

Research Article

Examining the tendencies of parents of gifted children to guide their children toward scientific fields

Mehmet Akif Demirelli¹

Pursaklar Science and Art Center, Ankara, Türkiye

Article Info

Received: 16 January 2025

Accepted: 29 March 2025

Online: 30 March 2025

Keywords

Career choices of gifted children
Guiding and counselling of gifted
Parents of gifted
Science and Art Center

Abstract

The influence of families on the career choices of gifted students is undeniable. This study aims to examine the extent to which the families of gifted students—enrolled in Science and Art Centers, which are institutions providing support education for the gifted in Türkiye—encourage their children to pursue careers in scientific fields. The participant group consisted of 278 parents (M=91, F=187) whose children are enrolled in different SACs located in Ankara. The research group was formed using a purposeful sampling method, with the primary criterion being that participants must be SAC parents. The study employed the survey model, a quantitative research method, to collect data. The SPSS program was used for data analysis. An assessment of the data revealed that it followed a normal distribution. For analyzing variables such as gender, children's grade levels, and ages, arithmetic means, standard deviations, and dependent samples t-tests were utilized. The ANOVA test was applied to examine the variables of the number of children and the parents' education levels. A significance level of $p < .05$ was used to determine differences between variables. The findings indicated that SAC parents exhibited high levels of guiding their children toward science, establishing a scientific foundation, introducing them to scientific concepts, and encouraging practical applications. A notable difference was observed in the level of guiding children toward science based on the number of children in the family, with parents of single children differing significantly from those with two, three, or more children. The study revealed a significant difference in the levels of orientation toward science between parents with a high school education and those with undergraduate or graduate education. However, no significant difference was found among parents with an associate degree, bachelor's degree, or higher education levels, and high school graduates. Similarly, no significant difference was observed in parents' efforts to orient their children toward science based on their gender, age, or their children's grade level.

2149-360X/ © 2025 by JEGYS
Published by Genc Bilge (Young Wise)
Pub. Ltd. This is an open access article
under the CC BY-NC-ND license



To cite this article:

Demirelli, M.A. (2025). Examining the tendencies of parents of gifted children to guide their children toward scientific fields. *Journal for the Education of Gifted Young Scientists*, 13(1), 53-61. DOI: <http://dx.doi.org/10.17478/jegys.1616193>

Introduction

In developing countries, it is known that gifted children are often directed towards science and engineering fields. This orientation is influenced not only by the societal conditions and the value attributed to specific talent areas, but also by the role and influence of their families. Although it is known that gifted individuals are present in every society, it is also stated that some gifted individuals are not identified. It is thought that gifted individuals constitute 2% of the total population. Individuals who have a higher capacity than their peers in one or more of the areas of creativity, intelligence, and academics are considered as gifted individuals or gifted individuals (Sak, 2017; Coleman et al., 2015; Colangelo &

¹ Psychological counselor of gifted student, Doctorant, Pursaklar Science and Art Center, Ankara, Türkiye, Ankara, Türkiye. Email: demirellimakiff@gmail.com
ORCID: 0000-0003-3217-5764

Davis, 2003). Giftedness refers not only to a person's intelligence but also to his/her ability to show high development in different fields such as art and aesthetics (Baykoç Dönmez, 2010). Giftedness and giftedness are preferably used interchangeably. Gifted individuals are regarded as a significant asset to the society and nation they belong to, owing to their exceptional abilities and capacities that surpass those of their peers. In this context, supporting and fostering the development of gifted individuals is crucial. Gifted individuals are classified as a group requiring special education due to their distinct characteristics compared to their peers (MoNET, 2018). The fact that the rate of gifted individuals is very low compared to the total population may cause some difficulties in both identifying and supporting the development of gifted individuals (Karadağ & Demirtaş, 2022; Hilal & Dağlıoğlu, 2018). In this regard, Science and Art Centers (SAC) were established to address the challenges students encounter in their education and to nurture and develop their existing potential.

SACs are institutions where students are entitled to receive education in the fields of intellectual, art and music by passing a two-stage exam process and where an educational content is offered to support students in the specified fields (MoNET, 2017). In the United States, institutions dedicated to the education of gifted individuals were established in the 1970s, while in Türkiye, the first Science and Art Center (SAC) was inaugurated in 1994 (Sarıtış et al., 2018). Turkey's 2023 Education Vision outlined plans to enhance education for gifted students, including developing measurement tools for SAC admissions and improving learning environments and materials tailored to their needs (Çetin & Çetin, 2024). As a result, SACs stand out as institutions where gifted students are supported in the fields of general intelligence, art and music and benefit from them to develop themselves.

While gifted students are supported in SACs, family environments are also important in supporting their development (Guthrie, 2019; Renati et al., 2017). Smutny (2021) emphasizes that families know more about gifted children than their teachers and that they should be supported in their home environments before school, especially in terms of doing applied scientific studies. Parents of gifted children should take responsibility for developing their children's potential (Alkhalwaldeh et al., 2023). Silverman (2021) mentions that parents with gifted children experience uncertainty about how to guide their children in scientific studies and that they can overcome this uncertainty with strategies that will pave the way and support them. VanTassel-Baska (2025) explains that it is important for parents with gifted children to take responsibility for supporting their children in scientific studies not only by themselves but also by interacting with the school and using the school effectively in this sense. Intelligence can be affected by both the support of education and environment and biological foundations. Therefore, it is essential for families and teachers to understand the characteristics of gifted individuals to effectively support their developmental needs. The family plays a crucial role in supporting the development of gifted individuals (Koç, 2016; Gallagher, 2003; Karakuş, 2011; Sargın & Demirelli, 2024; Tortop & Coşkun, 2017). SACs strive to identify and nurture students' interests and talents from an early age; however, since gifted individuals spend their early childhood with their families, the primary role of families in fostering the development of gifted children is indispensable (MEB, 2022). Alevli (2019) emphasizes that gifted students should be supported in learning environments in terms of readiness and learning styles since they differ from their peers. Supporting gifted individuals by their families reinforces children to realize their existing potential and to develop themselves in line with their abilities (Dağlıoğlu & Alemdar, 2010). It is observed that family attitudes predict intelligence, and gifted children with parents who exhibit democratic family attitudes and provide supportive environments have higher levels of academic achievement and openness to new experiences (Afat, 2013). It is essential for parents of gifted children to provide support in a correct and positive manner; otherwise, students may express their potential in negative ways through inappropriate channels (Çelikten, 2017). In this regard, guiding gifted students toward scientific research activities by their families can be considered one of the positive and supportive channels.

In conclusion, gifted students demonstrate higher capacities in developmental areas compared to their peers, represent a small proportion of the population, and receive education in SACs to enhance their existing potential. It is observed that the place of families is important in supporting and developing the competencies of gifted students, and that students supported by their families show positive development. SACs offer an educational program that supports students in scientific development. It is essential to assess the level of interest that parents of gifted children have in

guiding their children toward science. Therefore, the aim of this study is to examine the extent to which SAC parents guide their children toward science, considering different variables. The study will describe the levels at which SAC parents encourage their children in the scientific field and offer recommendations. To achieve this overall goal, the following sub-objectives will be explored:

- What is the level of SAC parents' orientation of their children toward science?
- What is the level of SAC parents' level of creating a scientific foundation for their children?
- What is the level of SAC parents introducing their children to science?
- What is the level of science-related practice of SAC parents to their children?
- Do the levels of SAC parents' guiding their children toward science differ according to the gender of the parents?
- Does the level of SAC parents' guiding their children toward science differ according to the children's grade level?
- Does the level of SAC parents' guiding their children toward science differ based on the parents' age?
- Does the level of SAC parents' guiding their children toward science differ depending on the parents' level of education?
- Does the level of SAC parents' guiding their children toward science differ based on the number of children they have?

Method

Research Model

In this study, which examines the levels of SAC parents' guidance their children toward science across different variables, the survey model, a type of quantitative research design, was employed. In survey models, it is aimed to reach descriptive conclusions about the current situation by using various measurement tools on the sample group taken from the universe (Creswell & Creswell, 2018).

Study Group

The study group of this research includes a total of 278 SAC parents, comprising 187 women and 91 men, whose children attend various SACs in Ankara. The sample group of the study is 278 parents of SACs in Ankara province and the population is SAC parents in Turkey in general. Convenient sampling method was determined in the study. The convenience sampling method is a sampling technique where the most suitable group is selected as the sample, considering the research purpose, time, and resource constraints (Balçı, 2020). Descriptive data of the parents involved in the study are presented in Table 1.

Table 1. Characteristics of the study group

Variables	Category	Number	Percentage
Gender	Female	187	67.2
	Male	91	32.8
Children's grade level	Primary School	177	63.6
	Middle School	101	36.4
Age of Parents	25-39 years	135	48.5
	40+ years	143	51.5
Education level	High School Associate degree	58	20.8
		41	14.7
	Postgraduate	179	64.5
Number of children	One	35	12.5
	Two	160	57.5
	Three and above	83	30

Upon examining Table 1, it is observed that 67.2% (n=187) of the 278 parents in the study were female, while 32.8% (n=91) were male. In terms of education, 63.6% (n=177) were primary school parents, and 36.4% (n=101) were secondary school parents. Regarding age, 48.5% (n=135) were between 25 and 39 years old, and 51.5% (n=143) were 40 or older. In terms of education level, 20.8% (n=58) were high school graduates, 14.7% (n=41) had an associate degree, and 64.5% (n=179) held a bachelor's or graduate degree. Regarding the number of children, 12.5% (n=35) had one child, 57.5% (n=160) had two children, and 30% (n=83) had three or more children.

Data Collection Tools

Personal Information Form

The personal information form, created by the researchers, collects details about participants, such as gender, age, education level, the number of children, and the education level of their children.

Parents' Shaping Children's Interest in Science Scale

The scale, developed by Bal and Kaya (2022), is a five-point Likert-type tool. It consists of 18 items, with no reverse-scored items, and a total score. The scale is divided into three sub-dimensions: 1) Introducing Science, 2) Building a Scientific Foundation, and 3) Practical Application. The response options are: (5) always, (4) usually, (3) rarely, (2) partially, and (1) never. The scale was validated through exploratory and confirmatory factor analysis, confirming its reliability and validity. The exploratory factor analysis (EFA) showed factor loadings between 0.521 and 0.893, a Kaiser-Meyer-Olkin value of 0.866, and explained a total variance of 62.254%. The Cronbach's alpha coefficient was 0.907. Additionally, the results of the CFA showed an X2/Sd value of 2.08 and a Root Mean Square Error of Approximation (RMSEA) value of 0.077.

Data Analysis

In this study, the arithmetic mean and standard deviation values were utilized to assess the level of SAC parents' guidance their children toward science. These values were categorized as follows: very low (1-1.79), low (1.80-2.59), medium (2.20-3.39), high (3.40-4.19), and very high (4.20-5.00). Prior to conducting the difference analysis, a normality test was carried out, and it was found that the skewness and kurtosis values of the data fell within the range of (+1 to -1). The skewness values ranged from -.664 to .146, while the kurtosis values ranged from -.348 to .291. Since both the skewness and kurtosis values fell within the (± 1) range, it indicates that the data follows a normal distribution (Büyüköztürk, 2016). The independent samples t-test was applied to analyze the variables of gender, children's grade level, and age, while the ANOVA test was used to assess the variables of the number of children and education level. To identify groups with significant differences in the ANOVA test, the Tukey test was conducted. A significance level of $p < .05$ was used as the threshold in the data analysis.

Findings

This section will present the findings derived from the analyses conducted as part of the research.

Guidance towards scientific disciplines

Table 2 displays the descriptive analyses conducted to determine the level of SAC parents' guidance their children toward science.

Table 2. Descriptive data of SAC parents' levels of guidance their children towards science

Variable	Sub-dimensions	\bar{x}	ss
Orientation of Families to Science	Total	3.76	0.57
	Creating a scientific basis	3.71	0.56
	Introducing science	3.82	0.68
	Practical application	3.66	0.81

Upon examining Table 2, it can be concluded that the mean total score for the scale measuring parents' guidance of their children toward science is high ($\bar{x} = 3.76$). Additionally, it is noted that parents exhibit high levels in the sub-dimensions of the scale, including creating a scientific foundation ($\bar{x} = 3.71$), introducing science ($\bar{x} = 3.82$), and practical application ($\bar{x} = 3.66$).

Gender

The findings from the independent samples t-test, which examined whether the level at which SAC parents guide their children toward science varies by gender, are displayed in Table 3.

Table 3. The results of the independent samples t-test on parents' levels of guiding their children towards science

Variable	Gender	Number	\bar{x}	s	Sd	t	p
Orientation of Families to Science	Woman	187	67.32	10.71	0.78	-0.902	.359
	Male	91	68.52	9.79	1.02	-0.930	

Upon reviewing Table 3, it can be concluded that there is no significant difference in SAC parents' guidance of their children toward science based on gender ($p > .05$).

Age

Table 4 presents the results of independent samples t-test analyses to examine whether there is a significant difference in the level of SAC parents' guidance their children toward science based on age.

Table 4. The results of the independent samples t-test for parents' levels of guidance their children toward science based on the age variable.

Variable	age	Number	\bar{x}	sd	Sd	t	p
Orientation of Families to Science	25-39	135	67.37	10.62	0.85	-0.602	.316
	40 and above	143	68.13	10.18	0.91	-0.605	

Upon analyzing Table 4, it can be concluded that the level of SAC parents' guidance their children toward science does not exhibit a significant difference based on the age variable ($p > .05$).

Grade level

Table 5 presents the results of independent samples t-test analyses to examine whether the level of SAC parents' guidance their children toward science shows a significant difference based on the factor of children's grade level.

Table 5. The results of the independent samples t-test for parents' levels of guidance their children toward science based on children's grade level

Variable	Class	N	\bar{x}	s	Sd	t	p
Orientation of Families to Science	Primary School	177	67.81	10.19	0.74	0.218	.680
	Middle school	101	68.52	10.93	1.15	0.213	

Upon examining Table 5, it can be concluded that the level of SAC parents' guidance their children toward science does not show a significant difference based on the grade levels of their children ($p > .05$).

Educational level of the parents

Table 6 presents the results of the ANOVA (Tukey) test analyses to examine whether the level of SAC parents' guidance children toward science shows a significant difference based on the parents' educational level.

Table 6. ANOVA-Tukey test results of parents' levels of guidance their children toward science based on the level of education variable

Groups	Education status	Average difference	sd	p	Effect size
1	Associate degree Undergraduate and postgraduate	-2.53	2.00	.417	0,65
		-5.85	1.52	.000	
2	High School Undergraduate and postgraduate	2.53	2.00	.417	
		-3.32	1.70	.126	
3	High School Associate degree	5.85	1.52	.000	
		3.32	1.70	.126	

Upon examining Table 6, it is observed that the level of SAC parents' guidance children toward science varies significantly according to their educational level. Parents with undergraduate and postgraduate education levels showed a significant difference compared to high school graduates ($p < .05$), with the former group exhibiting a higher level of guidance their children toward science (+5.85). The effect size value between those with high school education and those with undergraduate and graduate degrees is 0.65. This value indicates an effect size above the medium level.

Number of children

Table 7 presents the results of the ANOVA (Tukey) test analyses to examine whether the level of SAC parents' guidance their children toward science shows a significant difference based on the number of children they have.

Table 7. The results of the ANOVA (Tukey) test for SAC parents' levels of guidance their children toward science based on the number of children they have.

Groups	Number of children	Average difference	sd	p	Effect size
1	Two	5.53	1.99	.017	0,65
	Three and above	7.17	2.19	.004	0,68
2	One	-5.53	1.99	.017	
	Three and above	1.64	1.43	.484	
3	One	-7.17	2.19	.004	
	Two	-1.64	1.43	.484	

Upon examining Table 7, it is observed that the levels of SAC parents' guidance their children toward science differ significantly based on the number of children they have. A significant difference ($p < .05$) is found between parents with one child and those with two children, as well as between parents with one child and those with three or more children. Parents with one child exhibit higher levels of guiding their children toward science than parents with two children (+5.53) and parents with three or more children (+7.17). There was a significant difference between parents with one child and parents with 2 children and the effect size value of this difference was 0.65. This value is above average. In addition, the difference between parents with one child and parents with 3 or more children was also significant and the effect size of this difference was 0.68. This value shows that there is an effect size value above the average.

Conclusion and Discussion

In this study, SAC parents' levels of guidance their children toward science are examined based on various variables and the results are summarized below: SAC parents' level of guidance their children toward science was found to be high. Similarly, Çavuşoğlu and Semerci (2015) conducted a research study on SAC parents using the survey model. Consequently, it was concluded that SAC parents are motivated to support their children throughout the SAC education process. Çetin and Çetin (2024) conducted a qualitative research study with SAC parents using semi-structured interview forms. Şimşek and Şahin (2023) observed in their study that parents with gifted children argued that it would be important for their children to be supported by science and art centers and for their children to conduct research in laboratory environments in order to develop their existing potential. In the study we conducted, it is seen that similar results were obtained with this study. The study revealed that parents aim for their children to utilize SAC resources effectively and foster scientific development. SAC parents demonstrated a high level of commitment to creating a scientific foundation for their children. De Souza Fleith (2024) et al. conducted a study with parents of gifted children and concluded that parents were willing and voluntary to contribute to their children's development in scientific learning strategies. This study is similar to the results obtained in our study. Köksal et al. (2017) conducted a study involving parents and teachers to explore how students could benefit from SAC. The study revealed that parents expressed satisfaction with the idea of SAC providing content designed to enhance students' scientific studies and foster a metacognitive sense. This included areas such as scientific research, practical applications, and space science. In their research study, Büyüktokatlı and Kurnaz (2021) show that SAC parents find SAC useful in terms of their children's ability to conduct research and project development practices. The fact that SAC has an educational content that forms the basis for scientific studies in the eyes of parents shows that parents consider SAC as a useful place in creating a scientific basis for their children. SAC parents' level of introducing their children to science was high. Özdemir and Bozkurt (2020), in their study with SAC parents, concluded that parents want their children to develop in sciences such as mathematics and science and in areas such as thinking skills and space. Alkhalwaldeh et al. (2023) concluded that parents of gifted students feel responsible for introducing their children to science, preparing them for scientific activities and guiding them, and are willing to fulfill this responsibility. Önal (2021) conducted a study with parents and teachers of gifted students. He concluded that supporting students' parents and teachers with practices such as

experiments, observations, and laboratory studies would improve them in science. Ünsal et al. (2019) conducted a study with SAC parents using a survey model. The study concluded that SAC parents have high expectations regarding the education their children receive from SACs. These expectations also include elements related to guiding their children toward science. In this respect, similar results were obtained with this study. Esen et al. (2019), in their study including SAC parents, concluded that parents are willing to develop their children in science, mathematics, engineering and 21st century developments and that they support the effective implementation of these subjects in SACs. SAC parents had a high level of practicing scientific practices with their children. In their research study, Köksal et al. (2017) stated that parents want to conduct experiments, projects, etc. with their children. Atılğan et al. (2021) concluded in their study that supporting gifted students in learning styles improves their attention and focus and that the application of learning styles by doing-living motivates them. In our study, the results of Atılğan et al. (2021) and the finding that the parents of gifted students had high levels of having their children practice scientific practices support each other. Tanık Önal (2017), in his research in which SAC parents were also included in the study group, stated that in SAC, students are engaged in activities such as conducting experiments, dealing with science, and doing project-based studies, so parents find it important for their children to benefit from SAC. There was no noticeable difference in SAC parents' levels of guiding their children toward science based on gender. Çavuşoğlu and Semerci (2015) reported that both mothers and fathers exhibit similar behaviors in supporting their children. Yerli (2022) explored SAC parents' perceptions of SAC and found no gender-based differences in these perceptions. Similarly, Altun and Yazıcı (2018) determined that parents showed no significant gender-related differences in addressing the PDR needs of gifted students. Yılmaz et al. (2023), in their research on the digital literacy and communication levels of SAC parents, concluded that these levels did not vary by gender. There was no meaningful difference in SAC parents' levels of science orientation based on their children's grade levels (primary or intermediate). Büyüktokatlı and Kurnaz (2021) conducted a research study with SAC parents using the survey model. In the study, which was attended by parents at primary and secondary school level, parents evaluated that they found SAC useful in terms of having dynamics where their children can develop scientifically. Özgen (2019) concluded in his study with SAC parents that the overall family environment score showed no variation based on the children's grade level. There was no notable difference in SAC parents' levels of guiding their children toward science based on their age. Similarly, Özgen (2019) found no variation in the total family environment scores of SAC parents based on to age. There was a notable variation in the levels of SAC parents' guidance their children toward science based on their educational level. A significant difference was observed between parents with higher education (undergraduate and graduate degrees) and those with high school diplomas. Parents holding undergraduate and graduate degrees exhibited higher levels of guiding their children toward science compared to parents with high school diplomas. However, no meaningful difference was found between parents with an associate's degree and those with high school or higher education degrees. Yerli (2022) observed that SAC parents' perceptions of SAC differed based on their education level, and stated that higher levels of education among parents were associated with a better understanding of SAC. Altun and Yazıcı (2018) aimed to determine the Psychological Counseling needs of students according to the parents in their study with parents with gifted children. In line with this objective, a significant difference was found in the parents' expectations based on their level of education. The average scores of university graduates were notably higher than those of non-university graduates. There was a noticeable difference in SAC parents' levels of guiding their children toward science based on the number of children they have. A significant difference was observed between the levels of guidance for parents with one child and those with two or more children. However, no meaningful difference was found between the levels of guidance for parents with two children and those with three or more children. Eren (2022) states that the number of children in a family impacts students' academic achievement and knowledge levels. Yılmaz et al. (2018), through their research with parents of gifted students, found that parents with multiple children encountered challenges in offering a suitable environment for their children.

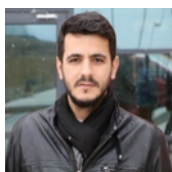
Recommendations

Based on the results obtained from the study, the following recommendations can be made: Informative seminars about the importance of scientific research can be organized at schools for parents of SAC students. SAC parents can be informed about studies such as TUBITAK, AIRCRAFT, TEKNOFEST etc. SAC parents can be informed about guidance their children to studies such as TUBITAK, AIRCRAFT, TEKNOFEST, etc. Studies can be conducted on SAC students' interest in science and parents' expectations in this sense. Practical activities related to science can be organized for SAC parents with 2 or more children. Informative studies can be conducted to inform parents about scientific orientation and practices to guide their children to developmental studies. SAC parents with lower socioeconomic level can be informed about the importance of scientific studies.

Acknowledgment

I would like to thank the parents who voluntarily participated in this study, the ethics committee that provided the necessary ethics committee approval for the study, and the journal team that published my study. Ethics committee approval was obtained for this research by Karatekin University Science, Mathematics and Social Sciences Ethics Committee (Date: August 23, 2024, Number: 43).

Biodata of Authors



Phd Student, Mehmet Akif Demirelli, who completed his undergraduate (Uludağ University) and graduate (Ondokuz Mayıs University) education in the field of psychological counseling and guidance, continues his doctoral studies at Necmettin Erbakan University, Konya, Türkiye. He follows current developments in the field of psychological counseling and conducts research studies on current issues. **Affiliation:** Pursaklar Science and Art Center, Ankara, Türkiye. E-mail: demirellimakiff@gmail.com ORCID 0000-0003- 3217-5764

Researchgate: https://www.researchgate.net/profile/Mehmet-Demirelli-2?ev=hdr_xprf

References

- Afat, N. (2013). Parental attitudes as a predictor of giftedness in children. *Journal of Hasan Ali Yücel Faculty of Education*, 20(1), 155-168.
- Alevli, O. (2019). *Turkish education applied to gifted students in Science and Art Centers: A case study* (Doctoral Dissertation). Sakarya: Sakarya University Institute of Educational Sciences
- Altun, F., & Yazıcı, H. (2018). Psychological counseling and guidance needs of gifted students in Turkey. *Ankara University Faculty of Educational Sciences Journal of Special Education*. <https://doi.org/10.21565/ozelegitimdergisi.339056>
- Alkhalwaldeh, M. A., Alwaely, S. A., Al Sabi, Y. N., Abueita, S. D., Alomari, N., Al Taqatqa, F. A. S., ... & Al-Shaar, A. S. (2023). Parents' role in gifted students' educational issues and development. *Information Sciences Letters*, 12(3), 1215-1221.
- Atılğan, G., Atılğan, Y. O., & Gökçe, M. (2021). Investigating the Views of Gifted Students and Their Parents on Learning Styles. *Journal of Interdisciplinary Educational Research*, 5(10), 154-164.
- Bal, E., & Kaya, G. (2022). Determining the levels of how families shape children's interest in science: a scale development study. *Journal of Theoretical Educational Sciences*, 15(1), 169-190. <https://doi.org/10.30831/akukey.950033>
- Büyüktokatlı, N., & Kurnaz, A. (2021). Longitudinal evaluation of the education given in science and art centers according to family opinions. *Journal of Social, Human and Administrative Sciences*, 3(10), 757-774. <https://sobibder.org/index.php/sobibder/article/view/120>
- Coleman, L. J., Micko, K. J., & Cross, T. L., (2015). Twenty-five years of research on the lived experience of being gifted in school: Capturing the students' voices. *Journal for the Education of the Gifted* 38(4), 358-376.
- Colangelo, N. and Davis, G.A. (2003). "Introduction and Overview", eds. N. Colangelo & G. A. Davis, Handbook of Gifted Education, 3rd ed., pp. 7-8, Boston: Allyn and Bacon..
- Çavuşoğlu, M., & Semerci, N. (2015). Parents' views on gifted children attending SAC (Bartın Province Sample). *Journal of Bartın University Faculty of Education*, 325-335.
- Çetin, K. A., & Çetin, N. (2024). Parents' views on the education of gifted students. *National Journal of Education Society and World*, 1(1), 1-19. <https://doi.org/10.5281/zenodo.10726082>.
- Dağlıoğlu H.E. and Alemdar, M. (2010). Being a parent of a gifted child. *Kastamonu Journal of Education*, 18(3), 849-860.
- Sargın, N., & Demirelli, M. A. (2024). Examination of studies conducted with psychological counselors on gifted students in Türkiye. *Journal of Gifted Education and Creativity*, 11(2), 53-61.
- De Souza Fleith, D., Vilarinho-Pereira, D., & Muniz Prado, R. (2024). Voices From the Families: Strategies for and Challenges in Raising a Gifted Child. *Journal for the Education of the Gifted*, 47(2), 162-181. <https://doi.org/10.1177/01623532241235576> (Original work published 2024)

- Eren, H. (2022). *The opinions of school principals working in Kale district of Denizli province on the functioning of Science and Art Centers (SAC)*. Master's degree without thesis.
- Esen, S., Gümüşer, B., Ayverdi, L., & Avcu, Y. E. (2019). STEM from the perspective of teachers, administrators, parents, and gifted students. *Journal of Science, Technology, Engineering, Mathematics and Art (J-STEAM) Education*, 2(2), 1-27.
- Gallagher, J. J. (2003). Issues and challenges in the education of gifted students. In N. Colangelo & G. A. Davis (Eds.), *Handbook of gifted education* (3rd ed.) (pp. 11-23). Boston: Pearson Education.
- Genç, H., & Dağlıoğlu, H. E. (2018). Gifted children and play in early childhood. *Journal of Education and Society Research*, 5(1), 180-204. <https://dergipark.org.tr/en/download/articlefile/496657>.
- Guthrie K. H. (2019). "Nothing is ever easy": Parent perceptions of intensity in their gifted adolescent children. *The Qualitative Report*, 24(8), 2080-2101.
- Karadağ, F., & Demirtaş, V. Y. (2022). Early literacy skills of gifted children in preschool period. *Dokuz Eylül University Buca Education Faculty Journal*, (53), 212-223. <http://dx.doi.org/10.17719/jjsr.2017.1810>.
- Karakuş, F. (2011). The difficulties faced by parents of gifted children. *Mersin University Journal of Education*, 6 (1), 127-144.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
- Koç, İ. (2016). The views of parents of gifted and talented students about science and art center: A SAC example. *Journal of Gifted Education and Creativity*, 3(3), 17-24.
- Köksal, M. S., Göğsu, D., & Akkaya, G. (2017). What and how should gifted students be taught and how should learning be assessed in Turkey? A Stakeholders' Opinion Study. *International Journal of Turkish Educational Sciences*, (9), 190-203.
- Ministry of National Education of Türkiye: MoNET (2017). 2017-2018 Science and art centers student identification guide. Retrieved from <https://orgm.meb.gov.tr>.
- Ministry of National Education of Türkiye: MoNET (2018). Psychological Counseling and Guidance Services Regulation. T.C. Official Gazette, 30471, *Journal of Communiqués*, July 2018/20180707.
- Ministry of National Education of Türkiye: MoNET (2022). Science and Art Centers directive. *Journal of Communiqués*.
- Önal, N. T. (2021). Science education for gifted students: opinions of students, parents, and teachers. *European Journal of Educational Sciences*, 8(1), 15-32.
- Özdemir, A., & Bozkurt, D. Ü. (2020). Determining the elective workshops of SAC students with multi-criteria decision-making method. *Anemon Muş Alparslan University Journal of Social Sciences*, 8(1), 285-295.
- Özgen, M. (2019). Examining the family environment in gifted education in terms of demographic variables in terms of management science: Sinop SAC Example. Master's thesis. Istanbul Gelisim University. Istanbul, Türkiye.
- Renati R., Bonfiglio N. S., Pfeiffer S. (2017). Challenges raising a gifted child: Stress and resilience factors within the family. *Gifted Education International*, 33(2), 145-162. <https://doi.org/10.1177/0261429416650948>
- Sak, U. (2017). *Characteristics, diagnosis and education of gifted children*. Ankara: Vize Publishing.
- Sarıtaş, E., Şahin, Ü., & Çatalbaş, G. (2019). SAC through the eyes of parents. *Journal of Qualitative Research in Education*, 7(1), 114-133. <https://doi.org/10.14689/issn.2148-2624.1.7c1s>
- Sargın, N., & Demirelli, M. A. (2024). Examination of studies conducted with psychological counselors on gifted students in Türkiye. *Journal of Gifted Education and Creativity*, 11(2), 53-61.
- Silverman L. K. (2021). Honoring the precious uniqueness of your gifted child. *Gifted Education International*, 37(1), 67-79. <https://doi.org/10.1177/0261429420935700>.
- Smutny, J. F. (2021). Differentiated instruction for young gifted children: How parents can help. In *Parenting gifted children* (pp. 221-233). Routledge.
- Şimşek, F., & Şahin, M. (2023). Parental Perceptions of Special Talented Students and Their Education. *Gazi University Gazi Faculty of Education Journal*, 43(1), 475-496.
- Tanik Önal, N. (2017) *Science education for gifted students: Student, parent and teacher views*. Doctoral dissertation.
- Törtop, H. S., & Çoşkun, M. F. (2017). A tool that can be effective in the development of multiple talents in gifted students: Science theater. *Journal of Gifted Education and Creativity*, 4(3), 116-126.
- Ünsal, S., Çetin, A., & Yoğurtçu, M. (2019). Gifted student parents' expectations from science and art center and their level of satisfaction. *Abant İzzet Baysal University Journal of Faculty of Education*, 19(4), 1306-1321.
- VanTassel-Baska, J. (2025). The Top Ten Issues for Parents in Educating Their Gifted Child in School Settings. *Gifted Child Today*, 48(2), 150-154.
- Yılmaz, R., Karakaş, G., Kıcıman A. H. and Karaoğlan Yılmaz F. G. (2023). Investigation of digital parenting self-efficacy of parents of gifted students. *Bartın University Journal of Educational Research*, 7(1), 49-59.
- Yerli, M. S. (2022). Parents' perceptions towards SAC-the example of Bahta SAC. *The Journal of International Lingual Social and Educational Sciences*, 8(2), 110-117. <https://doi.org/10.34137/jilses.119288>

