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Research Article

Opinions of parents on their preschool children with gifted potential

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Abstract

While there are numerous public centers for gifted children outside of compulsory school hours in Türkiye, facilities for gifted preschoolers remain limited. To address this gap, a consortium of public and civil organizations established Şanlıurfa Gifted and Talented Education Center for children aged 3-6 years, funded by the Ministry of Industry and Technology from 2021 to 2023. This study, one of several academic initiatives within the project, explores parental perceptions of giftedness in young children, comparing views of parents whose children scored within normal and high IQ ranges. Upon the project center's opening, advertisements solicited applications for full-time programs. During the spring semester of 2022, 81 volunteering applicant families completed semi-structured interview forms, explaining how they came to the conclusion that their children were gifted. Subsequently, their children underwent IQ testing, classifying them as either within the normal or potentially gifted group. Researchers conducted content analysis on the initial family responses to identify perceptual differences between families of children with normal and high IQ scores. The analysis revealed several characteristics parents associate with potentially gifted preschoolers, aligning with existing literature. These include language proficiency, curiosity, strong memory, interest in mathematics and foreign languages, musical talent, rapid comprehension, sociability, high attention, logical thinking, and creativity. Notably, many of these traits were also attributed to children scoring within the normal IQ range scores, with exceptions being early reading and writing abilities, leadership skills, and expert opinion. The study concludes that parents of both gifted and typically developing children identify similar indicators of giftedness and subtle differences seem to exist in their perceptions of these traits. Further research is recommended to explore implications for the early identification and support of gifted children. The paper's conclusion discusses the full implications and limitations.

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Introduction

During the early stages of education, exceptional talents and abilities may be observed among the preschoolers. The gifted children in the preschool period are defined as those with the potential to perform at high levels due to their advanced or rapid development (Karadağ & Yıldız Demirtaş, 2022). This definition is similar for all age groups of gifted students; "*gifted students are individuals who are recognized for performance that is superior to that of their peers*" (Worrell et al., 2019: 551). Gifted and talented students display or promise an outstanding intellectual ability and are

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capable of extraordinary performance and accomplishment compared to their peers (McClain & Pfeiffer, 2012). For Renzulli (1978), giftedness needs to be redefined to include three elements: above-average intelligence, high levels of task commitment, and high levels of creativity.

Accurate identification of children in terms of their gifts and talents is a vital step in planning services for preschool and kindergarten students. In order to better serve these groups, there are several tools to assess gifted children in the early age groups, such as the Gifted Rating Scales (GRS) by Pfeiffer and Jarosewich (2003), which includes a Preschool/Kindergarten Form (GRS-P) for ages 4:0 to 6:11 and a School Form (GRS-S) for ages 6:0 to 13:11. Another one is Wechsler Preschool & Primary Scale of Intelligence (WPSSI-IV) by Wechsler (2012) covering the ages from 2:6 – 3:11 to 4:0–7:7. As gifted identification process is mainly based on intelligence quotient (IQ), the centers for gifted and academics in the field highlight serious limitations in utilizing only an IQ test score to identify gifted students and urged more comprehensive, multiple and alternative approaches to assess the giftedness (Bildiren et al, 2020; McClain & Pfeiffer, 2012). Thus, IQ tests, parent and teacher observations, opinions, expert examination, and multiple criteria are today the most recounted issues in gifted student research.

Need for Gifted Education in Preschool Period

The literature has a consensus on the need for early identification and intervention for not only developmentally delayed children but also students who show exceptionally high potential or ability in kindergarten age groups (Pfeiffer & Petscher, 2008, p.1). Despite the universal interest in the topic, most early childhood programs are not able to meet the needs of young students with intellectual and/or special talents (Pfeiffer & Petscher, 2008). Providing appropriate learning opportunities to gifted children must be based on their needs as they differ from others (Meador, 1992). Children with a promise of giftedness require a wide variety of educational opportunities that are not found in regular instructional programs (Renzulli, 1978). Based on the work of Piaget, Roeper (1977, p. 391) pinpoints that "*the gifted child becomes an abstract thinker before the child is emotionally able to deal with this understanding,*" which means a standard approach and regular instructional program to these students in the early ages may produce unintended effects on their potential development and progress.

In line with the consensus and need, the States, though less, have started to focus on education for gifted students in preschool periods (Klemme, 2022; Resch, 2014; Mönks & Pflüger, 2005). A burgeoning amount of evidence supports the benefits of quality preschool education for children of all levels, even though early childhood gifted education services rarely exist in preschool centers (Kettler et al., 2017). In answer to these calls abroad and national interest, ŞÜZMER (a Turkish acronym of Şanlıurfa Üstün Zekalılar ve Yetenekliler Eğitim Merkezi) is one of the latest initiatives supported by public and civil organizations in Türkiye that addresses the curriculum development and training of gifted/talented students at early ages with all-day programs serving registered students.

ŞÜZMER is a pilot study for preschoolers in Şanlıurfa/Türkiye. It was founded to serve the directives in 2016 for Science and Art Centers (known as BİLSEM in Türkiye), which are the official education centers for gifted students in Türkiye under the supervision of the Ministry of National Education (MoNE): BİLSEMs are established by the Ministry upon the recommendation of the governorates, taking into account several conditions, with the aim of helping *preschool*, primary, secondary, and high school students with special talents to become aware of their individual abilities and to develop their capacities to the highest level (MoNE, 2016). Despite the inclusion of this provision in the directive for Science and Art Centers, pre-school education units and training services for gifted at these ages were not provided (Dümenci et al., 2017). Science and Art Centers serve the gifted children after a series of tests for students at least 7 years old. ŞÜZMER, being a pilot study for preschool-aged students, is assumed to prepare a solid framework for all other Science and Art Centers if they decide to open pre-school education units.

The Characteristics of Gifted Students

Bildiren (2018) found that gifted children aged 4-6 years displayed characteristics such as early reading abilities, strong memory, mathematical aptitude, curiosity, and high motivation, among several other traits. Curiosity is one of the basic developmental features that help the early child explore the world (Switzky et al., 1974). Strong memory, on the other hand, seems to be closely related to a fluid mind and visual processing intelligence (Gray et al., 2017). Vlahovic-Stetic et

al. (1999) investigated whether gifted children at primary school age (9-10 years old) differ from their normal peers in terms of some characteristics (motivational-emotional variables such as intrinsic orientation towards schoolwork, math anxiety, academic self-esteem, attribution of success and failure in math, and situational interest in math). The results of the study show that gifted children differ from non-gifted children in having a higher internal orientation towards mathematics, lower mathematics anxiety, lower attribution of success to external factors and effort, as well as attributing failure to less external factors (Vlahovic-Stetic et al., 1999). Fast learning is among the features of giftedness (Bahar & Ozturk, 2018; Duan et al., 2010). Children with high verbal ability have significantly higher verbal creative potential (Guignard et al., 2016). Guignard et al. (2016) emphasized in their research that giftedness should be associated with the cognitive domain of talent. The characteristics of giftedness identified long ago by Silverman et al. (1986) are excellent memory, long attention span, early and comprehensive vocabulary development, curiosity, ability to learn quickly, abstract reasoning ability, and recognition of letters in the alphabet at a very early age.

Purpose of the Research

When the characteristics of gifted students are examined based on previous studies, Bildiren et al. (2020: 352) report that gifted children in the preschool period show different characteristics like having complex sentence structure, high verbal skills, rapid learning, having good memory, abstract thinking, answering questions more quickly, the ability to read before age five without direct teaching, high mathematical skills, and longer attention and concentration span. Nevertheless, given the limited research on giftedness during the early childhood years (Inci, 2021), it is plausible that there may exist unexplored characteristics and need for programs pertaining to this age. Consequently, further investigations are required to take fruitful steps forward in defining gifted children in pre-primary education.

IQ tests alone are not very comprehensive in assessing giftedness, so the researchers also planned to see if family responses before the IQ test correlate with the results attained. Thus, the researchers in the study collected family responses prior to the ŞÜZMER selection exam to see whether students show different characteristics as highlighted above: complex sentence structure, high verbal skills, rapid learning, etc., and compare the possible patterns among those who scored the intended points. In line with this, the purpose of this study is to see whether there are distinct similarities or differences among gifted and/or normal children based on the parent's views in comparison to their test results. The research questions are as follows:

- For preschoolers with normal test results, what made their families think their children were gifted?
- For preschoolers with high test results, what made their families think their children were gifted?
- What are the similarities and differences between the perceptions of giftedness among families with children from either group?

Method

Research Model

The main focus of the study is to interpret the families' responses about giftedness in early age groups. Thus, the design of this study was determined as phenomenology, one of the qualitative research methods. According to Moerer-Urdahl and Creswell (2004), phenomenology aims to analyze the common experiences or opinions of individuals about a phenomenon. Here, the researchers aimed to understand families' definitions of giftedness, which were compared after IQ tests.

Participants

The general data regarding children who took part in the selection test are given in Table 1.

Table 1. Demographic data about the participants' children

	Gifted*	Normal
Female	18	20
Male	19	24
Total	**37**	**44**

* Based on test results of WPPSI-IV used by the testers/examiners.

There were 81 applications to ŞÜZMER project in the first phase. The first applicants (mother or father) were asked what makes them think their children are gifted and how they define them. They were also expected to tell any noteworthy and interesting behavior they observed in their children regarding their peers. They were provided an online link with several demographic questions and one open-ended question before the IQ test process in ŞÜZMER. Later, the testers in the study used WPSSI-IV (Wechsler, 2012), an endorsed tool examining intellectual ability in early age groups. The students were grouped as "normal or with gifted potential" based on the test scores specified by the testers.

The answers to the initial family questions are analyzed and presented in Table 2, and some quotes from written responses related to the main findings are presented in Table 3.

Data Collection Tools

The researchers employed a semi-structured interview form to collect opinions of the families with normal and gifted children. A semi-structured interview form containing a single open-ended question was applied to participating parents, along with demographic information regarding them and their children. The question posed is as follows: *"Please explain the characteristics that make you think your child is different from other children (by considering high and normal IQ traits according to your perception)".*

Procedure

ŞÜZMER is a pilot project in Şanlıurfa, a southeastern city in Türkiye, for early-age groups with gifted potential. ŞÜZMER was founded through a pilot project call by Karacadağ Development Agency / SOGEP Program under the auspices of the Ministry of Industry and Technology. ŞÜZMER hosted a series of academic research on giftedness for early ages (See, https://www.suzmer.com/yay%C4%B1nlar), one of which is this study conducted in the first week of students' acceptance into the center. Upon getting registered at the center, all-day education programs were provided in small groups to students, supervised by the co-authors of this study and expert groups from different institutions. The dissemination and sample daily activities of the center during the pilot study can be examined here: https://twitter.com/suzmerr . The project center in Şanlıurfa is shown in Photo 1.

Photo 1. Şanlıurfa Gifted and Talented Education Center (Şanlıurfa Üstün Zekalılar ve Yetenekliler Eğitim Merkezi, ŞÜZMER)

ŞÜZMER was managed by Harran University under the kindergarten of Şanlıurfa Science and Art Center within a separate building dedicated to gifted and talented preschoolers, accepted upon test scores along with family interviews

and examiner/teacher observations. There was a registration announcement for the project ŞÜZMER, for which interested families with children between the ages of 3 and 6 years old could apply. Prior to the test and assessment, the families were asked what characteristics they associate with their children. The written answers were taken, and the family was given an appointment date when teachers/examiners could be present for the selection process.

Data Analysis

The researchers employed content analysis for the written data taken from the families. Through the content analysis, the written data collected from the participants were organized and coded; then the findings were defined and interpreted based on these codes (Yıldırım & Şimşek, 2008). The researchers also grouped families' responses into normal and gifted categories, based on the test results of WPPSI-IV, and constantly compared if there was an overlapping code.

Due to ethical concerns, the information of the participants (families) and their children was anonymized and not requested in the written data. N1, N2... or G1, G2.... represent applicants in natural order upon the test results of their children. N1 means an applicant (parent) to ŞÜZMER center with the child having IQ scores above the threshold (e.g. 135) while G1 means an applicant (parent) to ŞÜZMER with the child having IQ scores below the threshold (e.g. 110). The families were mostly from middle and low-socioeconomic-status groups. The participants' gender is anonymized, and the use of "she" and "he" in Table 3 is random.

Results

The following sections present the characteristics that lead the families to believe their preschool-aged children are potentially gifted. By comparing the initial responses and results after the selection test, the researchers revealed how the characteristics of normal and gifted children seem to differ.

Comparison of Parental Perceptions: Normal vs. Gifted IQ Scores

Table 2 compares opinions between parents of children classified as normal and those classified as gifted based on IQ test scores. The analysis reveals that both groups of parents expressed similar characteristics when describing their children's abilities in the data collection period before the application IQ tests.

Table 2. Results of children with gifted potential and normal - based on parents' opinions

Codes	***Gifted***	***Normal***
Using mother tongue well	19	7
Curiosity	11	13
Strong memory	10	12
Math interest	8	10
Interest in foreign languages	7	5
Music talent	6	2
Fast learning/comprehension	8	9
Social	4	3
High level of attention	3	1
Learning to read and write early	3	-
Logical	3	5
Creativity	3	6
Leadership	3	-
Expert opinion	3	-

Table 2 shows that the frequently expressed variables are similar in both groups, despite a few distinct ones. The general ones are using the native language well, having a strong memory, having an interest in mathematics, fast learning/comprehension, etc... Only the codes of learning to read and write early, leadership and expert opinion were not mentioned by the families of children with normal test scores. Some of these codes attained from the family responses are quoted in Table 3. The family responses were long in some cases, so just the related sentences were quoted and adapted with minor changes in the English language to make sense. Table 3 displays the responses of families, covering some codes attained from content analysis.

Table 3. What makes you think that your child has gifted potential?

Codes	Gifted	Normal
Using mother tongue well	She learned to read on her own at the age of 3. She uses words well (G19).	Very high language and expression skills. He has ability to communicate with older children (N6).
Math interest	His interest in English, numbers and literacy... although we did not teach him, he can recognize and add 3 to 4 digit numbers on his own at this age(G20).	In math, she counts up to 600 and increases by 2, can tell small numbers and big numbers, and the time (N28).
Learning to read and write early	At 18 months, he was speaking very well, he knew counting to 10, at the age of two he could tell colors, shapes and letters.... He learned to read and write short sentences by himself (G18).	-
Logical	He can grasp every concept taught quickly. He can form logical sentences. He learned all the numbers, and some of the letters, of his own accord, without help (G16).	Speaking and reasoning skills, ability to express herself, I think she is beyond her age (N37).
Leadership	He is fond of his freedom, has a leader spirit...He grasps and distinguishes concepts very quickly with his attention and intelligence, he is more resourceful than his peers around him, he successfully solves the education sets of the upper age group (G15).	-
Expert opinion	In general, he gained all his skills earlier than his peers. His emotional intelligence, social intelligence, cognitive intelligence, visual intelligence are very high and above his peers...He is a very curious, interested and excited child. He is especially enthusiastic about hand skills, music and experiments. The sentences I wrote before are the things that his teacher also emphasized, especially his teacher expresses that he is above the children in the class and that he needs better education(G24).	-

Along with some direct quotations taken from the families' answers, as in Table 3, this study pinpoints some messages for researchers, educators, and families.

Although the researchers could not spot a strong coherent pattern between children with gifted and normal potential based on the participants' ideas, there are some main features- learning to read and write early, leadership skills, and expert opinion- which were mentioned by families, though few, just for gifted children confirmed with their test scores. Three families reported that their children learned how to write and read at the age of 3-5 without any family and sibling support. They showed management and leadership skills, which were not expected in this age group by their families. Three parents told their children could be gifted based on different opinions they received from experts, teachers, or pedagogues around them, which were confirmed by the test results in ŞÜZMER project. The expert opinion could be one of the strong indicators of telling children with gifted potential. The test period should surely include a teacher and expert opinion.

Other codes listed under Table 2 were mentioned for both groups but with different weights and frequencies. From a family perspective, the use of smooth and fluent language can be considered a distinctive characteristic in defining preschoolers with gifted potential. Twenty-six parents reported their children exhibited fluency and clarity; they were

told to communicate and interact better with a repertoire of good vocabulary compared to their peers. The dimension of using native language well was emphasized more in the gifted group (n=19).

A music ability could be considered stronger in preschooler children articulating several songs compared to their peers who may song just a few lines; however, an expert could classify a child with music ability based on a musical ear. All in all, based on family responses from a larger perspective, the characteristics in Table 2 seem to be the main characteristics that the community uses in defining gifted persons in society.

The codes from the family responses are consistent with the concepts related to giftedness in the literature. These codes, which signify potentially gifted and talented persons, can be found in the studies and theories associated with gifted literature. The noteworthy aspect of this study is that these characteristics are also explored in 3-6 age groups based on family responses.

Discussion and Conclusion

The parents with gifted and normal test results in the study use similar definitions for their children whom they think to be gifted. Both groups mainly shared similar ideas on their children as seen in Table 2. When the findings obtained from the research are examined, it is seen that the families of both normal and gifted children emphasize the use of language well. A good use of language is more frequently stated for gifted children, which is emphasized in the literature (Bildiren, 2018; Gross, 1993). This may be due to two reasons. The fact that gifted children are developmentally ahead of their peers may help them progress faster in language. On the other hand, language skills can be determined and observed more easily. For this reason, children with good language development may cause a misconception among the family that they are gifted.

Characteristics such as curiosity, strong memory, interest in math, and foreign languages are included in the definitions of gifted potential; the fact that they were used in normal and gifted groups suggests that they may not be sufficiently distinctive in terms of our sample. As a matter of fact, Steiner and Carr (2003) grouped the differences that distinguish gifted and non-talented children under four headings. These are *processing speed, knowledge base, metacognitive skills,* and *problem-solving and strategy ability*. In our study, the characteristics specified by families can be an indication of giftedness, which can be related to the headings of Steiner and Carr (2003). The characteristics stated by the families in our study are the expected developmental features in early childhood (Tuğrul, 2002) as well.

A high level of attention was reported in family responses of both normal and high IQ test-scored students, with families of children with high IQ reporting it more. Web (2007) stated that especially young children have longer attention spans when compared to their normally developing peers. On the other hand, Gomez et al. (2020) focused on the inattention and hyperactivity/impulsivity differences of gifted and non-gifted children with and without ADHD in their recent study. In the aforementioned study, the Wechsler Intelligence Scale for Children, was used. Significant findings were reached in the study conducted with the participation of 359 boys and 148 girls with a mean age of 10.6 (SD=3.08). In the study, gifted/ADHD children tended to be less inattentive than the non-gifted/ADHD group, despite both groups having ADHD diagnosis.

In this study, learning to read and write early, leadership skills and expert opinion about the children were found to be the distinctive features of gifted children. In the sample, some families with gifted children stated that their kids learn to read and write earlier than their peers. Numerous studies support this finding (Bildiren, 2018; Clark, 2002; Gross, 1993). Gross (1993) determined in his study that the reading, comprehension, and fluent reading levels of gifted children are at least 3 years ahead of their ages. He found that 36 out of 40 gifted children started reading before the age of 5. Karnes and Bean (1990) stated that the leadership characteristics commonly seen in gifted children are the desire to challenge, the ability to produce creative solutions to problems, the ability to reason critically, the ability to easily recognize new relationships, flexibility in thought and action, understanding of ambiguous concepts, and motivating others. Among the families participating in our study, those with gifted children emphasized the leadership quality. Early childhood leader children have high verbal skills, sensitive to the others needs and concerns of their (Perez et al., 1982). These kids can easily initiate interactions with peers and adults, and can easily adapt to new situations (Kitano,

1983). When considered in this respect, parents' definition of gifted children with leadership traits is consistent with the literature. Also, some families reported that they did not initially define their children as having high intellect but based on the feedback from their teachers and experts on this topic who observed children's behaviors for some period in the class or office. Thus, it is possible to say early education experts or teachers can distinctly tell the differences between normal and high-IQ students.

In this study, it is seen that the gifted children's good use of their mother tongue (n=19) was repeated many times. This is quite high when compared to their normally developing peers (n=7) in the study. Bucaille et al. (2022) systematically compiled 658 academic studies, examined the cognitive profiles and academic performances of intellectually gifted children in their study, and revealed the weak and strong characteristics of these children. Research results showed that intellectually gifted children do better in attention, language, math, verbal working memory, displacement, and social problem-solving compared to typically developing children. This systematic review study is consistent with this research.

Family members in the sample have noted musical talent as a feature that distinguishes gifted children from their normally developing peers. This feature is more recounted for gifted students in the sample. Children having remarkable skills in the field of music are related to giftedness. Csikszentmihalyi et al. (2014, p.28) state that this is related to easily recognizable musical or mathematical skills. When the literature is examined, it is seen that extraordinary talents in fields such as music, art, and mathematics become visible very early (Olszewski-Kubilius et al., 2003).

The findings of this study suggest that concepts such as mother tongue use, curiosity, strong memory, interest in mathematics, fast comprehension, and creativity, which are generally accepted among the distinguishing features of giftedness, may not be sufficiently distinctive in terms of the sample and age group included in this study. Families of children with normal IQ test scores have repeatedly mentioned the above-mentioned features of gifted children. This could be due to the biased or optimistic perspectives of families toward their children, which are detailed in the limitations part. The perceptions of families regarding "curiosity, strong memory," etc., may have played a subjective role in defining students with gifted potential while learning to read and write early, leadership and expert opinion, though less, were found to be distinctive cases to name early age children as potentially gifted or not.

Recommendations

Research on giftedness covering early education period is very limited compared to older groups. For this reason, it is recommended that researchers develop the literature on this subject to guide pioneering practices in this field.

The families of both potentially gifted and normal students have similar conceptions of giftedness. In future studies, families should be asked to explain in detail the characteristics they expressed for their children. Supporting the statements with detailed experiences will facilitate the understanding of whether the statements of the families can better predict the IQ test results.

Parents' observations about potentially gifted students, whether they have high IQ scores or normal IQ scores, are similar. One of the reasons for this may be that parents consider "any differences" as "a strong sign of giftedness". At this point, sociological research is needed to understand why differences in society are largely attributed to giftedness.

Limitations of Study

There are various limitations that could have manifested in this study, which are explained below.

The parents in the study use similar definitions for their children whom they believe to be gifted. Characteristics such as curiosity, strong memory, and interest in math and foreign languages are among the traits that lead families to think their children have potential for giftedness. These characteristics, which display true indications of giftedness potential, can be interpreted differently based on families' understanding of these concepts. For example, telling the time might be seen as an indication of giftedness for a 3-year-old by one family, while counting to 100 might be considered a sign for a 4-year-old by another family.

Another important issue and limitation in the study is that the participants who applied to ŞÜZMER already believe their children are gifted. This belief may introduce bias, causing them to focus on aspects they associate with giftedness. Along with the self-selection bias, parents who voluntarily applied to the gifted education center may have pre-existing beliefs about their children's abilities, potentially skewing the sample towards those who are more attuned to or actively seeking gifted education.

The study relies heavily on parents' perceptions and descriptions, which may be subject to exaggeration or misinterpretation of their children's abilities. Additionally, the potential influence of the advertisement could be seen in the families. The method of recruiting participants through advertisements for the education center may have influenced how parents described their children's abilities, possibly leading to an emphasis on traits they believed the center was looking for.

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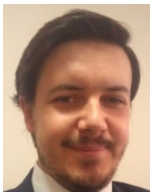

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References

Bahar, A., & Ozturk, M. A. (2018). An Exploratory Study on the Relationship between Creativity and Processing Speed for Gifted Children. *International Education Studies, 11*(3), 77-91. https://doi.org/10.5539/ies.v11n3p77

Bildiren, A. (2018). Developmental characteristics of gifted children aged 0–6 years: parental observations. *Early Child Development and Care, 188*(8), 997-1011. https://doi.org/10.1080/03004430.2017.1389919

Bildiren, A., Sağkal, A. S., Gür, G., & Özdemir, Y. (2020). The perceptions of the preschool teachers regarding identification and education of gifted children. *Ozel Egitim Dergisi*, *21*(2), 351-356.

Bucaille, A., Jarry, C., Allard, J., Brochard, S., Peudenier, S., & Roy, A. (2022). Neuropsychological profile of intellectually gifted children: A systematic review. *Journal of the International Neuropsychological Society*, *28*(4), 424-440.

Clark, B. (2002). *Growing up gifted: Developing the potential of children at home and at school (6th ed.).* Upper Saddle River, NJ: Merrill–Prentice Hall.

Csikszentmihalyi, M., Csikszentmihalyi, M., & Robinson, R. E. (2014). Culture, Time, and the Development of Talent. *The Systems Model of Creativity,* (pp. 27–46). https://doi.org/10.1007/978-94-017-9085-7_3

Duan, X., Shi, J., & Zhou, D. (2010). Developmental changes in processing speed: Influence of accelerated education for gifted children. *Gifted Child Quarterly, 54*(2), 85-91. https://doi.org/10.1177/1932202X14549354

Dümenci, S. B., Gürsoy, F., & Aral, N. (2017). Türkiyede okul öncesi dönemdeki üstün potansiyalli ve üstün zekâlı olan çocukların eğitimleri (Education of Highly Gifted and Gifted Children at Preschool Period in Turkey). *Kastamonu Eğitim Dergisi*, *24*(5), 2469-2480.

Gomez, R., Stavropoulos, V., Vance, A., & Griffiths, M. D. (2020). Gifted Children with ADHD: How Are They Different from Non-gifted Children with ADHD? *International Journal of Mental Health and Addiction*, *18*(6), 1467–1481. https://doi.org/10.1007/s11469-019-00125-x

Gray, S., Green, S., Alt, M., Hogan, T., Kuo, T., Brinkley, S., & Cowan, N. (2017). The structure of working memory in young children and its relation to intelligence. *Journal of memory and language, 92*, 183-201. https://doi.org/10.1016/j.jml.2016.06.004

Gross, M. (1993). *Exceptionally gifted children*. London: Routledge.

Guignard, J. H., Kermarrec, S., & Tordjman, S. (2016). Relationships between intelligence and creativity in gifted and non-gifted children. *Learning and Individual Differences, 52*, 209-215. https://doi.org/10.1016/j.lindif.2015.07.006

Inci, G. (2021). The analysis of research about gifted and talented children at early childhood in Turkey: a study of meta – synthesis. *Journal for the Education of Gifted Young Scientists, 9*(2), 107-121. DOI: http://dx.doi.org/10.17478/jegys.696491

Karadağ, F. & Yıldız Demirtaş, V. (2022). Early literacy skills of gifted children in preschool. *Dokuz Eylül Üniversitesi Buca Eğitim Fakültesi Dergisi,* (53), 212-223.

Kettler, T., Oveross, M. E., & Bishop, J. C. (2017). Gifted education in preschool: Perceived barriers and benefits of program development. *Journal of research in childhood education*, *31*(3), 342-359.

Kitano, M. K., & Tafoya, N. (1983). Preschool leadership: A review and critique. *Journal for the Education of the Gifted, 5*(2), 78-89.

Klemme, M. (2022). Lack of support for gifted children in kindergarten. *European Journal of Research and Reflection in Educational Sciences*, *10*(1), 75-82.

McClain, M. C., & Pfeiffer, S. (2012). Identification of gifted students in the United States today: A look at state definitions, policies, and practices. *Journal of Applied School Psychology*, *28*(1), 59-88.

Meador, K. S. W. (1992). *The effect of synectics training on gifted and nongifted kindergarten students* (Order No. 9227099). Available from ProQuest Dissertations & Theses Global. (304014081). https://www.proquest.com/dissertations-theses/effect-synectics-training-on-gifted-nongifted/docview/304014081/se-2

Moerer-Urdahl, T., & Creswell, J. W. (2004). Using transcendental phenomenology to explore the "ripple effect" in a leadership mentoring program. *International Journal of Qualitative Methods, 3*(2), 19-35

MoNE. (2016). *Bilim ve Sanat Merkezleri Yönergesi (Directive on Science and Art Centers).* Official Gazette of the Ministry of National Education, 2710(79). Retrieved from https://orgm.meb.gov.tr/meb_iys_dosyalar/2017_01/02031535_tebligler_dergisi.pdf.

Mönks, F. J. & Pflüger, R. (2005). *Gifted education in 21 European countries: Inventory and perspective*. Radboud University Nijmegen.

Olszewski-Kubilius, P., Limburg-Weber, L., & Pfeiffer, S. (Eds.). (2003). *Early gifts: Recognizing and nurturing children's talents.* Prufrock Press Inc.

Perez, G. S., Chassin, D., Ellington, C., & Smith, J. A. (1982). Leadership giftedness in preschool children. *Roeper Review, 4*(3), 26-28.

Pfeiffer, S. I., & Jarosewich, T. (2003). *GRS: Gifted rating scales*. Psychological Corporation.

Pfeiffer, S. I., & Petscher, Y. (2008). Identifying young gifted children using the gifted rating scales—Preschool/kindergarten form. *Gifted Child Quarterly*, *52*(1), 19-29.

Renzulli, J.S. (1978). What makes giftedness: Reexamining a definition. *Phi Delta Kappa*n, 60, 180–184.

Resch, C. (2014). National policies and strategies for the support of the gifted and talented in Austria. *CEPS journal*, *4*(3), 9-30.

Roeper, A. (1977). The young gifted child. *Gifted Child Quarterly, 21*(3), 388-396

Silverman, L. K., Chitwood, D. G., & Waters, J. L. (1986). Young gifted children: Can parents identify giftedness? *Topics in Early Childhood Special Education, 6*(1), 23-38.

Steiner, H. H., & Carr, M. (2003). Cognitive development in gifted children: Toward a more precise understanding of emerging differences in intelligence. *Educational Psychology Review, 15*, 215-246. https://doi.org/10.1023/A:1024636317011

Switzky, H. N., Haywood, H. C., & Isett, R. (1974). Exploration, curiosity, and play in young children: Effects of stimulus complexity. *Developmental Psychology, 10*(3), 321.

Tugrul, B. (2002). Features that facilitate learning and teaching in early childhood. *Hacettepe University Faculty of Education Journal,* 22, 142-147.

Vlahovic-Stetic, V., Vidovic, V. V., & Arambasic, L. (1999). Motivational characteristics in mathematical achievement: A study of gifted high-achieving, gifted underachieving and non-gifted pupils. *High Ability Studies*, *10*(1), 37-49.

Webb, J. T. (2007). *A parent's guide to gifted children.* Great Potential Press, Inc.

Wechsler, D. (2012). *Wechsler preschool and primary scale of intelligence—fourth edition*. Pearson.

Worrell, F. C., Subotnik, R. F., Olszewski-Kubilius, P., & Dixson, D. D. (2019). Gifted students. *Annual Review of Psychology*, *70*, 551-576.

Yıldırım, A. & Şimşek, H. (2008). *Sosyal Bilimlerde Nitel Araştırma Yöntemleri* (Qualitative research methods in the social sciences), Seçkin Yayıncılık.