



REASONS WHY GIFTED STUDENTS DROPOUT OF SCIENCE AND ART CENTERS

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Abstract

Gifted students gain the right to receive education outside of school at the Science and Art Centers (SACs) affiliated with the Ministry of National Education and begin to receive education in these institutions in Türkiye. However, after a while, it is seen that gifted students drop out of SACs. The purpose of this research is to examine the reasons why gifted students drop out of SACs. For this purpose, the study group consists of 26 primary and upper-secondary school students who were entitled to SACs in the Black Sea region, attended for at least one year and then dropped out. The study group was formed by criterion sampling. A semi-structured interview form consisting of four questions, one about demographic characteristics and three about opinions, prepared by taking expert opinion, was used as the data collection tool in the study. The obtained data were subjected to content analysis. Depending on the data obtained, student opinions were analyzed under three themes within the perspective of self-determination theory. Regarding SACs dropout, codes have been formed as differentiated education, teacher competency, deep learning, school time, compulsory attendance, and design SACs completely like a school.

Keywords: gifted students, dropout, reasons, science and art center, self-determination theory.

Introduction

The phenomenon of gifted students dropping out of school presents a paradox for educators and researchers (Matthews, 2006). Estimates of dropout rates among gifted students differ across studies, largely due to varying definitions and criteria used to identify giftedness. Although the body of research on this topic is limited, findings suggest that gifted students disengage from school for diverse reasons, many of which parallel those found among the general student population. Contributing factors include chronic absenteeism, academic failure, negative attitudes toward school, substance abuse, learning difficulties, and familial discord (Cramond et al., 2007; Hansen & Toso, 2007; Matthews, 2006; Renzulli & Park, 2000, 2002). These causes are commonly categorized into psycho-emotional, social, and educational domains.

A primary factor contributing to dropout among gifted learners is disengagement, which occurs when curricula do not address their advanced intellectual needs, resulting in boredom, disruptive behavior, and absenteeism (Landis & Reschly, 2013; Susantya & Hawadi, 2019). Engagement may be conceptualized across four dimensions: academic, behavioral, affective, and cognitive. Behaviorally, gifted dropouts often display minimal class participation, strategic truancy just below tracking thresholds, and offtask behaviors such as “fooling around” or skipping assignments (Cramond et al., 2007; Kanevsky & Keighley, 2003). Affective engagement is similarly low: many gifted underachievers report feeling unsupported by teachers and isolated from peers, with nearly onethird attributing their departure to conflicts with staff and roughly 20% to a lack of belonging (Hansen & Toso, 2007; Renzulli & Park, 2000, 2002). Although families typically maintain high expectations and advocate for continued education, such support does not always translate into effective assistance (Hansen & Toso, 2007;

Renzulli & Park, 2000, 2002). Cognitively, gifted dropouts frequently describe coursework as unchallenging “busy work,” leading to boredom and diminished valuation of school tasks (Cramond et al., 2007; Kanevsky & Keighley, 2003). Consequently, many exhibit unclear future goals and underdeveloped selfmanagement skills, including inadequate study strategies and time management (Landis & Reschly, 2013). When aggregated under a single framework, the primary reasons for dropout among gifted learners include boredom, perceived disrespect, an insufficiently challenging curriculum, lack of individualized pacing, limited opportunities for independent study, and inadequate teacher support (Zabloski, 2010). In a similar vein, Camper (2019) identified four major categories of dropout causes: family discord, lack of school engagement, absence of role models, and minimal family involvement. Moreover, twice-exceptional students—those who are gifted yet also experience learning disabilities—face a dual exceptionality that can precipitate academic failure and subsequent withdrawal. Finally, deficits in selfregulation and executive functioning have been implicated as additional contributors to dropout among gifted populations (Hartman, 2016).

Social factors exert a profound influence on the educational engagement and outcomes of gifted students. Peer-related dynamics—including bullying, social exclusion, and the imperative to conform—can discourage gifted learners from fully participating in school activities and may prompt them to understate their abilities (Ronksley-Pavia & Neumann, 2020). This tendency is especially pronounced during adolescence, when social acceptance is pivotal; negative peer encounters often precipitate declines in academic performance and elevate the risk of school dropout (Dada & Akpan, 2019). Family relationships further differentiate achievers from underachievers: research indicates that gifted students who underperform or disengage frequently report unsupportive parental behaviors—such as rejection and aggression—whereas high-achieving peers experience accepting and nurturing family environments (Hartman, 2016). Moreover, when educators and schools do not recognize and accommodate the distinctive social and emotional needs of gifted learners, these students may develop feelings of unfulfillment and perceive academic pursuits as lacking intrinsic value (Blass, 2014).

Socioeconomic factors play a significant role in the dropout rates of gifted students, particularly those from low-income and minority backgrounds. Limited access to resources and support systems hampers their academic success, with underrepresentation in gifted programs often driven by systemic biases that favor higher-income students (Grissom vd., 2019; Renzulli & Park, 2000). This inequitable access exacerbates the challenges these students face, leading to feelings of disenfranchisement and disengagement (Yu vd., 2020). Therefore, creating supportive school environments that encourage gifted students to embrace their talents is essential for preventing disengagement. The combination of socioeconomic factors and peer dynamics further complicates the challenges faced by gifted students. Those from lower socioeconomic backgrounds often lack opportunities to connect with peers who share similar academic interests, resulting in feelings of isolation (Yu vd., 2020). Systemic inequities, such as limited access to specialized gifted programs, especially for students from diverse or lower socioeconomic backgrounds, further reduce engagement (Kettler vd., 2015)029. Addressing these interconnected factors is essential for improving retention and supporting the academic success of gifted students. This absence of a supportive peer group can undermine their motivation and engagement, ultimately increasing the likelihood of dropping out (Dada & Akpan, 2019). As such, both socioeconomic limitations that restrict access to resources and negative peer influences that discourage academic involvement contribute to higher dropout rates among gifted students. Tackling these issues requires a holistic strategy that improves access to gifted education and fosters positive peer environments to enhance their academic experiences.

Teachers lacking specialized training in differentiated instruction may inadvertently intensify gifted students’ disengagement by failing to meet their advanced learning needs

(Kettler et al., 2015). Indeed, many identified gifted students report enduring years of uniform, slow-paced instruction that fails to address their distinctive needs (Schmitt & Goebel, 2015). When gifted learners are neither sufficiently challenged nor supported through pedagogical approaches aligned with contemporary learning theories, they often experience social isolation, diminished valuation of their studies, and ultimately may choose to withdraw from educational continuity (Landis & Reschly, 2013). Consequently, these learners frequently encounter inappropriate academic challenges, which can depress performance—a well-established predictor of dropout (Kettler et al., 2015). Furthermore, the variability in intellectual levels (mild, moderate, high, and exceptional) without corresponding instructional adjustments can exacerbate disengagement (Hartman, 2016). When considering the engagement-related, social, and academic factors described above, it can be argued that dropout among gifted students stems from the thwarting of their fundamental psychological needs for autonomy, competence, and relatedness, which in turn impairs their wellbeing, self-regulatory skills, and motivation. Accordingly, this study employs Self-Determination Theory to elucidate the underlying causes of dropout and to interpret its findings.

Theoretical Framework

Despite possessing exceptional cognitive abilities, many gifted students fail to fully realize their potential (Worrell et al., 2019). One frequently cited explanation for this underachievement is a lack of student engagement, which has also been identified as a contributing factor to school dropout (Preckel et al., 2006). According to self-determination theory (SDT), student engagement is enhanced when the basic psychological needs for autonomy, competence, and relatedness are met (Deci & Ryan, 1985). These needs function as intrinsic motivational resources that, when supported, promote optimal functioning and psychological well-being (Ryan & Deci, 2000a). Each of these needs is associated with fostering independence, encouraging persistence, and supporting risk-taking by facilitating the internalization of values and goals. When the social environment effectively nurtures these psychological needs, it fosters personal growth and development (Ryan & Deci, 2000b).

Autonomy constitutes the driving force behind self-organized behaviors, such as when individuals are afforded opportunities for choice and self-directed learning. It embodies a perceived internal locus of control, whereby individuals regard themselves as the originators of their own actions (Deci & Ryan, 1985). The need for autonomy describes the inherent desire to act as causal agents and to experience volitional regulation of behavior (Deci & Ryan, 1985; Ryan & Deci, 2000b). An autonomy-supportive instructional context is characterized by the provision of meaningful choice, clear explanations of task relevance, acknowledgement of students' negative affect, and the cultivation of their intrinsic motivational resources (Stroet et al., 2013). Empirical evidence indicates that autonomy-supportive practices—such as offering choices and designing relevant learning experiences—enhance intrinsic motivation among gifted learners (Garn & Jolly, 2014). Furthermore, gifted students whose autonomy needs are satisfied demonstrate higher levels of engagement in academic tasks (Miserandino, 1996).

Competence drives mastery by focusing on the learning process over outcomes and reflects one's belief in performing tasks at an expected level (Deci & Ryan, 1985). The need for competence involves feeling effective and extending one's abilities, which teachers can support through clear structure, contingent feedback, and appropriately tailored materials (Jang et al., 2010; Stroet et al., 2013). Although gifted students often appear competent (Suldo et al., 2018), they may face pressure to meet unrealistic standards (Kesner, 2005) and fear judgment on their intellectual performance, with low self-perceived competence linked to lower engagement. Encouragement via high expectations and challenging tasks is especially effective, yet teachers sometimes offer gifted learners less structure, assuming they require less guidance (Deunk et al., 2018).

Relatedness denotes the fundamental need for interpersonal connection, manifesting when educators express genuine empathy and take an active, noncontrolling interest in students' learning. It pertains to the development of emotional bonds with significant others, including teachers and peers. The need for relatedness involves the desire to feel connected and to experience a sense of belonging. Educators can foster relatedness by demonstrating involvement in students' lives, conveying care and affection, attuning to individual needs, and providing emotional support (Stroet et al., 2013). Among gifted learners, relatedness has been identified as the most valued teacher characteristic, followed by competence and autonomy (Bakx et al., 2019). Positive relationships with both teachers and classmates support this need; however, gifted students often report less positive teacher relationships compared to their peers in specialized programs, suggesting challenges in meeting their socioemotional needs. Consistent with findings from general classroom populations (Stroet et al., 2013), autonomy support and teacher involvement enhance gifted students' relatedness satisfaction and, consequently, the quality of their motivation—an effect that may mitigate underachievement.

Experimental studies and longitudinal investigations have demonstrated that autonomy-supportive teaching—characterized by an interpersonal tone of empathy and understanding, perspective taking, and opportunities for student initiative—promotes positive classroom outcomes, including engagement, conceptual learning, and well-being. These benefits arise because autonomy-supportive instruction nurtures students' basic psychological needs for autonomy, competence, and relatedness. Such environments cultivate students' inherent motivational resources by offering choice and self-direction, delivering affirmative and constructive feedback, employing informal and noncontrolling language, and explicitly linking classroom structures (e.g., rewards, expectations) to their significance for learning and well-being (Deci & Ryan, 1985, 2000; Ryan & Deci, 2000). Moreover, well-structured, warm, and responsive contexts predominantly satisfy all three needs by fostering clarity, connectedness, care, and mutual understanding within the classroom community.

Research Problem

In the context of Türkiye, different models have been applied for the education of gifted students, one of which is Science and Art Centers (SACs) (Bildiren & Çitil, 2022). Gifted students attend SACs as an after-school support education program. These are institutions established to provide support education services to students attending public educational institutions who have special talents in the fields of general cognitive, visual arts or music, in order to develop their talents and enable them to use them at the highest level. Since their establishment, SACs have been the focus of numerous studies. Research has revealed that teachers face various challenges in personal, educational, and administrative areas within SACs (Bozan - Savi Çakar, 2020). Despite some parents expressing concerns about SACs, particularly regarding time demands and fatigue, they acknowledge the centers' contributions to their children's scientific, mental, individual, academic, and social development, and wish for their continuation (Büyüktokatlı & Kurnaz, 2020). Additionally, parents of gifted children often struggle with recognizing and understanding their children's unique talents, responding to their questions, and addressing their mental, social, emotional, and personality traits, as well as communication skills and problem-solving (Çamdeviren, 2014). Another study examining SACs implementation in terms of education, guidance, physical resources, and school-environment cooperation, based on teacher perspectives, found that while education and guidance services were adequate, physical resources and cooperation between schools and the centers were insufficient (Sezginsoy, 2007).

Research Aim and Research Question

Overall, studies have evaluated SACs from various perspectives (Kılıç, 2015). While SACs support the education of gifted students, they are often viewed as inefficient, with significant issues related to gifted education in Türkiye (Öğülmüş & Sarı, 2014). Despite extensive research on SACs, where gifted students receive education in Turkey (Karakuş, 2010), studies specifically focusing on dropout rates and their causes in SACs are limited. Absenteeism is mentioned infrequently, and dropout is rarely explored as a direct research problem, often emerging as an unexplored outcome of another research. In light of this, the aim of the current study was to examine the perspectives of gifted students attending SACs regarding the reasons for their dropouts.

What reasons do gifted students who have attended SACs perceive as contributing to program dropout?

Research Methodology

General Background

This study employed a qualitative research design using the case study approach. Case study research is a method of analyzing events experienced by individuals, groups, communities, or units within a specific scientific framework (Creswell & Baez, 2017). This approach allows for an in-depth examination of events, providing a comprehensive understanding within the context of real-life situations (McMillan, 2004). Single case studies are particularly valuable for verifying theoretical knowledge, documenting rare or unusual occurrences, monitoring the same cases over different time periods, and investigating hard-to-reach phenomena (Yin, 2014).

In this context, the study explored the perspectives of gifted students eligible for after-school support programs (SACs) regarding their reasons for leaving the program, employing a qualitative case study design. This research is an exploratory, descriptive case study with the aim of investigating the factors underlying the dropout phenomenon, capturing the experiences and viewpoints of gifted students. The study was conducted over a six-month period, with data collection occurring between January and June 2024. The scope of the research was limited to a small, purposive sample of gifted students who had dropped out of after-school support programs.

Sample

The study group consists of 26 lower and upper-secondary students, identified as gifted in the 2023/2024 academic year in a Black Sea province, who attended SACs for at least one year before dropping out. Purposive sampling was used to select students meeting the criteria of giftedness and having attended SACs, ensuring accurate and detailed responses to the research questions. The group includes 8 lower-secondary and 5 upper-secondary students from private schools, and 7 lower-secondary and 6 upper-secondary students from public schools.

Table 1
Demographic Attributes

Variable	Variables	Frequency
Gender	Female	14
	Male	12
Level	Lower-secondary	15
	Upper-secondary	11
Gifted area	General ability	21
	Music	3
	Art	2

Instrument and Procedures

Data were gathered through semistructured interviews, a standard qualitative technique (Creswell, 2017). The interview guide comprised openended questions crafted to address the study's aims and to draw out rich participant perspectives. To establish reliability and validity, the instrument was developed in several stages. Initially, a comprehensive literature review on gifted student dropouts. The draft questions were then evaluated by experts in the field to assess their clarity, relevance, and suitability for the target population. Based on expert feedback, a pilot study was conducted with two students to identify and revise ambiguous or biased items. The final version of the interview form incorporated this feedback, ensuring clarity, appropriateness, and consistency across interviews. Final revisions ensured consistency and suitability for the target group. Sample questions are as follows: *What were your expectations regarding the education and instruction offered at SACs prior to your enrollment? To what extent did your experiences at SACs align with your initial expectations in terms of educational and experiential aspects? Could you explain the reasons for discontinuing your participation in SACs? What were the main factors influencing this decision?* Data were collected at the SACs, with interviews conducted before, during, and after student sessions. Participants were informed about the study's purpose, and consent for audio recording was obtained verbally and in writing. Each interview lasted approximately 20–25 minutes.

Data Analysis

Qualitative content analysis was employed to analyze the data, which were initially transcribed from audio recordings to facilitate a focus on the interpretation and meaning of the content rather than on the quantification of elements. This method is well-suited for exploring how individuals experience, perceive, and construct meaning within a specific context. It supports an inductive approach, allowing themes to emerge organically from the data rather than being constrained by predetermined categories. Furthermore, it enables adaptive coding, wherein categories are refined and developed iteratively throughout the analytical process. The analysis followed four stages: 1) naming, coding, and extraction, 2) theme development, 3) ensuring validity and reliability, and 4) reporting.

Thematic analysis was conducted through a structured and iterative process. Initially, two independent researchers (coder 1 and coder 2) familiarized themselves with the data by repeatedly reading four transcripts without annotation. The first coder then re-read the transcripts to generate preliminary codes reflecting meaningful content. During coding, mnemonic memos (Charmaz, 2006) were used to interpret codes, explore relationships, and propose emerging

themes. Researchers collaboratively reviewed and refined the codes, reaching consensus and identifying three themes for the student, four for the mother, and three for the teachers. These themes were evaluated for consistency with the coded data and the broader dataset. Refinement involved clarifying theme boundaries, labels, and meanings in line with thematic analysis principles. A final review ensured coherence and alignment with the study's aims. Representative participant quotes were selected to illustrate key themes, which were then integrated with the research questions and relevant literature to complete the analysis.

To enhance the validity and trustworthiness of the findings, the study employed member checking, expert review, and thick, rich descriptions (Patton, 2014), all standard strategies in qualitative research. Member checking involved sharing the final report with participants, all of whom confirmed the accuracy of their statements. Expert review was conducted by two specialists in twice-exceptionality and qualitative research, who validated the alignment of the analysis with the study's objectives. Participant statements were included directly in the findings to offer detailed insights into the phenomenon. Trustworthiness was further addressed through credibility, dependability, transferability, and confirmability. Credibility was supported by independent coding of transcripts by two qualitative research experts, followed by collaborative theme refinement. Dependability was ensured through participant feedback to correct potential errors or misinterpretations. Purposeful sampling and detailed presentation of participant narratives enhanced transferability (Creswell & Baez, 2017), while expert review contributed to confirmability by providing an objective evaluation of the analysis.

Research Results

In this part of the study, the findings obtained in the study as a result of the data analysis are discussed under 3 theme headings; these headings are listed as expectations, reasons for dropouts, and suggestions, respectively. The codes related to the first theme are given in Table 2.

Table 2
Gifted Students' Expectations from SACs

Codes	Frequency	The Students
High level progress	5	S1, S3,S11,S16,S21
Lesson support	7	S2,S4,S5,S7,S12,S20,S23
Differentiated education	6	S8,S13,S17,S22,S24,S26
No expectation	8	S6,S9,S10,S14,S15,S18,S19,S25

As can be seen in Table 2, when the expectations of gifted students towards SACs are analyzed, it is seen that some of the participants stated that their expectations from SACs are that the institution is a place where courses are taken and school lessons are supported. Some students anticipated a structured course format, similar to their other academic subjects, where they would systematically learn new techniques, skills, and concepts in painting. Some students felt that the institution should incorporate or relate more to traditional academic subjects, viewing it as an opportunity to reinforce or enhance their understanding in Turkish, math, science, and social studies. The opinions of some of the participants on this subject are as follows:

'I thought this program would be more like a class, where we'd go step-by-step and learn new things about painting. I was hoping to pick up new skills and techniques that would help me improve my art.' (S2).

'I expected the program to focus more on main subjects like Turkish, math, science, and social studies. I thought it would help me strengthen these core areas, which are really important for school.' (S5).

'I joined because I thought it would help me with my schoolwork and improve my grades. I was looking forward to learning things that would make a difference in how I do in my classes.' (S7).

Some of the participants stated that their expectations from the SACs are that the institution is different from the school and more fun. Each student seems to be craving a more engaging, detailed, and skill-focused approach to learning. They're looking for a way to make the material feel both useful and enjoyable. The opinions of some of the participants are as follows:

'I thought we'd be doing different things. I was hoping to learn in a way that wasn't so boring and repetitive.' (S13).

'I expected more hands-on activities outside of school, related to what we're studying. I thought we'd dive deeper into topics and really get into the details.' (S17).

'I wanted to learn new things, have fun, and get a change of pace. I figured the lessons would be tailored more to my skills, helping me develop them further.' (S26).

'I wanted to learn about different things in more depth. I was hoping to expand on what I already knew but also get into some new ideas and topics.' (S12).

Some of the participants stated that their expectations from the SACs were that they expected the SACs to support and improve their skills at a high level. Overall, each student is looking to challenge themselves and make real progress in areas that matter to them, whether that's by learning more advanced material, building specific skills, or improving in a particular field like robotics or music. They're aiming for personal growth and specialized learning that goes beyond the basics. When the students were asked if SACs met their expectations, most of them stated that they did not find what they expected. The opinions of some of the participants are as follows:

'I was hoping for a chance to learn at a higher level. I wanted to study things that go beyond what we usually cover in my grade level and to get into more advanced topics.' (S3).

'I thought this program would help me get better in robotics. I expected to learn new skills or techniques that would really improve what I can do in that field.' (S11).

'I wanted to grow in music. I thought I'd get the chance to work on my skills, learn new things, and become better at it.' (S21).

Table 3
Reasons of Dropouts

Codes	Frequency	The Students
Teaching method	10	S1,S5,S7,S8,S9,S12,S15,S16,S24,S25
School time	5	S2,S5,S6,S21,S23
Teacher competency	9	S10,S11,S14,S17,S19,S20,S22,S24,S26
Conflict between project logic and examination system	2	S13,S17
Compulsory attendance	3	S3,S4,S18

As can be seen in Table 3, when the reasons for the participants to leave SACs were analyzed, it was seen that the participants mostly stated that they were bored with the same activities and methods. Each student is frustrated by how the program felt too similar to regular school. They expected something different and more engaging—whether that was new material, hands-on projects, or activities that connected with their specific interests. They wanted variety, excitement, and a chance to explore things in a new way, but instead, they felt stuck in a repetitive routine. When the opinions of some of the participants are analyzed, their opinions are as follows:

‘I ended up quitting because we were just doing the same things over and over again in class. For example, we were always drawing perspectives, and it got repetitive. There was nothing new or exciting.’ (S1).

‘I got bored with the lessons. They felt just like regular school classes. We kept covering the same stuff we already did in school, so it didn’t feel like I was learning anything new.’ (S7).

‘The classes were basically run like school. We had regular classes during the week, then even more on Saturdays and weekends, just like we already have at school. I’m interested in mechanical engineering, and I really wanted to work with materials and do hands-on projects that would let me explore that interest. Instead, it felt like the same old routine, without any activities that would actually help me learn more about what I’m interested in’ (S15).

Some participants stated that they dropped out because the school hours were not suitable. Both students are feeling worn out from their packed schedules. After a full day at school, jumping right into a few more hours of classes leaves them with little time for themselves and no chance to unwind. They’re hoping for a schedule that’s a bit more manageable and less draining. When the opinions of some of the participants are analyzed:

‘The timing was tough for me. I was already spending a lot of time at school, and then I’d have to go straight to this program right after school, starting at 5 p.m. and staying until 8 p.m. It really cut into my personal time, and I just felt exhausted by the end of the day.’ (S2).

‘It’s hard going straight from school to the program. After being in school for 8 hours, going directly to more classes was just way too tiring.’ (S6).

Some participants stated that there were problems with teacher competence. Each student is feeling some frustration about the support and resources available to them. They’re interested in specific areas or advanced projects, but they aren’t getting the guidance or opportunities they need. Whether it’s a lack of interest from the teacher, limited knowledge in their chosen field, or just not enough hands-on activities, they’re left wanting more. The views of some of the participants are as follows:

‘Most of the time, my teacher didn’t really seem interested in what I was into. I don’t know, maybe they didn’t know much about the field I was interested in, but it felt like we just weren’t on the same page.’ (S10).

‘When I was working on a project, I didn’t get much support from my teacher. I’d go to them with ideas, but I couldn’t move forward because I didn’t get the guidance I needed to take the next steps.’ (S14).

‘My teacher was willing to help, but we couldn’t do anything at a higher level, like experiments or hands-on activities. We just didn’t get to go beyond the basics.’ (S19).

Some participants reported problems with attendance tracking. Both students feel overlooked. When they stopped attending, no one followed up or showed concern, so they felt unmotivated to continue. It seems like they expected more communication or engagement from the program, especially if they were absent, but the lack of follow-up made them feel like their presence didn’t matter. The opinions of some of the participants are as follows:

‘There was a lot of miscommunication. I missed a couple of classes at the start of the year because the lessons seemed too basic for me, and no one reached out or asked why I wasn’t showing up. It felt like no one even noticed I was gone, so I just didn’t bother going back.’ (S11).

‘Hardly anyone was showing up to the classes, and after a while, I just stopped going too. Nobody called to check in or ask why I wasn’t coming anymore, so I figured it didn’t matter.’ (S20)

Some participants reported a conflict between the project logic and the examination system. Both students felt that attending SACs wasn’t worth their time because it didn’t directly contribute to the entrance exams they were focused on. They needed something that would actively boost their scores or improve their chances, so without those benefits, they chose to put their energy into studying for the exams instead. The views of some of the participants are as follows:

‘Going to the SACs didn’t give me any extra points or benefits for my high school entrance exam. So I decided it was better to just focus on preparing for the exam instead of spending time on something that wouldn’t help my score.’ (S13).

‘The SACs didn’t give me any advantage for my university entrance exam—no bonus points or anything like that. Since it didn’t help with my score, I figured there was no point in continuing.’ (S17).

Table 4
Suggestions Regarding SACs

Codes	Frequency	The Students
Teaching method	10	S5,S7,S8,S9,S12,S13,S16,S24,S25,S26
School time	4	S2,S6,S21,S23
Teacher competency	7	S1,S5,S9,S10,S14,S16,S25
Full-time school	2	S11,S19
Compulsory attendance	3	S3,S17,S20

As can be seen in Table 4, when the participants’ suggestions for SACs are analyzed, it is seen that they mostly expressed their opinions in the form of curriculum and method improvement. Students are looking for a learning experience that feels unique and challenging, something that goes beyond the standard school setup. They’re hoping for shorter, more engaging lessons that focus on new and more advanced material. Instead of just covering the basics or repeating what they get at school, they want an environment that keeps them curious and excited to learn. The opinions of some of the participants are as follows:

‘Lesson hours should be shorter. Lessons should not be like High School Entrance Exam preparation at school. They should be made interesting. It should be more detailed and challenging.’ (S7).

‘I think it should be a place that is different from school and keeps curiosity alive. I entered from general aptitude. Recently, I left it because it did not meet my expectations and started to take lessons from a private tutor. It should not be like at school, but higher, more difficult, that is, there should be things that are not given in normal school.’ (S12).

Some of the participants stated that the school hours were appropriate. The opinions of some of the participants are as follows:

‘Making the school time more appropriate. Even if it is after school, I would like to be given time to rest and I would like the lessons to be shorter.’ (S2).

‘Lesson hours should be adjusted. There should not be 4 hours of lessons in one day. Instead, there should be one or at most two hours of lessons after school.’ (S6), ‘SACs should not be after school on weekdays. Its hours should not conflict with the school.’ (S21).

Some of the participants expressed opinions about teachers. The opinions of some of the participants are as follows: ‘If the teacher could teach different things. For example, different things from nature could have been collected and drawn. Thus, I would be more willing.’ (S1)

‘Our teachers should be able to support the ideas we present and guide us. Even if I have an idea, I don’t know what to do.’ (S10).

‘The teacher working in SACs should be better equipped.’ (S14)

Some of the participants stated that SACs should be just like a school and should not be a separate program. The opinions of some of the participants are as follows:

‘In my opinion, it should be like a separate school. Class hours should change. When the student wins there, he/she should continue there completely. He should be a student there.’ (S11).

‘When there is exam anxiety, school and SACs do not work together. If we have won the exam, we can take the lessons there. For this, it should be like a school. In other words, students who win should study there now. If this happens, the lessons will be fuller and there will be no shortage of time.’ (S19).

Discussion

This study was aimed at investigating why gifted students drop out of after school programs (SACs) in the Türkiye sample. Findings indicated that gifted students expected SACs to offer structured, academically rigorous extensions of their schoolwork—teaching new skills and reinforcing core subjects—but found the programs’ repetitive, schoollike activities disengaging. Consequently, many withdrew, citing boredom and a lack of hands-on, interest-driven projects. To address this, they recommended shorter, more dynamic sessions featuring advanced content, project-based learning, and flexible structures that allow choice and deeper exploration, thereby providing the intellectual challenge and novelty they seek. Considering all these, it is seen that there is a lot of emphasis on problems such as teacher competence, teaching methods, and the fact that the extra burden of going to these centers does not turn into an advantage. These and similar results were expressed in several studies (Çelik-Şahin & Şahin, 2014; Taşdemir, 2020).

From the point of SDT, under autonomy sub-dimension, students reported wanting far more choice in their learning (courses, projects, activities). They said being forced into irrelevant or low-preference options was demotivating. They emphasized needing freedom to be creative and make decisions – for example, wanting to personalize aspects like school uniforms and feeling they “should be trusted to make good choices” in their learning path. This sense of ownership (rather than control) was important for engagement. Many pointed out that a rigid, repetitive curriculum undermines autonomy. Students complained of “the same old boring” teaching methods and too many simultaneous assignments, which made them feel stressed and disengaged. They asked for more varied, creative instruction and manageable pacing (e.g., spacing out homework) to feel autonomous in their studies. Autonomy-supportive instruction encompasses several key strategies: offering students meaningful choices, articulating the significance of tasks, acknowledging and validating their negative emotions, and fostering intrinsic motivational resources (Stroet et al., 2013). In an exploratory investigation, Garn and Jolly (2014) demonstrated that elements such as choice provision and contextually

relevant learning experiences enhanced intrinsic motivation among gifted learners. Similarly, Miserandino (1996) reported that when gifted students perceived their autonomy needs as fulfilled, their engagement in academic activities increased. Although these studies did not directly compare gifted and nongifted populations, their outcomes align with broader research indicating that satisfaction of autonomy needs underpins student motivation (Stroet et al., 2013). Consistent with findings in general education contexts, the present research reveals that teacher practices characterized by autonomy support and active involvement bolster need satisfaction and, consequently, the quality of motivation in gifted students. Intriguingly, despite teachers' reports of providing slightly more autonomy support to gifted learners, these students did not report greater autonomy satisfaction than their nongifted peers, suggesting a comparatively higher autonomy requirement among gifted individuals (Hornstra et al., 2020). Accordingly, creating social environments that simultaneously satisfy autonomy, competence, and relatedness is pivotal; such settings are autonomy-supportive, wellstructured, warm, and responsive (Ryan & Deci, 2017). Specifically, autonomy-supportive classrooms nurture internal motivation by granting selfdirection and choice, employing noncontrolling language, delivering constructive feedback, and explicitly linking classroom structures—such as expectations and rewards—to their pedagogical value (Deci & Ryan, 1985, 2000; Ryan & Deci, 2000). Meanwhile, wellstructured and empathetic interactions foster need satisfaction by promoting clarity, belonging, and mutual understanding (Vansteenkiste et al., 2012).

From the perspective of SDT, under competence sub-dimension, students reported feeling competent when teachers provided clear explanations and were available for questions. They appreciated when instructions were made understandable – one student noted that if the task was well explained, they felt capable of doing it – and when teachers encouraged them to ask questions. This instructional clarity helped students grasp the material and feel capable. Students identified an appropriately calibrated workload as essential to their sense of competence. Tasks that were “neither under nor overdemanding,” aligned with their current capabilities while also scaffolding preparation for forthcoming objectives (e.g., examinations), elicited the strongest feelings of competence. Conversely, homework that was overly simplistic prompted boredom, whereas assignments exceeding students' skill levels induced discouragement. When educators designed challenges that optimally stretched students' abilities without precipitating overwhelm, learners perceived opportunities for growth and skill acquisition. Furthermore, affirmative feedback and evaluative comments reinforced students' competence beliefs: one pupil reported that public praise by a teacher significantly bolstered her confidence. Both grades and constructive remarks that evidenced incremental progress contributed to learners' conviction that they were succeeding. Overall, timely, supportive feedback engendered heightened selfassurance regarding learning. Students consistently linked the mastery of novel skills with “immense happiness” and the gratification of achievement; in contrast, failure to comprehend new material evoked discouragement. They underscored that engaging, meaningful tasks fostered a perception of continuous advancement. Thus, challenging yet attainable assignments coupled with visible progress underpinned elevated learning satisfaction and selfconfidence. Although gifted students might be presumed to experience pervasive competence due to their intellectual aptitude (Suldo et al., 2018), they may also grapple with unrealistic performance expectations (Kesner, 2005) and anxiety about maintaining a “smart” image. Indeed, some evidence suggests that teachers provide highability learners with reduced structural support, presuming they require less guidance than their peers (Deunk et al., 2018).

Students emphasized the importance of relatedness, valuing instructors who deliberately cultivate a sense of inclusion. They reported feeling welcomed when teachers proactively introduced newcomers to the class, and noted that interpersonal rapport—such as educators learning about their hobbies or sharing personal anecdotes—enhanced their sense of being supported as individuals. Mutual respect emerged as a central theme: learners preferred mentors

who guide rather than punish, and who both respect student perspectives and remain open to learning from them. Ongoing communication and affirmative encouragement were identified as critical mechanisms through which students experienced connection and affirmation in the classroom. Peers likewise constituted a vital source of relatedness. Trusting friendships and collaborative activities—whether in sports, games, or project work—reinforced students’ belongingness, as shared interests fostered companionship and solidarity within the school community. Echoing these findings, research on gifted student attrition highlights the role of student–teacher relationships and the quest for alternative educational pathways. Gifted learners frequently perceive neglect from instructors, a factor that significantly contributes to dropout decisions; many subsequently pursue tailored programs or selfdirected learning as a “fresh start” (Hansen & Toso, 2007). Moreover, school withdrawal has been linked to both individual and institutional causes—including inadequate teacher competence, unsupportive social climates, and emotional disengagement. Dropouts commonly recount negative experiences such as placement alongside lowachieving peers, uninspiring instruction, and academic failure. Feelings of boredom, devaluation, and social disconnection often accompany these experiences, and students cite unengaging or dismissive teachers as exacerbating their emotional withdrawal and undermining their motivation to remain in school.

Findings also indicated that the dropout reason was associated with organizational issues. Similar results were also supported by other studies. For instance, students’ motivation and energy may decrease during activities at SACs on top of the fatigue of school (Çelik-şahin & Şahin, 2014). Again, in support of these findings, when the reasons for dropout are examined, it is stated that there are problems such as the intensive course period, exam preparation, lesson processing at SACs as in school, school exams, and studying at boarding school (Taşdemir, 2020). Teachers approached this and similar problems from different perspectives and stated that they were related to the logistic facilities of the institution (Bozan & Savi Çakar, 2020; Öğülmüş & Sarı, 2014; Sezginsoy, 2007).

Addressing the unique needs of gifted students requires a multifaceted approach that includes providing holistic resources. By understanding and addressing the factors that contribute to dropout rates among gifted students, educators and parents can help these students realize their full potential. As a result, starting with diagnostics, perhaps program-based diagnostics and meeting student interests and needs, paying attention to the pre-service and in-service training of teachers working in these institutions, evaluating the logistical needs of these institutions in a holistic way, and making program arrangements that take into account both the physical, social and emotional needs of students, ensuring teacher-student-mentor relationships in project processes, amendment of the regulation on both attendance-absenteeism and uncertainties regarding SACs and, most importantly, providing a differentiated teaching process can prevent gifted students from dropping out of these after school programs.

Conclusions and Implications

Gifted learners entered SACs anticipating these programs to serve as academically rigorous continuations of their regular schooling—offering structured modules to systematically cultivate new abilities, particularly in visual arts, and to reinforce core subjects such as Turkish, mathematics, science, and social studies. However, participants commonly reported disengagement when SAC instruction consisted of repetitive exercises and traditional pedagogies nearly indistinguishable from their classrooms. This didactic monotony fostered boredom and, in many cases, led to program withdrawal, as students yearned for novel, hands-on projects and content aligned with their personal interests. Consequently, they advocated for a comprehensive overhaul of SAC curricula and instructional approaches: shorter, more dynamic sessions featuring advanced or specialized topics; projectbased and learnerdriven activities; and

a flexible framework that grants autonomy and enables indepth exploration. Such innovations, they contend, would more effectively satisfy their intellectual curiosity, maintain engagement, and differentiate SACs from standard classroom experiences.

Preventing underachievement and attrition among gifted students may be informed by broader dropout prevention research. Reschly and Christenson (2006) identify key strategies, including fostering supportive home and school contexts, easing transition between educational stages, and systematically monitoring engagement—all of which underscore the centrality of student engagement in averting highschool withdrawal. Evidence indicates that many gifted students lose interest during late elementary or early middle school (Cramond et al., 2007; Hansen & Toso, 2007), suggesting that engagement maintenance—rather than initiation—is critical. At the institutional level, Reschly and Christenson (2006) commend practices that offer “meaningful participation” and uphold high expectations for learners (p. 109). For gifted populations, this may involve differentiated instructional placements that match students’ abilities, as well as robust encouragement to engage in extracurricular pursuits, which likewise correlate with positive academic persistence.

All in all, in order to prevent gifted students from dropping out after school programs, the following practical implications can be argued. For inclusive, respectful classroom environments, gifted students flourish in classrooms that both challenge and affirm them. By clustering learners of similar ability and compacting or accelerating the curriculum, teachers keep advanced students engaged and prevent boredom. Equally important is fostering a culture of respect and justice—establishing norms collaboratively, celebrating diverse talents, and validating the intense sensitivities many gifted children experience. For individualized curriculum, a onesizefitsall curriculum often underwhelms gifted students, leading to disengagement. Schools should implement individualized learning plans that allow acceleration (gradeskipping, compacting), enrichment activities, and subjectspecific pullouts or magnet programs. Offering abovegradelevel content, projectbased extensions, and partnerships with colleges or online providers ensures each learner encounters appropriately challenging material. For student engagement, sustained engagement hinges on connecting learning to students’ interests and providing choice and autonomy. When gifted learners participate in selecting topics, designing projects, or leading seminars, their personal investment grows. Regular monitoring of engagement—through grades, attendance, and behavior—helps educators spot early warning signs of withdrawal. For mentoring, gifted students benefit enormously from consistent, caring relationships with adults and peers. Assigning each gifted learner a mentor—whether a teacher, counselor, or older peer—provides both academic guidance and socioemotional support. For family engagement, preventing gifted dropout requires strong partnerships between schools, families, and community resources. Schools should regularly communicate with parents—through meetings, workshops, and culturally responsive outreach—to help them understand and support their child’s unique needs. In sum, preventing dropout in gifted education requires an integrated approach. Classrooms must be challenging yet nurturing; curricula must be rigorous and flexible; schools must foster strong relationships through mentoring and counseling; families must be engaged; and policies must prioritize gifted learners’ needs. Each recommendation above is grounded in empirical studies of gifted dropout.

Limitations

Although the small sample size limits the generalizability of our findings, this study nonetheless offers a detailed descriptive account of gifted students’ perspectives on dropout from SACs. Future research could build on these results by employing mixed-methods designs—collecting both qualitative and quantitative data from families, teachers, administrators, and students—to extend and validate the present work. Likewise, while this study relied exclusively

on interviews as its qualitative data-collection tool, subsequent investigations might incorporate alternative qualitative methods (e.g., focus groups, observations) and adopt longitudinal designs to track changes over time. Our participants were drawn from a single geographic region; future studies should recruit from more diverse and representative populations. Finally, cross-cultural comparisons would further illuminate how socio-cultural contexts shape gifted students' experiences and decisions regarding school retention.

Ethics and Consent to Participate

Before the field applications in the research process, ethical approval was obtained from the Ethics Commission of the relevant university dated 10.05.2023 with decision number 293399.

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