject, place and main idea.

The Story Completion Form

This form was also developed by Bulut (2018). In this form, students were expected to use their own imagination to complete an unfinished story.

Story Writing Assessment Rubric

This rubric, developed by Bulut (2018), consists of 10 items assessing various aspects of story writing, including title-content compatibility, topic/event structure, identification of the main idea, content organization, vocabulary use, adherence to spelling rules, sentence sequencing, presentation features, setting determination, and character utilization. Each item is rated on a four-point scale: "Inadequate (1)", "Normal (2)", "Good (3)", and "Very Good (4)". The total possible score on the rubric is 40. Story writing proficiency is evaluated based on the following score ranges: Poor (0-10), Normal (11-20), Good (21-30), and Very Good (31-40).

Data Collection

The data collection process of the study was carried out in nine stages:

1. Permission for the research was obtained from the Ankara Provincial Directorate of National Education.

2. The process for obtaining ethical committee approval was completed.

3. School administrators and teachers at the selected schools were informed about the research, and an implementation schedule was created.

4. The data collection process was completed in four sessions, each lasting 30 minutes.

5. In the first session, students completed the Personal Information Form and the Writing Attitude Scale.

6. In the second session, students wrote a new story on a topic of their choice.

7. In the third session, students completed an unfinished story.

8. In the fourth session, students were given a story map and asked to write a new story using its elements.

9. The collected data were organized, classified, and recorded into a computer-assisted statistical program.

Data Analysis

The data obtained were analyzed by means of a computer-aided statistical programme. To ascertain the statistical tests that should be used in this process, it was necessary to determine whether the data showed a normal distribution. The findings are presented in Table 2.

Table 2.

Results of the Normal Distribution for Writing Attitudes and Story Writing

Variable	n	Skewness	Kurtosis	Median	M
Writing attitude	379	.036	.122	57.00	57.51
Free story writing skills	379	.507	-.063	13.00	12.85
Story completion skills	379	.761	.870	12.00	11.77
Story writing skills with story map	379	.869	.774	11.00	11.56

In the literature, it is reported that skewness and kurtosis values should fall between -1 and +1 to determine that the distribution is normal (Çokluk et al., 2021; McKillup, 2012; Tabachnick & Fidell, 2013). Based on these guidelines, an examination of Table 2 reveals that the skewness and kurtosis values for all measurements used in the study are between -1 and +1, with the median and mean values being very close to each other. Additionally, the Q-Q and histogram graphs, along with the leaf diagrams, indicate that the data exhibit a distribution structure very similar to a normal distribution. Therefore, it was concluded that the data followed a normal distribution, and parametric statistical tests were employed in the analysis. The statistical tests used based on the sub-problems are as follows:

- Descriptive statistics were used to assess the writing attitudes and the skills of fourth grade primary school students in free story writing, story completion, and story writing with a story map.
- An independent samples t-test was used to determine whether there were significant differences in students' writing attitudes and skills in free story writing, story completion, and story writing using a story map based on gender, preschool education status, and daily journaling habits.
- The differences in students' writing attitudes and skills in free story writing, story completion, and story writing using a story map based on the parents' educational levels were examined using one-way analysis of variance [ANOVA].
- Pearson correlation analysis was used to determine whether there is a relationship between students' writing attitudes and their skills in free story writing, story completion, and story writing using a story map.

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 = Kırıkkale University Social and Human Sciences Research Ethics Committee

Date of ethical review decision = 18.12.2020

Ethics assessment document issue number = 6

Findings

This section provides findings related to research problems.

Findings on Primary School Fourth Grade Students' Story Writing Skills and Writing Attitudes

The writing attitudes of the fourth-grade primary school students participating in the study, along with their levels of free story writing, story completion, and story writing skills using a story map, were assessed using descriptive statistics. The results of this evaluation are presented in Table 3.

Table 3.

Descriptive Analysis Results of Writing Attitude and Story Writing

Variable	Minimum	Maximum	n	M	SD	Level
Writing attitude	40.00	72.00	379	57.52	5.44	High
Free story writing	1.00	33.00	379	12.85	6.74	Normal
Story completion	1.00	36.00	379	11.77	6.09	Normal
Writing a story with story map	1.00	37.00	379	11.56	6.52	Normal

The results presented in Table 3 indicate that the students' attitudes toward writing are at a high level, while their proficiency in free story writing, story completion, and story writing using a story map is at a normal level. These findings suggest that while the fourth-grade elementary school students' attitudes toward writing are positive, their skills in free story writing, story completion, and story writing with a story map are not yet at a sufficient level.

Comparison of Writing Attitudes and Story Writing Skills of Fourth Grade Primary School Students by Gender

To determine whether there are differences in the writing attitudes of the fourth-grade primary school students and their skills in free story writing, story completion, and story writing with a story map based on gender, an independent samples t-test was conducted. The findings obtained from this analysis are presented in Table 4.

Table 4.

t-Test Results of Writing Attitude and Story Writing Scores by Gender

Variable	Gender	n	M	SD	df	t	p
Writing attitude	Girls	203	57.93	5.49	377	1.566	.118
	Boys	176	57.05	5.35			
Free story writing	Girls	203	14.17	7.13	377	4.152	.000
	Boys	176	11.35	5.92			
Story completion	Girls	203	13.02	6.29	377	4.391	.000
	Boys	176	10.33	5.52			
Writing a story with story map	Girls	203	12.92	6.84	377	4.438	.000
	Boys	176	10.01	5.77			

According to Table 4, there is no significant difference in the writing attitudes of the students based on gender ($t_{(377)}$=1.566; p>.05). However, a significant difference was found in favor of female students in terms of their abilities in free story writing ($t_{(377)}$=4.152; p<.05), story completion ($t_{(377)}$=4.391; p<.05), and story writing with a story map ($t_{(377)}$=4.438; p<.05). Based on these findings, it can be stated that gender does not have an effect on writing attitudes, but it is an influential variable in story writing skills through different applications. Additionally, it can be noted that female students' story writing skills are more advanced than those of male students.

Comparison of Writing Attitudes and Story Writing Skills of Fourth Grade Primary School Students by Educational Background of Parents

ANOVA was conducted to examine the differences in the writing attitudes and skills of fourth-grade primary school students in free story writing, story completion, and story writing with a story map, based on their mothers' and fathers' educational background. The findings related to the mother's educational background are presented in Table 5.

Table 5.

ANOVA Results of Writing Attitude and Story Writing Scores by Mother's Educational Status

		Sum of squares	df	Mean of squares	F	p
Writing attitude	Between groups	214.81	3	71.60	2.453	.324
	Within groups	10945.79	375	29.19		
	Total	11160.60	378			
Free story writing	Between groups	339.61	3	113.20	3.752	2.524
	Within groups	16816.70	375	44.85		
	Total	17156.31	378			
Story completion	Between groups	282.11	3	41.06	.099	2.566
	Within groups	13740.92	375	42.54		
	Total	14023.03	378			
Writing a story with story map	Between groups	123.18	3	41.06	3.903	.965
	Within groups	15951.71	375	42.54		
	Total	16074.90	378			

As demonstrated in Table 5, students whose mothers have a bachelor's degree or higher tend to have higher writing attitude scores and story writing skills in various applications compared to other groups. However, there were no significant differences in the students' writing attitude ($F_{(3-375)}$=2.453; p>.05), free story writing ($F_{(3-375)}$=2.524; p>.05), story completion ($F_{(3-375)}$=2.566; p>.05), and story writing with a story map ($F_{(3-375)}$=.965; p>.05) based on the mother's educational background. Therefore, it can be stated that the mother's educational background does not have an effect on the students' writing attitude and story writing skills with different applications.

The findings regarding the comparison of students' writing attitudes and writing skills with different practices according to their father's educational background are presented in Table 6.

Table 6.

ANOVA Results of Writing Attitude and Story Writing Scores by Father's Educational Status

		Sum of squares	df	Mean of squares	F	p
Writing attitude	Between groups	163.60	3	54.53	1.860	.136
	Within groups	10997.01	375	29.33		
	Total	11160.60	378			
Free story writing	Between groups	221.63	3	73.88	1.636	.181
	Within groups	16934.68	375	45.16		
	Total	17156.31	378			
Story completion	Between groups	64.10	3	21.37	.574	.632
	Within groups	13958.93	375	37.22		
	Total	14023.03	378			
Writing a story with story map	Between groups	62.34	3	20.78	.487	.692
	Within groups	16012.56	375	42.70		
	Total	16074.90	378			

As demonstrated in Table 6, there are no significant differences in students' writing attitudes ($F_{(3-375)}=1.860$; p>.05), free story writing ($F_{(3-375)}=1.636$; p>.05), story completion ($F_{(3-375)}=.574$; p>.05), and story writing with a story map ($F_{(3-375)}=.487$; p>.05) based on their father's educational background. Based on the findings, it can be stated that the father's educational background does not have an effect on students' writing attitudes and their story writing skills with different practices.

Comparison of Writing Attitudes and Story Writing Skills of Fourth Grade Primary School Students by Having Preschool Education

The analysis of whether there are significant differences in the writing attitudes of the fourth-grade primary school students, as well as their skills in free story writing, story completion, and story writing with a story map, based on having pre-school education was performed using an independent samples t-test. The findings are presented in Table 7.

Table 7.

t-Test Results of Writing Attitude and Story Writing Scores by Having Preschool Education

Variable	Having preschool education	n	M	SD	df	t	p
Writing attitude	Yes	279	57.54	5.44	377	.107	.915
	No	100	57,47	5.45			
Free story writing	Yes	279	13.58	6.87	377	3.525	.000
	No	100	10.85	5.92			
Story completion	Yes	279	12.35	6.32	377	3.137	.002
	No	100	10.15	5.09			
Writing a story with story map	Yes	279	12.08	6.60	377	2.501	.013
	No	100	10.18	6.10			

According to the independent samples t-test results presented in Table 7, there is no significant difference in the students' writing attitudes based on having preschool education ($t_{(377)}=.107$; p>.05). However, it was found that students who attended preschool performed significantly better in free story writing ($t_{(377)}=3.525$; p<.05), story completion ($t_{(377)}=3.137$; p<.05), and story writing with a story map ($t_{(377)}=2.501$; p<.05). This suggests that preschool education does not affect students' writing attitudes, but it does have a significant positive impact on their story writing skills with different practices.

Investigation of the Relationship between Story Writing Skills and Writing Attitude of Fourth Grade Primary School Students

Pearson correlation analysis was used to determine the relationship between the writing attitudes of the students and their free story writing, story completion, story map and story writing skills. The results of the analysis are presented in Table 8.

Table 8.

The Relationship Between Writing Attitude and Story Writing Sills

Variable	1	2	3	4
1. Writing attitude	1	.128*	.180**	.155**
2. Free story writing		1	.751**	.728**
3. Story completion			1	.828**
4. Writing a story with story map				1

*p<.05 **p<.01

The findings presented in Table 8 demonstrate a significant, positive and low-level relationship at the .05 level between the writing attitude and free story writing skills of the students. Additionally, a significant, positive, low-level relationship at the .01 level is observed between writing attitude and story completion, as well as between writing attitude and story writing with a story map. Furthermore, a significant, positive, and high-level relationship at the .01 level was determined between students' free story writing, story completion, and story writing with a story map skills.

Discussion and Conclusion

The study revealed that the writing attitudes of the fourth grade primary school students were high, and their skills of free story writing, story completion and story writing with story map were at a normal level. However, it can be stated that these students' attitudes towards writing are positive, but their skills of "free story writing", "story completion" and "story writing with story map" are not good enough. When reviewing the literature, Özkan (2016) similarly found that fourth-grade primary school students' ability to use story elements and their overall writing skills were insufficient. In a study by İpek Eğilmez and Berber (2017), it was revealed that fifth-grade students excelled in the "language and expression" aspects of story writing but faced challenges in the "content" section, which involved incorporating story elements. Uysal's (2018) experimental research on enhancing story writing skills showed that the mind map method effectively improved students' writing skills while assigning story writing as homework did not significantly contribute to the development of this skill. Türkyılmaz (2021) stated that activity-based creative writing practices enhanced both story writing skills and writing attitudes. In a study conducted by Wulan Anggraeni et al. (2024), primary school teachers' stated that although students showed great interest in writing stories, they had difficulty creating a consistent story flow, developing characters and settings, and using words. The teachers who participated in the study emphasised the importance of collaborative approaches, gamification, and the use of interactive technology in the process of developing primary school students' story-writing skills. Taken together, these findings suggest that writing attitudes and story writing skills can be developed through diverse educational practices. According to Grenner et al. (2021), there is a complex interaction between story writing and self-efficacy. In particular, primary school students who are aspiring

writers may not be able to distinguish between general writing skills, writing performance, story writing, and self-efficacy when their developmental levels are taken into account. In this regard, story writing education provided to primary school students should include helping students recognise their own characteristics and involving them in the process in terms of their emotional characteristics.

There are no significant differences in students' writing attitudes based on gender. However, when examining students' skills in free story writing, story completion, and story writing with a story map, significant differences were found in favor of female students. Based on the findings, it can be concluded that gender does not affect writing attitudes, but it does influence story writing skills through different practices. Furthermore, female students' story writing skills were found to be superior to those of male students. Similar results have been observed in other studies as well. Kakuş and Kasa Ayten (2025) report that female students have more positive writing attitudes compared to male students. In a study with fourth-grade primary school students, Yurtbakan (2023) found that girls had better story writing skills than boys.

Bulut (2018) stated that female students are more successful than male students in story writing. In a study conducted by Takımcıgil Özcan (2014) with fourth-grade primary school students, it was found that story writing scores showed a significant difference in favor of female students, and that girls had higher writing motivation than boys. Ağın Haykır (2012) also observed that girls are more successful than boys in story writing. In a study by Arı (2010), the stories written by 623 students in the sixth and seventh grades were evaluated based on external structure, language and expression, and organization. The results indicated that female students produced more successful texts than male students. A study conducted with primary school students emphasises that students' attitudes towards writing are related to their language background, grade level, gender, and writing quality. It has been observed that as grade level increases, the relationship between writing attitude and writing quality develops positively, especially among female students (Skar et al., 2022). The reason for such varying findings in the literature concerning the gender variable may be attributed to factors such as the characteristics of the studied group, the content of the research, and the influence of socio-cultural factors.

According to the results of the study, students whose mothers have a "bachelor's degree or higher" have higher writing attitudes and story writing skill levels compared to other groups. However, there are no significant differences in students' writing attitudes or their free story writing, story completion, and story writing with a story map skills based on their mother's educational background. Therefore, it can be stated that the mother's educational background does not have an effect on students' writing attitudes or their story writing skills with different practices. Çelik (2012) found that students whose mothers were "college or graduate school graduates" had better written expression skills compared to students whose mothers were "high school graduates" or "illiterate or elementary school graduates". Yasul (2014) states that in his study conducted in Muş, significant differences were observed in the story writing skills of fourth-grade primary school students based on the educational background of their parents. When the research findings are considered together, they suggest that the educational

backgrounds of parents may positively contribute to the development of a child's writing skills. It can be stated that the family's educational background has a positive influence on the child's language development. The research also concluded that there was no significant difference in students' writing attitudes based on their preschool education status. However, it was found that students who attended preschool education performed significantly better in free story writing, story completion, and story writing with a story map. Therefore, it can be concluded that preschool education positively impacts story writing skills. In Çelik's (2012) study conducted with eighth-grade students, it was determined that students who had attended preschool education exhibited better written expression skills compared to those who had not attended preschool education.

The research findings reveal a significant and positive relationship between students' writing attitudes and their free story writing skills, as well as a significant and positive low-level relationship between writing attitude and story completion, and story writing with story map skills. A significant, positive, and high-level relationship was found between students' skills in free story writing, story completion, and story writing with a story map. Similarly, Kaya (2016), in a study conducted to develop an attitude scale for story writing among third-grade primary school students, states that writing attitude influences story writing skills. Supporting this result, Göçer (2016) emphasizes that attitudes and beliefs about writing positively affect individuals' performance indicators, and when students develop a positive attitude towards writing, their tendency to improve their writing skills increases. Overall, these results suggest that personal approaches, desire, and interest in writing influence story writing.

In Eminoğlu's (2019) study, primary school teacher teachers recommended that parents encourage their children to write daily to improve students' writing attitudes. The study also emphasized that activities aimed at developing writing attitudes should begin in preschool and continue into first grade. Yarar (2024) states that both strong and weak writers make various plans during the writing process, but ideas generated in the cognitive phase of writing may be lost, either partially or entirely, when transcribed. According to this, good writers appear thoughtful, enthusiastic, and joyful when writing, while weak writers are described as thoughtful, anxious, joyless, and hurried. The study concluded that the thoughts, behaviors, and emotional states displayed by writers during the writing process are just as important as the texts they produce and should be considered. Liman (2023) stated that a process-based story-writing approach, supported by visuals, can both improve story-writing skills and reduce anxiety about writing stories. From this standpoint, it is clearly evident that the attitude, which represents emotional states and willingness related to writing, contributes to the development of writing skills. The idea that activities designed to enhance students' interest, desire, curiosity, and motivation in reading and writing practices in classrooms can have a significant impact on writing performance emerges strongly.

Recommendations

In the development of writing skills in primary school students, their attitude towards the skill in question, and their skills to write stories as a text type, are of significant importance. The findings of the study have led to the formulation of the following recommendations for students, teachers and researchers:

It is recommended that teachers in primary schools incorporate more story-writing activities and demonstrate how to use story maps to help students improve their story-writing skills.

Primary school teachers' can integrate more methods and techniques that require the use of these skills in classroom activities to enhance students' story-writing skills.

Primary school teachers' can organise activities such as drama, games, read-aloud sessions, and the analysis of storybooks to increase students' awareness of stories as a text type.

Creative writing activities can be conducted to develop story-writing skills and foster a positive attitude toward writing. Turning writing activities into enjoyable experiences for students will enhance their attitude toward writing. Creating writing-friendly environments both at school and at home, as well as sharing evaluations of students' written work with them, can contribute to positive development.

Longitudinal studies conducted by researchers can examine the changes and development of students' writing attitudes and written expression skills over a specific period.

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

Notice of Use of Artificial Intelligence

The authors did not utilise any artificial intelligence tools for the research, authorship and publication of this article.

İlkokul Öğrencilerinin Hikâye Yazma Becerileri ile Yazma Tutumu Arasındaki İlişkinin İncelenmesi

Özet

Çocukların duygu, düşünce ve hayal dünyalarını ifade etmelerini sağlayan önemli bir beceri olan hikâye yazma becerisinin, yazmaya yönelik tutumları ile ilişkili olabileceği düşünülmektedir. Araştırmanın amacı, ilkokul öğrencilerinin yazma tutumu ile hikâye yazma becerileri arasındaki ilişkinin incelenmesidir. İlişkisel tarama modelinin kullanıldığı araştırma Ankara'nın Keçiören ilçesinde gerçekleştirilmiştir. İlkokul dördüncü sınıfa devam eden 379 öğrencinin katıldığı bu araştırmada veri toplama aracı olarak "Öğrenci Kişisel Bilgi Formu, Yazma Tutum Ölçeği, Serbest Hikâye Yazma Formu, Hikâye Tamamlama Formu, Hikâye Haritası ile Hikâye Yazma Formu ve Hikâye Yazma Değerlendirme Rubriği" kullanılmıştır. Elde edilen verilere bağımsız örneklemler t-testi, tek yönlü varyans analizi testi [ANOVA], Kruskal-Wallis H testi, Pearson korelasyon analizi uygulanmıştır. Araştırma sonucunda ilkokul dördüncü sınıf öğrencilerinin yazmaya yönelik tutumlarının olumlu; serbest hikâye yazma, hikâye tamamlama ve hikâye haritası ile hikâye yazma becerilerinin zayıf olduğu belirlenmiştir. Öğrencilerin yazma tutumlarının cinsiyete göre anlamlı farklılık göstermediği; serbest hikâye yazma, yarım bir hikâyeyi tamamlayarak yazma ve hikâye haritası ile hikâye yazma becerilerinin ise kız öğrenciler lehine anlamlı düzeyde farklılık gösterdiği anlaşılmıştır. Araştırmaya katılan öğrencilerin yazma tutumları ile serbest hikâye yazma, hikâye tamamlama ve hikâye haritası ile hikâye yazma becerileri arasında anlamlı, pozitif yönlü ve düşük düzeyde bir ilişki olduğu ortaya çıkmıştır. Yazma çalışmaları, öğrencilerin keyif aldıkları yaşantılar hâline getirilerek yazmaya yönelik tutumları geliştirilebilir.

Anahtar Kelimeler: Hikâye yazma, yazma tutumu, yazma eğitimi.

Giriş

Çocukların duygusal durumlarının gelişiminde hikâye yazmanın önemli bir katkısı vardır. Bunun yanında çocuklar; eğlenmek, sanatla kendini anlatmak, kendi düşüncelerini fark etmek, hayallerini ortaya koymak, düşüncelerini açıklamak, kimliğini keşfetmek ve okuma yazma öğrenmek gibi nedenlerle hikâye yazmaya başvurmaktadırlar (Tompkins, 1982). Hikâye yazma sürecinde çocuğun yazmaya ilişkin yaklaşımı da önem arz etmektedir. Yazmayı sevmek veya yazmaktan kaçınmak öğrencinin yazma başarısını etkileyebilmektedir. Bu aşamada yazmaya yönelişi anlatan yazma tutumu, bilişsel katılım ve duygular gibi etkenler aracılığıyla yazma becerisini etkilemektedir. Yazmaya karşı olumlu tutum geliştiren öğrenciler, başarı kaygısı gütmeden yazarken zevk almaktadır. Yazmaya karşı olumsuz tutum geliştiren öğrencilerse başarısız olacağından korkup yazı yazmaktan olabildiğince kaçacaktır. Dolayısıyla yazısında da yazma becerisi kazanmada da başarısız olacaktır (Bruning & Horn, 2000). Türkçe dersleri başta olmak üzere tüm eğitim ortamlarında ilkokul öğrencileri hikâye yazarken konu, karakter, mekân gibi unsurları kurgulamakta zorluk yaşamadıklarında eş zamanlı olarak olumlu yazma tutumu da gelişebilecektir. Bu araştırmanın amacı, ilkokul öğrencilerinin hikâye yazma becerileri ile yazma tutumları arasındaki ilişkinin incelenmesidir.

Yöntem

Araştırmanın Modeli

Araştırmada ilişkisel tarama modeli kullanılmıştır. Araştırmada ilişkisel tarama modelinin kullanılmasının sebebi, ilkokul dördüncü sınıf öğrencilerinin hikâye yazma becerisi ile yazma tutumları arasındaki ilişkiyi inceleyebilmektir.

Evren ve Örneklem

Ankara ilinin Keçiören ilçesinde gerçekleştirilen araştırmanın evrenini 12.488 ilkokul dördüncü sınıf öğrencisi oluşturmaktadır. Basit tesadüfi yöntem uygulanarak örneklem grubu 640 öğrenci olarak belirlenmiştir. 2021 yılında tüm dünyada yaşanan COVİD 19 hastalığının bir salgın halinde Türkiye'de de yaşanması sebebiyle tüm ilkokullar yüz yüze eğitim faaliyetlerine ara vermişlerdir. Bundan dolayı araştırma, 379 ilkokul dördüncü sınıf öğrencisinden elde edilen verilerle tamamlanmıştır.

Veri Toplama Araçları

Bu araştırmada altı farklı veri toplama aracı kullanılmıştır:

1. Öğrenci Kişisel Bilgi Formu: Araştırmacılar tarafından geliştirilmiştir. Cinsiyet, okul öncesi eğitim alma ile anne-baba eğitim durumuyla ilgili sorular bulunmaktadır.

2. Yazma Tutum Ölçeği: Can (2016) Türkçeye uyarlanan, 18 maddelik tek faktörlü yapısı olan bu ölçeğin Cronbach Alfa katsayısı .78 olarak hesaplanmıştır. Dörtlü likert tipinde düzenlenen ölçekten alınan 18-36 puan aralığı düşük, 36,01-54 puan aralığı orta, 54,01-72 puan aralığı yüksek tutum olarak değerlendirilmiştir.

3. Serbest Hikâye Yazma Formu: Bulut (2018) tarafından geliştirilmiştir. Öğrencilerden istedikleri bir konuda hikâye yazmaları için kullanılmıştır.

4. Hikâye Haritasından Hikâye Yazma Formu: Bulut'un (2018) geliştirdiği bu formla öğrencilerin belirtilen hikâye unsurlarına dayalı bir hikâye yazmaları gerekmektedir.

5. Hikâye Tamamlama Formu: Bu form Bulut (2018) tarafından geliştirilmiştir. Bu formla öğrencilerin yarım bırakılmış bir hikâyeyi tamamlamaları beklenmektedir.

6. Hikâye Yazma Değerlendirme Rubriği: Bulut (2018) tarafından geliştirilen 10 maddelik bu rubriğe göre hikâye yazmanın değerlendirilmesinde dikkate alınacak puan aralıkları yetersiz (0-10); normal (11-20); iyi (21-30); çok iyi (31-40) olarak belirlenmiştir.

Verilerin Toplanması

Verilerin toplanması için etik kurul izni ve araştırma izinleri alınmış, ardından okul yönetimleri ve öğretmenlerle görüşmeler yapılmıştır. Belirlenen takvime göre okullarda dört farklı oturum halinde veri toplama araçları uygulanmıştır. Öğrenciler önce kişisel bilgiler formu ve yazma tutum ölçeğini cevaplamışlardır. Ardından kendi belirledikleri bir konuda yeni bir hikâye yazmışlar, sonrasında yarım bırakılmış bir hikâyeyi tamamlamışlar, en son oturumda ise bir hikâye haritasındaki bileşenlere göre yeni bir hikâye yazmışlardır.

Verilerin Analizi

Elde edilen veriler bilgisayar destekli istatistik programına kaydedilmiştir. Araştırma verileri normal dağılım gösterdiğinden analizlerde parametrik istatistik testlerinden faydalanılmış, betimsel istatistik sonuçları kullanılmıştır. Bağımsız örneklemler t-testi, tek yönlü varyans analizi testi [ANOVA] ve Pearson korelasyon analizi yapılmıştır.

Araştırmanın Etik İzinleri:

Bu çalışmada "Yükseköğretim Kurumları Bilimsel Araştırma ve Yayın Etiği Yönergesi" kapsamında uyulması gerektiği belirtilen tüm kurallara uyulmuştur. Yönergenin ikinci bölümü olan "Bilimsel Araştırma ve Yayın Etiğine Aykırı Eylemler" başlığı altında belirtilen eylemlerin hiçbiri gerçekleştirilmemiştir.

Etik Kurul İzin Bilgileri:

Etik değerlendirmeyi yapan kurulun adı = Kırıkkale Üniversitesi Sosyal ve Beşerî Bilimler Araştırma Etik Kurulu

Etik Kurul Etik inceleme karar tarihi = 18.12.2020

Etik değerlendirme belgesi konu numarası = 6

Bulgular

İlkokul dördüncü sınıf öğrencilerinin yazma tutumları ile çeşitli hikâye yazma becerilerinin düzeyleri, tanımlayıcı istatistikler kullanılarak değerlendirilmiş ve değerlendirme sonuçları Tablo 1'de sunulmuştur.

Tablo 1.

Yazma Tutumu ve Hikâye Yazmaya İlişkin Betimsel İstatistik Analiz Sonuçları

Değişken	En düşük	En yüksek	*n*	*M*	*SD*	Düzey
Yazma tutumu	40.00	72.00	379	57.52	5.44	Yüksek
Serbest hikâye yazma	1.00	33.00	379	12.85	6.74	Normal
Hikâye tamamlama	1.00	36.00	379	11.77	6.09	Normal
Hikâye haritası ile hikâye yazma	1.00	37.00	379	11.56	6.52	Normal

Tablo 1'deki bulgulara göre araştırmaya katılan ilkokul dördüncü sınıf öğrencilerinin yazmaya yönelik tutumlarının olumlu düzeyde olduğu; serbest hikâye yazma, hikâye tamamlama ve hikâye haritası ile hikâye yazma becerilerinin yeterli düzeyde olmadığı belirtilebilir.

İlkokul dördüncü sınıf öğrencilerinin yazma tutumlarında ve çeşitli hikâye yazma becerilerinde cinsiyete göre farklılıklar olup olmadığını belirlemek için yapılan bağımsız örneklemler t-testi sonuçları Tablo 2'de sunulmuştur.

Tablo 2.

Yazma Tutumu ve Hikâye Yazma Puanlarının Cinsiyete Göre t-Testi Sonuçları

Değişken	Cinsiyet	n	M	SD	df	t	p
Yazma tutumu	Kız	203	57.93	5.49	377	1.566	.118
	Erkek	176	57.05	5.35			
Serbest hikâye yazma	Kız	203	14.17	7.13	377	4.152	.000
	Erkek	176	11.35	5.92			
Hikâye tamamlama	Kız	203	13.02	6.29	377	4.391	.000
	Erkek	176	10.33	5.52			
Hikâye haritası ile hikâye yazma	Kız	203	12.92	6.84	377	4.438	.000
	Erkek	176	10.01	5.77			

Tablo 2'ye göre araştırmaya katılan öğrencilerin yazma tutumları cinsiyete göre anlamlı farklılık göstermemektedir ($t_{(377)}$=1.566; p>.05). Öğrencilerin serbest hikâye yazma ($t_{(377)}$=4.152; p<.05), hikâye tamamlama ($t_{(377)}$=4.391; p<.05) ve hikâye haritası ile hikâye yazma ($t_{(377)}$=4.438; p<.05) becerilerinin ise kız öğrenciler lehine anlamlı düzeyde farklılık gösterdiği belirlenmiştir.

İlkokul dördüncü sınıf öğrencilerinin yazma tutumları ile çeşitli hikâye yazma becerilerinin annelerinin eğitim durumuna göre farklılaşıp farklılaşmadığını gösteren ANOVA testi sonuçları Tablo 3'te yer almaktadır.

Tablo 3.

Yazma Tutumu ve Hikâye Yazma Puanlarının Anne Eğitim Durumuna Göre ANOVA Sonuçları

		Kareler toplamı	df	Kare ortalaması	F	p
Yazma tutumu	Gruplar arası	214.81	3	71.60	2.453	.324
	Gruplar içi	10945.79	375	29.19		
	Toplam	11160.60	378			
Serbest hikâye yazma	Gruplar arası	339.61	3	113.20	3.752	2.524
	Gruplar içi	16816.70	375	44.85		
	Toplam	17156.31	378			
Hikâye tamamlama	Gruplar arası	282.11	3	41.06	.099	2.566
	Gruplar içi	13740.92	375	42.54		
	Toplam	14023.03	378			
Hikâye haritası ile hikâye yazma	Gruplar arası	123.18	3	41.06	3.903	.965
	Gruplar içi	15951.71	375	42.54		
	Toplam	16074.90	378			

Tablo 3'e göre anne öğrenim durumu lisans ve üzeri düzeyde olan öğrencilerin yazma tutumu ve farklı uygulamalarla hikâye yazma becerisi puanlarının diğer gruplara göre daha yüksek olduğu anlaşılmaktadır. Fakat öğrencilerin yazma tutumu ($F_{(3-375)}$=2.453; p>.05) ile serbest hikâye yazma ($F_{(3-375)}$=2.524; p>.05), hikâye tamamlama ($F_{(3-375)}$=2.566; p>.05) ve hikâye haritası ile hikâye yazma ($F_{(3-375)}$=.965; p>.05) becerileri anne öğrenim durumuna göre anlamlı farklılık göstermemektedir.

İlkokul dördüncü sınıf öğrencilerinin yazma tutumları ile çeşitli hikâye yazma becerilerinin babalarının eğitim durumuna göre farklılaşıp farklılaşmadığını gösteren ANOVA testi sonuçları Tablo 4'te yer almaktadır.

Tablo 4.

Yazma Tutumu ve Hikâye Yazma Puanlarının Baba Eğitim Durumuna Göre ANOVA Sonuçları

		Kareler toplamı	df	Kare ortalaması	F	p
Yazma tutumu	Gruplar arası	163.60	3	54.53	1.860	.136
	Gruplar içi	10997.01	375	29.33		
	Toplam	11160.60	378			
Serbest hikâye yazma	Gruplar arası	221.63	3	73.88	1.636	.181
	Gruplar içi	16934.68	375	45.16		
	Toplam	17156.31	378			
Hikâye tamamlama	Gruplar arası	64.10	3	21.37	.574	.632
	Gruplar içi	13958.93	375	37.22		
	Toplam	14023.03	378			
Hikâye haritası ile hikâye yazma	Gruplar arası	62.34	3	20.78	.487	.692
	Gruplar içi	16012.56	375	42.70		
	Toplam	16074.90	378			

Tablo 4'teki bulgular araştırmaya katılan öğrencilerin yazma tutumu ($F_{(3-375)}$=1,860; p>.05) ile serbest hikâye yazma ($F_{(3-375)}$=1.636; p>.05), hikâye tamamlama ($F_{(3-375)}$=,574; p>.05) ve hikâye haritası ile hikâye yazma ($F_{(3-375)}$=.487; p>.05) becerilerinin baba öğrenim durumuna göre anlamlı farklılık olmadığını göstermektedir.

İlkokul dördüncü sınıf öğrencilerinin yazma tutumları ile çeşitli hikâye yazma becerilerinin okul öncesi eğitim alma durumuna göre farklılaşıp farklılaşmadığını gösteren bağımsız örneklemler t-testi sonuçları Tablo 5'te yer almaktadır.

Tablo 5.

Yazma Tutumu ve Hikâye Yazma Puanlarının Okul Öncesi Eğitime Göre t-Testi Sonuçları

Değişken	Okul öncesi eğitim	n	M	SD	df	t	p
Yazma tutumu	Evet	279	57.54	5.44	377	.107	.915
	Hayır	100	57.47	5.45			
Serbest hikâye yazma	Evet	279	13.58	6.87	377	3.525	.000
	Hayır	100	10.85	5.92			
Hikâye tamamlama	Evet	279	12.35	6.32	377	3.137	.002
	Hayır	100	10.15	5.09			
Hikâye haritası ile hikâye yazma	Evet	279	12.08	6.60	377	2.501	.013
	Hayır	100	10.18	6.10			

Tablo 5'teki bağımsız örneklemler t-testi sonuçlarına göre araştırmaya katılan öğrencilerin yazma tutumları okul öncesi eğitim alma durumuna göre anlamlı farklılık göstermemektedir ($t_{(377)}$=.107; p>.05). Ancak öğrencilerin serbest hikâye yazma ($t_{(377)}$=3.525; p<.05), hikâye tamamlama ($t_{(377)}$=3.137; p<.05) ve hikâye haritası ile hikâye yazma ($t_{(377)}$=2.501; p<.05) becerilerinin okul öncesi eğitim alan öğrenciler lehine anlamlı düzeyde farklılık göstermektedir.

İlkokul dördüncü sınıf öğrencilerinin yazma tutumları ile çeşitli hikâye yazma becerileri arasında anlamlı ilişkiler olup olmadığını belirlemek için kullanılan Pearson korelasyon analizi sonuçları Tablo 6'da sunulmuştur.

Tablo 6.

Yazma Tutumu ve Hikâye Yazma Becerileri Arasındaki İlişki

Değişken	1	2	3	4
1. Yazma tutumu	1	.128*	.180**	.155**
2. Serbest hikâye yazma		1	.751**	.728**
3. Hikâye tamamlama			1	.828**
4. Hikâye haritası ile hikâye yazma				1

*p<.05 **p<.01

Tablo 6'daki bulgulara göre araştırmaya katılan öğrencilerin yazma tutumu ile serbest hikâye yazma becerileri arasında .05 düzeyinde, yazma tutumu ile hikâye tamamlama ve hikâye haritası ile hikâye yazma becerileri arasında ise .01 düzeyinde anlamlı, pozitif yönlü ve düşük düzeyde bir ilişki vardır.

Tartışma ve Sonuç

Araştırmaya katılan ilkokul dördüncü sınıf öğrencilerinin yazma tutumlarının yüksek; serbest hikâye yazma, hikâye tamamlama ve hikâye haritası ile hikâye yazma becerilerinin ise normal düzeyde olduğu belirlenmiştir. Bununla birlikte bu öğrencilerinin yazmaya yönelik tutumlarının olumlu olduğu; "serbest hikâye yazma", "hikâye tamamlama" ve "hikâye haritası ile hikâye yazma" becerilerinin yeterince iyi olmadığı belirtilebilir. Araştırmaya katılan öğrencilerin yazma tutumları cinsiyete göre anlamlı farklılık göstermemektedir. Öğrencilerin serbest hikâye yazma, hikâye tamamlama ve hikâye haritası ile hikâye yazma becerileri incelendiğinde kız öğrenciler lehine anlamlı düzeyde farklılık gösterdiği belirlenmiştir. Elde edilen bulgulara dayanılarak cinsiyetin yazma tutumu üzerinde herhangi bir etkisinin olmadığı; farklı uygulamalarla hikâye yazma becerileri üzerinde ise etkili bir değişken olduğu ifade edilebilir. Bununla birlikte kız öğrencilerin hikâye yazma becerilerinin erkek öğrencilerden daha iyi durumda olduğu belirtilebilir.

Araştırmada ulaşılan sonuçlara göre annesinin öğrenim durumu "lisans ve üzeri" düzeyde olan öğrencilerin yazma tutumu ve hikâye yazma beceri düzeyleri diğer gruplara göre daha yüksektir. Ancak öğrencilerin yazma tutumu ile serbest hikâye yazma, hikâye tamamlama ve hikâye haritası ile hikâye yazma becerileri anne öğrenim durumuna göre anlamlı farklılık yoktur.

Araştırmaya katılan öğrencilerin yazma tutumları ile serbest hikâye yazma, hikâye tamamlama ve hikâye haritası ile hikâye yazma becerileri arasında anlamlı, pozitif yönlü ve düşük düzeyde bir ilişki olduğu ortaya anlaşılmıştır. Sonuç olarak yazıya ilişkin duygu durumlarını ve isteği temsil eden tutumun yazma becerisinin gelişimi üzerinde katkısı olduğu açık olarak ortaya çıkmaktadır. Sınıflarda yapılan okuma ve yazma çalışmalarında öğrencilerin ilgi, istek, merak ve motivasyonunu geliştirmeye yönelik etkinlikler yapılmasının yazma performansı üzerinde etkili olabileceği düşüncesi güçlü şekilde ortaya çıkmaktadır.

Öneriler

İlkokullarda öğretmenlerin hikâye yazma etkinliklerine daha çok yer vermeleri, özellikle hikâye haritasının nasıl kullanılacağını göstermeleri önerilmektedir.

Sınıf öğretmenlerinin öğrencilerin hikâye yazma becerisinin geliştirilebilmesi için sınıf içi etkinliklerde bu becerileri kullanmayı gerektiren yöntem ve tekniklere ağırlık vermesi tavsiye edilebilir.

Okullarda bir metin türü olarak hikâyeye yönelik farkındalığı geliştirmek için drama, oyun, sesli okuma ve hikâye kitaplarının incelenmesi gibi etkinlikler gerçekleştirilebilir.

Hikâye yazma becerisini geliştirmek ve olumlu yazma tutumu oluşturmak için yaratıcı yazma çalışmaları yapılabilir. Yazma çalışmalarını öğrencilere keyif aldıkları yaşantılar hâline getirmek yazmaya karşı olan tutumları yükseltecektir. Okulda ve evde yazı yazma ortamlarının oluşturulması; yazılan yazılarla ilgili değerlendirmeler yapılarak öğrencilerle paylaşılması olumlu gelişim sağlayabilir.

Attitudes of Preschool Teachers in Inclusive Education of Preschool Children with Autism Spectrum Disorder*

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Abstract

It is known that autism spectrum disorder [ASD], which is diagnosed in early childhood and is characterized by inadequate social interaction and repetitive behaviors, is rapidly increasing all over the world. Teachers' attitudes in early childhood directly affect the development of children with autism. The primary aim of this study is to reveal the attitudes of teachers despite this remarkable increase. The target group of this study consists of teachers of children with ASD A total of 283 participants responded to the questionnaires, 95% of whom are female teachers and 5% are male teachers. Relational survey model is preferred in the study. Teachers' attitudes towards inclusive education of children with autism showed a significant difference in terms of variables such as age, education level, professional seniority and seminar attendance. In the present study, the Personal Information Form, developed by the researcher, was employed as a data collection instrument. To assess teachers' attitudes, the "Attitude Scale Toward the Inclusion of Children with Autism," adapted by Demir and Aydın (2012), was utilized. According to the results of this study, having experience working with children with ASD is directly related to these attitudes. Preschool teachers have a positive attitude towards children with autism. Low attitudes are mainly characterized by lack of training and lack of teaching experience children with ASD. This finding is expected to provide a valuable perspective for future research and policymakers.

Keywords: Autism spectrum disorder, inclusion, preschool teacher, attitudes.

Introduction

Development signifies a continuous process that commences before birth and persists until the end of life. However, this progression does not unfold at a uniform pace across all stages of life. The early years of childhood distinguish themselves by the rapid pace of development, setting them apart from other developmental stages (Baran, 2011). This period of swift development holds significant importance in terms of a child's acquisition of social and societal competencies. Consequently, subjecting children with special needs to inclusive education during the preschool period proves advantageous in the context of early intervention (Koçyiğit, 2015; Odluyurt, 2007).

Preschool children experiencing developmental challenges benefit from early intervention, thereby minimizing their developmental issues. Preschool education, in this regard, yields positive outcomes for children with deficiencies. Children undergoing inclusive education at an early-stage exhibit accelerated cognitive and social development, simultaneously reducing problematic behaviors. Stakeholders, including the children themselves, surrounding typically developing peers, teachers, and families, reap the benefits of inclusive education. Thus, it is emphasized that all these stakeholders play a crucial role in this education and inclusive education should be approached from this perspective (Aral, 2011; Batu & Kırcaali, 2007; Koçyiğit, 2015).

Commencing the education of children with autism spectrum disorder [ASD] at an early age holds paramount importance. Inclusive education during these formative years proves pivotal in addressing cognitive deficiencies, behavioral problems, and academic achievements of children with special support needs (Iovannone et al., 2003; Noland et al., 2007; Sucuoğlu, 2009). Being in the company of typically developing peers positively influences the social development of children with special needs. Inclusive practices reduce

negative behaviors in these children, guided by the role modeling of their typically developing peers, within the general educational environment (López, 2016).

Teachers' opinions and attitudes towards the education of inclusion practices are accepted as a significant criterion affecting the success of inclusion (Rodríguez et al., 2012; Segall & Campbell, 2012). In this context, it is known that there are various research focusing on inclusive education (Bozarslan & Batu, 2014; Doğaroğlu & Bapoğlu Dümenci, 2015; Nacaroğlu, 2014; Uçar, 2020; Yazıcı et al., 2018). Nevertheless, it is seen that these studies mainly focus on all children with special education needs, the problems encountered in inclusion (Burak & Ahmetoğlu, 2021), the success of mainstreaming (Yücelkan, 2022), and the positive and negative situations affecting inclusion. Studies specifically targeting children with autism spectrum disorder are limited (Burak & Ahmetoğlu, 2021; Özgünenel, 2012). In addition, according of the literature shows that the difficulties or problems faced by preschool teachers towards children receiving inclusive education are mostly evaluated in terms of parameters such as knowledge, communication, self-efficacy and child recognition (Aslan, 2020; Çakıcı, 2020).

This study differs from other studies by directly addressing the teachers of inclusive children with ASD. In essence, this study aims to reveal the parameters according to which teacher attitudes vary. For instance, previous studies in rehabilitation centers have almost never used employment status as a variable. The presence of these and similar variables differentiates the study in this respect and is aimed to make an essential contribution to future studies.

Theoretical Background

Understanding the history and current study of inclusive practices is essential to guide researchers and educators in realizing the benefits of children with special needs from this education. Additionally, having knowledge of the past and present of autism spectrum disorder is crucial in the context of autism spectrum individuals achieving the expected quality in inclusive training.

A Brief Overview of Inclusive Education

Inclusion education is a model that enables students with special educational needs to receive education alongside their peers in a general education environment. In this model, the individual characteristics of children are taken into account and the education program is organized accordingly. The aim of these arrangements is to include students in education under more equal conditions (Ainscow, 2005; Avramidis & Norwich, 2002).

The history of inclusion can be traced back to the early 1900s. In 1913, in the United States, visually impaired individuals were allowed to spend specific periods in general educational environments with their peers. However, criticism regarding the drawbacks of inclusive education surfaced prompting the establishment of legal frameworks to safeguard inclusive education. This development significantly influenced the evolution and widespread adoption of inclusive education (Kargın, 2004).

In the United States, the inclusive education practice, initially implemented for individuals with visual impairments, was later institutionalized with the passage of the

Education of All Handicapped Children Act (PL 94-142) in 1975. This law is revised in 1990, mandating that individuals aged 0-21, regardless of their disability, must receive free education in public schools (Kırcaali İftar, 1998).

In Türkiye the history of inclusive education is rooted in the Special Education Law enacted in 1983. This legislation not only marked the first legal recognition of the necessity for children with special needs to benefit from inclusive education but also emphasized the importance of these children receiving education alongside their typically developing peers, with the school administration taking necessary measures for this purpose (Sucuoğlu, 2004).

A Brief Overview of Autism Spectrum Disorder

Autism spectrum disorder is considered to be a disorder that appears in early childhood and continues throughout life. It is usually diagnosed around the age of two (Aydın & Özgen, 2018). Autism spectrum disorder is defined as a neurodevelopmental disorder characterized by impairments in social interaction and communication and restricted, repetitive patterns of behavior (American Psychiatric Association [APA], 2013; Lin et al., 2024). The most common symptoms include interest in rotating objects, swaying movements, inability to make eye contact, limited gestures and facial expressions, and different emphasis and intonation in speech (Akçi, 2024; Dur & Mutlu, 2018; Görgün & Melekoğlu, 2016).

The concept of autism spectrum disorder, introduced into medical literature in 1943 by Kanner, initially focused on 11 children of varying ages, revealing clinical symptoms in his study titled "Autistic Disturbances of Affective Contact" Following Kanner, in 1944, Hans Asperger, a child doctor in Vienna, included autism in his work, noting the high intelligence, specific speech patterns, and significant deficiencies in social and motor skills and communication among the children he observed (as cited in Çolak, 2016). It is also expressed in some studies that autism is derived from the Greek word "autos" (Sharma et al., 2018). Kanner (1973) states that it was first used by Swiss psychiatrist Eugen Bleur, who initially employed it in 1908 to describe the detachment from reality in schizophrenia patients.

The prevalence of autism spectrum disorder has increased significantly on a global scale in recent years (Burak, 2019; Chiarotti & Venerosi, 2020; Harris, 2023; Talantseva et al., 2023; Yan, et al., 2024) and has become a significant subject of scientific research. According to the Center for Disease Control's Autism and Developmental Monitoring [ADDM] Network, the prevalence of autism increased from 1 in 150 children in 2000 to 1 in 110 children in 2006, to 1 in 88 in 2012 and to 1 in 54 children in 2016, constituting approximately 1% of the world's population. Additionally, the prevalence of autism in females is one fourth of that in males (Christensen et al., 2016; Sharma et al., 2018). Under the light of these data, it is observed that, between 2000 and 2014, there was a 6-15% increase in the number of individuals with autism (Baio et al., 2018). In a European study aimed at scanning autism spectrum disorder and examining children, autism prevalence was reported as 1 in 89 children aged 7-9 (Autism Spectrum Disorders in the European Union [ASDEU], 2018). Sharma et al. (2018), suggested a regular increase in autism over the past two decades, stating there are estimates that 1 in 36 children now has autism.

Considering various variables, this study aims to examine the attitudes of preschool teachers towards the inclusion of children aged 3-6 with autism spectrum disorder in inclusion education. In recent years, there has been a rapid increase (Harris, 2023; Salari et al., 2022; Talantseva et al., 2023) in the prevalence of autism spectrum disorder, which in turn has influenced the growing need for inclusive education practices. Therefore, this research seeks to reveal the inclinations of preschool educators, stakeholders in inclusive education (Aslan Bağcı et al., 2025; Burak et al., 2022), towards the inclusion of children with autism spectrum disorder. In line with the main objective, the following questions are sought to be answered.

1. What is the level of attitudes of preschool teachers towards the children receiving inclusion with children autism spectrum disorder?

2. Do the attitudes of preschool teachers towards the children with the autism receiving a inclusive education differ in terms of gender variables?

3. Do the attitudes of preschool teachers towards the children with the autism receiving a inclusive education differ in terms age of variables?

4. Do the attitudes of preschool teachers differ in terms of their education levels?

5. Do preschool teachers' attitudes differ significantly according to their professional experience?

6. Do the attitudes of preschool teachers differ according to the criterion of graduated department?

7. Do the attitudes of preschool teachers differ according to taking special education courses before?

8. Do preschool teachers' attitudes differ according to whether they have taken a program, seminar or course related to autism?

9. Do preschool teachers' attitudes differ according to the type of experience of working with a child with autism spectrum disorder?

Method

In this section, the model of the research, the data collection tools, as well as the universe and sample created by the target audience are indicated.

Research Model

This research aims to examine the attitudes of preschool teachers towards the inclusion of 3-6 years old children with autism spectrum disorder in terms of various variables. In the study, the relational survey model, one of the general survey models, was used since it was desired to define the current situation. Relational survey models are research models that aim to determine the change or degree between two or more variables (Karasar, 2003). This study investigates whether teachers' attitudes differ based on gender, age, educational level, professional experience, department of graduation, receiving special education courses, participation in autism related training, and experience working with individuals with autism. Since this study investigated whether the variables were jointly changing, a correlational survey model was chosen.

Universe and Sample

Participants are preschool teachers working in the Anatolian side of Istanbul and consist of teachers working in public and private educational institutions. In determining the sample, the sequencing mentioned by Karasar (2003) was taken into consideration. First, the study population was defined. After this stage, the type of sampling was determined. According with the purpose of the research, the simple random sampling method, which is one of the sampling approach types, was chosen. Since all members of the population did have an equal chance of being selected, disproportionate random sampling (simple random sampling) was preferred. Demographic information on the sample of the research is presented in Table 1.

Table 1.

Demographic Information on the Sample of the Research

Demographic characteristics	Subcriteria	n	%
Age	20-25 years	42	14.8
	26-30 years	66	23.3
	31- 40 years	18	41.7
	41- 50 years	54	19.1
	51 years and above	3	1.1
Gender	Female	269	95.1
	Male	14	4.9
Education level	Associate degree	36	12.7
	Undergraduate degree	206	72.8
	Postgraduate degree	41	14.5
Professional seniority	Less than 1 year	17	6.0
	1-5 years	76	26.9
	6-10 years	72	25.4
	11-15 years	65	23.0
	16-20 years	31	11.0
	21 years and above	22	7.8
Graduate department	Child development/associate degree	35	12.4
	Preschool education/undergraduate degree	204	72.1
	Child development/undergraduate degree	44	15.5
Special education course attendance	Yes, I did.	242	85.5
	No, I didn't.	41	14.5
Experience of working with ASD child	Through inclusion method	181	64.0
	Through rehabilitation center	45	15.9
	Through voluntary work	6	2.1
	I have no experience	51	18.0
Participation in autism-related programs, seminars, or courses	Yes, I did.	149	52.7
	No, I didn't.	134	47.3

According to the Table 1, the majority of the group consists of teachers aged 31-40 years and teachers aged 51 years and above constitute 1.1%, and the majority of the group, 95.1%, consists of female teachers. Teachers with an associate degree constitute 12.7% of the group, teachers with an undergraduate degree constitute 72.8%, and teachers with a postgraduate degree constitute 14.5%. As stated on the table, the majority of the group consists of teachers with an undergraduate degree. Teachers with professional seniority of less than 1 year constitute 6.0% of the group and according to the table, the majority of the group consists of teachers with a professional seniority of 1-5 years with 26.9%. As shown in Table 1, the majority, 72.1%, consists of teachers graduated from the preschool education/undergraduate degree.

The majority, 85.5%, consists of teachers who attended special education courses. According to the table, teachers indicating experience with inclusion method constitute 64.0%, those mentioning a rehabilitation center represent 15.9%, those involved in voluntary work make up 2.1%, and teachers without any experience in this regard constitute 18.0% of the group. The majority, 64.0%, comprises teachers with experience in inclusion method. The majority, 52.7%, consists of teachers who attended autism-related programs, seminars, or courses.

Data Collection Tools

The Personal Information Form used as a data collection tool in the study was developed by the researcher. In order to examine teachers' attitudes, the "Attitude Scale for Inclusion of Children with Autism [ASICA]" adapted by Demir and Aydın (2012) is used. ASICA was developed by Segall (2008). The Turkish form was adapted by Demir and Aydın (2012). The scale is graded from "strongly agree" to "strongly disagree" and has a 7-point likert scale. "Strongly agree" is given 7 points and "strongly disagree" is given 1 point. The highest score that can be obtained from the scale is 133 and the lowest score is 19. Demir and Aydın (2012) stated that the score between 19-44 points means negative attitude, 45-75 points means neutral attitude, and 76 and above points means positive attitude. A high score points to an increase in positive attitude towards inclusion. Cronbach's Alpha was calculated for construct validity. It was stated that the scale consisted of a two-factor structure, explaining 41.50% of the total variance, with a Cronbach's Alpha coefficient of .87 for Factor 1 and .66 for Factor 2, and a reliability coefficient of .76 for the total score of the 19-item scale (Demir & Aydın, 2012). In this study, Cronbach's Alpha coefficient of the scale was found to be .70, showing that the internal consistency of the scale is sufficient at the $p < .01$ level.

Data Collection

The ethical appropriateness of the research was confirmed by the ethics committee approval obtained. Research data was collected between April 29 and May 20 in the spring semester of the 2020-2021 academic year. The questionnaire forms used in data collection were sent to the participants via Google Forms instead of face-to-face due to the Covid-19 pandemic.

Data Analysis

Before conducting statistical analyses, it is checked whether there were missing values in the survey form and whether the scores met the normal distribution assumption. It was determined that there were no missing values, but the scores did not follow a normal distribution. The Kolmogorov-Smirnov test was applied for this process, and it was determined that the distribution was not normal. As a result, the decision was made to use non-parametric test techniques. Statistical analyses of the data obtained were performed in a computerized environment. In this stage, frequency and percentage distributions describing the demographic characteristics of the research group were determined. Subsequently, the arithmetic means and standard deviation values of the total scores of the scale were calculated.

The following techniques were used for the analyses conducted in line with the objectives and variables of the study: Firstly, Mann-Whitney U test was preferred to examine

the scores of teachers towards inclusion of children with autism in terms of variables such as gender, attending a special education course, presence of a child with ASD in the classroom, presence of a children with autism spectrum disorder in the immediate environment, participation in a program, seminar or course related to autism. Secondly, Kruskal-Wallis H test was used to determine whether the total attitude scores from the ASICA Scale differed based on the variables of teachers' age, education level, professional seniority, major graduated, and experience working a child with autism spectrum disorder. In cases where the Kruskal-Wallis H test results were found to be substantial, the Mann-Whitney U test was subsequently used to determine which groups the differences originated from. The data were analyzed using SPSS: 22.0 program.

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 = Fatih Sultan Mehmet Foundation University Graduate Education Institute

Date of ethical review decision =26.02.2021

Ethics assessment document issue number = 04.03.2021-3

Findings

In this section of the study, findings and interpretations related to the attitudes of preschool teachers towards the inclusion of preschool children with autism spectrum disorder in inclusive education are presented based on the sub-problems. Additionally, the attitude scores obtained by preschool teachers, who constitute the sample group, from the ASICA is analyzed in relation to the teachers' age, gender, educational background, participation in autism-related programs, seminars, or courses, professional seniority, and experience working with students diagnosed with autism. The following tables indicate whether there is a statistically difference between the relevant variables.

Table 2.

Percentage and Frequency Distributions of Teachers' ASICA Scores according to Grouped Attitude Type

Grouped attitude type	*f*	*%*
Negative attitude (19-44 points)	0	0.0
Neutral attitude (45-75 points)	13	4.6
Positive attitude (76-133 points)	270	95.4

Table 2 provides the percentage and frequency distributions of the attitude scores of the teachers in the sample group, according to grouped attitude types. While there are no teachers with scores indicating a negative attitude (19-44 points), those with scores reflecting a neutral attitude (45-75 points) constitute 4.6% (f= 13) of the group. The majority of the

teachers, accounting for 95.4% (f= 270) exhibit a positive attitude (76-133 points) towards the inclusion of children with ASD.

Table 3.

Results of the Mann-Whitney U Test Done to Determine Whether Attitude Scale Scores Differ Based on Gender Variable

Gender	*n*	Mean rank	Sum of ranks	*U*	*p*
Female	269	140.67	37841.50	1526.50	.232
Male	14	167.46	2344.50		

The analysis revealed no meaningful difference in the ASICA scores of teachers based on the gender variable concerning the Attitude Scale Regarding Inclusion of Children with ASD (U=1526.50; p>.05). In other words, teachers' attitudes toward inclusion do not differ based on gender.

Table 4.

Results of the Kruskal-Wallis H Test Done to Determine Whether ASICA scores Differ Based on Age Variable

Age groups	*n*	*M*	x^2	*p*
20-25	42	136.71	10.155	.038
26-30	66	165.24		
31-40	118	139.06		
41-50	54	128.74		
51 years and above	3	59.17		

Kruskal-Wallis H test results to determine differences in ASICA scores based on the age variable indicate a significant difference among age groups (x^2= 10.155; p<.05). To identify the source of the significant difference, Mann-Whitney U test was applied. The difference favored teachers in the 26-30 age group compared to those in the 41-50 age group (U= 1302.50; p<.05) and teachers in the 26-30 age group compared to those in the 51 and above age group (U= 27.50; p<.05).

Table 5.

Results of the Kruskal-Wallis H Test Done to Determine Whether ASICA Scores Differ Based on Education Level Variable

Education level	*n*	Mean rank	x^2	*p*
Associate degree	36	119.63	12.031	.002
Undergraduate degree	206	138.32		
Postgraduate degree	41	180.15		

Kruskal-Wallis H test results to determine differences in attitude scale scores based on the education level variable indicate a significant difference among education level groups (x^2=12.031; p<.01). To identify the source of the significant difference, Mann-Whitney U test was applied. The difference favored teachers with a postgraduate degree compared to those with an associate's degree (U=422.50; p<.01) and teachers with a postgraduate degree compared to those with an undergraduate degree (U=2974.50; p<.01).

Table 6.

Results of the Kruskal-Wallis H Test Done to Determine Whether ASICA Scores Differ Based on Professional Seniority Variable

Professional seniority	n	Mean rank	x^2	p
Less than 1 year	17	150.35	18.686	.002
1-5 years	76	164.74		
6-10 years	72	145.36		
11-15 years	65	111.22		
16-20 years	31	157.00		
21 years and above	22	115.77		

Kruskal-Wallis H test results to determine differences in attitude scale scores based on the professional seniority variable indicate a significant difference among professional seniority groups (x^2= 18.686; p<.01). Mann-Whitney U test analyses reveal that the difference favored teachers with less than 1 year of professional seniority compared to those with 11-15 years of professional seniority (U= 368.50; p<.05).

Table 7.

Results of the Kruskal Wallis H Test Done to Determine Whether ASICA Scores Differ Based on Graduated Department Variable

Graduated department	n	Mean rank	x^2	p
Child development/ associate degree	35	115.23	4.816	.090
Preschool education/undergraduate degree	204	144.01		
Child development/undergraduate degree	44	153.97		

Kruskal-Wallis H test results to determine differences in attitude scale scores based on the graduated department variable indicate no significant difference among graduated department groups (x²= 4.816; p>.05).

Table 8.

Results of the Mann-Whitney U Test Done to Determine Whether Attitudes Toward the Inclusion of Children with Autism Differ Based on Special Education Course Attendance

Special education course attendance	n	Mean rank	Sum of ranks	U	p
Yes, I did	242	145.81	35286.00	4039.00	.057
No, I didn't	41	119.51	4900.00		

Analyses show that there is no significant difference between survey scores of teachers according to the variable of attending special education courses. (U=4039.00; p>.05). In other words, teachers' attitudes toward inclusion did not differ based on their attendance of special education courses.

Table 9.

Results of the Mann-Whitney U Test Done to Determine Whether Attitudes Toward the Inclusion of Children with Autism Differ Based on Participation in Autism-Related Programs, Seminars, or Course

Participation in autism-related programs, seminars, or courses	n	Mean rank	Sum of ranks	U	p
Yes, I did	149	161.19	21017.50	71.23	.000
No, I didn't	134	120.66	16168.50		

The analysis revealed a significant difference in attitude scores between those who participated and those who did not in favor of the former group (U=7123.00; p<.001). Teachers who participated in autism-related programs, seminars, or courses had higher scores on the

Attitude Scale compared to those who did not participate, indicating a more positive attitude towards inclusion.

Table 10.

Results of the Kruskal-Wallis H Test Done to Determine Whether Attitudes Toward the Inclusion of Children with Autism Differ Based on Experience Working with Students Diagnosed with Autism

Experience working with students diagnosed with autism	n	Mean rank	x^2	p
Through inclusion method	181	142.46	9.838	.020
Through rehabilitation center	45	169.17		
Through voluntary work	6	139.00		
I have no experience	51	116.75		

The Kruskal-Wallis H test was conducted to examine whether attitudes toward the inclusion of children with autism, as measured by the Attitude Scale, differed based on experience working with students diagnosed with autism. The analysis revealed a significant difference in attitude scores among experience groups (x^2=9.838; p<.05). Subsequent Mann-Whitney U tests indicated that the difference was significant between teachers with experience in rehabilitation centers and those with no experience in favor of the former group (U=718.00; p<.01).

Consequently, it is seen that teachers' attitudes towards children with autism spectrum disorder are significantly positive (95.4%). In addition, a significant difference was found in teachers' attitudes according to age, educational level, professional experience, experience of working with children with autism spectrum disorder and the condition of receiving seminars, programs or courses related to autism. Based on the findings of the study, no significant difference was found in variables such as graduated department, special education and gender.

Discussion and Conclusion

According to the research findings, the majority of teachers, 95.4% have a positive attitude towards the inclusion of children with ASD. The studies conducted by Wilkerson (2012), Abu Hamour and Muhaidat (2013) are consistent with this finding. On the other hand, previous studies have also reported the presence of negative attitudes (Rakap & Kaczmarek, 2010; Thaver & Lim, 2012). However, in our study, it was found that attitudes differed across all variables and were not homogeneous. Additionally, the scarcity of neutral attitudes and the absence of negative attitudes are noteworthy. This situation can be attributed to the limitations of the attitude dimension of the measurement tool. For instance, some studies indicate that some teachers are cautious about integration due to a lack of information (Rodríguez et al., 2012; Segall & Campbell, 2012). Furthermore, the high level of positive attitudes found in our study can be explained by the increasing social awareness of children with autism. With the increase in autism cases worldwide, both the media and social activists have begun to show more interest in this issue. Therefore, the high prevalence of this trend among teachers can be explained as a predictable situation.

In line with the findings, no meaningful difference is found in the attitudes of preschool teachers towards inclusion based on the gender variable, consistent with previous studies (Burak, 2019; Güleryüz & Özdemir, 2015; Macaroğlu Akgül, 2012; Şahbaz & Kalay, 2010; Wilkerson, 2012), however, differing results have also been reported in previous studies

(Batum, 2019; İnce et al., 2023). In their study conducted with prospective teachers, İnce et al. (2023) found that female candidates exhibited more positive attitudes toward the inclusion of children with autism spectrum disorder. Similary, in the study conducted by Batum (2019), a statistically significant result was found in favor of female teachers. Batum (2019) associated this result with the notion that women, compared to men, tend to exhibit greater interpersonal sensitivity and show more concern for others' feelings during social interactions. Nevertheless, there are also studies indicating that male teachers exhibit more positive attitudes toward the inclusion of children with autism spectrum disorder. Despite examples in the literature that both align with and contradict our findings, the limited representation of male teachers in our study may have influenced the results related to gender. Therefore, outcomes based on gender may vary in studies with broader representation. In our sample, male teachers constituted only 4.9% of the participants.

Upon examining the results of the research, a statistically significant difference is observed in the attitudes of preschool teachers towards the inclusion of children with autism based on the age variable. Specifically, teachers in the age group of 26-30 tend to exhibit more positive attitudes towards the inclusion of children with autism compared to those in the age groups of 41-50 and 51 and above, as indicated by higher scores on the Attitude Scale towards the Inclusion of Children with Autism. Similar results can be found in the literature, aligning with this outcome (Avramidis and Norwich, 2002; Burak, 2019; Özdemir, 2010; Rakap and Kaczmarek, 2010; Ünal and İflazoğlu Saban, 2014), though some studies present divergent findings (Avramidis et al., 2000; Batum, 2019; Park & Chitiyo, 2011). According to Burak (2019), the negative correlation between teachers' age and attitudes is attributed to younger teachers having quicker and easier access to information compared to older counterparts. Furthermore, the limited availability of special education services in Türkiye during the older generation's era may be an important factor contributing to the lower levels of attitude observed in our study.

Analyzing the attitude scores were examined depending on the variable of educational background, a statistically significant difference is observed. Teachers with postgraduate education exhibit more strongly attitudes about mainstreaming compared to those with undergraduate or graduate education. This finding coincides with Abu-Hamour and Muhaidat's (2013) study, where special education teachers with postgraduate education displayed more favorable attitudes about the inclusion. In this study, the observed variation in teachers' approaches towards the mainstreaming of children with autism based on their educational backgrounds is believed to be associated with teachers' knowledge, skills, and educational gains related to autism.

The research results further indicate a statistically meaningful difference in the attitudes of preschool teachers towards inclusion based on the variable of professional experience. Examining these findings, it is recorded that teachers with less than 1 year of professional experience exhibit a more positive attitude towards inclusion compared to those with 11-15 years of professional experience. Furthermore, teachers with 1-5 years of professional experience have a higher attitude than those with 11-15 years of experience, and teachers with 6-10 years of professional experience show a higher attitude than those with 11-

15 years of experience. Considering the analyzes obtained from this study, the negative correlation between years of professional experience and attitude towards inclusion may be attributed to factors such as differences in knowledge about children with ASD, professional burnout, and motivation levels between younger teachers (with lower professional experience) and older teachers (with higher professional experience). Nevertheless, it is crucial to note that further research is needed to clearly establish and underpin these differences.

No statistically difference is observed in the attitudes of preschool teachers towards inclusion based on the variable of graduated department. Similarly, a recent study conducted in China determined that the academic department from which teachers graduated had no significant effect on their attitudes toward inclusive education (Peng et al., 2024). In this study, the lack of a meaningful difference in the opinion of teachers towards the inclusion of children with autism based on the department of graduation might be attributed to the fact that the majority of teachers in the sample group (72.1%; n=204) graduated from the department of preschool education. However, it is essential to acknowledge that the same result may not be applicable to different sample groups.

No statistically significant difference was found in preschool teachers' attitudes toward inclusion based on participation in special education courses. Contrary to this finding, Aküzüm and Akbulut (2021) reported that receiving special education or similar training positively influences attitudes toward inclusion. In our study, the majority of teachers stated that they attended special education courses. Therefore, the results may differ in different sample groups.

Analyzing the attitudes based on the variable of experience working with students diagnosed with autism reveals a statistically significant difference. Teachers with experience gained through rehabilitation centers exhibit different attitudes compared to those with no such experience in favor of the former group. A meaningful difference was detected in favor of teachers with rehabilitation experience. This finding underscores the importance of experience in working children with ASD and highlights the role of rehabilitation centers in shaping teachers' attitudes. This finding shows that rehabilitation centers are not only rehabilitative but also a focal point for inclusive education in autism.

In conclusion, teachers' attitudes toward the inclusion of children with autism spectrum disorder are generally positive. However, the significant differences in attitudes based on certain variables suggest the need for further, in-depth studies with larger and more diverse samples. Notably, in our study, teachers with prior experience working with children with autism spectrum disorder demonstrated higher attitude scores. This finding highlights the urgency of providing opportunities for less experienced teachers to gain practical experience with children on the autism spectrum. Another significant result of this study is that teachers with rehabilitation experience exhibited more favorable attitudes compared to their counterparts. This underscores the critical role of rehabilitation centers in the education of children with autism spectrum disorder. Therefore, future research on autism spectrum disorder can benefit from the rich insights offered by this field.

Recommendations

In the findings of the study, it was determined that teachers who had experience with children with autism in rehabilitation centers received high scores from the attitude scale. Therefore, it can be suggested that researchers interested in this subject should conduct their studies by keeping the sample group of teachers working in rehabilitation centers on a larger scale. Considering the lower attitudes observed among older teachers compared to the younger ones, education authorities should provide dynamic training services to enhance the skills and attitudes of older teachers towards the inclusion of children with ASD.

One significant finding of this article highlights the importance of experience when working with children with ASD. Moreover, it is essential to support preschool teachers who lack such experience through training programs, seminars, and similar educational initiatives. Preschool teachers who have not worked in special education institutions should be encouraged to interact with these institutions and acquire information about the education provided for the children with ASD. Undergraduate students who take special education courses should be given the opportunity to intern or practice in rehabilitation centers. Additionally, the credit hours for special education courses during the undergraduate period could be increased.

The use of only one measurement tool in the study led to some limitations in evaluating the findings. The findings show that younger teachers have higher attitudes towards inclusion than older teachers. Although this result assumes the possibility that younger teachers have a stronger motivation, unfortunately, it does not reflect a definite result. In this respect, it can be said that this finding is weak in terms of the limitations of the study. However, in future studies, the use of a measurement tool that evaluates motivation in addition to the attitude scale will provide more precise results.

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Otizm Spektrum Bozukluğu Olan Okul Öncesi Çocukların Kaynaştırma Eğitimine Yönelik Okul Öncesi Öğretmenlerinin Tutumları

Özet

Erken çocukluk döneminde tanısı konulan, yetersiz sosyal etkileşim ve tekrarlayıcı davranışlarla karakterize otizm spektrum bozukluğunun [OSB] tüm dünyada hızla arttığı bilinmektedir. Bu çalışmanın temel amacı, bu belirgin artışa rağmen öğretmenlerin tutumlarını ortaya koymaktır. Bu çalışmanın hedef grubu, otizm spektrum bozukluğu olan çocukların öğretmenleridir. Anketleri toplam 283 katılımcı yanıtlamış olup bunların %95'i kadın öğretmenler, %5'i erkek öğretmenlerdir. Çalışmada ilişkisel tarama modeli tercih edilmiştir. Öğretmenlerin otizm spektrum bozukluğu olan çocukların kaynaştırma eğitimine yönelik tutumları; yaş, eğitim düzeyi, mesleki kıdem ve seminer katılımı gibi değişkenler açısından anlamlı bir farklılık göstermiştir. Araştırmada veri toplama aracı olarak araştırmacılar tarafından geliştirilen Kişisel Bilgi Formu kullanılmıştır. Öğretmen tutumlarını incelemek amacıyla Demir ve Aydın (2012) tarafından uyarlanan "Otizmli Çocukların Kaynaştırılmasına Yönelik Tutum Ölçeği" kullanılmıştır. Bu çalışmada, otizm spektrum bozukluğu olan çocuklarla daha önce çalışma deneyimi olan öğretmenlerin, otizmli çocuklara karşı daha olumlu bir tutuma sahip olduğu görülmüştür. Bu çalışmada düşük tutumlar esas olarak eğitim eksikliği ve otizm spektrum bozukluğu olan çocuklara yönelik öğretim deneyimi eksikliği ile karakterizedir. Bu sonuçların daha ileri çalışmalar ve politika yapıcılar için önemli bir bakış sağlayacağı düşünülmektedir.

Anahtar Kelimeler: Otizm spektrum bozukluğu, kapsayıcılık, okul öncesi öğretmeni, tutumlar.

Giriş

Gelişim, doğumdan önce başlayan ve yaşamın sonuna kadar devam eden sürekli bir süreci ifade eder. Ancak bu ilerleme, yaşamın tüm evrelerinde aynı hızda gerçekleşmez. Çocukluk döneminin ilk yılları, diğer gelişim evrelerinden farklı olarak gelişimin hızlı temposuyla öne çıkar (Baran, 2011). Bu hızlı gelişim dönemi, çocuğun sosyal ve toplumsal yeterlilikleri edinmesi açısından büyük önem taşır. Sonuç olarak, özel gereksinimli çocukların okul öncesi dönemde kaynaştırma eğitimine tabi tutulması, erken müdahale bağlamında avantajlıdır (Koçyiğit, 2015; Odluyurt, 2007).

Gelişimsel zorluklar yaşayan okul öncesi çocuklar erken müdahaleden yararlanır ve böylece gelişimsel sorunları en aza indirilir. Erken dönemde kapsayıcı eğitime katılan çocuklar hızlandırılmış bilişsel ve sosyal gelişim gösterirken, aynı zamanda sorunlu davranışları da azaltır. Çocukların kendileri, normal gelişim gösteren akranları, öğretmenleri ve aileleri de dahil olmak üzere paydaşlar kapsayıcı eğitimin faydalarını elde eder. Dolayısıyla, tüm bu paydaşların bu eğitimde önemli bir rol oynadığı ve kapsayıcı eğitime bu perspektiften yaklaşılması gerektiği vurgulanmaktadır (Aral, 2011; Batu & Kırcaali, 2007; Koçyiğit, 2015).

Öğretmenlerin kapsayıcılık uygulamalarının eğitimine yönelik görüş ve tutumları, kapsayıcılığın başarısını etkileyen önemli bir ölçüt olarak kabul edilmektedir (Rodríguez, vd., 2012; Segall & Campbell, 2012). Bu bağlamda, kaynaştırma eğitimine odaklanan çeşitli araştırmaların olduğu bilinmektedir (Bozarslan & Batu, 2014; Doğaroğlu & Bapoğlu Dümenci,

2015; Nacaroğlu, 2014; Uçar, 2020; Yazıcı vd., 2018). Bununla birlikte, bu çalışmaların ağırlıklı olarak özel eğitim gereksinimi olan tüm çocuklara, kaynaştırmada karşılaşılan sorunlara (Burak & Ahmetoğlu, 2021), kaynaştırmanın başarısına (Yücelkan, 2022) ve kaynaştırmayı etkileyen olumlu ve olumsuz durumlara odaklandığı görülmektedir. Özel olarak otizm spektrum bozukluğu olan çocukları hedefleyen çalışmalar sınırlıdır ve okul öncesi dönemden farklı dönemleri kapsamaktadır (Burak & Ahmetoğlu, 2021; Özgünenel, 2012). Ayrıca, literatüre göre okul öncesi öğretmenlerinin kaynaştırma eğitimi alan çocuklara yönelik karşılaştıkları zorluklar veya sorunlar çoğunlukla bilgi, iletişim, öz yeterlilik ve çocuğu tanıma gibi parametreler açısından değerlendirilmektedir (Aslan, 2020; Çakıcı, 2020).

Bu çalışma, doğrudan otizm spektrum bozukluğu [OSB] olan kapsayıcı eğitim dâhilindeki çocukların öğretmenlerine hitap etmesiyle diğer çalışmalardan farklıdır. Temel olarak bu çalışma öğretmen tutumlarının hangi parametrelere göre değiştiğini ortaya koymayı amaçlamaktadır. Bu ve benzeri değişkenlerin varlığı çalışmayı farklılaştırmakta ve gelecekteki çalışmalara önemli bir katkı sağlaması beklenmektedir.

Son yıllarda otizm spektrum bozukluğunun yaygınlığında hızlı bir artış olduğu not edilmektedir (Harris, 2023; Salari vd., 2022; Talantseva vd., 2023) ve bu artış kaynaştırma eğitimi uygulamalarına olan ihtiyacın artmasına neden olmuştur. Bu nedenle, araştırma, kaynaştırma eğitiminde paydaş olan okul öncesi eğitimcilerinin (Aslan Bağcı vd., 2025; Burak vd., 2022) otizm spektrum bozukluğu olan çocukların kaynaştırılmasına yönelik tutumlarını incelemeyi amaçlamaktadır. Bu ana amaç doğrultusunda, aşağıdaki sorulara yanıt aranmıştır;

1. Okul öncesi öğretmenlerinin kaynaştırma eğitimi alan otizm spektrum bozukluğu olan çocuklara yönelik tutumları ne düzeydedir?

2. Okul öncesi öğretmenlerinin kaynaştırma eğitimi alan otizm spektrum bozukluğu olan çocuklara yönelik tutumları cinsiyet değişkenine göre farklılaşmakta mıdır?

3. Okul öncesi öğretmenlerinin kaynaştırma eğitimi alan otizm spektrum bozukluğu olan çocuklara yönelik tutumları yaş değişkenine göre farklılaşmakta mıdır?

4. Okul öncesi öğretmenlerinin tutumları eğitim düzeylerine göre anlamlı bir şekilde farklılaşmakta mıdır?

5. Okul öncesi öğretmenlerinin tutumları mesleki deneyimlerine göre anlamlı bir şekilde farklılaşmakta mıdır?

6. Okul öncesi öğretmenlerinin tutumları mezun olunan bölüm kriterine göre farklılaşmakta mıdır?

7. Okul öncesi öğretmenlerinin tutumları daha önce özel eğitim dersi alıp almamalarına göre farklılaşmakta mıdır?

8. Okul öncesi öğretmenlerinin otizmle ilgili bir program, seminer veya kurs alıp almamalarına göre tutumları farklılaşmakta mıdır?

9. Okul öncesi öğretmenlerinin tutumları otizm spektrum bozukluğu olan bir çocukla çalışma deneyim türüne göre farklılaşmakta mıdır?

Yöntem

Araştırmanın Modeli

Bu araştırmanın amacı, okul öncesi öğretmenlerinin 3-6 yaş arası otizm spektrum bozukluğu olan çocukların kaynaştırılmasına yönelik tutumlarını çeşitli değişkenler açısından incelemektir. Araştırmada, var olan durum tanımlanmak istendiğinden genel tarama modellerinden ilişkisel tarama modeli kullanılmıştır. İlişkisel tarama modelleri, iki veya daha fazla değişken arasındaki değişimi veya değişimin derecesini belirlemeyi amaçlayan araştırma modelleridir (Karasar, 2003). Bu araştırmada değişkenlerin birlikte değişip değişmediği incelendiğinden ilişkisel tarama modeli seçilmiştir.

Araştırmanın Evren ve Örneklemi

Bu çalışmanın hedef grubu otizm spektrum bozukluğu olan çocukların öğretmenleridir. Çalışma grubu 269 kadın, 14 erkek olmak üzere 283 öğretmenden oluşmaktadır. Katılımcılar, İstanbul'un Anadolu yakasında çalışan okul öncesi öğretmenler olup, kamu ve özel eğitim kurumlarında görev yapan öğretmenlerden oluşmaktadır. Araştırmanın amacına uygun olarak, örnekleme yaklaşım türlerinden biri olan basit rastgele örnekleme yöntemi tercih edilmiştir. Evrendeki tüm bireylerin seçilme şansının eşit olması nedeniyle, orantısız rastgele örnekleme (basit rastgele örnekleme) tercih edilmiştir (Karasar, 2003).

Veri Toplama Araçları

Araştırmada veri toplama aracı olarak kullanılan Kişisel Bilgi Formu araştırmacı tarafından geliştirilmiştir. Öğretmen tutumlarını incelemek amacıyla Demir ve Aydın (2012) tarafından uyarlanan "Otizmli Çocukların Kaynaştırılmasına Yönelik Tutum Ölçeği" kullanılmıştır. Bu ölçek, Segall (2008) tarafından geliştirilmiştir. Türkçe formu ise Demir ve Aydın (2012) tarafından uyarlanmıştır. Ölçek, "kesinlikle katılıyorum"dan "kesinlikle katılmıyorum"a doğru derecelendirilmekte olup 7'li likert tipindedir. "Kesinlikle katılıyorum"a 7 puan, "kesinlikle katılmıyorum"a 1 puan verilmektedir. Ölçekten alınabilecek en yüksek puan 133, en düşük puan ise 19'dur. Demir ve Aydın (2012) 19-44 puan arası puanın olumsuz tutum, 45-75 puan arası puanın nötr tutum, 76 ve üzeri puanın ise olumlu tutum anlamına geldiğini belirtmişlerdir. Yüksek puan, kaynaştırmaya yönelik olumlu tutumda artışa işaret etmektedir. Yapı geçerliliği için Cronbach Alpha katsayısı hesaplanmıştır. Ölçeğin iki faktörlü bir yapıdan oluştuğu, toplam varyansın %41,50'sini açıkladığı, Faktör 1 için Cronbach Alpha katsayısının .87, Faktör 2 için .66 olduğu ve 19 maddelik ölçeğin toplam puanı için güvenilirlik katsayısının .76 olduğu belirtilmiştir (Demir & Aydın, 2012). Bu çalışmada ise ölçeğin Cronbach Alpha katsayısı .70 olarak bulunmuş olup, bu da ölçeğin iç tutarlılığının $p<.01$ düzeyinde yeterli olduğunu göstermektedir.

Verilerin Toplanması

Araştırmanın etik uygunluğu alınan etik kurul onayı ile teyit edilmiştir. Araştırma verileri 2020-2021 akademik yılı bahar döneminde 29 Nisan-20 Mayıs tarihleri arasında toplanmıştır. Veri toplamada kullanılan anket formları Covid-19 pandemisi nedeniyle yüz yüze görüşme yerine katılımcılara Google Formlar aracılığıyla gönderilmiştir.

Verilerin Analizi

Araştırmanın amaç ve değişkenleri doğrultusunda yapılan analizlerde şu teknikler kullanılmıştır: İlk olarak öğretmenlerin otizmli çocukların kaynaştırılmasına yönelik puanlarını; cinsiyet, özel eğitim kursuna gitme, sınıfta otizm spektrum bozukluğu olan bir çocuğun bulunması, yakın çevresinde otizm spektrum bozukluğu olan bir çocuğun bulunması, otizmle ilgili bir program, seminer veya kursa katılma gibi değişkenler açısından incelemek amacıyla Mann-Whitney U testi tercih edilmiştir. İkinci olarak Otizmli Çocukların Kaynaştırılmasına Yönelik Tutum Ölçeği toplam tutum puanlarının öğretmenlerin yaş, eğitim düzeyi, mesleki kıdem, mezun olunan bölüm ve otizm spektrum bozukluğu olan bir çocukla çalışma deneyimi değişkenlerine göre farklılaşıp farklılaşmadığını belirlemek amacıyla Kruskal-Wallis H testi kullanılmıştır. Kruskal-Wallis H testi sonuçlarının anlamlı bulunduğu durumlarda daha sonra farklılığın hangi gruplardan kaynaklandığını belirlemek amacıyla Mann-Whitney U testi kullanılmıştır. Veriler SPSS 22.0 programı kullanılarak analiz edilmiştir.

Araştırmanın Etik İzinleri:

Bu çalışmada "Yükseköğretim Kurumları Bilimsel Araştırma ve Yayın Etiği Yönergesi" kapsamında uyulması gerektiği belirtilen tüm kurallara uyulmuştur. Yönergenin ikinci bölümü olan "Bilimsel Araştırma ve Yayın Etiğine Aykırı Eylemler" başlığı altında belirtilen eylemlerin hiçbiri gerçekleştirilmemiştir.

Etik Kurul İzin Bilgileri:

Etik değerlendirmeyi yapan kurulun adı = Fatih Sultan Mehmet Vakıf Üniversitesi Lisansüstü Eğitim Enstitüsü

Etik Kurul Etik inceleme karar tarihi =26.02.2021

Etik değerlendirme belgesi konu numarası = 04.03.2021-3

Bulgular

Yapılan bu çalışma sonuçlarına bakıldığında öğretmenlerin büyük çoğunluğunun kapsayıcı eğitim gören otizmli çocuklara karşı pozitif bir tutum içinde oldukları görülmektedir. Bulgular öğretmenlerin %95'inin olumlu tutuma sahip olduğunu göstermektedir. Çalışmanın alt amaçlarına bakıldığında Otizm Spektrum Bozukluğu Olan Çocukların Kaynaştırılmasına İlişkin Tutum Ölçeği'ne ilişkin olarak öğretmenlerin puanlarında cinsiyet değişkenine göre anlamlı bir fark olmadığı ortaya konmuştur. Yaş değişkeninde anlamlı bir farklılık tespit edilmiştir. Anlamlı farkın kaynağını belirlemek için yapılan Mann -Whitney U testi sonuçlarına göre 26-30 yaş grubundaki öğretmenlerin, 41-50 yaş grubundaki öğretmenlere göre ve 26-30 yaş grubundaki öğretmenlerin ise 51 yaş ve üzeri yaş grubundaki öğretmenlere göre daha olumlu yaklaşım içinde olduğu görülmüştür.

Eğitim düzeyi değişkenine göre tutum ölçeği puanlarındaki farklılıkları belirlemek için yapılan analiz sonuçları, eğitim düzeyi grupları arasında anlamlı bir fark olduğunu göstermektedir. Bulgulara göre anlamlı farkın, ön lisans derecesine sahip olanlardan lisansüstü derecesine sahip öğretmenler lehine ve lisans derecesine sahip olanlardan ise lisansüstü derecesine sahip öğretmenler lehine olduğu tespit edilmiştir. Ayrıca mesleki kıdem

değişkenine göre elde edilen bulgulara bakıldığında mesleki kıdem grupları arasında anlamlı bir fark olduğu görülmektedir. Bulgulara göre mesleğinde 1 yıldan az çalışmış öğretmenler ile 11-15 yıl çalışmış olan öğretmenler arasında 1 yıldan daha az çalışanlar lehine anlamlı bir fark olduğu görülmüştür.

Mezun olunan bölüm değişkenine ve özel eğitim kurslarına katılma değişkenine göre tutum ölçeği puanlarındaki farklılıkları belirlemek için yapılan testlerde anlamlı bir farklılığa ulaşılamamıştır. Ancak otizmle ilgili programlara, seminerlere veya kurslara katılım gösteren öğretmenlerin Tutum Ölçeği'nde katılmayanlara kıyasla daha yüksek puanlar aldıkları, diğer bir deyişle kaynaştırmaya karşı daha olumlu bir tutuma sahip oldukları bulunmuştur. Araştırma sonuçları otizm tanısı almış öğrencilerle çalışma deneyiminin gruplar arasında anlamlı bir fark oluşturduğunu ortaya koymuştur. Bulgular rehabilitasyon merkezlerinde deneyimi olan öğretmenler ile deneyimi olmayan öğretmenler arasındaki farkın, ilk grup lehine anlamlı olduğunu göstermiştir.

Tartışma ve Sonuç

Araştırma sonuçları incelendiğinde, okul öncesi öğretmenlerinin otizmli çocukların kaynaştırılmasına yönelik tutumlarında yaş değişkenine göre istatistiksel olarak anlamlı bir fark olduğu görülmektedir. Özellikle 26-30 yaş grubundaki öğretmenler, 41-50 yaş grubundaki ve 51 yaş ve üzeri öğretmenlere kıyasla otizmli çocukların kaynaştırılmasına yönelik daha olumlu tutumlar sergileme eğilimindedir ve bu durum Otizmli Çocukların Kaynaştırılmasına Yönelik Tutum Ölçeği'nde daha yüksek puanlar alınmasıyla ortaya konmaktadır. Literatürde de bu sonuca paralel sonuçlar bulunmakla birlikte (Avramidis & Norwich, 2002; Burak, 2019; Özdemir, 2010; Rakap ve Kaczmarek, 2010; Ünal ve İflazoğlu Saban, 2014), bazı araştırmalar farklı bulgular sunmaktadır (Avramidis vd., 2000; Batum, 2019; Park & Chitiyo, 2011). Burak'a (2019) göre öğretmenlerin yaşı ile tutumları arasındaki negatif korelasyon, genç öğretmenlerin yaşlı meslektaşlarına kıyasla bilgiye daha hızlı ve kolay ulaşabilmesinden kaynaklanmaktadır.

Bulgular doğrultusunda okul öncesi öğretmenlerinin kaynaştırmaya ilişkin tutumlarında cinsiyet değişkenine göre anlamlı bir farklılığa rastlanmamış olup bu bulgu daha önce yapılan çalışmalarla (Burak, 2019; Güleryüz ve Özdemir, 2015; Macaroğlu Akgül, 2012; Şahbaz & Kalay, 2010; Wilkerson, 2012) tutarlıdır. Ancak bazı çalışmalarda farklı sonuçlar da bildirilmiştir. Örneğin İnce vd. (2023) öğretmen adaylarıyla yaptıkları çalışmada, kadın adayların otizm spektrum bozukluğu olan çocukların dahil edilmesine karşı daha olumlu tutumlar sergilediklerini bulmuşlardır. Benzer şekilde, Batum (2019) tarafından yapılan çalışmada da kadın öğretmenler lehine istatistiksel olarak anlamlı bir sonuç bulunmuştur. Batum (2019) bu sonucu, kadınların erkeklere kıyasla sosyal etkileşimler sırasında daha fazla kişilerarası duyarlılık sergileme ve başkalarının duygularına daha fazla önem verme eğiliminde oldukları görüşüyle ilişkilendirmiştir. Literatürde bulgularla hem uyumlu hem de çelişen örnekler bulunmasına rağmen, çalışmada erkek öğretmenlerin sınırlı temsil edilmesi, cinsiyetle ilgili sonuçları etkilemiş olabilir. Bu nedenle, daha geniş bir temsilin olduğu çalışmalarda cinsiyete dayalı sonuçlar farklılık gösterebilir.

Eğitim düzeyi değişkenine bağlı olarak tutum puanları incelendiğinde istatistiksel olarak anlamlı bir fark gözlenmiştir. Lisansüstü eğitime sahip öğretmenler, lisans veya

lisansüstü eğitime sahip olanlara kıyasla kaynaştırmaya ilişkin daha güçlü tutumlar sergilemektedir. Bu bulgu, lisansüstü eğitime sahip özel eğitim öğretmenlerinin kaynaştırmaya ilişkin daha olumlu tutumlar sergilediğinin ortaya konduğu Abu-Hamour ve Muhaidat'ın (2013) çalışmasıyla örtüşmektedir. Bu çalışmada, otizmli çocukların kaynaştırılmasına yönelik öğretmenlerin eğitim düzeylerine dayalı yaklaşımlarındaki gözlemlenen çeşitliliğin, öğretmenlerin otizmle ilgili bilgi, beceri ve eğitim kazanımlarıyla ilişkili olduğuna inanılmaktadır.

Araştırma sonuçları okul öncesi öğretmenlerinin kaynaştırmaya yönelik tutumlarında mesleki deneyim değişkenine göre istatistiksel olarak anlamlı bir fark olduğunu göstermektedir. Bu bulgular incelendiğinde, 1 yıldan az mesleki deneyime sahip öğretmenlerin 11-15 yıllık mesleki deneyime sahip olanlara kıyasla kaynaştırmaya yönelik daha olumlu bir tutum sergilediği kaydedilmektedir. Ayrıca, 1-5 yıllık mesleki deneyime sahip öğretmenler 11-15 yıllık deneyime sahip olanlardan ve 6-10 yıllık mesleki deneyime sahip öğretmenler 11-15 yıllık deneyime sahip olanlardan daha yüksek bir tutum göstermektedir. Bu çalışmadan elde edilen sonuçlar dikkate alındığında, mesleki deneyim yılı ile kaynaştırmaya yönelik tutum arasındaki negatif korelasyon, otizm spektrum bozukluğuna sahip çocuklar hakkındaki bilgi, mesleki tükenmişlik ve daha genç öğretmenler ile daha yaşlı öğretmenler arasındaki motivasyon düzeyleri gibi faktörlere bağlanabilir. Bununla birlikte, bu farklılıkların açıkça ortaya konulması ve temellendirilmesi için daha fazla araştırmaya ihtiyaç duyulduğuna dikkat çekmek önemlidir.

Okul öncesi öğretmenlerinin kaynaştırmaya ilişkin tutumlarında mezun olunan bölüm değişkenine göre istatistiksel olarak bir fark görülmemiştir. Benzer şekilde yakın zamanda Çin'de yapılmış bir çalışmada mezun olunan bölümün öğretmen tutumlarına etki etmediği tespit edilmiştir (Peng vd., 2024). Yapılan bu çalışmada katılımcı öğretmenlerin çoğunluğu okul öncesi bölümünden mezundur. Diğer bölümlerden mezun olan öğretmenlerin az sayıda olmasının mevcut sonuçlar üzerinde etkili olduğu söylenebilir.

Özel eğitim kurslarına katılma değişkenine göre okul öncesi öğretmenlerinin kaynaştırmaya yönelik tutumlarında istatistiksel olarak anlamlı bir fark bulunmamıştır. Bu sonuca karşın Aküzüm ve Akbulut (2021) özel eğitim ya da kurs vb. eğitim almanın kaynaştırmaya karşı tutumları olumlu etkilediğini belirtmektedir. Araştırmada ise öğretmenlerin çoğu özel eğitim kursu aldığını bildirmektedir. Bu yüzden değişik örneklem gruplarında sonuçlar farklılaşabilir.

Rehabilitasyon merkezleri aracılığıyla deneyim kazanmış öğretmenler ile bu deneyimi olmayanlar farklı tutumlar sergilemiştir. Araştırma sonuçları deneyimi olan öğretmenler lehine anlamlı bir fark olduğunu göstermiştir. Bu bulgu, rehabilitasyon merkezinde otizmli çocuklarla çalışma deneyimin önemini vurgulamaktadır. Ayrıca bu bulgu gelecekteki çalışmalar için önemli bir destek sağlamaktadır. Rehabilitasyon merkezlerinin yalnızca rehabilite edici değil aynı zamanda otizmde kapsayıcı eğitim için bir odak noktası olduğunu da göstermektedir.

Öneriler

Çalışmanın bulgularında rehabilitasyon merkezlerinde otizmli çocuklarla deneyimi olan öğretmenlerin tutum ölçeğinden yüksek puanlar aldıkları belirlenmiştir. Bu nedenle bu konuyla ilgilenen araştırmacıların rehabilitasyon merkezlerinde çalışan öğretmenlerden oluşan örneklem grubunu daha geniş tutarak çalışmalarını yürütmeleri önerilebilir. Yaşlı öğretmenlerde genç öğretmenlere göre daha düşük tutumlar göz önüne alındığında, eğitim otoriteleri yaşlı öğretmenlerin OSB'si olan çocukların kaynaştırılmasına yönelik beceri ve tutumlarını geliştirmek için dinamik eğitim hizmetleri sağlamalıdır.

Bu makale önemli ölçüde OSB'li çocuklarla çalışmada deneyimin önemine dikkat çekmektedir. Ayrıca, bu tür deneyime sahip olmayan okul öncesi öğretmenlerinin, deneyim ve bilgi edinmeleri için eğitim programları, seminerler veya diğer girişimlerle desteklenmesi önerilmektedir. Özel eğitim kurumlarında çalışmamış okul öncesi öğretmenlerinin bu kurumlarla etkileşime girmeleri ve çocuklara sağlanan eğitim hakkında bilgi edinmeleri teşvik edilmelidir. Özel eğitim dersleri alan lisans öğrencilerine rehabilitasyon merkezlerinde staj veya uygulama yapma fırsatı verilmelidir. Ayrıca, lisans döneminde özel eğitim dersleri için kredi saatleri arttırılabilir.

The Effect of STEAM-Based Music Activities on Students' Critical Thinking Dispositions*

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Abstract

This study aimed to evaluate the effect of the Science, Technology, Engineering, Arts, Mathematics [STEAM] approach in music lesson activities on students' critical thinking dispositions. Qualitative and quantitative data were collected and analyzed using a mixed method with a nested design. The study group consisted of 37 tenth grade students in an Anatolian high school and six STEAM field experts (physics, biology, mathematics, music, visual arts, information technologies) from school teachers. The implementation period lasted eight weeks in total. The study's quantitative data were obtained through the pre-test-post-test comparison of the UF/EMI Critical Thinking Disposition Scale forms. The quantitative findings revealed that students made significant progress in their critical thinking dispositions, as reflected in the positive changes between the pre-test and post-test scores. The qualitative data obtained from the teacher and student interviews of this study support the critical thinking skills of students in the STEAM approach in music lesson activities. In line with the quantitative and qualitative findings, it was suggested to provide better time management in the activities, increase diversity, give more freedom and responsibility to students, encourage group work, increase the richness of materials, and develop new measurement tools. The originality of this research lies in its comprehensive evaluation of the impact of STEAM-integrated music education on critical thinking, contributing valuable insights to the existing literature, particularly regarding the integration of art-based disciplines like music. These findings not only emphasize the effectiveness of the STEAM approach in fostering critical thinking but also highlight the importance of interdisciplinary practices in nurturing 21st century skills.

Keywords: Music education, STEAM approach, critical thinking tendency.

Introduction

Education has evolved from transferring practical knowledge throughout human history to today's structured and technologically supported complex systems. This transformation in education has created a new ground for interdisciplinary studies and led to the prominence of hybrid teaching methods that include more than one discipline rather than one discipline. In this way, education programs have become more flexible and focused on problem-solving (Newell, 2001; Yavuz, 2016). From another perspective, this transformation in education has been closely associated with societies' economic, social, and cultural development. While societies' welfare and development policies determine which skills individuals should be equipped with, educators have carried out various reforms in this direction.

With the impact of these reforms that took place in parallel with industrialization, four main evolutionary stages of education and the focus of each stage emerged (Diwan, 2017). While Education 1.0 represented traditional teaching methods, Education 2.0 marked a period when technology started to be used more. Education 3.0 encouraged students to become active producers of knowledge rather than passive consumers of information, while Education 4.0 emphasized creative thinking, problem-solving, and the ability to develop innovative projects. This process from Education 1.0 to 4.0 has shown how multidimensional knowledge and interdisciplinary approaches have taken shape in modern education systems. Instead of focusing on a single discipline, ancient scientists developed a broad perspective by having knowledge in many fields (İsababayeva Apaydın & Arslan, 2015). This broad perspective has been replaced by narrower and more specialized knowledge over time. However, in the

education 3.0 and 4.0 processes, this narrowed knowledge structure has been expanded by re-establishing interdisciplinary connections (Turhal, 2020).

The 21st century skills aligned with Education 4.0 include solving complex problems, critical thinking, creativity, people management, collaboration, and emotional intelligence (World Economic Forum, 2016). In another perspective, these skills are classified under three general headings: learning and innovation skills, life and career skills, and information media and technology literacy skills (Partnership for 21st Century Learning, 2019).

Critical thinking enables individuals to analyze problems deeply, evaluate different perspectives, and produce effective solutions (Levy, 1997). It paves the way for the emergence of innovative ideas by encouraging creative thinking. It also improves the ability to work in cooperation (Ennis, 1993). Logical evaluation of personal decisions and sensitivity to social problems are among the contributions of critical thinking. Critical thinking skills have been addressed in various aspects by researchers such as Russell (1963), Paul (1990), Siegel (2017), and Lipman (1988). These researchers characterized critical thinking as the art of thinking about our thoughts by associating it with attitude, functional, and judgment factors. They also defined this skill as reason-based validation.

In current approaches, it is discussed that critical thinking skills play an active role in analyzing the problems encountered, producing final solutions and making improvements in the social field. In this context, Science, Technology, Engineering, Arts, Mathematics [STEAM] education has become an effective model that strengthens critical thinking with its interdisciplinary structure. With its interdisciplinary structure and creative problem-solving oriented projects, STEAM enables students to acquire knowledge and use it in a critical and innovative way. Integrating science, technology, engineering, and art disciplines with music education especially deepens critical thinking skills. In addition, it is seen that people who receive STEAM education develop the ability to evaluate in a social context (Campbell, 2004).

In the 2023 Education Vision published by the Ministry of National Education [MoNE] (2018), the instructional design at the secondary education level is closely linked to individuals' acquisition of scientific skills. It is emphasized that the secondary education system needs a structural transformation to provide students with universal skills and make them actors of change. This perspective aligns with the holistic approach adopted in the Century of Türkiye Education Model (Türkiye Yüzyılı Maarif Modeli), which emphasizes the balanced development of cognitive, emotional, and social domains in an integrated manner. Although a specific curriculum for the music course has not yet been released within this model, its comprehensive and interdisciplinary vision underlines the importance of designing music education in a way that supports students' multifaceted growth and active participation in a rapidly changing world. It is also stated that the curriculum should be process-oriented, take into account individual differences, and use technology effectively. Continuous updating of the curriculum and making it suitable for the needs of the 21st century make it necessary to investigate contemporary approaches in music lessons.

The reviewed literature emphasizes the importance of arts education, and deficiencies in areas such as critical thinking and problem-solving are stated (Didin & Köksal, 2017;

Perignat & Buonincontro, 2019). In addition, the inadequacy of students' critical thinking skills and what needs to be done to improve these skills are emphasized (Demir & Aybek, 2014; Korkmaz & Yeşil, 2009). In this context, considering the current educational conditions, it is seen that studies to improve critical thinking skills have gained importance. However, art education supports awareness, self-confidence, and creativity.

STEAM education has received increasing attention in the educational literature, especially as an innovative model that encourages the development of interdisciplinary skills (Bequette & Bequette, 2012; Yakman & Lee, 2012). However, in international literature, it is seen that the STEAM approach remains STEM oriented in general and that the arts are often considered only as an aesthetic complement (Henriksen, 2014). Studies on the impact of arts, especially music education, on cognitive processes such as critical thinking and problem-solving are limited and mostly limited to small-scale projects (Kim & Park, 2012; Perignat & Buonincontro, 2019). For example, Perignat and Buonincontro's (2019) literature review on the effects of STEAM suggests that music is underrepresented in STEAM practices and that a stronger pedagogical framework to support interdisciplinary thinking is needed.

How STEAM integration with music education, which indirectly includes all disciplines, affects students' critical thinking skills emerges as an important research topic. However, it is seen that the research and findings on this issue are limited, and generally, the implementation processes are not analyzed in depth (Liao, 2016). In addition, the number of studies on STEAM education in developing countries such as Türkiye is increasing, but the majority of these studies focus on the science, mathematics, and technology axis, and it is observed that art-based disciplines such as music education are not addressed (Gülhan, 2022).

In this context, the unique contribution of this study to the field is that it fills this gap in the international literature by examining the development of students' critical thinking disposition with both qualitative and quantitative methods in music education with the STEAM approach. The research aimed to demonstrate that music education is not only an aesthetic activity, but can also play a critical role in developing cognitive skills in an interdisciplinary context. The findings of this study bring an innovative perspective to the literature by providing valuable information on how music education can be integrated into STEAM models in an international context.

Therefore, in this study, the following questions were sought to be answered in order to evaluate the effect of STEAM approach in music lesson activities on students' critical thinking dispositions.

1. What is the effect of STEAM approach in music lesson activities on students' critical thinking dispositions?

2. What are the students' views on the application of STEAM approach in music lesson activities?

3. What are teachers' views on the implementation of STEAM approach in music lesson activities?

Method

Research Design

In this study, STEAM approached music lesson activities were developed, and the effects of these activities on students' critical thinking dispositions were examined. Both qualitative and quantitative data were collected and analyzed using a mixed method with a nested design. Quantitative data were applied as pre-tests and post-tests at the beginning and end of the study. Qualitative data were obtained through structured interviews with students and unstructured and semi-structured interviews with teachers.

Participants

The study group of this research consisted of 37 tenth-grade students in an Anatolian high school and six STEAM field experts (physics, biology, mathematics, visual arts, information technologies, music) from school teachers. The sample size was kept small since this study aimed to examine in depth the impact of the STEAM approach on critical thinking skills in the context of music education and to allow for more qualitative and quantitative findings to be evaluated together. Working with a small sample made it possible to analyze the experiences of each participant in more detail and to interpret the findings in more depth (Creswell, 2017). In addition, selecting a homogeneous group of students in the sample, i.e., students of the same age level and with similar educational backgrounds, increased the study's internal validity (Patton, 2002). However, it is also known that this situation limits the generalizability of the findings, and follow up studies with a larger and more diverse sample are needed to generalize the results to different age groups, school types, or cultural contexts. Nevertheless, this study is essential research to understand the potential effects of integrating a STEAM approach into music education.

Data Collection Tools

Qualitative data were obtained from structured, semi-structured, and unstructured interview notes and research journals. The quantitative data of the study were obtained with the "UF/EMI Critical Thinking Disposition Scale" adapted into Turkish by Kılıç and Şen (2014). In order to collect the data, the "UF/EMI Critical Thinking Disposition Scale" was applied at the beginning of the study and thus pre-test data were obtained. Qualitative data were collected during the implementation. At the end of the implementation process, the "UF/EMI Critical Thinking Disposition Scale" was applied again, and post-test data were obtained. The Turkish adaptation and development of the scale was conducted by Kılıç and Şen (2014). The scale has three sub-dimensions: anticipativeness, cognitive maturity, and innovativeness. The internal consistency coefficient of the anticipation sub-dimension was calculated as .88, cognitive maturity as .70, and innovativeness as .91.

Table 1.

Reliability Analysis of UF/EMI Critical Thinking Disposition Scale

Subdimensions	Number of questions	Cronbach's Alpha	General Cronbach's Alpha
Predictability	11	.846	.910
Innovation	7	.914	
Cognitive Maturity	7	.897	

A semi-structured interview form and unstructured observation notes were used as qualitative data collection tools in the study. The interview questions were developed by the researchers in accordance with the purpose of the study. During the question development process, the literature was reviewed, sample questions from previous similar studies were used, and content validity was ensured through expert opinions. Sample questions used in the semi-structured interviews with students are as follows:

1. In this activity, which activities and how did you achieve the interdisciplinary connections inherent in the STEAM approach?

2. Do you think this activity contributed to you? If yes, how did you think it contributed?

3. What are your opinions and suggestions on the topic?

The interviews with the students were conducted personally by the researcher. A voice recorder was used during the interviews, and the recordings were later transcribed and analyzed. The following questions were asked in semi-structured interviews with teachers:

1. Do you see a progression between the beginning and the end of this activity, which was prepared using the STEAM approach?

2. Has the connection between science–technology–engineering–music–mathematics been established with this activity?

3. Do you observe any improvement in students' interdisciplinary connections through the STEAM curriculum designed for this activity?

4. If you observe improvement, in what direction do you think it is?

5. How and in what ways could this activity, prepared using the STEAM approach, be improved through further work by practitioners?

6. If so, what are your opinions and suggestions?

These questions were developed by the researcher, and after expert consultation, necessary adjustments were made and simplified to reflect the teachers' areas of expertise. Interviews were conducted face to face. All data were collected on a voluntary basis, in accordance with ethical principles, and participant confidentiality was maintained.

Throughout the research process, observations were conducted with STEAM field experts before and after the unstructured intervention to facilitate exchanges of ideas. These observations were used to support the interview data.

Analysis

In the study, the researcher processed and analyzed the data collected through questionnaire forms using the SPSS 26.0 package program. "Wilcoxon Signed Ranks Test" was applied to evaluate the statistical differences between the participants' pre-test and post-test results. The significance (p) value was accepted as 0.05 in all analyses. When $p<.05$ in the test results, the difference was considered statistically significant, and when $p>.05$, the difference was considered statistically insignificant. The "UF/EMI Critical Thinking Disposition Scale" was developed to measure individuals' tendencies towards critical thinking accurately. The

UF/EMI Critical Thinking Disposition Scale used as a quantitative data tool, was used with frequency, percentage, t-tests, or one-factor analysis of variance [ANOVA] according to whether the data showed normal distribution in the SPSS statistical program.

Qualitative data were obtained through interviews with students and teachers and their responses to the questions. In the first stage, these data were processed. These interviews, which were audio recorded, were transcribed on a computer without any changes. The transcribed interview records were reviewed by the researcher and made suitable for analysis (Coolican, 2009; Kvale, 1996). MAXQDA 21 program was used to analyze the transcribed interviews. The data were analyzed using the inductive analysis method. The data coded by the researcher were organized by coding, which is defined as the process of naming meaningful parts of the data (Yıldırım & Şimşek, 2013). The codes created individually were reviewed with the mentor teacher until a consensus was reached. In this study, student opinions were coded with the letter 'T'. Teacher opinions were coded with different letters according to their fields: 'F' (Physics), 'B' (Biology), 'G' (Visual Arts), and 'M' (Music). After the coding process was completed, it was submitted to expert opinion. With the expert opinion, the content analysis was completed by defining and interpreting the findings. This study analyzed semi-structured and unstructured teacher interviews and structured student interviews using descriptive analysis.

Research Process

In this study, in which the STEAM approach was applied to music lesson activities, the researcher first organized a meeting with STEAM field experts. This meeting sought solutions to ensure that students were motivated towards music lessons. With the joint decision of STEAM field experts and the researcher, a plan was made to ensure the connection between STEAM disciplines under the leadership of the music lesson. The engineering design process using the STEAM approach formed the framework for the general objectives planned in this direction. The planning objectives were selected together with STEAM field teachers. These objectives were selected from the annual plans prepared within the framework of the secondary education program of the courses included in STEAM. However, since there is no engineering course in the secondary education program, the design process plan was created separately.

The implementation process lasted a total of eight weeks, including the process of collecting quantitative and qualitative data. The implementation was carried out in 2 weekly music class hours. The "UF/EMI Critical Thinking Disposition Test" was administered in the first week. In the second week, biology-music; in the third week, physics-music; in the fourth week, mathematics-music; in the fifth, sixth, and seventh weeks, the STEAM connection was established between biology-physics-mathematics-music-technology-engineering. A post-test was administered in the eighth week of the implementation, and a structured interview was conducted with the students. The researcher recorded her observations about the implementation in the form of notebooks, video, and audio recordings. In the second week of the implementation, dialogues were developed to establish a connection between biology and music lessons. The students were divided into homogeneous groups with equal numbers. These groups were asked to come up with group names related to the topic of the elements of the cell in the biology lesson. Then, they were tasked with writing song lyrics appropriate to

their chosen group names. In the third week of the implementation, dialogues were developed to establish a connection between physics and music lessons. Sound sensitive LEDs were emphasized based on the answers received, and sample material was shown. In the fourth week of the application, dialogues were developed to establish a connection between mathematics and music lessons. In the connection between function and music, frequencies were given to the definition set, and note names were given to the value set. The keyboard to be used in the prototype was assigned sounds with the software program, and the sounds that come when the keys are pressed were determined as the definition set, and the sounds that come when the keys are pressed were determined as the value set. This situation played a role in associating the function, which is a mathematics subject, with the music lesson. Then, model cartons were given to the students. The students drew vectors of the instruments on these cards. At this point, support was received from the visual arts teacher. In the fifth week of the implementation, dialogues were developed on connecting music, physics, biology, mathematics, technology, and engineering. Students were asked to create a music prototype with instrument cartons, a computer, a computer keyboard, a sound-sensitive LED, a speaker, cables, and silicone materials. One student who could assign a sound to the keyboard keys with the software program was given additional time outside the application. This student created the software program under the supervision of the researcher. In the sixth week of the implementation, the students removed the keypad on the mechanical keyboard. The electronic circuit was cleaned with solder paste when the keypads were removed. Between the copper circuit on the electronic board and the electronic circuit on the keypad, 1.5 meters of special spiral copper cable was used to transfer the sound of the keys. Support was received from an IT specialist during keyboard operations. In the seventh week of the implementation, the students were asked to place the keyboard keys assigned sound on the instrument cartons. Each group carried out this process individually. After all groups had completed this process, the resulting prototype was practically tested. In the eighth week of the implementation, a post-test was administered to the students, and structured interviews were conducted. Unstructured interviews were conducted with STEAM field experts throughout the process to keep them informed about the students' situations. When necessary, ideas were exchanged with STEAM field experts, and the results were shared with them. STEAM field experts' opinions about the activity's implementation were recorded.

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 = Gazi University Ethics Commission

Date of ethical review decision = 10.05.2023

Ethics assessment document issue number = E-652780

Findings

The aim of this study is to examine the effect of the STEAM approach applied with music lesson activities on students' critical thinking dispositions. In this direction, quantitative data were obtained by analyzing the students' critical thinking dispositions through pre-test and post-test results. Qualitative data were obtained through structured student interviews and semi-structured and unstructured teacher interviews.

1. The Effect of STEAM Approach in Music Lesson Activities on Students' Critical Thinking Tendencies

The critical thinking disposition test was structured into three sub-dimensions: anticipativeness, innovativeness, and cognitive maturity. The findings obtained are presented in tables.

Table 2.

Post-test-Pre-test Comparison of UF/EMI Critical Thinking Disposition Scale

		n	*M*	*SD*	Min	Max
Pre-test		37	3.53	.59	1.48	4.72
Post-test		37	3.87	.52	1.92	4.84
Wilcoxon signed ranks test						
		n	Rank mean	Rank sum	*Z*	*p*
Pre-test–post-test	Negative sorting	8	13.25	106.00	-3.424	.001
	Positive sorting	27	19.41	524.00		
	Equality	2				
	Total	37				

Looking at the general results of the UF/EMI Critical Thinking Disposition Scale in Table 2, it is seen that the post-test averages of the students increased significantly compared to the pre-test averages (Z=-3.424; p<.05). It was observed that the STEAM approach applied with music lesson activities contributed to the critical thinking disposition of 27 students, while the critical thinking disposition of 8 students decreased. The remaining two students did not show a developmental difference in achieving equality. It is thought that the students who did not show development were due to individual differences, difficulties in adapting to the content of the activities, or the inability of the scales to measure the abilities of this student group fully.

Table 3.

Post-Test-Pre-Test Comparison of Anticipativeness *Subdimension*

		n	*M*	*SD*	Min	Max
Pre-test		37	3.56	.67	1.36	4.82
Post-test		37	3.88	.59	1.82	5.00
Wilcoxon signed ranks test						
		n	Rank Mean	Rank Sum	*Z*	*p*
Post-test–pre-test	Negative sorting	9	15.56	140.00	-2.869	.004
	Positive sorting	26	18.85	490.00		
	Equality	2				
	Total	37				

As seen in Table 3, the increase in students' scores in the anticipativeness sub-dimension is statistically significant (Z=-2.869; p<.05). These findings show that the student's ability to predict future possibilities and think according to these possibilities has improved. The decrease in 9 students' scores suggests that students may have difficulty integrating their

existing knowledge and skills into their predictive abilities or may need more guidance in this process.

Table 4.

Post-Test-Pre-Test Comparison of Innovativeness Subdimension

		n	*M*	*SD*	Min	Max
Pre-test		37	3.52	.74	1.86	4.71
Post-test		37	3.87	.54	2.43	4.71
Wilcoxon signed ranks test						
		n	Rank Mean	Rank Sum	*Z*	*p*
Post-test–pre-test	Negative sorting	11	14.91	164.00	-2.287	.022
	Positive sorting	23	18.74	431.00		
	Equality	3				
	Total	37				

As seen in Table 4, in the innovativeness sub-dimension, students' innovativeness skills increased significantly in the post-test (Z=-2.287; p<.05). These findings show that the STEAM approach applied with music lesson activities supported students' creative thinking and innovative solution development skills. However, the decrease in the skills of 11 students indicates that these students could not fully participate in innovative thinking processes or that the existing methods were not effective enough for these students.

Table 5.

Post-Test-Pre-Test Comparison of Cognitive Maturity Subdimension

		n	*M*	*SD*	Min	Max
Pre-test		37	3.50	.68	1.29	4.86
Post-test		37	3.83	.66	1.57	5.00
Wilcoxon signed rans test						
		n	Rank Mean	Rank Sum	*Z*	*p*
Post-test–pre-pest	Negative sorting	12	13.00	156.00	-2.612	.009
	Positive sorting	23	20.61	474.00		
	Equality	2				
	Total	37				

In Table 5, a significant increase was observed in the cognitive maturity sub-dimension (Z=-2.612; p<.05). These findings indicate that the students developed a more mature and structured thought process and improved their ability to evaluate and analyze complex situations. However, the fact that 12 students experienced a decrease in this dimension may indicate that they experienced different difficulties in their cognitive development processes. This suggests that these students' cognitive maturity skills should be further supported.

Figure 1.

Comparison of Pre-test and Post-test Mean Scores on the Critical Thinking Disposition Scale and Its Sub-dimensions (n = 37)
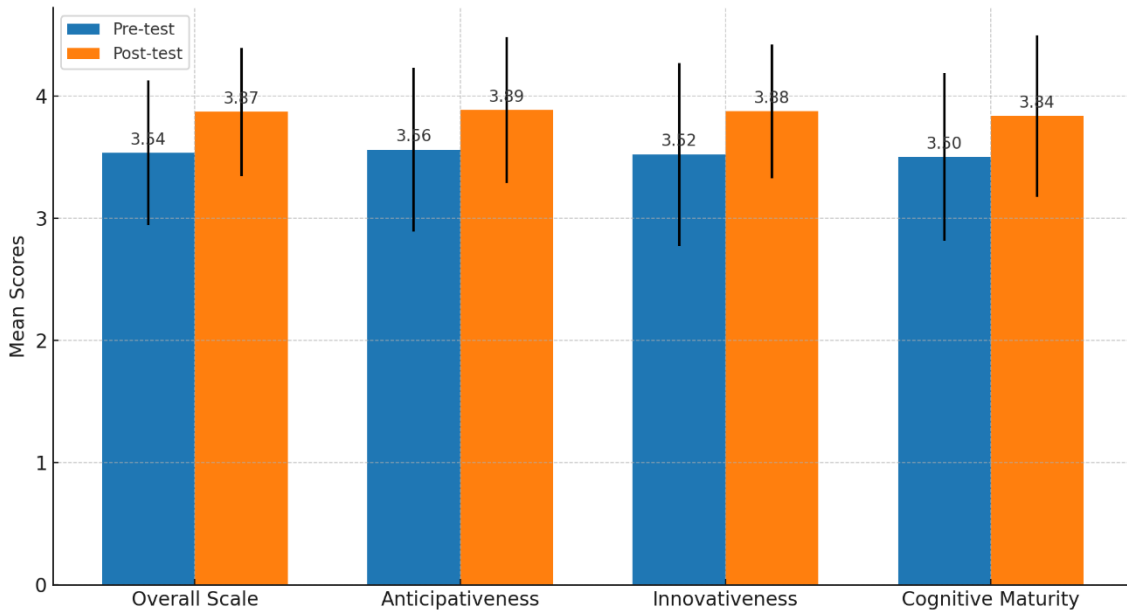
Note. Post-test mean scores for the overall scale and all three sub-dimensions were significantly higher than pre-test mean scores (p<.05). Error bars represent standard deviations.

2. Student Opinions on the Application of the STEAM Approach in Music Lesson Activities

When the post-application opinions of the students who participated in the research are analyzed, it is seen that there are statements belonging to the critical thinking code. These findings show how music education can be associated with other disciplines and how these relationships can be established. Critical thinking includes analyzing information, evaluating different perspectives, and using information in new contexts. Students made connections between music courses and numeracy and science courses (T1, T14, T36). This shows the ability to use knowledge in one context and between different disciplines. Recognizing such relationships is seen as an important part of critical thinking. The statement "At first, we said, 'What is the connection?' and then we learned that connection" (T1) shows that the student questioned the information that initially seemed disconnected and then re-evaluated this information and established meaningful connections. "Concretizing the waves of the vocal cords" (S10) reflects the student's effort to make an abstract concept more concrete. Critical thinking deepens understanding by supporting abstract concepts with concrete examples. The connections established between different subjects, such as biology, mathematics, and music, show that students develop interdisciplinary thinking skills (T14, T37). This is important in developing critical thinking because it brings together different perspectives to reach a richer understanding. The statement "We talked and discussed the relationship between music and mathematics" (T37) shows that students strengthen critical thinking by sharing and discussing their ideas with others. Discussion develops the skills of evaluating different perspectives and defending their ideas. These statements show that students are developing their critical

thinking skills and have started to make sense of knowledge in a broader context by making connections between different disciplines. Such statements indicate that students memorize information and develop the ability to analyze and revaluate it in different contexts.

3. Teachers' Views on the Application of STEAM Approach in Music Lesson Activities

The findings from this study reveal that the application had a significant impact on students' creative thinking skills. By assigning instrument sounds to computer keys and connecting them through wires, students were encouraged to think creatively (F). This process allowed them to combine technology and original ideas in unique ways, enhancing their ability to use technology in a creative manner (B). Additionally, the task of producing products from the materials provided fostered an environment that nurtured students' creativity (G).

In terms of communication, the application provided opportunities for students to move beyond their comfort zones and interact with peers they might not have otherwise engaged with. By randomly grouping students based on numbers they called out, they were able to communicate with others outside their typical social circles (G). This process not only improved communication but also allowed students to develop teamwork, leadership, and interpersonal skills (B), demonstrating that the application contributed to both social and technical growth.

The application also had a clear impact on students' collaboration skills. Students exhibited significant changes in their ability to collaborate both within and across disciplines (G). By engaging in STEAM based music activities, students had the chance to work together, sharing their unique skill sets and learning from one another (B). This suggests that the application fostered an environment conducive to collaborative learning, which is a crucial aspect of modern education.

The novelty of the project was also noteworthy. Students found it to be a "unique and thought-provoking" experience (M). This non-traditional approach to learning allowed students to gain new perspectives on how they could use the knowledge and skills they had acquired in different, innovative ways. In a digital age where information is easily accessible, the application encouraged students to reflect on how to apply this knowledge creatively, transforming their approach to learning.

One of the most important findings is that the application helped students shift their perspective on how they access and use information (M). Given today's easy access to knowledge, students learned not only how to acquire information but also how to apply it effectively, developing a more analytical and practical approach to problem-solving. This shift in perspective is an essential skill for future educational and professional settings.

Suggestions for enhancing the impact of the application emerged from the findings as well. It was recommended that the project be expanded to involve more students, creating interactive sessions with visual backgrounds and incorporating artificial intelligence technologies (M). This would allow for more dynamic and engaging activities, providing students with an even more immersive and participatory learning experience.

In terms of application skills, students were able to integrate both creative and technical skills throughout the project. Using vector images of instruments helped students more easily draw their designs on cardboard (G), while the incorporation of technological elements, such as assigning sounds to computer keys and connecting instruments with wires, allowed them to practice and develop their technical abilities (F). These skills directly contributed to students' understanding of how to apply theoretical knowledge to practical tasks.

The application also provided ample opportunities for students to engage in critical thinking. Throughout the process, students evaluated the pros and cons of their work, aiming to reach the best possible outcome (G). The STEAM approach played a key role in fostering critical thinking, as students were encouraged to review their performances and those of their peers, refining both musical and technical skills in the process (B). This ongoing evaluation allowed students to improve not only their technical abilities but also their capacity for reflection and improvement.

Regarding satisfaction, students were observed to work with high levels of motivation, which directly influenced the outcomes of the project (M). The research findings indicated that students were highly motivated by this unconventional and thought-provoking activity, resulting in improved performance (B). This underscores the importance of motivation in achieving successful learning outcomes, demonstrating that when students are engaged and excited, their work quality improves significantly.

Lastly, the interdisciplinary connections made through the application were crucial. Students developed skills across multiple disciplines, including music, physics, and technology, as they integrated various aspects of knowledge to complete the project (F). The process of drawing and cutting out instrument shapes also involved elements of visual arts (G), while the creation of software and the technical work of soldering and wiring enhanced the connection between music and technology (B). These activities provided students with a holistic understanding of how different fields intersect and work together, strengthening their ability to make interdisciplinary connections.

The qualitative findings obtained from student and teacher interviews aligned with the quantitative results of the UF/EMI Critical Thinking Disposition Scale. Specifically, in the sub-dimensions where post-test scores increased such as innovativeness and cognitive maturity students reported observable developments in related skills, including creativity, interdisciplinary thinking, and problem-solving. For instance, students indicated that they were able to reinterpret information that initially seemed unrelated, thereby concretizing abstract concepts, which reflects cognitive maturity. Moreover, their engagement in designing musical prototypes using technology and developing original ideas within group work settings supported the observed improvement in innovative thinking skills. This consistency between data types suggests that the STEAM based music activities contributed to students' critical thinking development not only through measurable outcomes but also through self-reflective and experiential learning processes expressed in their own words. Therefore, the qualitative and quantitative data complement each other and together demonstrate that interdisciplinary and arts-integrated approaches can be effective tools for enhancing critical thinking skills in a holistic manner.

Discussion and Conclusion

In this study, the effect of STEAM based activities implemented in music lessons on students' critical thinking dispositions was examined, and the findings revealed a significant improvement in this disposition. The pre-test and post-test analyses of the study showed that STEAM based music lesson activities improved students' critical thinking dispositions. Baek et al. (2011) stated that STEAM activities strengthen analytical skills and understanding of complex problems. Kim and Park (2012), who emphasized the contribution of art to creative and critical thinking skills, and Kolodner et al. (2003), who stated that problem-based learning supports these processes, also support these findings. In addition, Yakman and Lee (2012) stated that STEAM education improves critical thinking skills by creating long-term effects. Similarly, Kömürcü (2022) stated that STEAM based music education improves creativity, critical thinking, and musical communication. In this context, the role of the art-oriented structure of STEAM activities and problem-based learning processes in positive change is emphasized.

The study's quantitative findings revealed that students significantly improved in critical thinking, innovativeness, and cognitive maturity. These results are in line with international studies in the field of STEAM education. Wilson et al. (2021) found that transdisciplinary STEAM courses improve students' critical and creative thinking skills. Significant improvements were observed, especially in problem-solving, generating ideas, and evaluating from different perspectives. Henriksen (2014) and Kim and Park (2012), while emphasizing the effects of STEAM on creative and critical thinking skills, drew attention to the critical role of interdisciplinary approaches in this development. Perignat and Buonincontro (2019) state that STEAM practices enable students to view knowledge from different perspectives and develop creative problem-solving skills. However, most of these studies are STEM-oriented, and the contribution of arts, especially music, to critical thinking processes has been addressed to a limited extent.

However, while these studies highlight the positive impact of STEAM on critical thinking, creativity, and problem-solving, it is important to note that the role of the arts, particularly music, in developing these skills has not been thoroughly explored. In the current study, the findings indicate that music-based STEAM activities have had some effect on students' 21st century skills. Specifically, the data show that students experienced improvements in areas such as innovation and cognitive maturity, though these changes were not statistically significant. The lack of significant improvement in critical thinking and problem-solving skills may reflect the complexity of these cognitive processes, which require more in-depth and sustained engagement than what was provided through the music activities.

Additionally, the results suggest that certain dimensions, like entrepreneurial and career awareness skills, showed some growth in students, but again, these changes were not statistically significant. This raises questions about the extent to which music-centered STEAM initiatives can truly foster deeper cognitive development in these areas. It is possible that music activities may need to be complemented with other, more targeted pedagogical approaches to yield more noticeable improvements in critical thinking and problem-solving.

While the study's findings align with previous research regarding the overall benefits of STEAM education, it is important to acknowledge the current study's limitations. These include the relatively small sample size and the failure to consider other influential factors, such as teaching methods, student motivation, and the specific content of the music activities. These factors may have limited the observed changes in specific skill areas.

Therefore, future research should explore how integrating the arts, particularly music, within a STEAM framework can be further optimized to address critical thinking and problem-solving skills. Such studies could incorporate a larger and more diverse sample, consider additional pedagogical strategies, and evaluate the long-term effects of these types of educational interventions. By doing so, it may be possible to better understand the potential of music-based STEAM education in enhancing students' cognitive and creative abilities, as well as their overall 21st-century skill development.

Qualitative findings show that students gain the ability to analyze and apply knowledge in different contexts by making connections between different disciplines, such as biology, mathematics, and engineering, through music education. These findings are in line with Liao's (2016) finding that STEAM education promotes critical thinking in an interdisciplinary context. However, some students had difficulty in this process and did not show sufficient development in critical thinking skills. This situation reveals that STEAM activities should be designed by better considering individual differences.

Structured interviews revealed that STEAM activities improved students' skills such as creative thinking, communication, and collaboration. However, some students did not make enough progress in this process, making it necessary to reorganize the activities to take into account individual differences. Adapting the measurement tools to fully reflect the students' progress may enable more precise evaluations in future research.

The structured interviews with both students and teachers revealed that STEAM activities had a positive impact on students' skills, such as creative thinking, communication, and collaboration. However, it was also noted that some students did not make sufficient progress in these areas. For instance, while many students showed improvements in creative thinking, others struggled to engage with the activities in a way that fostered significant skill development. This suggests that individual differences, such as prior knowledge, motivation, and learning styles, may play a crucial role in the success of the activities. Moreover, the interviews with teachers highlighted the importance of adjusting the teaching methods and activity structures to accommodate these differences. Teachers noted that while group collaboration fostered communication and teamwork, some students felt less confident when working in larger groups. This indicates that a more personalized approach, potentially offering opportunities for both group and individual tasks, could lead to better outcomes. As for the evaluation of students' progress, both students and teachers mentioned that the measurement tools used during the study did not fully capture the nuances of their development. For example, some students demonstrated progress in non-cognitive skills, such as confidence and problem-solving, which were not adequately reflected in the traditional assessment methods. Adapting the measurement tools to encompass a broader range of skills and more effectively account for individual growth could provide more precise and

comprehensive evaluations in future research. This approach could also help identify areas where students need additional support and guide the refinement of the STEAM activities to better suit diverse learning needs.

The study's findings reveal that the STEAM approach significantly improves critical thinking skills by encouraging interdisciplinary learning processes. Kim and Auh (2024) stated that STEAM-based music activities, in addition to increasing student engagement, allow students to gain a deeper understanding of musical principles and use this knowledge in different contexts. This finding aligns with what was observed in the study sample, where students developed skills to apply knowledge by connecting to disciplines such as biology, mathematics, and engineering. This is important in showing how STEAM activities support creative and analytical thinking processes.

This study's contribution to the international literature is to examine the role of creative disciplines in critical thinking processes more comprehensively by considering music as a central component in STEAM education. Campbell (2004) emphasized the importance of music in cultural and cognitive development; in this study, music was shown to be a critical tool within STEAM pedagogy. In particular, the connections established with different disciplines reveal that music plays an important role in interdisciplinary thinking processes beyond a purely aesthetic activity.

In conclusion, the STEAM approach offers a rich learning environment that can support 21st-century skills such as creativity, communication, collaboration, and critical thinking. However, further consideration of individual differences, examination of long-term effects, and development of measurement tools will enable this potential to be fully realized.

Recommendations

More longitudinal research is needed as the long-term effects of the STEAM approach have not yet been fully addressed. The same need also applies in the context of music education. In addition, although the STEAM approach has the potential to improve student's critical thinking skills, it has been pointed out that individual differences need to be considered more. In this context, educators:

-Adjust curriculum integration to students' learning styles,

-Increase access to STEAM materials.

Researchers are recommended to:

-Develop more sensitive tools to measure critical thinking dispositions,

-Develop modeling designs for how to connect STEM disciplines to music lessons,

-Develop digital tools for STEAM activities and train users,

-Extend the duration and improve time management to increase the effectiveness of the STEAM approach in music lesson activities,

-Consider the relationship between STEAM and music education more comprehensively.

To expand STEAM-based music lessons, the MoNE should:

-Provide financial support,

-Organize practical teacher training,

-Invest in STEAM infrastructure,

-Prioritize the development of measurement tools appropriate for STEAM focused curriculum practices.

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Müzik Dersi Etkinliklerinde STEAM Yaklaşımının Öğrencilerin Eleştirel Düşünme Eğilimlerine Etkisi

Özet

Bu çalışmada müzik dersi etkinliklerinde Bilim, Teknoloji, Mühendislik, Sanat ve Matematik [STEAM] yaklaşımının öğrencilerin eleştirel düşünme eğilimleri üzerindeki etkisinin değerlendirilmesi amaçlanmıştır. İç içe desenli karma yöntem kullanılarak nitel ve nicel veriler toplanmış, analiz edilmiştir. Araştırmanın çalışma grubunu bir anadolu lisesinde onuncu sınıfta öğrenim gören 37 öğrenci ve okul öğretmenlerinden altı STEAM alan uzmanı (fizik, biyoloji, matematik, müzik, görsel sanatlar, bilişim teknolojileri) oluşturmuştur. Uygulama süresi toplamda sekiz hafta sürmüştür. Araştırmanın nicel verileri UF/EMI Eleştirel Düşünme Eğilimi Ölçeği formlarının ön test–son test karşılaştırması ile elde edilmiştir. Araştırmanın nitel verileri ise yapılandırılmış öğrenci görüşmeleri, yarı yapılandırılmış ve yapılandırılmamış öğretmen görüşmeleri ile elde edilmiştir. UF/EMI Eleştirel Düşünme Eğilimi ölçeği ön test–son testinden elde edilen nicel bulgular öğrencilerin belirli bir süreçte ilerleme kaydettiğini ve eleştirel düşünme eğilimlerinin gelişimine olumlu yönde katkıda bulunduğunu göstermiştir. Bu çalışmanın öğretmen ve öğrenci görüşmelerinden elde edilen nitel verileri müzik dersi etkinliklerinde STEAM yaklaşımının öğrencilerin eleştirel düşünme eğilimlerini geliştirdiğini göstermiştir. Elde edilen nicel ve nitel bulguların sonuçları doğrultusunda; etkinliklerde daha iyi zaman yönetimi sağlanması, çeşitliliğin artırılması, öğrencilere daha fazla özgürlük ve sorumluluk verilmesi, grup çalışmalarının teşvik edilmesi, materyal zenginliğinin artırılması ve yeni ölçme araçlarının geliştirilmesi önerilmiştir.

Anahtar Kelimeler: Müzik eğitimi, STEAM yaklaşımı, eleştirel düşünme eğilimi.

Giriş

Eğitim, tarih boyunca pratik bilgi aktarımından başlayarak teknolojik destekli sistemlere dönüşmüştür. Bu dönüşüm, disiplinler arası öğretim yöntemlerini ön plana çıkarmış, eğitim programlarını esnek ve problem çözmeye odaklı hale getirmiştir (Newell, 2001; Yavuz, 2016). Toplumların kalkınma politikaları, bireylerin donatılması gereken becerileri belirlerken eğitimciler de bu doğrultuda reformlar gerçekleştirmiştir.

Sanayileşmeyle birlikte eğitimde dört ana evrimsel aşama ortaya çıkmıştır (Diwan, 2017). Eğitim 1.0 geleneksel yöntemleri, Eğitim 2.0 teknolojinin kullanımını, Eğitim 3.0 aktif bilgi üretimini, Eğitim 4.0 ise yaratıcı düşünme ve problem çözme becerilerini desteklemiştir (İsababayeva Apaydın & Arslan, 2015; Turhal, 2020).

Eğitim 4.0 doğrultusunda belirlenen 21. yüzyıl becerilerinde karmaşık problemleri çözebilme, eleştirel düşünme, yaratıcılık, insan yönetimi, iş birliği ve duygusal zekâ önemli bir yer tutmaktadır (World Economic Forum, 2016). Başka bir açıdan bu beceriler; öğrenme ve yenilik becerileri, yaşam ve kariyer becerileri, bilgi-medya ve teknoloji okuryazarlığı becerileri şeklinde üç genel başlıkta sınıflandırılmaktadır (Partnership for 21st Century Learning, 2019).

Eleştirel düşünme, bireylerin sorunları analiz etme, farklı bakış açılarını değerlendirme ve etkili çözümler üretme becerisini geliştirmektedir (Ennis, 1993; Levy, 1997). Ayrıca, yaratıcı

düşünmeyi teşvik ederek yenilikçi fikirlerin ortaya çıkmasını sağlamakta ve iş birliği becerilerini güçlendirmektedir. Russell (1963), Paul (1990), Siegel (2017) ve Lipman (1988) eleştirel düşünmeyi düşünceler üzerinde derinlemesine değerlendirme ve nedenlere dayalı onaylama sanatı olarak tanımlamışlardır.

Eleştirel düşünme, sorunları analiz etme, çözüm üretme ve toplumsal iyileştirme süreçlerinde önemli bir rol oynamaktadır. Bilim, Teknoloji, Mühendislik, Sanat ve Matematik [STEAM] eğitimi, disiplinler arası yapısıyla bu beceriyi güçlendiren etkili bir modeldir. Yaratıcı problem çözme odaklı projeleri sayesinde, öğrencilerin bilgiyi eleştirel ve yenilikçi bir şekilde kullanmalarını sağlamaktadır. Özellikle bilim, teknoloji, mühendislik ve sanatın müzik eğitimi ile entegrasyonu, eleştirel düşünme becerilerini derinleştirmektedir (Campbell, 2004).

Millî Eğitim Bakanlığı'nın [MEB] (2018), 2023 Eğitim Vizyonunda, ortaöğretimde öğretim tasarımının bireylerin bilimsel beceriler edinmesiyle bağlantılı olduğu belirtilmiştir. Değişen evrensel becerilere uyum sağlamak ve öğrencileri dönüşümün aktörleri haline getirmek için yapısal değişikliklere ihtiyaç duyulduğu vurgulanmaktadır. Müfredatın süreç odaklı, bireysel farklılıkları gözeten ve teknolojiyi etkin kullanan bir yapıya sahip olması gerektiği ifade edilmektedir. Bu doğrultuda, müzik dersinde çağdaş yaklaşımların araştırılması önem kazanmaktadır.

Alanyazında sanat eğitiminin eleştirel düşünme, problem çözme ve yaratıcılık gibi becerileri desteklediği vurgulanmaktadır (Didin & Köksal, 2017; Perignat & Buonincontro, 2019). Bununla birlikte, öğrencilerin eleştirel düşünme becerilerindeki yetersizlikler ve bu becerilerin geliştirilmesi için yapılması gereken çalışmaların önemi belirtilmektedir (Demir & Aybek, 2014; Korkmaz & Yeşil, 2009). Mevcut eğitim koşulları incelendiğinde, eleştirel düşünme becerilerini geliştirme yönünde adımlar atılmasının gerekliliği ön plana çıkmaktadır.

İçinde dolaylı olarak tüm disiplinleri barındıran müzik eğitimi ile STEAM entegrasyonunun, öğrencilerin eleştirel düşünme becerilerini nasıl etkilediği önemli bir araştırma konusu olarak ortaya çıkmaktadır. Ancak bu konuya dair araştırmaların ve bulguların sınırlı kaldığı ve genellikle uygulama süreçlerinin derinlemesine analiz edilmediği görülmektedir (Liao, 2016). Bunun yanı sıra, Türkiye gibi gelişmekte olan ülkelerde STEAM eğitimi üzerine yapılan çalışmaların sayısı artmakta ancak bu çalışmaların büyük çoğunluğu fen, matematik ve teknoloji eksenine odaklanmış olup müzik eğitimi gibi sanat temelli disiplinlerin ele alınmadığı gözlemlenmektedir (Gülhan, 2022).

Bu kapsamda, bu çalışmanın alana özgün katkısı, STEAM yaklaşımlı müzik eğitimi özelinde öğrencilerin eleştirel düşünme eğiliminin gelişimini hem nitel hem de nicel yöntemlerle inceleyerek uluslararası literatürdeki bu boşluğu doldurmasıdır. Araştırma, müzik eğitiminin yalnızca estetik bir etkinlik olmadığını, aynı zamanda disiplinler arası bir bağlamda bilişsel becerilerin gelişiminde kritik bir rol oynayabileceğini göstermeyi amaçlamıştır. Bu çalışmanın bulguları, uluslararası bağlamda müzik eğitiminin STEAM modellerine nasıl entegre edilebileceğine dair değerli bilgiler sunarak literatüre yenilikçi bir bakış açısı kazandırmaktadır.

Bu nedenle bu çalışmada müzik dersi etkinliklerinde STEAM yaklaşımının öğrencilerin eleştirel düşünme eğilimleri üzerindeki etkisinin değerlendirilmesi amacıyla aşağıdaki sorulara yanıt aranmıştır.

1. Müzik dersi etkinliklerinde STEAM yaklaşımının öğrencilerin eleştirel düşünme eğilimleri üzerindeki etkisi nasıldır?

2. Müzik dersi etkinliklerinde STEAM yaklaşımının uygulanmasına dair öğrenci görüşleri nasıldır?

3. Müzik dersi etkinliklerinde STEAM yaklaşımının uygulanmasına dair öğretmen görüşleri nasıldır?

Yöntem

Araştırmanın Modeli

Bu çalışmada, STEAM temelli müzik ders etkinliklerinin öğrencilerin eleştirel düşünme eğilimlerine etkisi incelenmiştir. Araştırma, iç içe desenli karma yöntem kullanılarak hem nitel hem de nicel verilerle yapılmıştır. Nicel veriler, ön test ve son test olarak toplanmış; nitel veriler ise öğrencilerle yapılandırılmış, öğretmenlerle ise yapılandırılmamış ve yarı yapılandırılmış görüşmelerle elde edilmiştir.

Çalışma Grubu

Bu araştırmanın çalışma grubunu, bir anadolu lisesinin onuncu sınıfında öğrenim gören 37 öğrenci ve altı STEAM alan uzmanı (fizik, biyoloji, matematik, görsel sanatlar, bilişim teknolojileri, müzik) oluşturmuştur. Araştırma, STEAM yaklaşımının müzik eğitimi bağlamındaki eleştirel düşünme becerileri üzerindeki etkisini derinlemesine incelemeyi amaçlamaktadır. Örneklem büyüklüğü küçük tutulmuş, bu da katılımcıların deneyimlerinin detaylı bir şekilde analiz edilmesine olanak sağlamıştır (Creswell, 2017). Ayrıca, öğrencilerin homojen bir grup olarak seçilmesi, araştırmanın içsel geçerliliğini artırmıştır (Patton, 2002). Ancak, küçük örneklem bulguların genelleştirilebilirliğini sınırlamaktadır ve farklı yaş gruplarına, okul türlerine ya da kültürel bağlamlara yönelik daha geniş çalışmalara ihtiyaç vardır. Bu çalışma, müzik eğitimine STEAM yaklaşımını entegre etmenin potansiyel etkilerini anlamak için temel bir araştırma olarak görülmektedir.

Veri Toplama Araçları

Araştırmada nitel veriler; yapılandırılmış, yarı yapılandırılmış ve yapılandırılmamış görüşmeler ile araştırmacı günlüğü notlarından elde edilmiştir. Nicel veriler ise Kılıç ve Şen (2014) tarafından Türkçe 'ye uyarlanan "UF/EMI Eleştirel Düşünme Eğilimi Ölçeği" ile toplanmıştır. Veriler, çalışmanın başlangıcında uygulanan ön test ile toplanmış, ardından uygulama sürecinde nitel veriler elde edilmiştir. Uygulama sona erdiğinde, aynı ölçek ile yapılan son testle veriler tekrar toplanmıştır.

Verilerin Analizi

Araştırmada, anketlerle toplanan veriler SPSS 26.0 programı ile işlenmiş ve analiz edilmiştir. Katılımcıların ön test ve son test sonuçları arasındaki istatistiksel farklılıkları değerlendirmek için "Wilcoxon İşaretli Sıralar Testi" uygulanmıştır. Anlamlılık değeri .05

olarak kabul edilmiştir; p<.05 olduğunda farklılık anlamlı, p>.05 olduğunda ise önemsiz kabul edilmiştir. "UF/EMI Eleştirel Düşünme Eğilimi Ölçeği", bireylerin eleştirel düşünme eğilimlerini ölçmek için geliştirilmiş ve Kılıç ve Şen (2014) tarafından Türkçeye uyarlanmıştır. Ölçek; öngörüsellik, bilişsel olgunluk ve yenilikçilik olmak üzere üç alt boyuta sahiptir. Alt boyutların iç tutarlılık katsayıları sırasıyla .88, .70 ve .91 olarak hesaplanmıştır. Verilerin analizi, SPSS programında normal dağılım gösterip göstermediğine bağlı olarak frekans, yüzde, t testleri veya tek faktörlü varyans analizi [ANOVA] ile yapılmıştır. Elde edilen veriler tablolar halinde sunulmuştur.

Tablo 1.

UF/EMI Eleştirel Düşünme Eğilimi Ölçeğine Ait Güvenirlik Analizi

Alt boyutlar	Soru sayısı	Cronbach's Alpha	Genel Cronbach's Alpha
Öngörüsellik	11	.846	
Yenilikçilik	7	.914	.910
Bilişsel olgunluk	7	.897	

Nitel veriler, öğrenci ve öğretmenlerle yapılan röportajlardan elde edilmiştir. Görüşmeler, ses kaydıyla alınmış ve bilgisayar ortamında yazıya dökülmüştür. Deşifre edilen görüşme kayıtları, araştırmacı tarafından gözden geçirilmiş ve analize uygun hale getirilmiştir (Coolican, 2009; Kvale, 1996). MAXQDA 21 programı kullanılarak tümevarım analizi yöntemiyle çözümlenen veriler, kodlama işlemiyle düzenlenmiştir (Yıldırım & Şimşek, 2013). Kodlar, danışman öğretmenle gözden geçirilmiş ve uzman görüşü ile içerik analizi tamamlanmıştır. Yarı yapılandırılmış ve yapılandırılmamış öğretmen görüşmeleri ile yapılandırılmış öğrenci görüşmeleri, betimsel analiz yöntemiyle incelenmiştir.

Araştırma Süreci

Bu çalışmada, STEAM yaklaşımının müzik dersi etkinliklerinde uygulanması süreci toplamda sekiz hafta sürmüştür. İlk hafta ön test olarak, "UF/EMI Eleştirel Düşünme Eğilimi Testi" uygulanmıştır. Ardından planlanan STEAM ders programı doğrultusunda sırasıyla biyoloji, fizik, matematik, görsel sanatlar ve bilişim teknolojileri dersleri ile müzik dersi arasında bağlantılar kurulmuştur. Uygulama sürecinde, öğrenciler çeşitli disiplinler arasındaki ilişkileri keşfetmiş ve çeşitli projeler üzerinde çalışmıştır. Öğrenciler biyoloji dersinde hücre ögeleriyle şarkı sözü yazmış, fizik dersinde sese duyarlı ledler kullanmış, matematik dersinde fonksiyonlarla müzik arasındaki ilişkiyi kurmuş, görsel sanatlarda çalgı maketi yapmış, bilişim teknolojilerinde farklı materyallerle müzik prototipi oluşturmuş, mekanik klavye ve elektronik devrelerle müzik prodüksiyonu yapmıştır. Uygulama süresince araştırmacı, süreci verimli yönetebilmek için STEAM alan uzmanlarıyla yapılandırılmamış görüşmeler yapmıştır. Altı hafta süren uygulama sürecinden sonra son test uygulanmış, ardından öğrencilerle yapılandırılmış görüşmeler, öğretmenlerle ise yarı yapılandırılmış görüşmeler gerçekleştirilmiştir. Böylece nitel ve nicel veriler toplanmış, kayıt altına alınmıştır. Bu süreç, öğrencilerin farklı disiplinler arası düşünme ve yaratıcı çözüm üretme becerilerini geliştirmeyi amaçlamıştır.

Araştırmanın Etik İzinleri:

Bu çalışmada "Yükseköğretim Kurumları Bilimsel Araştırma ve Yayın Etiği Yönergesi" kapsamında uyulması gerektiği belirtilen tüm kurallara uyulmuştur. Yönergenin ikinci bölümü olan "Bilimsel Araştırma ve Yayın Etiğine Aykırı Eylemler" başlığı altında belirtilen eylemlerin hiçbiri gerçekleştirilmemiştir.

Etik Kurul İzin Bilgileri:

Etik değerlendirmeyi yapan kurulun adı = Gazi Üniversitesi Etik Komisyonu

Etik Kurul Etik inceleme karar tarihi = 10.05.2023

Etik değerlendirme belgesi konu numarası = E-652780

Bulgular

Bu araştırma, müzik dersi etkinliklerinde uygulanan STEAM yaklaşımının öğrencilerin eleştirel düşünme eğilimleri üzerindeki etkisini incelemektedir. Eleştirel düşünme eğilimi, ön test ve son test sonuçlarıyla analiz edilerek nicel verilere ulaşılmıştır. Nitel veriler ise yapılandırılmış öğrenci görüşmeleri ile yarı yapılandırılmış ve yapılandırılmamış öğretmen görüşmelerinden elde edilmiştir.

1. Müzik Dersi Etkinliklerinde STEAM Yaklaşımının Öğrencilerin Eleştirel Düşünme Eğilimleri Üzerindeki Etkisi Nasıldır?

Eleştirel düşünme eğilimi testi öngörüsellik, yenilikçilik ve bilişsel olgunluk şeklinde üç alt boyutta yapılandırılmıştır. Elde edilen bulgular tablolar halinde sunulmuştur.

Tablo 2.

UF/EMI Eleştirel Düşünme Eğilimi Ölçeğinin Son Test-Ön Test Karşılaştırılması

	n	*M*	*SD*	Min	Max
Ön test	37	3.5358	.59	1.48	4.72
Son test	37	3.8707	.52	1.92	4.84
Wilcoxon işaretli sıralar testi					
	n	Sıra Ortalaması	Sıra Toplamı	*Z*	*p*
Son test–ön test Negatif sıralama	8	13.25	106.00	-3.424	.001
Pozitif sıralama	27	19.41	524.00		
Eşitlik	2				
Toplam	37				

Tablo 2'de UF/EMI Eleştirel Düşünme Eğilimi Ölçeğinin genel sonuçlarına bakıldığında öğrencilerin son test ortalamalarının ön test ortalamalarına kıyasla anlamlı bir şekilde arttığı görülmektedir (Z=-3.424; p<.05). Müzik dersi etkinlikleriyle uygulanan STEAM yaklaşımının 27 öğrencinin eleştirel düşünme eğilimine katkı sağladığı, 8 öğrencinin eleştirel düşünme eğiliminde ise azalma durumu gözlemlenmiştir. Kalan 2 öğrenci eşitliği sağlayarak gelişimsel olarak bir farklılık göstermemiştir. Gelişim göstermeyen öğrencilerin bireysel farklılıklardan, etkinliklerin içeriğine uyum sağlamada yaşadıkları zorluklardan veya ölçeklerin bu öğrenci grubunun yeteneklerini tam olarak ölçememesinden kaynaklandığı düşünülmektedir.

Tablo 3.

Öngörüsellik Alt Boyutunun Son Test-Ön Test Karşılaştırılması

		n	M	SD	Min	Max
Ön test		37	3.56	.67	1.36	4.82
Son test		37	3.88	.59	1.82	5.00
Wilcoxon işaretli sıralar testi						
		n	Sıra ortalaması	Sıra toplamı	Z	p
Son test–ön test	Negatif sıralama	9	15.56	140.00	-2.869	.004
	Pozitif sıralama	26	18.85	490.00		
	Eşitlik	2				
	Toplam	37				

Tablo 3'te görüldüğü gibi öngörüsellik alt boyutunda öğrencilerin puanlarındaki artış istatistiksel olarak anlamlıdır (Z=-2.869; p<.05). Bu bulgular öğrencilerin gelecekteki olasılıkları öngörme ve bu olasılıklara göre düşünme yeteneklerinin geliştiğini göstermektedir. 9 öğrencinin puanlarında görülen azalma, öğrencilerin mevcut bilgi ve becerilerini öngörü yeteneklerine entegre etmekte zorlanabileceklerini veya bu süreçte daha fazla rehberliğe ihtiyaç duyabileceklerini düşündürmektedir.

Tablo 4.

Yenilikçilik Alt Boyutunun Son Test-Ön Test Karşılaştırılması

		n	M	SD	Min	Max
Ön test		37	3.5238	.74890	1.86	4.71
Son test		37	3.8764	.54727	2.43	4.71
Wilcoxon işaretli sıralar testi						
		n	Sıra ortalaması	Sıra toplamı	Z	p
Son test–ön test	Negatif sıralama	11	14.91	164.00	-2.287	.022
	Pozitif sıralama	23	18.74	431.00		
	Eşitlik	3				
	Toplam	37				

Tablo 4'te görüldüğü gibi yenilikçilik alt boyutunda öğrencilerin yenilikçilik becerileri son testte anlamlı bir şekilde artmıştır (Z=-2.287; p<.05). Bu bulgular müzik dersi etkinlikleriyle uygulanan STEAM yaklaşımının öğrencilerin yaratıcı düşünme ve yenilikçi çözümler geliştirme becerilerini desteklediğini göstermektedir. Ancak 11 öğrencinin becerilerinde azalma görülmesi, bu öğrencilerin yenilikçi düşünce süreçlerine tam anlamıyla katılamadığını veya mevcut yöntemlerin bu öğrenciler için yeterince etkili olmadığını göstermektedir.

Tablo 5.

Bilişsel Olgunluk Alt Boyutunun Son Test-Ön Test Karşılaştırılması

		n	M	SD	Min	Max
Ön test		37	3.5019	.68728	1.29	4.86
Son test		37	3.8378	.66083	1.57	5.00
Wilcoxon işaretli sıralar testi						
		n	Sıra ortalaması	Sıra toplamı	Z	p
Son test–ön test	Negatif sıralama	12	13.00	156.00	-2.612	.009
	Pozitif sıralama	23	20.61	474.00		
	Eşitlik	2				
	Toplam	37				

Tablo 5'te bilişsel olgunluk alt boyutunda anlamlı bir artış gözlemlenmiştir (Z=-2.612; p<.05). Bu bulgular öğrencilerin daha olgun ve yapısal bir düşünce süreci geliştirdiklerini, karmaşık durumları değerlendirme ve analiz etme becerilerinde ilerleme kaydettiklerini

göstermektedir. Ancak 12 öğrencinin bu boyutta azalma yaşaması, bilişsel gelişim süreçlerinde farklı zorluklar yaşadıklarına işaret edebilmektedir. Bu durum, bu öğrencilerin bilişsel olgunluk becerilerinin daha fazla desteklenmesi gerektiğini düşündürmektedir.

2. Müzik Dersi Etkinliklerinde STEAM Yaklaşımının Uygulanmasına Dair Öğrenci Görüşleri

Araştırma bulguları, öğrencilerin müzik dersi ile diğer disiplinler arasında kurdukları bağlantıları ve bu süreçte eleştirel düşünme becerilerini geliştirdiklerini göstermektedir. Öğrenciler, başlangıçta bağlantısız görünen bilgileri sorgulayarak ve somut örneklerle soyut kavramları daha iyi anlayarak eleştirel düşünme becerilerini güçlendirmişlerdir. Müzik, biyoloji, matematik gibi dersler arasındaki bağlantılar, öğrencilerin disiplinlerarası düşünme yeteneğini geliştirmiştir. Öğrenciler, fikirlerini başkalarıyla paylaşarak ve tartışarak farklı bakış açılarını değerlendirme becerilerini artırmışlardır. Bu süreç, öğrencilerin bilgiyi analiz etme ve yeni bağlamlarda kullanma yeteneklerini geliştirdiğini göstermektedir.

3. Müzik Dersi Etkinliklerinde STEAM Yaklaşımının Uygulanmasına Dair Öğretmen Görüşleri

Araştırmaya katkı sağlayan öğretmenlerin görüşleri:

-Öğrencilerin çalışmalarında karşılaştıkları süreçlerin artılarını ve eksilerini değerlendirerek en iyi sonuca ulaşmaya teşvik edilmesi, eleştirel düşünme becerisini harekete geçirmiştir.

-STEAM yaklaşımı, öğrencilere disiplinler arası düşünme fırsatı sunarak, eleştirel bakış açılarını geliştirmelerine olanak tanımıştır. Özellikle, müzik etkinlikleri sırasında öğrencilerin kendi performanslarını ve diğerlerinin çalışmalarını değerlendirmesi, eleştirel düşünme sürecini derinleştirmiştir.

-Teknolojik unsurların entegrasyonu, öğrencilerin yaratıcı düşünmelerini sağlarken, aynı zamanda bu süreçte eleştirel bir şekilde düşünmelerine olanak tanımıştır.

-İletişim ve iş birliği gibi sosyal becerilerin gelişimi de, eleştirel düşünmenin sosyal boyutunu desteklemiş, öğrencilerin farklı bakış açılarını değerlendirme yeteneklerini artırmıştır.

-Disiplinler arası bağlantılar kurarak, soyut kavramları somut ürünlere dönüştürme süreçleri de öğrencilerin eleştirel düşünme becerilerini pekiştirmiştir.

Bu bağlamda müzik dersi etkinliklerinde STEAM yaklaşımının uygulanmasına dair öğretmen görüşlerinden, öğrencilerin sadece teknik becerileri değil, aynı zamanda eleştirel düşünme yetilerini geliştiren bir öğrenme deneyimi yaşadıkları anlaşılmaktadır.

Tartışma ve Sonuç

Bu çalışmada, müzik dersinde uygulanan STEAM temelli etkinliklerin öğrencilerin eleştirel düşünme eğilimleri üzerindeki etkisi incelenmiştir. Araştırmanın ön test-son test analizleri, STEAM yaklaşımının öğrencilerin eleştirel düşünme eğilimlerini geliştirdiğini ortaya koymuştur. Baek vd. (2011), STEAM etkinliklerinin analitik becerileri ve karmaşık problemleri anlamlandırma yeteneğini güçlendirdiğini belirtirken, Kim ve Park (2012) sanatın

yaratıcı ve eleştirel düşünme becerilerine katkısını vurgulamaktadır. Kolodner vd. (2003), problem temelli öğrenmenin bu süreçleri desteklediğini ifade etmiştir. Ayrıca, Yakman ve Lee (2012) STEAM eğitiminin uzun vadeli etkiler yaratarak eleştirel düşünme becerilerini geliştirdiğini belirtmiştir. Benzer şekilde, Kömürcü (2022), STEAM temelli müzik eğitiminin yaratıcılığı, eleştirel düşünmeyi ve müzikal iletişimi geliştirdiğini ifade etmiştir. Bu bulgular, STEAM etkinliklerinin sanat odaklı yapısı ve problem temelli öğrenme süreçlerinin öğrencilerin eleştirel düşünme becerilerini geliştirmedeki rolünü vurgulamaktadır.

Araştırmanın nicel bulguları, öğrencilerin eleştirel düşünme, yenilikçilik ve bilişsel olgunluk gibi boyutlarda anlamlı bir gelişim gösterdiğini ortaya koymuştur. Bu sonuçlar, uluslararası STEAM eğitim araştırmalarıyla paralellik göstermektedir. Wilson vd. (2021), transdisipliner STEAM derslerinin öğrencilerin eleştirel ve yaratıcı düşünme becerilerini geliştirdiğini vurgulamaktadır. Özellikle problem çözme, fikir üretme ve farklı bakış açılarıyla değerlendirme becerilerinde anlamlı iyileşmeler gözlemlenmiştir. Henriksen (2014) ile Kim ve Park (2012), STEAM'in yaratıcı ve eleştirel düşünme becerilerine etkisini belirtirken disiplinler arası yaklaşımların bu gelişimdeki rolünü vurgulamaktadır. Perignat ve Buonincontro (2019), STEAM uygulamalarının öğrencilere bilgiye farklı perspektiflerden bakma ve yaratıcı problem çözme becerisi kazandırdığını ifade etmektedir. Ancak, bu çalışmaların çoğu STEM odaklı olup, sanatın özellikle müziğin eleştirel düşünme süreçlerine katkısı sınırlı olarak ele alınmıştır.

Nitel bulgular, öğrencilerin müzik eğitimi aracılığıyla biyoloji, matematik ve mühendislik gibi farklı disiplinler arasında bağlantılar kurarak bilgiyi analiz etme ve farklı bağlamlarda uygulama yetenekleri kazandığını göstermektedir. Bu bulgular, Liao (2016) tarafından dile getirilen STEAM eğitiminin disiplinler arası bağlamda eleştirel düşünmeyi teşvik ettiği görüşüyle uyumludur. Ancak, bazı öğrencilerin bu süreçte zorlandığı ve eleştirel düşünme becerilerinde yeterli gelişim göstermediği gözlemlenmiştir. Bu durum, STEAM etkinliklerinin bireysel farklılıkları daha iyi dikkate alacak şekilde tasarlanması gerektiğini ortaya koymaktadır.

Yapılandırılmış görüşmeler, STEAM etkinliklerinin öğrencilerin yaratıcı düşünme, iletişim ve iş birliği gibi becerilerini geliştirdiğini ortaya koymuştur. Ancak, bazı öğrencilerin bu süreçte yeterince ilerleme kaydedememesi, etkinliklerin bireysel farklılıkları göz önünde bulunduracak şekilde yeniden düzenlenmesini gerekli kılmaktadır. Ölçme araçlarının öğrencilerin gelişimlerini tam olarak yansıtacak şekilde uyarlanması, gelecekteki araştırmalarda daha kesin değerlendirmeler yapılmasını sağlayabilir.

Araştırma bulguları, STEAM yaklaşımının disiplinler arası öğrenme süreçlerini teşvik ederek eleştirel düşünme becerilerinde anlamlı bir gelişim sağladığını ortaya koymaktadır. Kim ve Auh (2024) tarafından yapılan bir çalışmada, STEAM tabanlı müzik etkinliklerinin öğrenci katılımını artırdığı ve öğrencilerin müzik prensiplerini derinlemesine anlamalarına olanak tanıdığı belirtilmiştir. Bu bulgu, biyoloji, matematik ve mühendislik gibi disiplinlerle bağlantılar kurarak bilgiyi uygulama becerisi kazanan öğrencilerle örtüşmektedir. Sonuç olarak, STEAM etkinliklerinin yaratıcı ve analitik düşünme süreçlerini desteklediği vurgulanmaktadır.

Bu çalışmanın uluslararası literatüre katkısı, müziği STEAM eğitimi içinde merkezi bir bileşen olarak ele alarak, yaratıcı disiplinlerin eleştirel düşünme süreçlerindeki rolünü daha kapsamlı bir şekilde incelemesidir. Campbell (2004) müziğin kültürel ve bilişsel gelişimdeki önemini vurgulamışken bu çalışmada müziğin STEAM pedagojisi içinde eleştirel bir araç olarak kullanıldığı gösterilmiştir. Özellikle farklı disiplinlerle kurulan bağlantılar, müziğin sadece estetik bir etkinlik olmanın ötesinde, disiplinler arası düşünme süreçlerinde önemli bir rol oynadığını ortaya koymaktadır.

STEAM yaklaşımı, eleştirel düşünme becerileri, yaratıcılık, iletişim ve iş birliği gibi 21. yüzyıl becerilerini destekleyen zengin bir öğrenme ortamı sunmaktadır. Ancak, bireysel farklılıkların daha iyi gözetilmesi, uzun vadeli etkilerin incelenmesi ve ölçme araçlarının geliştirilmesi, bu potansiyelin tam anlamıyla ortaya çıkmasını sağlayacaktır.

Öneriler

STEAM yaklaşımının uzun vadeli etkileri ve müzik eğitimi bağlamındaki uygulamaları üzerine daha fazla araştırmaya ihtiyaç vardır. Ayrıca, bireysel farklılıklar dikkate alınarak müfredat entegrasyonu ve STEAM materyallerine erişim olanakları artırılmalıdır. Müzik eğitimcilerine, eleştirel düşünme becerilerini ölçen hassas araçlar geliştirme, STEM disiplinleriyle müzik arasındaki bağları modelleme, dijital araçların geliştirilmesi ve etkinlik sürelerinin iyileştirilmesi önerilmektedir. MEB, STEAM temelli müzik derslerini yaygınlaştırmak için mali destek sağlamalı, öğretmen eğitimleri düzenlemeli, altyapı yatırımlarına öncelik vermeli ve uygun ölçme araçları geliştirmelidir.

The Relationship Between Pre-Service Classroom Teachers Attitudes Toward Immigrant Students and Their Pre-Professional Competencies

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Abstract

The current study aims to examine the relationship between pre-service classroom teachers' attitudes toward immigrant students and their pre-professional competencies in terms of various demographic dimensions. The study group included 303 third- and fourth-year pre-service classroom teachers from various universities. A descriptive survey design was employed in the study, and data were collected through Google Forms. The study group was selected using the criterion sampling method. During the data collection, a demographic information form, the Pre-service Teacher Professional Competence Scale, and the Attitudes Toward Syrians Scale were presented to participants. Correlation analysis was used to examine the relationships between the main variables, professional competence, Attitudes Towards Syrians and their sub-dimensions. Subsequently, independent samples t-tests were conducted to assess whether the main variables differed based on demographic characteristics. According to the findings, no significant differences were found in attitudes toward immigrants based on year of study, place of residence, or whether participants had taken a course on teaching foreign students. However, significant differences emerged based on gender and international experience. Specifically, female were found to possess more negative attitudes compared to male while those with international experience (i.e., going abroad) had more positive attitudes than those without experience. In terms of professional competence, no significant differences were found based on gender, year of study, place of residence, international experience, or coursework related to foreign students. Considering the current findings, practical implications and future research suggestions were discussed.

Keywords: Teacher candidate, immigrant student, attitude, competence.

Introduction

From a global perspective, millions of people migrate from their places of residence due to various negative factors such as ethnic and religious conflicts, natural disasters, income inequality, and political unrest, or for more positive reasons such as seeking a better quality of life, exploring new places, and the desire to settle there (Güneş, 2019). Particularly, since the second half of the 20th century and well into the 21st century, migration has remained one of the most prominent global issues. Migration refers to the act of individuals or groups relocating -either temporarily or permanently- from their current geographic location to another country, driven by diverse personal or collective motivations (Nakhoul, 2014; Türkyılmaz et al., 1998). Due to its geographical position, Türkiye is both a country of origin and a destination for migration. In particular, the concept of migration in Türkiye has gained significant prominence following the political conflicts that erupted in Syria in 2011, leading to the displacement of large numbers of Syrian refugees into Türkiye. The situation has continued to grow in scale and impact over time. As of December 31, 2024, the number of Syrians under temporary protection registered in Türkiye has been updated to 2,901,478 individuals (Refugees Association, 2024).

The concept of "migrant" which emerges from the phenomenon of migration, also holds significant importance. Migrants are individuals who, due to social and political dissatisfaction or economic reasons in their countries of residence, voluntarily leave their home countries and settle in another country through legal or illegal means (Ziya, 2012). As a result of migration movements occurring for various reasons, migrants arriving in a host country have led to social, economic, cultural, political, and educational transformations within society

(Durugönül, 1997). In this context, the regulation of migrants' daily lives becomes a crucial issue not only for the migrants themselves but also for the host country and society. Among the many challenges migrants face, education stands out as one of the most crucial difficulties. Particularly following the influx of Syrian migrants into Türkiye, there has been a growing urgency to reorganize and facilitate their integration into the Turkish education system. Thus, schools are expected to put aside all adversities and take a planned and structured approach to accelerate the adaptation process of migrant students to their new environments (Hanley & Ackley, 2005; Kabataş, 2021). As a significant step in this direction, the Turkish Ministry of National Education [MoNE] (2014) issued a circular titled "Educational Services for Foreigners", initiating formal efforts to address the educational needs of migrant students. Initially, educational services were provided in Temporary Education Centers located in refugee camps and schools. Later, these centers were closed, and students were integrated into regular school classrooms or special adaptation classes based on their educational levels (Çakmak, 2018). Adaptation classes, which place particular emphasis on teaching Turkish, play a critical role in supporting foreign students' integration into both the Turkish education system and society. Within this process, teachers bear significant responsibility, especially in fostering a supportive and inclusive learning environment (Çalışır, 2021).

Within the post-migration educational process, it is evident that teachers play the most critical role and bear significant responsibility. Classroom teachers, in particular, have a substantial duty to facilitate migrant students' adaptation to school, helping them integrate into the educational environment, and supporting them in overcoming the challenges they have encountered (Sağlam & İlksen Kanbur, 2017). Teachers' perceptions and attitudes toward migrant students would influence the extent to which students can engage in shared educational experiences with their peers. For individuals from different traditions, cultures, languages, habits, or religions to live together harmoniously in a shared social environment, teacher candidates must undergo an effective educational process that promotes inclusive attitudes and perspectives (Colombo, 2014). Considering that training programs, developmental activities, and preparatory practices designed to equip teacher candidates with the necessary competencies to address the needs of migrant students are of critical importance.

One of the key concepts in teacher education and professional development is competence. The term "competence" refers to an individual's ability to perform a given task correctly and promptly. The domain of competence encompasses the skills and capacities a person must possess to effectively fulfill their professional responsibilities (Doğan & Altaş, 2002). From a teaching perspective, competence involves having the necessary skills, attitudes, understanding, and level of knowledge to recognize, perform, and further develop the duties and responsibilities associated with the teaching profession. According to Canrinus et al. (2012), one of the most significant indicators of teachers' professional identity is self-efficacy. The competencies that teachers acquire during their pre-service education have meaningful implications for the educational process and its outcomes.

The teaching profession is a vital and esteemed occupation, playing a central role in the continuity of the educational process, in preparing students for life, and in supporting their integration into society. Classroom teachers, in particular, hold a critical position, as they

accompany children throughout their early educational journey and contribute significantly to their overall development. For migrant students, classroom teachers and pre-service classroom teachers bear substantial responsibility in supporting their adaptation to school, the education system, and society. Teachers' attitudes and perspectives toward migrant students have a significant impact on the integration process. Therefore, teachers must be able to provide an inclusive and culturally responsive education to all students, regardless of their religious, ethnic, or linguistic backgrounds (Banks & Banks, 2010). In this context, the level of pre-professional competence acquired by teacher candidates during their training is of critical importance in shaping their future professional practices. Accordingly, this study aims to examine the relationship between pre-service classroom teachers' attitudes toward migrant students and their pre-professional competencies.

Within that aim, the current study seeks to answer the following research questions:

1. Do the attitudes of prospective classroom teachers towards immigrant students significantly differ according to gender, grade level, place of residence, having been abroad, and receiving inclusive language education at the faculty?

2. Do the pre-service competencies of prospective classroom teachers significantly differ according to gender, grade level, place of residence, having been abroad, and receiving inclusive language education at the faculty?

3. Is there a significant relationship between the attitudes of prospective classroom teachers towards immigrant students and their pre-service competencies?

Method

Research Model

This study employed a descriptive survey model, which is one of the scanning models used in research. Descriptive surveys are conducted with large groups and aim to collect individuals' opinions and attitudes regarding a particular phenomenon or event, to describe these phenomena as they naturally occur (Karakaya, 2012). Focusing on the relationship between pre-service classroom teachers' attitudes toward migrant students and their pre-professional competencies, this study is also categorized as quantitative research. Specifically, it is a correlational study examining the relationships between two or more variables without manipulating them in any way (Büyüköztürk et al., 2021).

Universe and Sample

The universe of this study consists of students enrolled in the Department of Primary Education in Türkiye. Criterion sampling, one of the purposive sampling methods, was used to determine the research sample. In this method, cases, individuals, or units that meet predetermined criteria for the study may be included in the sample (Büyüköztürk et al., 2021). In this research, proximity to the teaching profession was taken into consideration, and the criterion was defined as being enrolled in the 3rd or 4th year of the program.

Table 1.

Demographic Information of Participants

Sample	Subcriteria	*n*	*%*
Gender	Female	200	66.0
	Male	103	34.0
Grade level	Grade 3	139	45.9
	Grade 4	164	54.1
Place of residence	City	133	43.9
	County	170	56.1
Experience of going abroad	Yes	82	27.1
	No	221	72.9
Receiving inclusive language education	Yes	144	47.5
	No	159	52.5

A total of 303 pre-service classroom teachers participated in the study, including 200 female and 103 male. Among them, 139 were third-year students, while 164 were in their fourth year. Regarding the participants' place of residence, 133 reported living in a city, and 170 indicated that they lived in a district. Overall, the study group demonstrated a relatively equal distribution in terms of gender, academic year, and residence. When asked about their experience of traveling abroad, 82 participants responded "yes", while 221 stated that they had never been abroad, indicating a considerably higher number of participants with no international experience. In response to the question about whether they had taken any courses at their faculty related to inclusive education or foreign language teaching for migrant students, 144 participants answered "yes" and 159 answered "no".

Data Collection Tools

A demographic information form was presented to gather information about gender, grade level, place of residence, experience of traveling abroad, and experience of taking courses related to inclusive education or foreign language teaching for migrants. To measure one of the variables of the study -the pre-professional competencies of pre-service classroom teachers- the "Professional Competency Scale for Pre-Service Teachers", developed by Yengin Sarpkaya and Altun (2021), was employed. To assess another key variable -the attitudes of pre-service classroom teachers toward migrant students- the "Attitudes Toward Syrians Scale", developed by Güleç et al. (2021), was presented to participants.

In the original study (Yengin Sarpkaya & Altun, 2021), confirmatory and exploratory factor analyses were conducted on the Professional Competency Scale for Pre-Service Teachers. It was found as reliable and valid tool with a Cronbach's Alpha reliability coefficient of .94. The scale consists of 28 items and is designed as a five-point likert-type scale ranging from 1 (Low) to 5 (High). All items are positively worded, and there are no reverse-coded items. The scale examines teacher competencies in six dimensions: Professional development, personal and professional values, following and assessing teaching and development, program and content knowledge, school environment, and school–family relations. Although the scale includes multiple dimensions, it is reliable as a single-factor structure (Cronbach's Alpha=.90). The reliability coefficients for the sub-dimensions were reported as .70, .54, .76, .63, .74, and .73 for personal and professional values, professional development, following and assessing teaching and development, school environment, school–family relations, and program and content knowledge, respectively.

To measure pre-service teachers' attitudes toward migrant students, the "Attitudes Toward Syrians Scale" was employed. For the validity of the scale, exploratory factor analysis, confirmatory factor analysis, and item-total correlation analyses were conducted. As a result of these analyses, the internal consistency reliability coefficient of the overall scale was calculated as .92, indicating high reliability and validity. The scale consists of 16 items and is structured as a five-point likert-type scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). The scale includes six reverse-coded items (Items 1, 4, 7, 10, 13, and 16). It has a two-factor structure: the first factor, Discrimination, comprises 9 items (1, 2, 4, 7, 8, 10, 12, 13, 16), while the second factor, Realistic Threats at the Group and Individual Levels, comprises 7 items (3, 5, 6, 9, 11, 14, 15). The Cronbach's alpha coefficients for the subscales were calculated as .72 for Discrimination and .77 for Realistic Threats at the Group and Individual Levels.

Data Collection and Analysis

In this study, surveys were transferred to Google Forms and sent to prospective teachers to collect data. All data were analyzed using SPSS 25 package program. The bivariate relationships between the two main variables, professional qualifications and attitudes towards Syrians, and all sub-dimensions of these variables were examined using correlation analysis. Subsequently, hypotheses regarding whether the two main variables (i.e., professional competence and attitudes toward Syrians) differed based on demographic variables (i.e., gender, grade level, place of residence, international experience, and whether the participants had previously received training related to migrants) were tested using t-tests.

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 = Kırıkkale University Social and Human Sciences Research Ethics Committee

Date of ethical review decision = 18.02.2024

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Findings

An independent samples t-test was conducted to determine whether the attitudes of prospective classroom teachers towards immigrant students significantly differed according to gender, grade level, place of residence, experience of going abroad, and receiving inclusive language education at the faculty. The test results are presented in Table 2.

Table 2.

The Status of Attitudes Towards Immigrant Students According to Gender, Grade Level, Place of Residence, Experience of Going Abroad, and Receiving Inclusive Language Education at the Faculty

Demographic variables		n	M	SD	df	t	p
Gender	Male	200	3.41	.37	301	-2.112	.036
	Female	103	3.54	.53			
Grade level	Grade 3	139	3.52	.58	301	.971	.332
	Grade 4	164	3.47	.38			
Place of residence	City	133	3.50	.52	301	.856	1.000
	County/village	170	3.50	.46			
Experience of going abroad	Yes	82	3.36	.37	301	.023	.000
	No	221	3.55	.51			
Receiving inclusive language education	Yes	144	3.44	.39	301	1.740	.083
	No	159	3.54	.56			

Independent samples t-test showed that attitudes toward Syrians differed based on gender, ($t_{(301)}$=-2.112, p=.036). Female had more negative attitudes toward Syrians than male. Also, attitudes toward Syrians differed based on the experience of going abroad, ($t_{(301)}$=.023, p=.003). Participants who did not go abroad reported higher levels of negative attitudes compared to those with experience of going abroad. However, attitudes did not differ based on grade level, place of residence, and receiving inclusive language education, ($t_{(301)}$=.971, p=.332); ($t_{(301)}$=.856, p=1.000); ($t_{(301)}$=1.740, p=.083), respectively.

An independent samples t-test was conducted to determine whether the pre-service competencies of prospective classroom teachers significantly differed according to gender, grade level, place of residence, experience of going abroad, and receiving inclusive language education at the faculty. The test results are presented in Table 3.

Table 3.

The Status of Pre-Professional Competence According to Gender, Grade Level, Place of Residence, Experience of Going Abroad, and Receiving Inclusive Language Education at the Faculty

Demographic variables		n	M	SD	df	t	p
Gender	Male	200	4.28	.28	301	-.840	.401
	Female	103	4.32	.41			
Grade level	Grade 3	139	4.29	.43	301	-.668	.505
	Grade 4	164	4.32	.32			
Place of residence	City	133	4.29	.46	301	-.761	.447
	County/village	170	4.32	.29			
Experience of going abroad	Yes	82	4.28	.43	301	.865	.388
	No	221	4.32	.35			
Receiving inclusive language education	Yes	144	4.29	.38	301	.680	.497
	No	159	4.32	.36			

Independent samples t-test showed that pre-service competence did not differ based on gender, grade level, place of residence, experience of going abroad, and prior training experience, ($t_{(301)}$=-.840, p=.401); ($t_{(301)}$=-.668, p=.505); ($t_{(301)}$=-.761, p=.447); ($t_{(301)}$=.865, p=.388); ($t_{(301)}$=.680, p=.497), respectively.

The relationships between scale scores and their subdimensions were examined using correlation analysis. The findings are shown in Table 4.

Table 4.

Bivariate Relationships Between Study Variables

	1	2	3	4	5	6	7	8	9	10
1. Pre-Professional competence	1									
2. Personal and professional	.65***	1								
3. Professional development	.74***	.43***	1							
4. Following and assessment	.87***	.47***	.60***	1						
5. School environment	.74***	.35***	.44***	.56**	1					
6. School-family relations	.69***	.27***	.35***	.48**	.56***	1				
7. Program-content knowledge	.86***	.42***	.61***	.74**	.61***	.53***	1			
8. Attitude	.40	.52	-.02	.04	.006	.04	.04	1		
9. Discrimination	-.005	.08	-.03	-.02	-.03	.03	-.04	.88***	1	
10. Realistic threats	.09	.01	.003	.12*	.07	.03	.15**	.68**	.25**	1

*p<.05; **p<.01; ***p<.001.

According to Table 4, general professional competence was positively related to all subscales. Therefore, increased professional competence scores were related to more personal and professional values (r=.65, p<.01), professional development (r=.74, p<.01), following and assessment (r=.87, p<.01), school environment (r=.74, p<.01), school-family relations (r=.69, p<.01), and program and content knowledge (r=.86, p<.01).

Increased scores on personal and professional values were related to greater scores on professional development (r=.43, p<.01), following and assessment (r=.47, p<.01), school environment (r=.35, p<.01), school-family relations (r=.27, p<.01), and program and content knowledge (r=.42, p<.01).

Increased scores on professional development were related to greater scores on following and assessment (r=.60, p<.01), school environment (r=.44, p<.01), school-family relations (r=.35, p<.01), and program and content knowledge (r=.61, p<.01).

Increased scores on following and assessment were related to greater scores on school environment (r=.56, p<.01), school-family relations (r=.48, p<.01), and program and content knowledge (r=.74, p<.01). Additionally, increased scores on following and assessment were related to more negative attitudes regarding realistic threats (r=.12, p<.01).

Increased scores on school environment were related to greater scores on school-family relations (r=.56, p<.01), and program and content knowledge (r=.61, p<.01).

Increased scores on school-family relations were related to more program and content knowledge (r=.53, p<.01). However, increased scores on this sub-scale were related to more

negative attitudes in terms of realistic threats (r=.15, p<.01). Overall, when examining the overall status of the participants' professional competence, it can be concluded that the scores obtained from the entire scale and its sub-dimensions were positively correlated with each other.

No significant relationships were found between the overall attitude score and the sub-dimensions of professional competence (r=.52; p>.05; r=-.02, p>.05; r=.04, p>.05; r=.006, p>.05; r=.04, p>.05; r=.04, p>.05).

There are no significant relationships between the attitude subdimensions of discrimination and professional competence and their subdimensions (r=-.005, p>.05; r=.08, p>.05; r=-.03, p>.05; r=-.02, p>.05; r=-.03, p>.05; r=.03, p>.05; r=-.04, p>.05; r=.40, p>.05).

There is a significant relationship between the attitude subdimension of realistic threats and the professional competence subdimensions of "following and assessment" (r=.12, p<.05) and "program-content knowledge" (r=.15; p<.05). There are no significant relationships between the attitude subdimension of realistic threats and the other subdimensions of professional competence (r=.09, p>.05; r=.01, p>.05; r=.003, p>.05; r=.07, p>.05; r=.03; p>.05).

General scores on attitudes were positively related to discrimination (r=.88, p<.01) and realistic threats (r=.68, p<.01) sub-scales. Likewise, scores on discrimination were positively related to realistic threats (r=.25, p<.01). Consequently, as the participants' overall negative attitudes toward Syrians increase, it is also evident that the negative attitudes reported in both sub-dimensions tend to increase accordingly.

Finally, Table 4 shows that there is no significant relationship between pre-service teacher candidates' pre-service competencies and their attitudes toward immigrant (Syrian) students.

Discussion and Conclusion

Teachers should be able to provide an inclusive education to all students, regardless of their religious, ethnic, and linguistic backgrounds, and support their adaptation to the society in which they live (Banks & Banks, 2010). In this context, primary education -the initial and foundational stage of formal education that prepares individuals for life- is particularly significant. According to Canrinus et al. (2012), one of the most important indicators of teachers' professional identity is "self-efficacy." Two essential cornerstones of the teaching profession are identified as attitudes toward students and professional competence. This study aimed to examine the relationship between pre-service classroom teachers' attitudes toward immigrant students and their pre-service professional competencies. The study discusses and concludes its findings based on quantitative data obtained from the Teacher Professional Competency Scale for Pre-Service Teachers and the Attitudes Toward Syrians Scale.

When the significance levels of the relationships between basic variables such as attitudes towards immigrants and pre-service professional qualifications and demographic variables such as gender, grade level, place of residence, experience of going abroad and whether or not any courses were taken related to foreign students were examined, a significant

difference was found only between attitudes towards immigrants and gender and experience abroad.

When examining the research findings regarding the relationship between pre-service teachers' attitudes toward immigrant students and their pre-service professional competencies, no significant correlation was found. In other words, the attitudes of the candidates toward immigrant students did not influence their perceived professional competencies. In Bulut's (2014) study, which examined teachers' perceptions of multicultural competence, a significant positive relationship was found between their perceptions of professional competence and their democratic attitudes. This suggests that teachers with high perceptions of multicultural competence also tend to exhibit more positive attitudes in this regard. Similarly, in the study by Karadağ (2019), which investigated the multicultural competencies of social studies pre-service teachers, it was concluded that the participants held highly positive attitudes toward multicultural education, while their perceived professional competencies were at a moderate level. Çapri and Çelikkaleli (2008) concluded in their study titled "Examining the attitudes and professional efficacy beliefs of teacher candidates towards teaching according to their gender, program and faculty" that the professional efficacy beliefs of teacher candidates affect their attitudes.

When examining the relationship between the grade level of pre-service classroom teachers and their attitudes toward immigrant students as well as their pre-service professional competencies, it was concluded that there were no significant differences in either variable. In other words, whether the candidates were in their third or fourth year of study did not significantly affect their attitudes toward immigrant students or their professional competencies. In the study conducted by Köse et al. (2019), which examined classroom teachers' attitudes toward refugee students in terms of various variables, it was found that their attitudes did not differ significantly according to age. Similarly, in the study by Çifçi et al. (2019), which investigated teachers' attitudes toward refugee students across various factors, no significant difference was found in the competence sub-dimension regarding the relationship between teachers' professional seniority and their attitudes toward refugee students. Aptekin Yolcu's (2018) research on the pre-service professional identity perceptions of classroom teacher candidates also reported no significant difference between teacher candidates' perceived professional identities and their grade levels. In a study by Shazadi et al. (2011), which investigated the factors affecting middle school teachers' professional competencies, it was found that neither age nor teaching experience was a determining factor in teachers' self-efficacy. Moreover, Kazu and Deniz (2019), in their study on teachers' attitudes toward refugee students within the context of inclusive education, reported that while teachers' attitudes did not significantly differ by seniority in the dimensions of adaptation and communication, a significant difference was observed in the competence sub-dimension.

When examining the relationship between the gender of pre-service classroom teachers and their attitudes toward immigrant students as well as their pre-service professional competencies, different results were found for the two variables. No significant difference was observed between candidates' pre-service professional competencies and their gender. However, a significant difference was found between candidates' attitudes toward immigrant

students and their gender. In other words, in the relationship between attitudes and pre-service professional competencies, gender emerges as a significant factor only in the attitude dimension. According to this difference, female reported more negative attitudes compared to male. In Şahin's (2019) study examining teachers' self-efficacy beliefs in teaching initial literacy to Syrian students under temporary protection, no significant differences were found between the teachers' gender and their self-efficacy perceptions across any sub-dimension of the scale. Similarly, in a study conducted by Murray and Marx (2013), which investigated attitudes toward unauthorized-authorized immigrants and refugees within the field of cultural diversity and ethnic minority psychology, no significant difference was found between attitudes toward immigrants and refugees and participants' gender. Çimen and Quadir (2018) also concluded in their study, which examined university students' attitudes toward Syrian asylum seekers in the context of civic engagement, that there was no significant gender-based difference in their attitudes.

No significant relationship was found between the pre-service teachers' place of residence and their attitudes toward immigrant students or their pre-service professional competencies. In other words, whether pre-service classroom teachers live in urban or rural areas did not significantly affect their attitudes toward immigrant students. Similarly, there is no significant association between their pre-service professional competencies and their place of residence. In a study conducted by Uygur (2018) examining the socio-psychological attitudes toward Syrian refugees, a significant difference was found in relation to the density of Syrian refugees in participants' residential areas. Participants residing in areas with a high density of Syrians had higher attitude scores, while those in less dense areas reported lower scores. In another study by Sağlam and İlksen Kanbur (2017), which examined classroom teachers' attitudes toward refugee students in relation to various variables, a significant difference in the competency dimension was found in favor of teachers working in middle socioeconomic settings compared to those in lower socioeconomic environments.

When examining the relationship between pre-service classroom teachers' previous experiences of traveling abroad and their attitudes toward immigrant students and pre-service professional competencies, different results were found for each variable. A significant difference was observed between candidates' experiences of traveling abroad and their attitudes toward immigrant students. Specifically, those who had never traveled abroad exhibited more negative attitudes, whereas those with such experiences reported less negative attitudes. However, no significant difference was found between candidates' international experiences and their pre-service professional competencies. In other words, having been abroad did not have a positive or negative effect on their perceived professional competencies. In a study by Çalışkan Sarı (2025), which examined attitudes toward foreigners in relation to various variables, participants' attitudes, intercultural sensitivity, and levels of conservatism were compared based on their experience abroad. The study revealed no significant differences in attitudes toward foreigners based on international experience. In another study by Köse (2019), which explored the relationship between classroom teachers' attitudes toward foreign students and their levels of intercultural sensitivity, a positive and significant relationship was found. That is, as teachers' sensitivity to different cultures increased, their attitudes toward foreign students became more positive.

When examining the relationship between pre-service classroom teachers' participation in inclusive education and foreign language teaching courses related to immigrants in their faculties, and their attitudes toward immigrants and pre-service professional competencies, no significant relationship was found for either variable. Whether the candidates took these courses or not did not significantly affect their attitudes toward immigrants, nor did it have a significant effect on their pre-service professional competencies. In a study by Soybakış (2021), it was concluded that whether classroom teachers received training related to the education of Syrian immigrant students did not lead to significant differences in the competency sub-dimensions or attitudes of classroom teachers. Similarly, Uğurlugelen (2019) found in a master's thesis investigating the self-efficacy perceptions of "teachers" who teach Turkish as a foreign language to Syrian children, that taking courses related to teaching Turkish to foreigners in their undergraduate education did not constitute a significant variable in their self-efficacy scores for teaching Turkish to children. In a study by Dolapcı and Kavgacı (2020), which examined the relationship between teachers' perceptions of multicultural self-efficacy and school climate with their attitudes toward refugee students, a significant difference was found regarding in-service training related to refugee students' education. That is, teachers who received such training had more positive attitudes.

Recommendations

Based on the findings of the study, the following recommendations have been developed:

Pre-service classroom teacher candidates should be offered courses that include inclusive language education and cover information, attitudes, and application processes related to immigrant students. These courses should also be designed to include other teacher education programs. Particularly, it is important to ensure that internship practices are carried out in classrooms with immigrant students, under the supervision of teachers with experience in this area. Psychological support and informational workshops could be conducted for both teacher candidates and teachers regarding their attitudes toward immigrant students. This study could be further developed to examine the impact of the relationship between teacher candidates' attitudes and competencies on students' adaptation levels, academic success, and psychological resilience.

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Sınıf Öğretmeni Adaylarının Göçmen Öğrencilere Yönelik Tutumları ile Meslek Öncesi Yeterlilikleri Arasındaki İlişki

Özet

Bu çalışmanın amacı sınıf öğretmeni adaylarının göçmen öğrencilere yönelik tutumları ile meslek öncesi yeterlikleri arasındaki ilişkinin farklı demografik boyutlar açısından incelenmesidir. Bu amaç doğrultusunda araştırmanın çalışma grubunu, üniversitelerin eğitim fakültesi sınıf öğretmenliği bölümünde öğrenimlerine devam eden üçüncü ve dördüncü sınıf 303 öğretmen adayı oluşturmaktadır. Araştırmada betimsel tarama modeli kullanılmış, Veriler Google formlar üzerinden toplanmıştır. Araştırmanın çalışma grubu ölçüt örnekleme yöntemi ile seçilmiştir. Verilerin toplanma aşamasında demografik bilgiler formu, öğretmen adayları için mesleki yeterlilik ölçeği ve Suriyelilere yönelik tutum ölçeği kullanılmıştır. Öğretmen adaylarıyla yapılan çalışmada ana değişkenler olan mesleki yeterlilik ve Suriyelilere yönelik tutumlar ve bunların alt boyutları ile arasındaki ilişki korelasyon analiziyle incelenmiştir. Daha sonra ana değişkenlerin demografik değişkenlere yönelik durumlarına t-testi aracılığıyla bakılmıştır. Araştırma bulgularına göre göçmenlere yönelik tutum boyutunda sınıf düzeyi, yerleşim birimi, yabancı uyruklu öğrencilere yönelik ders alma durumlarında anlamlı bir farklılık bulunmazken, cinsiyet ve yurt dışı deneyimi durumlarında anlamlı bir farklılık bulunmuştur. Bu farklılaşma da kadınlar erkeklere göre daha olumsuz tutuma sahipken, yurtdışına çıkan adaylar çıkmayanlara göre daha olumlu tutuma sahiptir sonucuna ulaşılmıştır. Mesleki yeterlik boyutunda ise cinsiyet, sınıf düzeyi, yerleşim birimi, yurtdışı deneyimi ve yabancı uyruklu öğrencilere yönelik ders alma durumlarında anlamlı bir farklılık bulunamamıştır. Araştırmanın sonuçlarına dayalı olarak uygulama süreçleri ve araştırmacılara yönelik önerilerde bulunulmuştur.

Anahtar Kelimeler: Öğretmen adayı, göçmen öğrenci, tutum, yeterlilik.

Giriş

Günümüzde savaşlar, doğal afetler, ekonomik eşitsizlikler ve daha iyi yaşam arayışları gibi nedenlerle dünya genelinde milyonlarca insan göç etmektedir (Güneş, 2019). Türkiye, özellikle 2011'de Suriye'de başlayan iç savaş sonrası yoğun bir göç dalgasıyla karşı karşıya kalmış, 2024 yılı sonu itibarıyla yaklaşık 2,9 milyon Suriyeli geçici koruma statüsünde ülkede yaşamaktadır (Mülteciler Derneği, 2024). Göçmenlerin yerleştikleri toplumlara uyum sürecinde en önemli alanlardan biri eğitimdir. Bu süreçte özellikle sınıf öğretmenlerine büyük sorumluluklar düşmektedir (Sağlam & İlksen Kanbur, 2017).

Millî Eğitim Bakanlığı [MEB], 2014 yılında yayımladığı genelgeyle Suriyeli öğrencilerin eğitimine yönelik adımlar atmış, Geçici Eğitim Merkezleri sonrasında öğrenciler resmi okullara entegre edilmiştir (Çakmak, 2018). Bu noktada öğretmenlerin, özellikle sınıf öğretmenlerinin, göçmen öğrencilere karşı tutumları ve yeterlilik düzeyleri öğrencilerin uyumunu doğrudan etkilemektedir.

Öğretmen yeterliliği, bir öğretmenin görevini etkili şekilde yerine getirebilmesi için sahip olması gereken bilgi, beceri ve tutumları kapsar (Doğan & Altaş, 2002). Öğretmen adaylarının meslek öncesi edindikleri yeterlilikler, ileriki mesleki başarılarını da

belirlemektedir (Canrinus vd., 2012). Özellikle farklı etnik ve kültürel geçmişe sahip öğrencilerle çalışacak olan sınıf öğretmenlerinin, kapsayıcı ve duyarlı bir yaklaşımla görev yapmaları beklenmektedir (Banks & Banks, 2010). Bu bağlamda, bu araştırmada sınıf öğretmeni adaylarının göçmen öğrencilere yönelik tutumları ile meslek öncesi yeterlilikleri arasındaki ilişki incelenmiştir.

Bu amaç doğrultusunda aşağıdaki sorulara cevap aranmıştır.

1. Sınıf öğretmeni adaylarının göçmen öğrencilere yönelik tutumları; cinsiyet, sınıf düzeyi, yerleşim birimi, yurt dışına çıkma durumu ve fakültede kapsayıcı dil eğitimi eğitim alma durumu değişenlerine göre anlamlı farklılık göstermekte midir?

2. Sınıf öğretmeni adaylarının meslek öncesi yeterlilikleri; cinsiyet, sınıf düzeyi, yerleşim birimi, yurt dışına çıkma durumu ve fakültede kapsayıcı dil eğitimi eğitim alma durumu değişenlerine göre anlamlı farklılık göstermekte midir?

3. Sınıf öğretmeni adaylarının göçmen öğrencilere yönelik tutumları ile meslek öncesi yeterlilikleri arasında anlamlı ilişki var mıdır?

Yöntem

Araştırmanın Modeli

Bu çalışma, sınıf öğretmeni adaylarının göçmen öğrencilere yönelik tutumları ile meslek öncesi yeterlilikleri arasındaki ilişkiyi inceleyen, nicel bir araştırmadır. Araştırmada, bireylerin görüş ve tutumlarını betimlemeye yönelik betimsel tarama modeli kullanılmıştır. Aynı zamanda, değişkenler arasındaki ilişkilerin incelendiği korelasyonel araştırma desenine sahiptir (Büyüköztürk vd., 2021; Karakaya, 2012).

Evren ve Örneklem

Bu çalışmanın evrenini Türkiye'de sınıf eğitimi ana bilim dalında öğrenim gören öğrenciler oluşturmaktadır. Araştırma örnekleminin belirlenmesinde amaçlı örnekleme türlerinden ölçüt örnekleme kullanılmıştır. Bu yöntemde, araştırma için belirlenen kriterlere göre seçilen durumlar, bireyler veya birimler örneklem olarak dahil edilebilir (Büyüköztürk vd., 2021). Bu araştırmada öğretmenlik mesleğine yakın olmak göz önünde bulundurulmuş ve ölçüt 3 ve 4. sınıfta öğrenim görmek olarak belirlenmiştir.

Veri Toplama Araçları

Demografik Bilgi Formu

Katılımcıların temel bilgilerini toplamak için araştırmacı tarafından oluşturulan bir form kullanılmıştır. Bu formda, katılımcıların cinsiyet, yurt dışı deneyimi, sınıf düzeyleri, yaşadıkları yer ve fakültede kapsayıcı dil eğitimi dersi alıp almadıkları gibi demografik veriler alınmıştır.

Mesleki Yeterlik Ölçeği

Öğretmen adaylarının meslek öncesi yeterliliklerini ölçmek için Yengin Sarpkaya ve Altun (2021) tarafından geliştirilen "Öğretmen Adayları İçin Mesleki Yeterlik Ölçeği" kullanılmıştır. Bu ölçek, öğretmen adaylarının mesleki gelişim, kişisel ve mesleki değerler, öğretim ve gelişimi izleme, program ve içerik bilgisi gibi 6 boyutta yeterlilik algılarını

değerlendirir. Ölçeğin güvenilirlik katsayısı .94 ve iç tutarlılık güvenirliği .90'dır. Alt boyutlar için belirlenen güvenilirlik katsayıları ise sırasıyla .70, .54, .76, .63, .74 ve .73'tür.

Suriyelilere Yönelik Tutumlar Ölçeği

Öğretmen adaylarının göçmen öğrencilere yönelik tutumlarını ölçmek için Güleç vd. (2021) tarafından geliştirilen "Suriyelilere Yönelik Tutumlar Ölçeği" kullanılmıştır. Bu ölçek, 16 maddeden oluşur ve 5'li likert tipi bir ölçek kullanır. Katılımcılar, 1=Kesinlikle katılmıyorum ile 5=Kesinlikle katılıyorum arasında bir değerlendirme yapmaktadır. Ölçekte 6 ters puanlanmış madde bulunmaktadır. Ölçek iki faktörden oluşur: Ayrımcılık (9 madde) ve Grup ve Birey Düzeyindeki Gerçekçi Tehditler (7 madde). Bu faktörlerin güvenilirlik katsayıları sırasıyla .72 ve .77 olarak belirlenmiştir.

Her iki ölçekte de doğrulayıcı ve açımlayıcı faktör analizi yapılarak geçerlik testleri yapılmış ve bu araçlar güvenilir ve geçerli olarak kabul edilmiştir.

Verilerin Toplanması ve Analizi

Bu araştırmada anketler Google Formalara aktarılmış ve öğretmen adaylarına gönderilerek toplanmıştır. Tüm veriler SPSS 25 paket programı ile analiz edilmiştir. Araştırmada, mesleki yeterlik ve Suriyelilere yönelik tutumlar gibi ana değişkenlerin yanı sıra, bu değişkenlerin alt boyutları arasındaki ilişkiler korelasyon analizi ile incelenmiştir. Ayrıca, ana değişkenlerin demografik özelliklere göre farklılık gösterip göstermediğini anlamak için t-testi analizi yapılmıştır. Bu analiz, demografik faktörlerin, öğretmen adaylarının mesleki yeterlikleri ve göçmenlere yönelik tutumları üzerindeki etkilerini değerlendirmiştir.

Araştırmanın Etik İzinleri:

Bu çalışmada "Yükseköğretim Kurumları Bilimsel Araştırma ve Yayın Etiği Yönergesi" kapsamında uyulması gerektiği belirtilen tüm kurallara uyulmuştur. Yönergenin ikinci bölümü olan "Bilimsel Araştırma ve Yayın Etiğine Aykırı Eylemler" başlığı altında belirtilen eylemlerin hiçbiri gerçekleştirilmemiştir.

Etik Kurul İzin Bilgileri:

Etik değerlendirmeyi yapan kurulun adı = Kırıkkale Üniversitesi Sosyal ve Beşeri Bilimler Araştırma Etik Kurulu

Etik Kurul Etik inceleme karar tarihi = 18.02.2024

Etik değerlendirme belgesi konu numarası = 02

Bulgular

Bağımsız örneklemler için t-testi sonuçlarına göre, sınıf öğretmeni adaylarının göçmen öğrencilere (Suriyelilere) yönelik tutumları cinsiyete göre anlamlı olarak farklılaşmaktadır ($t_{(301)}$=-2.112, p=.036). Kadın adaylar, erkeklere göre daha yüksek düzeyde olumsuz tutumlara sahiptir. Fakat göçmen öğrencilere yönelik tutumlar sınıf düzeyine göre ($t_{(301)}$=.971, p=.332) ve anlamlı yerleşim birimine göre ($t_{(301)}$=.000, p=1.000) anlamlı olarak farklılaşmamaktadır. Göçmen öğrencilere yönelik tutumlar yurt dışı deneyimine göre anlamlı olarak farklılaşmaktadır ($t_{(301)}$=3.023, p= .003). Daha önce yurt dışına gitmeyen adaylar, gidenlere kıyasla daha yüksek düzeyde olumsuz tutum beyan etmiştir. Son olarak göçmen öğrencilere

yönelik tutumlar daha önce eğitim alınıp alınmamasına göre anlamlı olarak farklılaşmamaktadır ($t_{(301)}$=1.740, p=.083).

Bağımsız örneklemler için t-testi sonuçlarına göre, sınıf öğretmeni adaylarının meslek öncesi yeterlik düzeyleri cinsiyete ($t_{(301)}$=-.840, p=.401), sınıf düzeyine ($t_{(301)}$=-.668, p=.505), yerleşim birimine ($t_{(301)}$=-.761, p=.447) göre anlamlı olarak farklılaşmamaktadır. Benzer şekilde adayların meslek öncesi yeterlikleri yurt dışı deneyimine ($t_{(301)}$=.865, p=.388) ve daha önce eğitim alınıp alınmamasına ($t_{(301)}$=.680, p=.497) göre de anlamlı olarak farklılaşmamaktadır.

Mesleki yeterlik ve alt boyutları; genel mesleki yeterlik puanları ile tüm alt boyutlar arasında pozitif yönde bir ilişki bulunmuştur. Yeterlik arttıkça, kişisel ve mesleki değerler, mesleki gelişim, izleme ve değerlendirme gibi alt boyutlardan alınan puanlar da artmıştır. Göçmen öğrencilere (Suriyelilere) yönelik tutumlar; Suriyelilere yönelik olumsuz tutumlar ile ayrımcılık ve gerçekçi tehditler arasında güçlü bir pozitif ilişki tespit edilmiştir. Olumsuz tutumlar arttıkça, bu alt boyutlardan alınan puanlar da artmaktadır. Sınıf öğretmeni adaylarının göçmen öğrencilere yönelik tutumları ile meslek öncesi yeterlilikleri arasında istatistiksel açıdan anlamlı bir fark ortaya çıkmamıştır (r=.40, p>.05).

Tartışma ve Sonuç

Bu bölümde, öğretmenlerin farklı kökenlerden gelen öğrencilere kapsayıcı eğitim sunabilmesinin önemine değinilmektedir (Banks & Banks, 2010). İlkyardım öğretmenlerinin göçmen öğrencilere yönelik tutumları ve mesleki yeterlilikleri büyük bir rol oynamaktadır. Canrinus vd. (2012), öğretmenlerin "öz yeterlilik"lerini mesleki kimlik göstergelerinden biri olarak belirtmiştir. Bu araştırmada, sınıf öğretmeni adaylarının göçmenlere yönelik tutumları ile meslek öncesi yeterlilikleri arasındaki ilişki incelenmiş ve elde edilen veriler tartışılmıştır. Araştırmanın bulguları, ana değişkenlerin (göçmenlere yönelik tutumlar ve mesleki yeterlik) ve demografik faktörlerin (cinsiyet, sınıf düzeyi, yerleşim birimi, yurt dışı deneyimi, eğitim durumu) ilişkilerini göstermektedir.

Araştırma sonuçlarına göre, adayların göçmen öğrencilere yönelik tutumları ile meslek öncesi yeterlilikleri arasında anlamlı bir ilişki bulunmamıştır. Bu durum, adayların göçmen öğrencilere yönelik tutumlarının, meslek öncesi yeterliliklerini etkilemediğini göstermektedir. Bu sonuç, Bulut (2014) ve Karadağ (2019) gibi önceki çalışmalardan farklıdır, çünkü bu çalışmalar öğretmenlerin çok kültürlü yeterlik algıları ile tutumları arasında anlamlı bir ilişki olduğunu ortaya koymuştur. Ayrıca, sınıf düzeyinin göçmen öğrencilere yönelik tutumlar ve meslek yeterlilikleri üzerindeki etkisi de anlamlı bulunmamıştır. Bu bulgu, Köse vd. (2019) ve Aptekin Yolcu (2018) gibi araştırmalarla paralellik göstermektedir.

Cinsiyetin göçmen öğrencilere yönelik tutum ve meslek yeterlilikleri üzerindeki etkisi incelendiğinde, sadece göçmenlere yönelik tutumlar arasında anlamlı bir farklılık bulunmuş, kadın adayların erkek adaylara kıyasla daha olumsuz tutum sergilediği görülmüştür. Bununla birlikte, meslek yeterlilikleri açısından cinsiyetin etkisi anlamlı olmamıştır. Yaşadıkları yer ile göçmen öğrencilere yönelik tutum ve meslek yeterlilikleri arasında da anlamlı bir ilişki bulunmamıştır, bu durum Uygur (2018) ile Sağlam ve İlksen Kanbur'un (2017) çalışmalarından farklıdır.

Yurtdışına çıkma deneyiminin, göçmen öğrencilere yönelik tutumlar üzerinde anlamlı bir etkisi olduğu bulunmuş, ancak meslek yeterlilikleri ile yurtdışı deneyimi arasında anlamlı bir fark gözlemlenmemiştir. Bu, Çalışkan Sarı (2025) ve Köse (2019) gibi çalışmalara ters düşmektedir. Son olarak, sınıf öğretmeni adaylarının fakültede göçmenlere yönelik kapsayıcı eğitim veya yabancı dil öğretimi dersleri alıp almalarının, tutumlar ve meslek yeterlilikleri üzerinde anlamlı bir etkisi olmadığı bulunmuştur. Bu sonuç, Soybakış (2021) ve Uğurlugelen (2019) gibi araştırmalarla uyumludur.

Genel olarak, bu çalışma, demografik değişkenlerin ve eğitimsel faktörlerin, öğretmen adaylarının göçmen öğrencilere yönelik tutumları ve meslek öncesi yeterlilikleri üzerinde karmaşık etkiler yaratabileceğini göstermektedir

Öneriler

Araştırma bulgularına dayanarak öğretmen adaylarına meslek öncesi dönemde kapsayıcı dil eğitimi ve göçmen öğrencilere yönelik dersler verilmesi önerilmektedir. Bu dersler, sadece sınıf öğretmenliği bölümüyle sınırlı kalmayıp diğer öğretmenlik bölümlerini de kapsamalıdır. Staj uygulamaları, göçmen öğrencilerin bulunduğu sınıflarda ve deneyimli öğretmenlerin gözetiminde yapılmalıdır. Ayrıca, öğretmenlere göçmen öğrencilere yönelik tutum geliştirme ve psikolojik destek sağlanarak, bu alandaki tutum ve yeterlilik ilişkisi üzerine daha fazla araştırma yapılması gerekmektedir.