

**INTERNATIONAL JOURNAL OF ORIGINAL EDUCATIONAL RESEARCH**

*Research Article*

---

**AN EXAMINATION OF PRACTICES FOR GIFTED STUDENTS IN  
TÜRKİYE AND KAZAKHSTAN**

**\*Balaussa BALCHIKH**

**Gazi Üniversitesi, ORCID: 0009-0001-5199-1655**

**\*\*Mahmut ÇİTİL**

**Gazi Üniversitesi, ORCID: 0000-0001-7607-6595**

[mcitil@gazi.edu.tr](mailto:mcitil@gazi.edu.tr)

**Abstract**

This research aims to examine gifted education practices in Turkey and Kazakhstan from a comparative perspective. The study utilizes document analysis, a qualitative research method. In this context, policy documents, legal regulations, and practices related to the education of gifted individuals in both countries were systematically examined from publicly available official sources. The findings indicate that both Turkey and Kazakhstan have been striving to develop more systematic policies for the education of gifted individuals in recent years. In Turkey, the education of gifted individuals is organized through Science and Art Centers (BİLSEM) and is conducted on the basis of a multi-stage identification process. In Kazakhstan, a more

institutional, selective model is implemented, spearheaded by institutions such as the Nazarbayev Intellectual Schools and the Daryn Center (NEODM). Overall, while both countries share similar goals of developing the potential of gifted individuals, they follow different methods in terms of institutional structure, identification processes, and measurement and evaluation approaches.

**Keywords:** Gifted children, Comparative education, Türkiye-Kazakhstan, BİLSEM (Science and Art Centers), Identification processes.

## **Türkiye Ve Kazakistan’da Üstün Yetenekli Öğrencilere Yönelik Uygulamaların İncelenmesi**

### **Özet**

Bu araştırmanın amacı Türkiye ve Kazakistan’daki üstün yetenekli çocuklara yönelik eğitim uygulamalarını karşılaştırmalı bir bakış açısıyla ele almaktadır. Çalışmada, nitel araştırma yöntemlerinden doküman incelemesi kullanılmıştır. Bu kapsamda, her iki ülkenin üstün yetenekli bireylerin eğitimiyle ilgili politika belgeleri, yasal düzenlemeleri ve uygulamaları kamuya açık resmî kaynaklardan sistematik biçimde incelenmiştir. Elde edilen bulgular, Türkiye’nin ve Kazakistan’ın üstün yetenekli bireylerin eğitime yönelik olarak son yıllarda daha sistematik politikalar geliştirmeye çalıştığını göstermektedir. Türkiye’de üstün yeteneklilerin eğitimi, Bilim ve Sanat Merkezleri (BİLSEM) aracılığıyla örgütlenmekte ve çok aşamalı bir tanılama süreci temelinde yürütülmektedir. Kazakistan’da ise Nazarbayev Entelektüel Okulları ve Daryn Merkezi. (NEODM) gibi kurumlar öncülüğünde, daha kurumsal, seçici bir model uygulanmaktadır. Genel olarak değerlendirildiğinde, iki ülke de üstün yetenekli bireylerin potansiyellerini geliştirmeyi hedefleyen benzer amaçlara sahip olmakla birlikte, kurumsal yapılanma, tanılama süreçleri ve ölçme-değerlendirme yaklaşımları açısından farklı yöntemler izlemektedir.

**Anahtar Kelimeler:** Üstün yetenekli çocuklar, Karşılaştırmalı eğitim, Türkiye-Kazakistan, BİLSEM (Bilim ve Sanat Merkezleri), Tanılama süreçleri.

### **ENTRANCE**

In the field of education, it is a widely accepted phenomenon almost worldwide that some children perform better than their peers in academic achievement, creativity, leadership, problem-solving, and artistic skills (Renzulli, 2012). Dai (2016) emphasizes that the education of gifted individuals should be seen not only as an individual development process but also as a strategic human resource that enables the transformation of individuals' creative potential for the benefit of society. In this context, the rapid technological advancements and global competition of the 21st century have made it imperative to recognize and develop individuals' talents at an early age.

Today, countries can survive and shape the future not only through their natural resources but also through their investments in trained human resources. Therefore, identifying gifted individuals from a young age and supporting them in appropriate educational environments is of great importance for societal progress. As Çitil et al. (2020) also stated, gifted individuals can produce valuable solutions, new ideas, and useful products not only for their own societies but for the entire world and humanity.

This perspective is also supported by research conducted in different countries. Lavy and Goldstein (2022) show that the participation of gifted students in special education programs increases their long-term higher education success and ensures more stable progress in their professional lives. Similarly, Subotnik et al. (2011) state that in the context of the United States, if gifted individuals are not properly guided, their potential may not be fully realized, which can lead to individual and societal losses. In studies conducted in Europe, Monks and Pflüger (2005) emphasize that supporting gifted students plays a critical role in their academic and socio-emotional development.

As a general conclusion of the research conducted, it is observed that the interest of societies worldwide in gifted education programs is increasing, the level of support provided largely depends on the cultures and contexts in which the countries are located, and giftedness can be expressed in different ways according to these cultures and societies (Daulet, 2019, Mambetalina et al., 2024). While some countries (e.g., Portugal, Norway, Finland) try to avoid divisions based on students' abilities by adopting an inclusive and equitable approach, some countries (e.g., USA, Germany, UK) actively implement policies aimed at promoting giftedness, which requires special attention in terms of curriculum and instruction (Heuser et al., 2017). Looking at the existing literature, it is understood that studies on gifted education policies and practices are generally focused on a single country, and comparative examination of practices in different countries is limited.

This research aims to contribute to the relevant literature by comparatively examining educational practices for gifted children in Turkey and Kazakhstan, addressing the aforementioned need. Turkey has long-standing experience in the education of gifted children and implements systematic programs through institutional structures such as Science and Art Centers (BİLSEM). Kazakhstan, the largest and fastest-growing economy in the Central Asian region, has a long tradition inherited from the Soviet education system, where academic excellence and superior performance in competitions have traditionally been considered synonymous with giftedness (Almukhambetova & Hernández-Torrano, 2020; Hernández-Torrano & Tursunbayeva, 2015). However, in recent years, a state education development program has been implemented in line with modern education policies, and new schools have been established for gifted children, guided by the principles of academic freedom, talent development, and international standards in education (Hernández-Torrano & Tursunbayeva, 2015, Yakavets, 2014). This situation demonstrates that both countries offer suitable examples for comparative analysis, given their shared cultural heritage and the differences in their education systems.

Based on all these contexts, the main objective of this research is to systematically examine the policies and practices regarding gifted students in Turkey and Kazakhstan today, revealing the strengths, challenges, and areas for improvement of both countries. This study also aims to examine the data impartially and objectively, without favoring one country over the other, from an ethical perspective. The findings are expected to increase the sharing of knowledge and experience between the two countries, identify cooperation opportunities, and contribute to the improvement of practices in both countries.

## **A Comprehensive Overview of General Education Systems**

A comprehensive look at the general education systems of Turkey and Kazakhstan is of great importance for understanding the historical and philosophical background of both countries' policies and practices regarding gifted students. Both education systems strive to strike a balance between global competitiveness and social justice goals, and their approaches to the education of gifted students are directly related to the overall structure of their systems.

### **Turkish National Education System**

The Turkish National Education System is a comprehensive structure managed and organized by the Ministry of National Education of the Republic of Turkey. The system is structured on the basis of the National Education Basic Law No. 1739 and consists of two main sections: formal education, which is provided regularly within the school system to individuals of a specific age group, and non-formal education, which encompasses various educational activities outside of formal education. Formal education includes pre-school, primary, secondary, and higher education institutions. Pre-school education is not compulsory in the Turkish National Education System. Compulsory education consists of primary school (grades 1-4), secondary school (grades 5-8), and high school (grades 9-12) levels, in accordance with the 4+4+4 model. Students at the secondary and high school levels have the opportunity to choose from different types of schools. Higher education, based on secondary education, includes educational activities covering at least four semesters and consists of associate degree, bachelor's degree, and postgraduate programs. Non-formal education encompasses courses and educational activities for citizens who have not entered the formal education system or are currently in one of its levels. It is carried out in two main sections: general adult education and vocational technical adult education (MEB, 2023).

In Turkey, special education schools are also important institutions providing educational services for individuals with special needs (Çitil, 2020). Special education refers to a specially planned educational process provided to individuals who show significant differences from their peers in terms of individual and developmental characteristics and learning abilities. The main purpose of special education services is to contribute to the development of the capacities of individuals with special needs to the highest level in line with the general aims and basic principles of Turkish National Education, and to prepare them for higher education, professional life and social life (MEB, 2018).

The right to education for individuals with special educational needs is guaranteed by various national legislations, primarily the Constitution of the Republic of Turkey and the National Education Basic Law No. 1739 (MEB, 2022a). Within this framework, special education services are provided according to two fundamental approaches: inclusive education (inclusion/integration) and separate education (special education schools and institutions). Special education institutions aim to prepare students with special needs for society, ensure their adaptation to their environment, and raise them as productive citizens. In Türkiye, official special education schools and institutions operate under the General Directorate of Special Education and Guidance Services, affiliated with the Ministry of National Education (MEB, 2018).

### **Kazakhstan National Education System**

The Kazakhstani national education system is overseen by specialized state institutions such as the Ministry of Education of the Republic of Kazakhstan and the Ministry of Science and Higher Education of the Republic of Kazakhstan. The Ministry of Education is a state institution responsible for ensuring quality in pre-school education, general secondary education, technical and vocational education, post-secondary education, additional education programs, and the protection of children's rights. The Ministry of Science and Higher Education, on the other hand, is a state body responsible for higher education and postgraduate education, science policies, language policies, quality assurance in higher education, and the management of digitalization processes.

Article 12 of the Education Law of the Republic of Kazakhstan states that the national education model is structured in accordance with the principles of continuity and consistency, encompassing different levels of education: pre-school education, primary education, basic and general secondary education, technical and vocational education, post-secondary education, higher education, and postgraduate education. Article 30 of the Constitution guarantees citizens the right to free secondary education in public educational institutions and makes secondary education compulsory. Furthermore, every citizen has the right to receive free higher education on a competitive basis in state higher education institutions. Education in private institutions is conducted on a fee basis, in accordance with the conditions and justifications determined by law. The state is obliged to ensure that all activities of educational institutions comply with general educational standards. Although compulsory education in Kazakhstan currently lasts 11 years, the country is continuing the process of transitioning to a 12-year model. The education system consists of three levels: primary school (1-4), basic secondary education (5-9), and upper secondary education (10-11/12). The country has schools that offer education in Kazakh, Russian, and English, and multilingualism is central to national education policies.

### **METHOD**

This study utilizes document analysis, a qualitative research method. Qualitative research offers a holistic perspective aimed at understanding phenomena in their natural context (Creswell, 2013; Patton, 2002). Document analysis, on the other hand, is a technique that allows for the systematic examination of the content of written, printed,

or electronic materials (Yıldırım & Şimşek, 2018). This method, particularly in comparative education research, provides the opportunity to analyze countries' policy documents, legal regulations, and strategic plans. Accordingly, in this study, education policies, legal regulations, and practices for gifted individuals in Turkey and Kazakhstan were systematically evaluated through publicly available official documents.

## **Data Sources**

The data sources for this research consist of legal regulations, directives, strategic plans, and national reports enacted in Turkey and Kazakhstan concerning gifted children. In the Turkish context, the Special Education Services Regulation (2018), the Science and Art Centers (BİLSEM) Directive (2022), and the BİLSEM Student Identification Guides published by the Ministry of National Education were used as primary sources. In the Kazakhstani context, the Law on Education, the annual activity reports of the Daryn Center, the strategic documents of the Nazarbayev Intellectual Schools, and the “Psychological and Educational Research Program for Identifying and Developing Giftedness in Kazakhstani Schoolchildren” (2023) were examined as the main data sources. These documents are reliable sources accessed through publicly available databases and official websites of state institutions. Only publicly accessible documents were used in the study, thus ensuring compliance with ethical principles.

## **Data Collection Process**

During the data collection phase, relevant legal regulations and strategy documents from both countries were thematically reviewed, and selected documents were classified according to the research objectives. The following criteria were considered in selecting the documents to be examined:

- Directly addressing special education policies for gifted children,
- Being prepared by state institutions or nationally authorized organizations, being publicly published, and remaining current.

Before reviewing the documents, their originality was checked, and electronic copies were archived to prevent data loss. The selected documents were examined in their original languages, and translation matching was performed where necessary to check accuracy. This prevented shifts in meaning.

## **Data Analysis**

The data obtained from the documents were analyzed using descriptive analysis techniques. Descriptive analysis encompasses the process of organizing, systematically defining, and interpreting the collected data within specific themes (Yıldırım & Şimşek, 2018). Accordingly, the information obtained from documents belonging to Turkey and Kazakhstan was classified under three main themes: the definition and scope of gifted individuals, educational environments and curricula, and identification processes.

During the analysis process, interpretations were supported by direct quotations and statements obtained from the documents.

## **FINDINGS**

### **Gifted Education Practices in Turkey**

#### **1. Definition and Scope of Gifted Individuals**

In Türkiye, gifted individuals are defined in the Ministry of National Education Special Education Services Regulation (2018) and the Science and Art Centers Directive (2022) as "individuals who learn faster than their peers; are ahead in creativity, art, and leadership capacity; possess special academic ability; can understand abstract ideas; enjoy acting independently in their areas of interest and demonstrate high-level performance." This definition plays a guiding role in identifying the educational needs of gifted individuals and developing appropriate educational programs.

#### **2. Educational Environments and Curricula for Gifted Individuals**

In Turkey, programs for the education of gifted individuals are implemented through the legal framework determined by the Ministry of National Education (MEB), institutional structures such as BİLSEM (Science and Art Centers for Gifted Students), and the Research, Development, Education and Application Center (ARGEM) school (MEB, 2018, MEB, 2022b, Çitil & Sak, 2020). The education of gifted individuals is carried out within the scope of special education services and is mostly conducted through the inclusion model. Officially identified gifted students receive additional educational support from support education rooms opened in their schools or from BİLSEM centers (Çitil, 2018). These educational environments aim to develop students' cognitive, creative, and social skills (MEB, 2022b).

In support education rooms, students can receive education individually or in small groups with similar performance levels. Courses appropriate to the areas of special talent are offered to gifted students, differentiated through enrichment and acceleration applications. Students benefit from support education in these rooms in accordance with their Individualized Education Plan (IEP) (Çitil, 2018). BİLSEM centers were established to develop the individual talents of gifted students and to increase their creative thinking and problem-solving skills (MEB, 2022b). Programs consist of enriched educational activities that include creative drama, music, visual arts, technology, and science applications, in addition to academic courses. BİLSEM centers can offer education in different models, either on weekdays or weekends. Programs are individualized according to the students' abilities and needs (MEB, 2022b).

ARGEM is structured as the first institutional model in Turkey to offer separate, boarding education for gifted students at the middle and high school levels. Article 29 of the Special Education Services Regulation allows for the establishment of centers

and schools that will conduct research, development, and monitoring studies for individuals with special educational needs. In line with this, ARGEM Middle School and High School was established in Istanbul in 2017-2018 as Turkey's first official, boarding school for gifted students. Student selection is done through BİLSEM (Science and Art Centers for Gifted Students); candidates at the fourth and eighth grade levels undergo practical assessments during the summer term, and those who demonstrate success are accepted into the school. ARGEM implements an accelerated and enriched teaching program for gifted students, and the model continues to be the first of its kind in Turkey (Çitil & Sak, 2020).

### **3. Identification Processes for Gifted Individuals**

In Turkey, the identification of gifted individuals is carried out in accordance with the legal and institutional frameworks determined by the Ministry of National Education. The identification process aims to identify gifted children early on, both academically and socio-emotionally (MEB, 2018). The Ministry of National Education identifies gifted students using two methods: identification through Guidance and Research Centers (RAM) and the identification process for Science and Art Centers (BİLSEM).

Since gifted students are considered within the scope of individuals requiring special education according to the legislation, the process applied at the Regional Education Center (RAM) is similar to the educational assessment stages of other students with special needs. In this process, students are nominated at the school upon the request of the parent and then undergo a detailed evaluation at the relevant RAM. Students diagnosed as "gifted" by the RAM are placed as inclusion/integration students in their own schools. Subsequently, the school's Individualized Education Plan (IEP) unit prepares an individualized education plan (IEP) for the student, and the student is provided access to a support education room (Cited in: Çitil & Sak, 2020).

The identification process for students enrolling in BİLSEM (Science and Art Centers for Gifted Students) is carried out by central and provincial identification exam commissions, school guidance commissions, BİLSEM centers, and guidance and research centers, in accordance with the guidelines published by the Ministry (MEB, 2022b). The first stage of the BİLSEM identification process involves classroom teachers nominating students they believe may be gifted in their classes. Nominated students undergo a preliminary assessment using centrally determined measurement tools by the Ministry of National Education (MEB). In this stage, students' performance in general intellectual, artistic, and musical ability areas is measured through standardized tests, and the criteria for the process are explained in detail in the BİLSEM Student Identification and Placement Guide published annually (MEB, 2024). Based on the assessment results, students are placed in appropriate programs and receive education according to their individual abilities (MEB, 2022b).

## **Gifted Education Practices in Kazakhstan**

### **1. Definition and Scope of Gifted Individuals in Kazakhstan**



In Kazakhstan, gifted individuals are also defined with specific characteristics in various official documents. The Republican Scientific and Practical Center “Daryn”, under the Ministry of Education of the Republic of Kazakhstan, is a state institution that takes the lead in the field of education in identifying and supporting gifted children and young people in the country. In the center's “Psychological and Educational Research Program for Identifying and Developing Giftedness in Kazakhstani Schoolchildren” (2023), the concept of giftedness is defined as “a high creative potential, a combined and holistic characteristic of the child, resulting from the systemic interaction of cognitive, motivational, emotional, volitional and other personal qualities and the socio-cultural environment,” and it is stated that this potential “constitutes a favorable internal precondition for further development.” In the program, gifted children are defined as “children who are significantly ahead of their peers in intellectual development or who demonstrate exceptional performance in general or specific talents (e.g., music, art, technology, etc.)” (Daryn Center, 2023). Nazarbayev Intellectual Schools, another prominent institution in the education of gifted students, defines a gifted student as “an individual with high cognitive capacity, capable of critical and creative thinking, possessing a strong character, and able to use their knowledge for the benefit of social progress” (NIS Annual Report, 2011).

## **2. Educational Environments and Curricula for Gifted Individuals in Kazakhstan**

Kazakhstan continues the concept of giftedness inherited from the Soviet education system, employing a system based on high intelligence and performance, achievement-based criteria, enriched subject-specific curricula, and an approach focused on cultivating an intellectual elite. The education of gifted individuals gained even more importance after gaining independence in 1991. One significant step towards identifying and supporting gifted students in Kazakhstan was the establishment of Kazakh-Turkish High Schools (KTL) in 1992–1993, initiated by the Kazakh-Turkish Education Foundation. These schools were opened nationwide as co-educational institutions for both boys and girls; some regions also saw the establishment of single-sex boarding schools. The admission process for KTLs is based on tests measuring students' IQ levels and selective exams in various fields. Mathematics and science are central to the curriculum, and a multilingual education model is adopted. The use of Kazakh, Russian, Turkish, and English as languages of instruction has been seen as a strategic choice to enable students to both preserve their national identities and become globally competitive individuals (Yakavets, 2024).

In 1996, a strategic decree entitled “On State Support and Development of Schools for Gifted Children” was signed to strengthen the infrastructure in this area and provide suitable opportunities for children. This regulation defined special schools serving gifted students as comprehensive institutions aiming to educate and train students who demonstrate high intellectual or special abilities in various subjects, thus paving the way for the establishment of new schools for gifted students in line with the principles of academic freedom, excellence, talent development, and international standards in education (Order of the President of the Republic of Kazakhstan, 1996). In accordance with this decree, in 1998, the Ministry of National Education of Kazakhstan established the “Daryn Republican Research and Application Center,” tasked with monitoring and supporting work related to gifted children throughout the country. The

center's mission is to identify, develop, and provide professional support to gifted children and young people in Kazakhstan (Daryn Center, 1996).

In recent years, Kazakhstan has placed greater emphasis on the education of gifted students, viewing it as a way to strengthen education and develop human resources. To this end, in 2009, the government established state-supported, full-day selective schools for gifted children aged 12–18 in 20 regions of the country. These schools, which provide education from the 7th grade onwards, are known as Nazarbayev Intellectual Schools (NIS). NIS aims to change the way gifted middle and high school students are educated. Its mission is to "contribute to the development of the country's intellectual elite" by offering a curriculum based on internationally recognized standards (NIS, 2011).

### **3. Identification Processes for Gifted Individuals in Kazakhstan**

In Kazakhstan, the Olympiads have become an integral part of the education system and continue to be important today. In this context, the Daryn Center plays a central role in organizing Olympiads in various academic disciplines (at city, regional, national, and international levels), as well as children's art and creativity competitions, festivals, young musician competitions, and other events aimed at discovering young talent. Students who achieve success in the Olympiads often have the opportunity to win scholarships from top national or international universities (Yakavets, 2024).

All students in Kazakhstan can take entrance exams to be admitted to the seventh grade of the Nazarbayev Intellectual Schools (NIS). The exam consists of two stages. The first stage consists of multiple-choice questions that measure students' knowledge level, while the second stage assesses students' abilities in detail through more challenging tasks and problem-solving assignments in physics, mathematics, chemistry and biology.

The research findings reveal that Turkey and Kazakhstan adopt different approaches to the education of gifted individuals. Both countries define gifted individuals similarly in terms of high cognitive capacity, creativity, and special abilities. In Türkiye, education is conducted on the basis of an inclusive model, and additional support is provided through Science and Art Centers (BİLSEM) during weekdays or weekends. The identification process is multi-stage, involving teacher nominations and centrally standardized tests. In Kazakhstan, selective, full-day educational institutions such as Kazakh-Turkish High Schools and Nazarbayev Intellectual Schools are prominent; performance-based assessments such as IQ tests, entrance exams, and olympiads are used under the coordination of the Daryn Center. In conclusion, while Turkey adopts a more inclusive and inclusion-oriented model, Kazakhstan prefers a selective and segregated structure.

## **RESULTS, DISCUSSION AND RECOMMENDATIONS**

An examination of educational policies and practices for gifted children in Turkey and Kazakhstan reveals that both countries have been striving to establish a systematic and institutional structure in this field in recent years. The common goal of

both countries is to identify gifted individuals at an early age, develop their potential, and provide learning environments tailored to their individual differences. However, there are notable differences in the form of implementation, institutional structure, and assessment approaches.

In Turkey, the education of gifted individuals is largely carried out through Science and Art Centers. These centers are organized structures that aim to develop the academic, artistic, and scientific potential of students (MEB, 2022b). The identification process is conducted as a multi-stage process, from nominating teacher candidates to group screening tests and individual assessments (MEB, 2023). However, it is observed that problems regarding the quality and quantity of personnel who will be involved in the education of gifted individuals still persist (Çitil, 2018).

In Kazakhstan, the education of gifted individuals is carried out through institutions such as the Nazarbayev Intellectual Schools and the Daryn Center. These institutions are selective schools that aim to improve students' achievements in science, technology, engineering, and mathematics. The identification process is largely based on academic achievement, centralized exams, and performance tests. In this respect, unlike the multi-stage assessment approach in Turkey, Kazakhstan has a more centralized and competitive system. However, the disadvantage of this system is that students living in rural areas do not have sufficient preparation opportunities for the exam-based process and therefore experience inequality of opportunity.

An examination of the policies of both countries reveals similar goals but different implementation methods. Turkey focuses on individual differences in the identification process, while Kazakhstan adopts a centralized system that selects students with high academic achievement. Turkey's model prioritizes diversity and flexibility, while Kazakhstan's system emphasizes selectivity and institutional discipline.

The findings of the study reveal that practices are developing in both countries, but some problems persist. In Turkey, subjective judgments may influence the teacher nomination process, while in Kazakhstan, students living in rural areas are at a disadvantage in terms of equal opportunities. Furthermore, Turkey appears to have limited experience in implementing separate school models for the education of gifted students (Çitil, 2018). In Kazakhstan, on the other hand, emphasis is placed on Olympiads in the practices, and there is a need to develop diagnostic tools. In this context, it is important for both countries to increase the cultural validity of diagnostic tools, prioritize teacher training, and raise awareness among families.

In conclusion, both Turkey and Kazakhstan place great importance on the education of gifted students, but they pursue different institutional models. Sharing experiences from Turkey's multi-stage identification system and Kazakhstan's established elite school model would improve the quality of both identification processes and educational programs. Such mutual cooperation would support not only the individual development of gifted students but also the societal progress of both countries.

The research was limited to document analysis, and no data was collected from the field. The opinions and experiences of teachers, students, and practitioners were not included. Therefore, it is recommended that the effectiveness of the practices be evaluated in a multidimensional way through mixed-methods research, including interviews with teachers, students, parents, and administrators to thoroughly examine the actual situation of the practices and the problems encountered, and through document analysis and fieldwork.

The study is limited to publicly available official documents, regulations, and strategic plans. Current evaluation reports reflecting the actual situation in practice could not be accessed. In this regard, it is recommended that internal evaluation reports and application data be analyzed by obtaining official permissions from relevant institutions (BİLSEM, Daryn Center, NES); and that longitudinal studies be conducted to monitor the long-term academic and professional success of ARGEM and NES graduates.

The research is limited to Turkey and Kazakhstan. Other Central Asian countries or countries with similar education systems were not included in the comparison. In this sense, it is recommended that comparative research be conducted between Turkey and other Central Asian countries (Uzbekistan, Kyrgyzstan, Turkmenistan); and that studies be carried out comparing the practices of Turkey and Kazakhstan with those of leading countries in gifted education such as the USA, the UK, Singapore, and Finland.

The documents examined pertain to a specific time period, and changes and developments in practices may not have been fully tracked during the research process. In this regard, it is recommended that regular updating studies be conducted to monitor policy changes regarding the education of gifted students; and that research be carried out examining the transformations in practices over the last 10-15 years from a historical perspective.

The effects of the inclusion model in Türkiye and the separate school model in Kazakhstan on student achievement, socio-emotional development, and career goals could not be compared. In this regard, it is recommended that experimental or quasi-experimental studies comparing the effectiveness of both models be conducted; and that validity and reliability studies examining the psychometric properties of the measurement tools used in the diagnostic processes of both countries be carried out.

Finally, the impact of socioeconomic level, gender, and geographical location variables on the identification and placement processes has not been examined. In this sense, it is recommended that research be conducted to examine the equality of opportunity in the identification processes for students from different socioeconomic levels; and that studies be carried out comparing the access opportunities for students in rural and urban areas.

## REFERENCES

- Almukhambetova, A., & Hernández-Torrano, D. (2020). Gifted Students' Adjustment and Underachievement in University: An Exploration From the Self-Determination Theory Perspective. *Gifted Child Quarterly*, 64(2), 117-131. <https://doi.org/10.1177/0016986220905525>
- Dai, D. Y. (2016). Envisioning a new century of gifted education: Adapting to the Turbulence of Globalization. In *Giftedness and Talent in the 21st Century* (pp. 45–63).
- Daulet, G.D. (2019). Principals' view on equity in gifted education programs. Nazarbayev University Graduate School of Education. Nur-Sultan
- Daryn Merkezi (1996). Merkez Hakkında. <https://daryn.kz/en/about-center/>
- Daryn Merkezi. (2023). Kazakistanlı Okul Çocuklarında Üstün Zekâlılığı Tespit Edip Geliştirmeye Yönelik Psikolojik Ve Eğitimsel Araştırma Programı
- Hernández-Torrano, D., & Tursunbayeva, X. (2015). Are teachers biased when nominating students for gifted services? Evidence from Kazakhstan. *High Ability Studies*, 27(2), 165–177. <https://doi.org/10.1080/13598139.2015.1108187>
- Heuser, B. L., Wang, K., & Shahid, S. (2017). Global Dimensions of Gifted and Talented Education: The Influence of National Perceptions on Policies and Practices. *Global Education Review*, 4(1), 4-21.
- Kazakistan Cumhuriyeti Eğitim Bakanlığı. (2007). Eğitim Hakkında Kanun. [https://astana.meb.gov.tr/meb\\_iys\\_dosyalar/2023\\_09/21103851\\_GENEL\\_B\\_YLGYLER.pdf](https://astana.meb.gov.tr/meb_iys_dosyalar/2023_09/21103851_GENEL_B_YLGYLER.pdf)
- Kazakistan Cumhuriyeti Cumhurbaşkanı Emri. (1996). Üstün zekalı çocuklar için okulların devlet tarafından desteklenmesi ve geliştirilmesi hakkında. <https://adilet.zan.kz/kaz/docs/N960003002>
- Mambetalina, A., Lawrence, K., Amangossov, A., Mukhambetkalieva, K., & Demissenova, S. (2024). Giftedness characteristic identification among Kazakhstani school children. *Psychology in the Schools*, 61, 2589–2599. <https://doi.org/10.1002/pits.23173>

- Monks, F. J., & Pflüger, R. (2005). *Gifted education in 21 European countries: Inventory and perspective*. Radboud University Nijmegen, Netherlands: ECHA.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Sage Publications.
- NIS (Nazarbayev Intellectual School). 2011. Autonomous Educational Organisation “Nazarbayev Intellectual Schools” Annual Report 2011.
- Türkiye Millî Eğitim Bakanlığı. (2018). Özel Eğitim Hizmetleri Yönetmeliği. <https://orgm.meb.gov.tr/www/ozel-egitim-hizmetleri-yonetmeli-yayimlandi/icerik/1089>
- Türkiye Millî Eğitim Bakanlığı (2022a). Kaynaştırma/Bütünleştirme Yoluyla Eğitim Uygulamaları Ulusal Eylem Planı (2022-2026). [https://orgm.meb.gov.tr/meb\\_iys\\_dosyalar/2023\\_05/12081236\\_Ulusal\\_Eylem\\_PlanY\\_MayYs\\_2023.pdf](https://orgm.meb.gov.tr/meb_iys_dosyalar/2023_05/12081236_Ulusal_Eylem_PlanY_MayYs_2023.pdf)
- Türkiye Millî Eğitim Bakanlığı. (2022b). Bilim ve Sanat Merkezleri Yönergesi. [https://orgm.meb.gov.tr/meb\\_iys\\_dosyalar/2022\\_12/06214921\\_BIYLIYM\\_VE\\_SANAT\\_MERKEZLERIY\\_YOYNERGESIY.pdf](https://orgm.meb.gov.tr/meb_iys_dosyalar/2022_12/06214921_BIYLIYM_VE_SANAT_MERKEZLERIY_YOYNERGESIY.pdf)
- Türkiye Millî Eğitim Bakanlığı. (2023). Millî Eğitim İstatistikleri – Örgün Eğitim 2022/2023. Türkiye Cumhuriyeti Millî Eğitim Bakanlığı. <https://sgb.meb.gov.tr/www/mill-egitim-istatistikleri-orgun-egitim-20222023/icerik/508>
- Türkiye Millî Eğitim Bakanlığı. (2024). 2024-2025 Yılı Bilim ve Sanat Merkezleri Öğrenci Tanılama ve Yerleştirme Kılavuzu. <https://www.meb.gov.tr/bilsem-ogrenci-tanilama-ve-yerlestirme-kilavuzu-yayimlandi/haber/32075/tr>
- Renzulli, J. S. (2012). Reexamining the role of gifted education and talent development for the 21st century: A four-part theoretical approach. *Gifted Child Quarterly*, 56(3), 150–159.
- Lavy, V. & Goldstein, Y. (2022). Gifted children programs’ short and long-term impact: Higher education, earnings, and the knowledge economy. *National Bureau of Economic Research Working Paper*, 29779.
- Subotnik, R. F., Olszewski-Kubilius, P., & Worrell, F. C. (2011). *Rethinking giftedness and gifted education: A proposed direction forward based on psychological science*. *Psychological Science in the Public Interest*, 12(1), 3–54.
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Sage Publications.

- Çitil, M. (2018). Türkiye’de üstün yeteneklilerin eğitimi politikalarının değerlendirilmesi. *Milli Eğitim Dergisi*, 47(Özel Sayı 1), 143-172.
- Çitil, M., (2020). *Özel eğitim alanının kavramsal, tarihsel ve yasal temelleri*. Türkiye’de Özel Eğitim Hizmetleri (pp.11-45). Millî Eğitim Bakanlığı.
- Çitil, M., Ersoy Sağlık, S., Özdemir Kılıç, M. ve Ağaya, A., (2020). Üstün yeteneklilerin eğitiminde ayrı okullar: Amerika’daki üstün yetenekliler okullarının karşılaştırmalı olarak incelenmesi. *Çocuk ve Medeniyet*. 5(10), 257-280.
- Çitil, M. ve Sak, U., (2020). *Türkiye’de özel yetenekli bireylere yönelik eğitim hizmetleri*. Türkiye’de Özel Eğitim Hizmetleri (pp.113-129). Milli Eğitim Bakanlığı.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Sage Publications.
- Yıldırım, A., & Şimşek, H. (2018). *Sosyal bilimlerde nitel araştırma yöntemleri* [11. Baskı]. Seçkin Yayıncılık.
- Yakovets, N. (2014). Reforming society through education for gifted children: the case of Kazakhstan. *Research Papers in Education*, 29(5), 513–533. <https://doi.org/10.1080/02671522.2013.825311>