





Research Article

Identification of the academic differences of gifted children from the perspective of parents: needs assessment for differentiation

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Article Info	Abstract
Received: 30 April 2023 Accepted: 19 August 2023 Available online: 30 Sept 2023	The identification of the developmental characteristics of gifted students, determination of their educational needs, and preparation of educational programs based on the acquired findings are essential. This study aims to ascertain to what extent parents of gifted children
Keywords Differentiation Gifted parents' perspectives Gifted student Program vevelopment	define their children's developmental characteristics, identify the challenges they face, and assess their thoughts regarding their educational needs. A qualitative research method was employed in the study, utilizing a phenomenological design. The study group consisted of 252 parents newly enrolled in a Science and Art Center (BİLSEM) where gifted students take supportive education located in Istanbul, Turkiye. Data for the study were obtained through interviews, using a semi-structured form developed by the researcher in accordance with the research design. According to the findings, participating parents indicated that
2149-360X/© 2023 by JEGYS Published by Young Wise Pub. Ltd This is an open access article under the CC BY-NC-ND license	their gifted children learn faster and think more quickly compared to their peers. They also noted that gifted children excel in self-expression, demonstrate creative thinking, and achieve high academic success in mathematics and science courses. Furthermore, parents expressed the need for their gifted children to receive education in technology, science, and

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mathematics fields, as well as in foreign languages, arts, and robotics-coding.

Introduction

Gifted children are at risk of going unnoticed from an early age, being raised with misguided attitudes, or following inappropriate educational programs. Another risk factor they experience is their awareness of the unique traits that set them apart from their peers, leading them to conceal their abilities in an effort to be accepted by their peers. Considering the developmental characteristics of gifted children, their emotional development can be adversely affected when they lack the necessary stimuli and appropriate responses. This can give rise to unexpected failures and instances of depression (Watters & Diezmann 2003).

Gifted children can contribute to society to the extent that their developmental needs are fully met, and they can harness their potentials. In this context, in the year 2000, the National Association for Gifted Children (NACG) established criteria for guidance and counseling programs to support the socio-emotional development of gifted children. These programs aim to provide differentiated curricula and guidance strategies to support areas where students are at risk. In 1993, a report presented to the U.S. Department of Education by Richard Riley stated that the country's most valuable resource is gifted children, and addressing their needs is a national issue (Afat, 2013).

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In Turkey, however, comprehensive studies for determining the educational needs of gifted students are lacking. Determining these needs from the perspective of families, rather than teachers, is an effective method for identifying educational needs in a more objective and rational manner. In the study conducted by Yılmaz (2018) in Turkey, it was found that there were no studies specifically focusing on the education of gifted children in early childhood and the effectiveness and efficiency of such education. Only a limited number of studies were found that dealt with the identification of gifted children and the development of appropriate assessment tools. This situation is attributed to the fact that in our country, the identification of gifted individuals starts from primary school, and there is no specific program for early childhood education. Determining these needs from the axis of families instead of teachers is a very effective method in determining educational needs more objectively and rationally.

One of the long-standing issues in Turkey is the identification of the educational needs of gifted children and the implementation of an educational plan tailored to their needs. To achieve this, it is essential for parents, teachers, schools, and other stakeholders to accurately define the characteristics of gifted children from early childhood and be aware of the necessity for early intervention. Güler (2012) states that the most significant benefit of knowing the developmental characteristics of children is the ability to determine which attitude to adopt in response to their behavior, leading to more positive outcomes. Additionally, it is argued that when parents are unaware of the developmental characteristics of their children, they struggle to provide the necessary support and are uncertain about what actions to take. In studies conducted on families of gifted children by Watters & Diezmann (2003), it has been determined that parents who prioritize learning-oriented approaches, problem-solving, and advanced cognitive skills over mere performance and accumulation of knowledge exert significant influences on their children.

Analyzing the relevant literature, it is evident that parents play a crucial role in the emergence and development of the innate potentials of children diagnosed with giftedness (Bloom, 1985; Csikszentmihalyi et al., 1993; Olszewski-Kubilius, 2000; Smutny, 1998; Sowa & May, 1997; Subotnik et al., 2003). However, on the other hand, research indicates that parents of gifted children require support concerning their children's developmental characteristics and their education (Dangel & Walker, 1991; Morawska & Sanders, 2009; Silverman, 1993). Moreover, parents have expressed that they feel inadequately prepared to cope with the problems and challenges related to raising gifted children (Strom et al., 1994). Karakuş (2010) conducted a study revealing that parents of gifted children in our country encounter difficulties regarding their children's questions, personality traits, communication skills, formal education, and study habits. Additionally, Ruf (2005) found through interviews with parents of gifted children that they struggle to find reliable information to support their children's development. Davaslıgil (1990) argues that raising awareness among parents of gifted children is of utmost importance.

It is observed that it is extremely challenging for families without access to special education to create an enriched environment for their identified children amidst their daily struggles (Akarsu, 2004). Parents and teachers must make a collaborative effort with other stakeholders to create an educational environment that caters to the needs of gifted children and ensure that their children benefit from such environments.

Research Objective

For a long time, one of the educational issues in Turkey has been the identification of the educational needs of gifted/exceptionally talented children and the implementation of an educational plan tailored to these children's needs. To achieve this, it is crucial for parents, teachers, and other stakeholders to accurately define the characteristics of gifted students. After the proper identification of the characteristics of gifted children, the necessary efforts need to be made.

Many researchers acknowledge the significant role of families in fostering the development of special talented children's abilities and potentials. Families are responsible for bringing forth and nurturing the inherent potentials that gifted children possess, facilitating appropriate learning experiences aligned with their developmental levels, and guiding them in accordance with their educational needs. Moreover, it is the families who are often present to address the challenges that these children encounter in their daily lives. Saranlı (2011) pointed out that a considerable portion of families are unfamiliar with the definition of giftedness, and they lack knowledge about whether their children are gifted, let alone what actions to take in such circumstances. Their sole awareness in this matter is that their children are

somehow different from their peers. However, when these children are not supported using proper methods, this distinction can lead to unfavorable outcomes for the children and become a problem for the families. Kurtulmuş (2010) highlighted that families experience a range of emotions upon learning that their children have been identified as gifted. The rationale behind this stems from the notion that having a gifted child is not only an exciting prospect but also a challenging one. Furthermore, during the initial period of their children receiving this identification, families primarily worry about their happiness and social integration. Subsequent phases involve concerns about finding a suitable school, enrolling them early, and researching practices such as acceleration.

Upon reviewing the relevant literature, it is evident that gifted children often face challenges in their socio-emotional development compared to their peers, and these challenges are attributed to the influences of family and environmental factors. To effectively address these challenges, meet their needs, and guide their potentials appropriately, families must be actively involved in the process. Inclusion of families in this process necessitates the identification of their characteristics, emotional experiences, and requirements.

This study aims to determine the extent to which parents of gifted children define their children's developmental characteristics, identify the challenges they face, and assess their thoughts regarding their educational needs. Through this research, the existing situation will be identified, and appropriate actions will be taken. The literature review reveals a scarcity of research specifically focusing on the characteristics of gifted children, with existing studies mostly centered around the expectations and perspectives of families related to Science and Art Centers.

There is a limited amount of research that reveals the viewpoints of parents concerning gifted individuals. Additionally, the inclusion of a significant number of families in this study is deemed important for capturing diverse perspectives on the subject. This study is expected to guide the decisions made and implemented concerning the education of gifted children. In line with these objectives, the research problem and its subproblems are presented below:

Problem of Study

What are the viewpoints of parents of gifted children in Turkiye regarding their children's educational needs? Subproblems:

- What are the viewpoints of parents of gifted children in Turkiye regarding their children's strengths and talents?
- ➤ What are the viewpoints of parents of gifted children in Turkiye regarding the challenges they face during their children's education process?
- > What are the viewpoints of parents of gifted children in Turkiye regarding their children's areas of interest?
- What are the viewpoints of parents of gifted children in Turkiye regarding the additional educational support their children receive?
- ➤ What are the viewpoints of parents of gifted children in Turkiye regarding the educational needs they believe their children require?

Method

Research Model

In this study, a qualitative research method was employed to reveal and understand parents' personal perceptions, experiences, and perspectives related to the subject matter. Qualitative research utilizes a research design that forms the scientific research approach and ensures the consistency of research steps. In this study, a phenomenological design was used. The phenomenological design focuses on phenomena that are commonly observed but not deeply understood or explored (Yıldırım & Şimşek, 2008).

Study Group

The study group consisted of 252 parents whose children are newly enrolled in a Science and Art Center in Istanbul. The participants' children were students in grades 2, 3, and 4 at the Science and Art Center. The demographic characteristics of the study group are presented in Table 1.

Table 1. Demographic characteristics of the study group

Variables		f	%
Parent	Mother	148	58.73
	Father	104	41.26
Education Level	Primary School	17	6.74
	Middle School	13	5.15
	High School	76	29.76
	University	119	47.61
	Postgraduate Degree	27	10.71

As shown in Table 1, the study group comprised 148 mothers and 104 fathers. Moreover, 17 parents had completed primary school, 13 had completed middle school, 76 had completed high school, 119 had a university, and 27 had a postgraduate degree.

Data Collection Tools

Data were collected through a semi-structured interview form in line with the qualitative research method. Prior to the research, a review of the relevant literature was conducted to identify suitable questions to include in the semi-structured interview form, aligned with the subproblems of the study. As a result of this process, five items were included in the interview form. To ensure the content validity of the data collection instrument, the questions in the interview forms were reviewed by two experts from the Department of Educational Programs and Instruction at Yıldız Technical University, as well as three teachers working at the Science and Art Center (BILSEM). The semi-structured interview form was revised by the researcher based on the feedback received from the experts. The experts shared similar viewpoints within the scope of the study.

Process

Data were collected through the use of semi-structured interviews, following the principles of the qualitative research method. A semi-structured interview form was developed for data collection. To ensure the validity of the study, one of the methods employed was prolonged engagement. Yıldırım and Şimşek (2008) state that participants initially may be influenced by the researcher during interviews, and to mitigate the negative effects of this situation, the duration of interviews needs to be extended. Prolonging the duration of interviews increases participants' trust in the research and the environment, leading to the collection of more reliable data. Thus, the interviews were conducted with each group for an average of two hours, with the durations extended as much as possible. Additionally, the collected data were summarized and confirmed by the participants to enhance the validity of the research.

Data Analysis

The data collected through the semi-structured interview form, the data collection instrument of the study, were analyzed using content analysis method. The data from the interview forms were coded and thoroughly examined. Each subproblem was presented in themes. Within the scope of the validity and reliability of the research, the data were examined by three different experts, and consensus was reached among the experts regarding the codes and themes (Yıldırım & Şimşek, 1999). To determine the agreement between the researcher and the experts, Miles and Hubermann's (1994) formula for reliability was applied as follows: "Reliability = ((Agreement)/(Agreement + Disagreement)) x 100." The calculated result showed a 94% agreement, indicating a high level of consistency. This value being above 0.90 ensures the reliability of the research (Saban; 2008).

Findings

Theme 1. Findings Related to Strong-Talented Areas

For the first subproblem, the parents in the study group were asked the question "In which subjects do you think your children are talented due to their performances?" The answers given by the parents to this question are presented in Table 2.

Table 2. The characteristics that parents consider their children as talented in subjects

Subjects	f	%
Quick learning compared to peers	79	31.34
Quick thinking compared to peers	63	25.00
Creative thinking	41	16.26
Expressing themselves	38	15.07
Advanced imagination	27	10.71
Be curious	20	7.93
Imagination developed	18	7.14
Success in mathematics	15	595
Interest in science subjects	13	5.15
Leadership	9	3.57
Strong visual memory	8	3.17
Musical talent	5	1.98

As shown in Table 2, 79 of the participating parents believed that their children were talented because they learned quickly compared to their peers, while 63 parents considered their children talented because of their quick thinking. Additionally, 41 parents believed their children were talented due to their success in creative thinking, and 38 parents thought their children were talented because they expressed themselves better than their peers. One parent expressed their thoughts by saying, "My child thinks much faster than his classmates," while another parent stated, "My child's quick and different thinking used to worry me at first, but I learned it was a characteristic of gifted children, so I felt relieved.". With this, 27 parents considered their children talented in drawing, 20 parents believed their children's curiosity had developed, and 18 parents thought their children had a strong imagination, making them talented. One parent said, "My child draws beautifully, and when I compare it to his peers, he draws different things, which often surprises us." Another parent mentioned, "We've always found it impressive how he daydreams and puts them on paper."

As shown in Table 2, 15 parents believed their children were talented in mathematics, 13 parents thought their children were interested in science subjects, and 5 parents believed their children had an interest in music, making them talented. Additionally, 9 parents observed their children's desire to be leaders in class, and 8 parents thought their children could be gifted due to their strong visual memory. One parent stated, "His favorite and most successful subjects at school are science and mathematics, which we associate with him being gifted." Furthermore, another parent said, "His visual memory is excellent; he can describe something he saw before very well." Lastly, one parent shared, "He loves playing the piano and dreams of attending a conservatory."

Theme 2. Findings Related to Challenges in the Educational Process

For the second subproblem, the parents in the study group were asked the question "What challenges do your children face during their development process?" The answers given by the parents to this question are presented in Table 3.

Table 3. Challenges experienced by parents in their children's development process

Challenges	f	%
Communication problems with peers	64	25.39
Intense emotionality	47	18.65
Attention problems	38	15.07
Thinking differently from peers	27	10.71
Constant desire to be a leader	25	9.92
No problems	25	9.92
Desire to spend time with older children	17	6.74
Impatience	9	3.57
Lack of motivation	5	1.98
Shyness	3	1.19

As shown in Table 3, 64 of the participating parents reported that their children had communication problems, especially with their peers, while 47 parents mentioned that their children experienced intense emotionality.

Additionally, 38 parents stated that their children had attention problems, 27 parents believed their children thought differently from their peers, and 25 parents mentioned that their children's leadership behavior caused relationship problems. One parent expressed their thoughts by saying, "At home, my child is constantly complaining that his friends don't understand him, which makes him unhappy, and I think it's because he's gifted." Another parent mentioned, "My child is very emotional; even the smallest incidents affect him intensely, and sometimes I feel sorry for him being upset over things."

As shown in Table 3, 25 parents stated that their children did not face any problems during their development process. On the other hand, 17 parents reported that their children wanted to spend more time with older children than with their peers. Of the participating parents, 9 parents observed impatience in their children when they were doing something, and 5 parents believed their children lacked motivation. Additionally, 3 parents mentioned that their children exhibited shy behaviors in public. One parent shared, "I haven't faced any challenges due to my child's exceptional situation; it always seemed normal to me." Another parent said, "He is very impatient, and this condition exhausts both me and his father." Lastly, one parent expressed their thoughts by saying, "When I compare my son with his sister, I observe that he is more timid, although I would like him to express himself more comfortably, even if not as much as his sister."

Theme 3. Findings Related to Areas of Interest

For the third subproblem, the parents in the study group were asked the question "Which subjects do you think your children excel in at school?" The answers given by the parents to this question are presented in Table 4.

Table 4. Subjects in which parents think their children excel at school

Successful Areas	f	%
Mathematics	74	29.36
Science	61	24.20
Art	43	17.06
English	27	10.71
Computer / Technology	18	7.14
Music	14	5.55
Manual Skills	9	3.57
Sports	7	2.77
Astronomy	5	1.98

As seen in Table 4, 74 of the participating parents believed that their children excelled, especially in mathematics lessons at school, while 61 parents mentioned that their children excelled in science lessons, and 43 parents thought their children excelled in art lessons. Furthermore, 27 parents believed their children excelled in English lessons, and 18 parents believed their children excelled in lessons that involved the use of computers and technology. One parent stated, "I observe that my child is more successful than his peers in numerical lessons." Another parent expressed, "I consider my child talented in drawing; in fact, I want him to take the art department entrance exam for the science and art center this year."

As shown in Table 4, 14 parents believed their children excelled in music lessons, while 9 parents believed their children excelled in lessons that involved manual skills. Additionally, 7 parents thought their children excelled in sports, and 5 parents believed their children excelled in astronomy. One parent shared, "We have other family members who are interested in music; I think it is a hereditary condition." Another parent said, "He is very interested in astronomy; he answers all the questions we ask him immediately and constantly asks us space-related questions."

Theme 4. Findings Related to Supportive Educational Trainings Received

For the fourth subproblem, the parents in the study group were asked the question "What types of training have you provided for your gifted children to develop their special talents?" The answers given by the parents to this question are presented in Table 5.

Table 5. Trainings provided by parents for their gifted children

Trainings	f	%
Mind games training	109	43.25
Chess	52	20.63
Musical instrument	35	13.88
No training received	29	11.50
Art course	17	6.74
Coding	14	5.55
Sports	12	4.76
English	10	3.96
Drama	5	1.98
Mental arithmetic	3	1.19
Dance	2	0.79

As seen in Table 5, 109 of the participating parents provided their gifted children with mind games training to develop their existing talents. Additionally, 52 parents enrolled their children in chess courses, and 35 parents provided their children with musical instrument lessons. One parent expressed, "A mind and intelligence game course opened at school, and we enrolled our child there." Another parent mentioned, "He loves playing chess, and we couldn't provide him enough support, so we registered him for a chess course." With this, 29 parents stated that their children did not receive any training related to their special talents. On the other hand, 17 parents sent their children to art courses, and 14 parents enrolled their children in coding classes. One parent shared, "I didn't think my child was gifted, or rather, I didn't know, so I didn't send him to any course." Another parent said, "I registered him for coding classes due to the future professions mentioned in the news."

As shown in Table 5, 12 parents directed their children to participate in a sports branch, and 10 parents sent their children to English courses. Additionally, 5 parents enrolled their children in drama courses, 3 parents in mental arithmetic courses, and 2 parents in dance courses. One parent expressed, "He loves playing tennis, so I registered him for a course, even though the course is just across the street, he eagerly attends." Another parent mentioned, "We sent him to a mental arithmetic course to improve his performance in mathematics; I don't know if we did the right thing."

Theme 5. Findings Related to Needed Supportive Educational Trainings

To reach the findings related to the fifth subproblem of the study, parents were asked the question "Which trainings do you think your gifted children need to develop their special talents?" The responses of the parents to this question are presented in Table 6.

Table 6. Parental views on the educational needs of gifted children

Trainings	f	%
Trainings they want and will be happy with	67	26.58
Trainings related to science subjects	43	17.06
Mathematics support	36	14.28
Art education	29	11.50
Robotics education	27	10.71
Coding Education	21	8.33
Artistic disciplines	19	7.53
Foreign language	16	6.34
Music education	12	4.76
Chess	9	3.57
Scientific workshop trainings	6	2.38
Sports education	4	1.58

As shown in Table 6, 67 parents stated that they wanted to provide their children with the trainings they desired and would be happy with. Additionally, 43 parents expressed the need for trainings related to science subjects. Moreover, 36

parents expressed their desire to provide mathematics support for their children, and 29 parents expressed the need for art education. One parent said, "What matters is my child's happiness, so I would like to provide him with the training he will be happy with." Another parent mentioned, "We believe that mathematics is essential in life; that's why we want to provide him with mathematics lessons."

As seen in Table 5, 27 parents expressed the need for robotics education, and 21 parents expressed their desire to provide coding education for their children. Furthermore, 19 parents stated that they wanted to provide their children with education related to artistic disciplines, and 16 parents expressed the need for foreign language education. Additionally, 12 parents expressed their desire to provide their children with music education, and 9 parents mentioned the importance of chess training. One parent expressed, "He is very interested in robotics and coding; when I find a suitable course around, I want to enroll him." Another parent mentioned, "Adequate science and especially experimental activities are not carried out at school; my child conducts experiments at home, but I think it is not sufficient. Therefore, I am looking for a course with science and scientific activities." With this 6 parents expressed the need for scientific workshop trainings, and 4 parents expressed their desire to provide sports education for their children. One parent shared, "We are interested in tennis; that's why I want to enroll him in a course even though he is just across the street."

Discussion and Conclusion

Based on the data obtained in the study, the parents in the research group stated that gifted children have the characteristics of learning faster and thinking more quickly than their peers. They also mentioned that gifted children excel in expressing themselves, possess creativity, and perform well in mathematics and science subjects. However, it was observed that the parents evaluated the characteristics of gifted children based on their academic performance and did not consider their emotional, social, and psychomotor development. Clark (1997) and Silverman (1993) emphasize that children diagnosed as gifted are empathetic, emotionally deep, and have a high level of awareness of others' feelings and thoughts, especially with a conscience and moral values. Therefore, it is considered that the participating parents did not take into account the characteristics identified in the literature.

Saranlı (2011) stated that the majority of families are not familiar with the concept of giftedness and are unsure whether their children are gifted or not. Consequently, their only knowledge is that their children are different from other children. However, when these children are not supported through appropriate methods, this difference can create negative consequences for them and become a significant problem for their families.

The parents participating in the study mentioned that gifted children face various challenges during their development. They struggle to communicate with their peers and social environment, think differently from their peers in response to events, experience intense emotions, have a tendency for their attention to be easily distracted, and desire to be leaders in their groups. Karakuş (2010) conducted a study on the difficulties encountered by parents of gifted children and found that parents often face challenges in communicating with their children. Stuart & Beste (2008) argue that gifted children have difficulties in communicating with others due to their emotional and sensitive nature, leading them to withdraw into their own world of thoughts and emotions and prefer solitude. Koçal et al. (2009) assert that gifted children experience difficulty in being understood in both home and school environments, and thus, they need guidance support to develop healthy communication skills. According to Davasligil (2000), having expectations from others can lead to problems. If gifted children are overly focused on others, it can often lead to unrealistic expectations, disappointment, and even resentment.

Parents mentioned that their gifted children excel in mathematics, science, English, and computer/technology courses in schools. Moreover, parents provided their children with training in mind games, chess, playing musical instruments, art, and sports to develop their special talents. Sak (2012) states that the priority of parents of gifted children is for their children to succeed in central exams and be placed in good schools and universities. Consequently, parents may consider project work, participation in artistic activities, and efforts to reveal and develop their children's potential as meaningless and unnecessary in the educational institutions where their children study. Additionally, Çamdeviren

(2014) expresses that parents do not find their children's extraordinary achievements sufficient and envision their children being perceived at the highest level.

In conclusion, the findings of the study reveal that parents recognize the unique characteristics and talents of their gifted children. However, there are some misconceptions and challenges faced by parents in understanding and supporting their gifted children adequately. It is crucial for parents, educators, and professionals to be well-informed about the characteristics and needs of gifted children to provide appropriate support and create a nurturing environment for their optimal development. Further research and collaboration between parents and schools can help in better understanding and meeting the needs of gifted children effectively.

When reviewing the relevant literature, it is emphasized that parents need to engage in enrichment activities as a family. Enrichment activities for gifted children may include activities that focus on their interests, talents, and individual differences, as well as collaborative educational practices. Ersoy and Avcı (2001) state that enrichment programs involve adding different subjects or learning areas and various materials to the curriculum. The concept of enrichment activities is often misunderstood, and parents tend to associate it with material things that can be purchased with money, such as toys, objects, or paid educational opportunities. In reality, enrichment learning activities aim to enrich experiences. In other words, it allows students to interact with different places and stimuli, providing them with essential experiences for their development. Research has shown that parents of gifted children direct them towards activities such as reading, mind games, and interesting trips, which are different from their peers (Sternberg, 2007).

In this study, the parents of gifted children stated that their children need technology education, science and mathematics education, foreign languages, art, coding, and robotics training. It was observed that these training programs were considered to support their children's special talents. Kincal et al. (2013) found in their study that gifted students showed a high interest in technology and astronomy topics. It is recommended that the education of gifted students should include training that supports their existing abilities, creative thinking skills, curiosity and interest in science, and their inclination towards arts, sports, etc., alongside technology competency (Tortop, 2015). Aktamış and Ergin (2006) argued in their research that students with creative potential require an environment that allows them to develop their potential. They believe that every child is born with creative potential, but school experiences should allow them to explore events and situations with creative thinking, view daily life problems from different perspectives, and generate new solutions.

Recommendations

In studies related to the education of gifted individuals, collaboration with parents is essential. However, for this collaboration to be effective, parents need to have a correct understanding of their gifted children's developmental characteristics. Different perspectives should be considered concerning both the developmental characteristics and the education of gifted children. Additionally, parents should be provided with basic information about the characteristics of enrichment activities in the education of gifted children. Awareness-raising activities should be conducted to encourage families to engage in enrichment activities not only at school but also at home.

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