



JER

Osmangazi Journal of Educational Research

Volume 12(1), Spring 2025

RESEARCH

Open Access

Suggested Citation: Kayışdağ E., & Garan Ö. (2025). Primary school teachers' perceptions of gifted and nongifted students. *Osmangazi Journal of Educational Research*, 12(1), 1-16.

Submitted: 03/10/2024 **Revised:** 01/07/2025 **Accepted:** 23/07/2025 **DOI:** 10.59409/ojer.1560257

Primary School Teachers' Perceptions of Gifted and Nongifted Students

* Erman Kayışdağ , ** Ömer Garan 

Abstract. This study aimed to investigate the perceptions of primary school teachers who have special talented students in their classes or who have worked with special talented students before, towards special talented students and nongifted students. In this study, phenomenology, a qualitative research design that utilizes metaphor as a tool, was employed to explore the perceptions of primary school teachers regarding gifted students and their education. The study was conducted with 27 primary teachers, and a content analysis approach was employed for data analysis. The findings were categorized into eight categories, encompassing three key concepts. It was observed that the perceptions of primary school teachers towards special talented students and the education of these students were predominantly positive.

Keywords. Gifted students, primary school teachers, perceptions, gifted education.

* **(Responsible Author)** Res. Assis., Eskisehir Osmangazi University, Faculty of Education, Eskisehir, Türkiye
e-mail: ekayisdag@gmail.com

** Exp. Teacher, National Education Minister, Eskisehir, Türkiye
e-mail: omergaran@gmail.com

Gifted students are considered extraordinary individuals. Although the concept of extraordinariness implies being different from the norm and not resembling the majority, what makes gifted students extraordinary is their cognitive differences. These cognitive differences may not always be noticeable in society. However, when they start to affect students' social and emotional behaviors, gifted students begin to develop distinct personalities within the community. This process often leads to their rejection and classification as noticeable abnormalities (Sak, 2014).

In past years, the importance given to the education of gifted students in Turkey has increased. Educational services provided through Science and Art Centers (BİLSEM) and the Gifted Education Program (ÜYEP) continue, along with increased financial resources allocated to education by the state. Support from institutions like TÜBİTAK and the EU for projects is a significant achievement. Until 2000, there were no scientific conferences on giftedness in Turkey. However, since 2004, more than ten national and international scientific conferences have been held due to the developments mentioned above (Sak et al., 2015; Kızılbay Kaya, 2020). Along with the increased importance given to the concept of giftedness in our country, studies on measuring intelligence have also increased. The last 10th National Congress was held in 2025.

Intelligence can be measured in various ways based on the competencies possessed. Some of these include individual and group intelligence tests to measure general and mental abilities, as well as tests to assess academic skills and talents, creativity, and leadership skills. Intelligence tests used in Türkiye to identify gifted individuals are considered an important tool in determining individual differences. The most commonly used tests include the Wechsler Intelligence Scales (WISC-R, WISC-IV), Stanford-Binet Intelligence Test, the Anatolian-Sak Intelligence Scale (ASIS), the Raven's Progressive Matrices test, and the Cattell Intelligence Test. Although these tests are used to measure cognitive abilities, the applicability and reliability of each test may vary due to cultural and linguistic differences. In particular, efforts to develop and implement domestic tests in recent years stand out as an important development in terms of cultural appropriateness (Ataman, 2020; Yıldız, 2021). After diagnosing students according to their talent areas, an appropriate education program should be prepared, or existing programs should be tailored using suitable assessment tools before placing students in the program (Clark, 2013). The New Education Model offers significant opportunities for gifted students with its structure based on individual differences. In this model, the adoption of differentiated teaching approaches tailored to students' readiness levels enables gifted individuals to reveal their academic potential more effectively. Additionally, the curriculum's structure, based on interdisciplinary learning and in-depth understanding, contributes to the

development of analytical thinking, problem-solving, and creative production skills in these students. In this respect, the New Education Model aims to support gifted individuals at an early age and ensure that they participate in society as more effective individuals (Ministry of National Education [MEB], 2024).

The education of gifted students necessitates diverse differentiation strategies to address their unique learning needs and accelerate their development effectively. The primary strategies employed in this field are acceleration, enrichment, and grouping. These approaches aim to provide educational experiences that are appropriately challenging, stimulating, and paced according to the student's abilities, moving beyond the standard curriculum (Davis et al., 2014; Maker & Nielson, 1996).

Acceleration stands out as one of the most effective strategies, fundamentally designed to align educational progression with the advanced learning speeds of gifted students. Rather than inhibiting permanent learning, acceleration aims to prevent boredom and disengagement by ensuring students are consistently challenged at an appropriate level, thereby fostering more profound understanding and sustained motivation (Colangelo et al., 2004). The core objective is to allow gifted students to progress through educational programs at a pace commensurate with their rapid acquisition of knowledge and skills. Acceleration can manifest in numerous forms, each offering a distinct pathway for advanced learners. These include early school entry, grade skipping, and early university entry, which enable students to access higher levels of education at an earlier stage. Within existing educational structures, strategies such as honors classes, dual enrollment, and Advanced Placement (AP) classes provide opportunities for accelerated content delivery. Furthermore, exam-based course passing, course acceleration, and taking courses from higher grades enable flexibility within the curriculum (Rogers, 2007; Southern & Jones, 2004). It is crucial to acknowledge that the feasibility of implementing specific methods, such as early school entry or extensive grade skipping, can be constrained by national educational policies and the absence of specific legal frameworks, as is often the case in educational systems like Turkey.

Grouping is a differentiation strategy that involves placing gifted students together in various educational settings based on their intellectual or academic abilities. This approach recognizes that learning alongside peers of similar capabilities can foster intellectual exchange, provide appropriate challenges, and reduce feelings of isolation often experienced by gifted students in mixed-ability classrooms (Kulik & Kulik, 1992). While grouping is widely recognized for its effectiveness, its success is significantly influenced by the nature of the educational program delivered within the

grouped setting and the specific type of grouping employed. Mere physical proximity is insufficient; the curriculum must be differentiated to meet their advanced needs (Rogers, 2007).

Enrichment serves as a vital differentiation strategy that focuses on diversifying and deepening the curriculum and educational opportunities beyond the standard offerings. This approach aims to provide gifted students with more complex, abstract, and comprehensive learning experiences that extend their understanding and develop higher-order thinking skills rather than simply accelerating their progression through existing content (Renzulli, 1977). Enrichment can be categorized in terms of duration as full-time or part-time and in terms of content focus as homogeneous or heterogeneous. The application of enrichment takes many forms, designed to engage gifted students in meaningful ways. These include content transfer, where concepts are applied to new and complex contexts, and curriculum compacting, which streamlines regular curriculum content that gifted students have already mastered, freeing up time for more enriching activities. Independent study empowers students to pursue self-directed learning in areas of interest. Beyond the school day, after-school programs and field trips provide experiential learning opportunities that broaden their horizons and connect learning to real-world applications (Sak, 2014; VanTassel-Baska & Stambaugh, 2006).

The identification, diagnosis process, and educational support of gifted students continuing their education in regular classrooms depend on the primary school teachers' perspectives and attitudes towards giftedness and the needs of these students. Primary school teachers who can positively change their perspectives and attitudes towards gifted students are more likely to be motivated to support their gifted students and recognize their abilities. Although the situation where gifted students and normally developing students are educated together in our education system is generally referred to as inclusion, the concept of inclusion alone is considered insufficient to meet the needs of gifted students. Generally, it is stated that educating gifted students in general education classrooms where the general curriculum is implemented is advantageous for both the other students in the classroom and the teacher (Akar, 2018).

The main goal of teachers with gifted students in their classrooms should be to develop their students' creative thinking skills. Teachers who succeed in this area have been found to connect giftedness with creativity and strive to enhance their students' creativity, which also positively affects the teachers' creativity. Another important characteristic that teachers working with gifted students should have is the ability to self-assess. These teachers should reflect on whether the classroom

activities, their behaviors, and the education they provide meet the needs of their students and foster their creative thinking skills. Self-assessment should not be random; instead, it should be based on specific standards and criteria. Specific standards that teachers of gifted students should possess are comprehensively explained by VanTassel-Baska and Johnsen (2007). In the world, different approaches are used to train teachers who will work with gifted students. Many countries utilize undergraduate, graduate, and certificate programs, whereas in our country, graduate programs, seminars, and in-service training are employed. However, the programs aimed at training teachers to work with gifted students in our country are insufficient both in quantity and quality, which constitutes a significant problem (Sak, 2014).

One of the systems used in the education of gifted students in Turkey is the Support Education Rooms (DEO). The decision to establish a Directorate of Education (DEO) in a school is made by the Provincial Directorate of National Education, and there can be one or more DEOs in a school, depending on the need. There are some restrictions for DEOs in the regulations. According to these regulations, a student can benefit from DEOs for up to 12 lessons per week. If group education is preferred, a maximum of three students are allowed in one DEO. Although there is no plan or program for the education to be provided in DEOs, they can be considered the most suitable educational opportunity for gifted students in our country (Öpengin, 2018).

Another educational plan for gifted students in Turkey is the Science and Art Centers (BİLSEM). BİLSEMs, which aim to bring the existing levels of gifted students at the primary, secondary, and high school levels to the highest point, are established in settlements with a population exceeding 100,000 upon the proposal of the governorship, as required by the legislation in our country. In BİLSEMs, where individual and group education can be provided simultaneously, education continues outside normal school hours, either during weekdays or weekends. It has been observed that education with fewer than eight lessons per week in BİLSEMs has a positive impact on student satisfaction (Kayışdağ & Melekoğlu, 2019). In recent years, studies on academic skills conducted with gifted and normally developing students have shown that gifted students' reading comprehension skills are significantly higher than those of their normally developing peers (Ökcü, 2019). Yıldız (2019) found that gifted students tend to be more successful in terms of general intelligence, motivation, and emotional management compared to their normally developing peers. Nacaroglu (2020) found that gifted students scored significantly higher in critical thinking, problem-solving, appropriate use of information and technology, entrepreneurship and innovation, social responsibility, and leadership compared to their normally developing peers.

Method

Research Model

In this study, phenomenology —a qualitative research design that utilizes metaphor as a tool to reveal primary school teachers' perceptions of gifted students and their education —was employed. Phenomenology is used to explain phenomena about which we have detailed and in-depth knowledge. In phenomenology, experiences and the meanings of these experiences are tried to be explained. Although the results obtained from phenomenology are not generalizable, they allow us to recognize and understand a phenomenon (Yıldırım & Şimşek, 2016). Metaphors serve as guiding structures that maintain a sense of wholeness. They cross-reference distinct meaning domains to provide information from a familiar area to a less known area, thus combining them to create a new field (Luborsky, 1998). Through metaphors, a bridge is formed between participants' experiences, transforming pieces of information into meaningful forms (Miller, 1987). Within the scope of this study, an ordinary meaning was extracted through metaphors from the experiences of primary school teachers regarding the education of gifted students. An analysis method using metaphor as a thinking tool was conducted to interpret the obtained data (Aubusson, 2002).

Study Group

Twenty-seven primary school teachers working in primary schools participated in this study. The participants were selected using a purposive sampling method. In purposive sampling, the aim is to examine in-depth cases that are thought to have rich information and/or experience about the phenomenon being studied. In this context, the study participants were selected based on having gifted students in their classrooms, thereby providing them with experience in educating gifted students. When examining the characteristics of the participants, it was observed that 14 of the 27 participants were female, 13 were male, five were teaching first grade, seven each were teaching second and third grades, eight were teaching fourth grade, 20 had previously worked with gifted students in their classrooms, and seven currently had gifted students in their classrooms.

Data Collection Tools

As a data collection tool, teachers were given a questionnaire containing three questions and a measurement tool. The questions were prepared by the researchers based on a literature review and finalized after receiving expert opinions. Besides the three questions, there was a section where teachers were asked to indicate whether they had previously worked with a gifted student and whether there were gifted students in their classrooms.

Process

Data were collected through one-to-one interviews with teachers. In the interview with the teachers, they were informed about the purpose of the study and asked to write the most appropriate statement(s) according to them. Three teachers with whom face-to-face interviews were not possible were informed via online communication tools and asked to fill out the forms. Before data collection, both groups of teachers were informed about the purpose of the study and the metaphors and were asked to complete the forms in accordance with the study's purpose.

Data Analysis

The content analysis approach was preferred for analyzing the data obtained from the data collection tool, which was created to reveal the perceptions of primary school teachers regarding nongifted and gifted students and gifted education. The content analysis approach involves processing the data obtained as a result of the research by adhering to a predetermined framework and interpreting the findings. In addition, the purpose of data analysis in phenomenological research is to reveal experiences and meanings (Yıldırım & Şimşek, 2016). This analysis approach is used in studies where the conceptual structure is predetermined, and meanings are revealed through the design.

Ensuring Validity and Reliability

Some applications were made for the internal and external validity of the research. First, the expressions in the metaphor were finalized by presenting them to the opinions of different field experts. In addition, validity was attempted to be increased by incorporating direct quotations from the participants into the findings. In the studies conducted to ensure internal validity, the generalizations made based on the study's findings were compared with the data. For external validity, the sample was diversified as much as possible. In terms of reliability, the method and planning stages of the research were detailed, the research results were closely associated with the collected data, and the data generated by the research were stored for re-examination when requested.

Results

The findings obtained from the metaphors created by primary school teachers regarding the concepts of gifted students, typical students, and gifted education are presented in line with the research questions.

Metaphors created for the concept of gifted students

The metaphors created by primary school teachers for the concept of gifted students were categorized into five groups. The categories are "tool, value, intelligence, complex, and alive."

In the tool category, participants associated gifted students with concepts such as machines, android phones, and sports vehicles. S1, who associated gifted students with machines, expressed the situation as follows.

"Gifted students are like a machine that works non-stop and tirelessly. Because it is necessary to keep up with their speed in order to provide education to these children who understand what they are talking about." (E1)

On the other hand, E6, who stated that gifted students have a high capacity, compared gifted students to smartphones

"Gifted students are like android phones. Because they are open to new programs with their hardware." (E6)

. One of the participants, E7, likened gifted students to sports cars, emphasizing that gifted education should be carefully planned.

"Gifted students are like sports cars used by young people. Because they have continuity depending on sufficient speed and attention. It is sufficient to maintain them on time. In case of damage, it can be fixed in a short time and without any cost." (E26)

Now, take a closer look at how the mentioned tools turn into tangible values. In the value category, gifted students were compared to valuable objects such as pearls and minerals. The opinions of E19, who stated that it would take time to identify gifted students, and E21, who emphasized that gifted students should receive education tailored to their needs, are as follows.

"Gifted students are like pearls in an oyster. Because sometimes it takes time to discover them and sometimes they go unnoticed." (E19)

"Gifted students are like precious minerals. Because when they are discovered and processed correctly, they progress in line with their talents." (E21)

The values we have considered so far can be a critical source of intelligence for our decision-making processes. In the intelligence category, teachers emphasized that gifted students are deep

thinkers, their capacities are very high, and their potential is high. Accordingly, the metaphors used by primary school teachers in the intelligence category are as follows.

“Gifted students are like a calendar. Because every day they come with different information and features.” (E5)

“Gifted students are like encyclopedias. Because they have deeper, more detailed thinking, movements and (multi-word) speech.” (E7)

“Gifted students are like double majors. Because they can show their talents in more than one field.” (E9)

“Gifted students are like corn kernels overflowing from the plate. Because they do not fit in their containers, they are curious, they want more, they like diversity.” (E10).

We can relate the intelligence data we have discussed so far to naturally occurring complex structures. In the complex category, it was emphasized that understanding gifted students is challenging and that various approaches should be tried to reveal their potential.

“Gifted students are like space. There is no one to communicate with in the classroom.” (E24)

“Gifted students are like a maze. Because different ways should be tried to find the exit. If we solve the maze, we will reach the light.” (E8)

“Gifted students are like a cube of intelligence. Because I think it is difficult to solve but enjoyable.” (E3)

Now, see how the complex processes we have covered so far translate into real-time applications. In the live category, it is stated that gifted students require special attention in this direction.

“Gifted students are like the budgies we keep at home. Because when we leave lovebirds in the natural environment, they cannot survive. They need special care.” (E17)

“Gifted students are like trees that bear fruit immediately. Because they need less care and are self-sufficient, they are different.” (E14)

Metaphors created for the concept of nongifted students

The metaphors created by primary school teachers for the concept of nongifted students were grouped under two categories: positive and negative.

In the positive category, it was emphasized that nongifted students are capable and can demonstrate their potential with the education they receive.

“Nongifted are like flowers blooming in the countryside. Because they never upset their teachers. They always do what is necessary. They never upset their parents and make them proud.” (E1)

“Nongifted students are like a strong tree. Because the education and training they receive develops them. Reaching the goal he wants to reach does not stop him. They need to learn continuously.” (E19)

“Nongifted students are like seeds. Because when it grows at the right time, with the right food and light, it will grow and blossom.” (E21)

In addition to the positive aspects we have discussed so far, we also touch on the adverse effects of this situation. Primary school teachers developed both positive and negative metaphors for nongifted students, particularly when comparing them with gifted students. Among the negative metaphors, it was emphasized that the students' potential was limited.

“Nongifted students are like a payphone. Because it has only one function. Like the tail of a donkey, it neither lengthens nor shortens.” (E6)

“Nongifted students are more ordinary than gifted students. Because they progress in line with the plans, you can give achievements at a certain level without difficulty.” (E16)

“Nongifted students are like play dough. Because you can shape them as you want. The more convenient the dough is.” (E5)

Metaphors created for the concept of gifted education

The metaphors created by primary school teachers for the concept of gifted education were categorized into three groups. The categories are “process, difficult, and endless.”

In the process category, it was emphasized that the education of gifted students is a process, and it was particularly highlighted that this process takes time. When executed correctly, the results will be positive.

“The education of gifted students is like flower care. Because the more you take care of it, the more beautiful it blooms.” (E12)

“The education of gifted students is like processing a precious metal. Because it requires care and time. When done right, it is priceless.” (E25)

In the challenging category, it was stated that educating gifted students would take time, that the process was difficult, and that a well-equipped instructor was necessary for this education.

“The education of gifted students is difficult. Because it is difficult to understand and empathize with them.” (E5)

“The education of gifted students is like digging a well with a needle. Because it requires a well-equipped instructor.” (E23)

“The education of gifted students is like a journey with an uncertain end. Because a challenging process awaits them when they embark on this journey. In order for this journey to go well, it is necessary to recognize the obstacles on the way.” (E8)

“The education of gifted students is like cooking a difficult meal. Because cooking is difficult but the result is good.” (E1)

In the infinite category, it was emphasized that the education of gifted students is limitless and endless.

“The education of gifted students is like being lost in the ocean. Because finding those students requires much work, multiple work (system, education).” (E19)

“The education of gifted students is like experimenting. Because they have no boundaries. They have a wide world.” (E27)

Discussion and Conclusion

When we examine the categories created by primary school teachers for gifted students, it is evident that they are tools, values, intelligence, complex, and alive. It is understood that the responses received from teachers in the tool category emphasize the potential, equipment, and speed of gifted students. These emphases showed that teachers not only emphasized the high learning speed of gifted students but also held a false belief that this learning speed is continuous and that gifted students have an endless desire and speed of learning. In a study conducted by Kurnaz, Tüybek, and Taşkesen (2009) with 68 primary school teachers, it was found that frequent subject repetitions in the classroom, which hindered the mobility of gifted students, had a negative impact on students' learning speed. Talas et al. (2013) found that if primary school teachers do not show interest in gifted students and, if necessary, adaptations are not made in the education program for gifted students, there are

negative effects on the learning desire and learning speed of gifted students. Çamdeviren (2014) also states that although gifted students do not have problems learning information due to their high learning speed, this situation can lead to boredom in the classroom environment. As stated in the literature, the findings indicate that gifted students exhibit boredom and problem behaviors in an environment that is not suitable for them.

In another metaphor, teachers attribute value and intelligence to gifted students, emphasizing their potential. These students are likened to an unprocessed mine, and it is stated that they can discover their actual value if they are processed correctly. Since gifted students are a special group within the scope of special education, specialized techniques and teaching methods are necessary for their education (Sayi, 2018). Gifted education is a crucial tool in promoting social equality, as it ensures every student has the right to receive education tailored to their potential (Matthews & Dai, 2014). As the findings indicate, receiving education in accordance with their potential is a crucial requirement for both typically developing students and gifted students.

In the opinions belonging to the complexity and vividness category, opinions were expressed about the importance of teachers discovering the potential of gifted students. If teachers are not adequately equipped and do not receive the necessary training, gifted students may experience negative consequences, including dropping out of school. Teachers can take an active role in recognizing and identifying gifted students (Sak, 2014). It is considered essential to recognize the potential of gifted students in the classroom environment and to direct them toward identification. It is an important requirement for teachers to have knowledge about the characteristics of gifted students and to direct them to diagnostics, recognizing that starting the necessary interventions early will have positive consequences for both students and stakeholders.

When the metaphors made by teachers for nongifted students are analyzed, the only area of similarity with gifted students is that they can improve themselves with appropriate education. This view emphasizes that education is a universal need that does not differ according to personality and cognitive characteristics. According to teachers, the most important difference between nongifted and gifted students is potential. The emphasis on the limited potential of nongifted students implies that the education of these students does not require as much effort as the education of gifted students, that achievements can be attained without going beyond the educational program, and that students should not be expected to achieve too much. However, educational differentiations that go beyond the general education curriculum are important in the education of gifted students. Tomlinson (1995)

stated that differentiated education in gifted education is a necessity that offers students diverse learning experiences and makes significant positive contributions to students with varying levels and interests.

When metaphors about gifted education are analyzed, it becomes clear that they are characterized as a complex and ongoing process. When the categories of these metaphors are examined, it is seen that teachers state that the education of gifted students is a long process that requires attention and time, that it is a challenging process for teachers, that it requires a well-equipped teaching skill, that it will turn into a situation of digging a well with a needle without sufficient equipment, but when the necessary conditions are met, the education process of gifted children will have very positive results for both students and teachers. According to Clark (2013), while emphasizing the importance of effective teaching practices for excellent teaching, the focus on teaching practices for gifted students is insufficient. Teachers who work with gifted students need to possess additional special skills beyond these. These are changing the pace of learning, providing in-depth learning, and adjusting the level of content. In a study conducted by Bloom (1985), when the retrospective situation of 35 gifted individuals who were successful in their field was examined, it was revealed that the presence of a supportive family environment and encountering a teacher who made them feel special and supported them throughout their educational life was an important requirement for success in later years. (Cited in Robinson, Shore, & Enersen, 2021)

About Authors

First Author: Erman Kayıřdağ is a member of Eskiřehir Osmangazi University. He works at the Faculty of Education. He is currently working at the Special Education Department. He completed his doctorate in the joint doctoral program between Eskiřehir Osmangazi University and Anadolu University. His subject is Gifted Child Education. He primarily works in the fields of educational differentiation and gifted education.

Second Author: Ömer Garan is a manager of BİLSEM at Ministry of National Education in Türkiye. He is the director of a science and art center in Eskiřehir and completed her master's degree in educational sciences.

Conflict of Interest

There is no conflict of interest between the authors..

Funding

No funding was received for the study.

Ethical Standards

The research was conducted within the framework of the Declaration of Helsinki, and participants participated voluntarily and an informed consent form was obtained.

ORCID

Erman Kayıřdağ  <https://orcid.org/0000-0002-7319-5078>

Ömer Garan  <https://orcid.org/0000-0002-8750-9357>

References

- Akar, İ. (2018). Üstün yetenekli öğrencilerin genel eğitim sınıflarında desteklenmeleri. *Özel Yetenekli Öğrenciler ve Eğitimleri*, 317-340.
- Aubusson, P. (2002). using metaphor to make sense and build theory in qualitative analysis. *The Qualitative Report*, 7(4), 1–14. <https://doi.org/10.46743/2160-3715/2002.1962>
- Ataman, A. (2020). Üstün zekâlı ve yetenekli çocuklar: Tanılama, özellikler ve eğitim. In A. Ataman (Ed.), *Özel gereksinimi olan bireyler ve özel eğitim* (15. baskı, ss. 157–190). Vize Akademik.
- Bloom, B. (1985). *Developing talent in young people*. BoD–Books on Demand.
- Clark, B. (2013). *Growing up gifted*. Cambridge: Pearson.
- Colangelo, N., Assouline, S. G., & Gross, M. U. M. (2004). *A nation deceived: How schools hold back America's brightest students*. The Templeton National Report on Acceleration.
- Çamdeviren, Ş. (2014). *Bilim ve sanat merkezine (BİLSEM) devam eden üstün yetenekli çocukların anne babalarının karşılaştıkları güçlükler* (Sakarya ili örneği), Yayınlanmamış Yüksek Lisans Tezi. Sakarya, Sakarya Üniversitesi, Eğitim Bilimleri Enstitüsü.
- Davis, G. A., Rimm, S. B., & Siegle, D. (2014). *Education of the gifted and talented* (6. baskı). Pearson.
- Kayışdağ, E., & Melekoğlu, M. A. (2019). Bilim ve sanat merkezlerinin eğitim programlarının öğrenci görüşlerine dayalı olarak değerlendirilmesi. *Eskişehir Osmangazi Üniversitesi Sosyal Bilimler Dergisi*, 20, 175-202.
- Kulik, J. A., & Kulik, C.-L. C. (1992). Effects of ability grouping on secondary school students: A meta-analysis of evaluation findings. *American Educational Research Journal*, 29(2), 415-428. <https://doi.org/10.3102/00028312029002415>
- Kurnaz, A., Tüybek, C., ve Taşkesen, Ü. S. (2009). Sınıf öğretmenlerinin üstün yetenekli öğrencilere ilişkin görüş ve uygulamaları. *Üstün Yetenekli Çocuklar II. Ulusal Kongresi*, Eskişehir: Anadolu Üniversitesi, 81-82.
- Luborsky, M. (1998). Creative challenges and the construction of meaningful life narratives. In C. Adams- Price (Ed.), *Creativity and successful aging* (pp. 311±337) New York: Springer Verlag.
- Maker, C. J., & Nielson, A. B. (1996). *Teaching models in education of the gifted*. Pro-Ed.
- Matthews, D. J., & Dai, D. Y. (2014). Gifted education: changing conceptions, emphases, and practice. *International Studies in Sociology of Education*, 24(4), 335–353.
- Millî Eğitim Bakanlığı. (2024). *Türkiye Yüzyılı Maarif Modeli: Ortak metin*. <https://www.meb.gov.tr>
- Miller, S. (1987). Some comments on the utility of metaphors for educational theory and practice. *Educational Theory*, 37(3), 219–227.
- Nacaroğlu, O. (2020). Özel yetenekli ve normal gelişim gösteren öğrencilerin 21. yüzyıl becerilerinin incelenmesi. *Ankara University Journal of Faculty of Educational Sciences (JFES)*, 53(2), 693-722.
- Ökcü, M. (2019). *Beşinci sınıf olağan gelişim gösteren ve özel yetenekli öğrencilerin okuma tutumları ve okuduğunu anlama becerilerinin incelenmesi* (Yayınlanmamış Yüksek Lisans Tezi), Biruni Üniversitesi Eğitim Bilimleri Enstitüsü.

- Öpengin, E. (2018). *İlkokul düzeyindeki üstün yetenekli öğrencilere yönelik destek eğitim odasının yürütülmesinde karşılaşılan sorunlar ve sorunlara yönelik çözüm müdahaleleri*. (Doktora tezi). Anadolu Üniversitesi, Eskişehir.
- Pfeiffer, S. I. (2015). *Essentials of gifted assessment*. John Wiley & Sons.
- Renzulli, J. S. (1977). *The enrichment triad model: A guide for developing defensible programs for the gifted and talented*. Creative Learning Press.
- Robinson, A., Shore, B.M. & Enersen, D. (2021). *Bestpractices in gifted education: An evidence-based guide*. Routledge.
- Rogers, K. B. (2007). Re-forming gifted education: Matching the program to the student, not the student to the program. *Gifted Child Quarterly*, 51(2), 173–181. <https://doi.org/10.1177/0016986207300431>
- Sak, U., Ayaş, B., Sezerel, B. B., Öpengin, E., Özdemir, N. N., & Demirel-Gürbüz, Ş. (2015). Türkiye’de üstün yeteneklilerin eğitiminin eleştirel bir değerlendirmesi. *Türk Üstün Zeka ve Eğitim Dergisi*, 5(2), 110-132.
- Sak, U. (2014) *Üstün zekalılar özellikleri, tanılanmaları, eğitimleri* (4.baskı). Ankara: Vize Yayıncılık
- Sayı, A. K. (2018). Teachers' views about the teacher training program for gifted education. *Journal of Education and learning*, 7(4), 262–273.
- Talas, S. , Talas, Y. ve Sönmez, A. (2013). Bilim sanat merkezlerine devam eden üstün yetenekli öğrencilerin okullarında yaşadıkları problemler. *Uluslararası Türk Eğitim Bilimleri Dergisi*, 1(1), 42-50.
- Tomlinson, C. A. (1995). Differentiating instruction for advanced learners in the mixed-ability middle school classroom. *ERIC Digest E536*.
- Kızılbay Kaya, M. (2020). *Özel yetenekli öğrencilerin androjen reseptör çağ tekrar polimorfizmlerinin araştırılması ve fen bilimlerine yönelik tutumları ile ilişkisinin belirlenmesi* (Yayımlanmamış Yüksek Lisans Tezi), Kocaeli Üniversitesi Fen Bilimleri Enstitüsü.
- VanTassel-Baska, J., & Johnsen, S. K. (2007). Teacher education standards for the field of gifted education: A vision of coherence for personnel preparation in the 21st century. *Gifted Child Quarterly*, 51(2), 182–205.
- Yıldırım, A. & Şimşek, H. (2016). *Sosyal bilimlerde nitel araştırma yöntemleri* (10. Baskı). Ankara: Seçkin Yayıncılık.
- Yıldız, M. (2021). Türkiye’de üstün yetenekli bireylerin tanılanmasında kullanılan zeka testlerinin değerlendirilmesi. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, 11(61), 87–102. <https://doi.org/10.17066/tpdrd.892347>
- Yıldız, M. Ş. (2019). *Özel yetenekli ve normal gelişim gösteren ilkokul (2-4.sınıf) öğrencilerinin duygusal zeka düzeylerinin karşılaştırılması* (Doktora tezi). Marmara Üniversitesi.