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Review Article

Kızılçulu Science and Art Center' facilities, novelties, and internationalizations for gifted students with BUCA IMSEF competition: a case study

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Abstract

Special education programs are applied for gifted students all over the world. In order for these children to be useful people to the world and their countries, the education they receive should keep up with the changing educational technologies in the world. In Turkey, Science and Art Centers (SACs) are special education centers for gifted students. But SACs are not sufficient both in number and also experiencing some problems in training at these centers. Within the scope of this study, the role of SACs for gifted students education was investigated. Considering the problems encountered in science and art centers in Turkey, we suggest a novel education system for gifted students from kindergarten to university who need special education. With the implementation of this system, the problems encountered in the training are largely resolved and gifted students benefit more with active learning from these centers. In the talent workshops where application courses are held, it is planned for students who are talented in the fields of natural and science, mathematics, astronomy, music, painting, photography, robotics, coding, ceramics and philosophy. Kızılçullu Science and Art Center (KSAC) organize the national and international music and science fair Buca IMSEF (International Music Science Energy Engineering Fair) with the approval of the Ministry of National Education. Students exhibit their projects and talents in the field of science and music. In this new system applied in KSAC, gifted students are discovered in the society. In addition, they develop their special abilities and use their capacities. They carry out interdisciplinary research and activities in the fields of science and arts and get opportunity to show themselves on national and international platforms.

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Introduction

The development of a country and its reaching the level of modern civilization is closely related to the efficient use of human resources, the most valuable asset. For this reason, it is one of the most important responsibilities of today's contemporary education system to discover and educate today's gifted students, the most important human resource of the future, in the development of a society (Muyia et al. 2018)

Today, in the definition of giftedness, Renzulli's definition is widely accepted. According to Renzulli's "three rings" theory giftedness arises from the interaction of talent, creativity, and motivation (Renzuli, 1986). Gifted child was defined at the

1978 American Congress; "Has a proven potential ability at preschool, primary or secondary level; Displaying high performance or leadership ability in areas such as intellectual, creativity, specific academy; it is a child who shows superior performance in visual fields and whose services or activities cannot be met by the school generally" (as cited in Babaeva and Voiskounsky, 2002).

Gifted students talented individual; unlike its peers, it forms a privileged group. Because these students learn faster than their peers; they are individuals who have creativity, art, leadership capacity, special academic skills, understand abstract ideas, love to act independently in their areas of interest and perform at a high level (Kitsantas et al. 2017;

Batdal Karaduman, 2009). The main characteristics that distinguish these students from other students can be listed as follows: less need for sleep, rapid language development, broad vocabulary, fluent speech, complete early development (early walking, early speaking), too much interest in books, dictionaries, atlases, calendars and puzzles at a very early age, good observation ability, long attention span in interests, strong memory, preferring adults rather than peers in communication, improved humor ability, fast and easy learning, generating original ideas, quickly getting bored with uniform work. These different characteristic of gifted students form a disadvantaged group within their peers. A differentiated education program is required for disadvantaged or gifted students to be successful, to use their full potential, to contribute to their country and the world (Davaslıgil and Zeana 2004; Genç, 2016, MEB, 2017; Ersoy & Avcı, 2004). Enç (2005) states that these students may experience adaptation and development problems within a training program designed for average learning power. In this case, failure will be inevitable since the student will not be able to establish a connection between the active thinking of the student and the education given at the school (Streitz, 1922). Passow (1981) also states that these individuals need differentiated educational programs and services beyond normal school programs in order to contribute to themselves and the society. In our country, Turkey, an examination-oriented education is provided and no special education is offered for gifted students. State of the art trainings are given to gifted people, but the support trainings provided are insufficient. These support trainings are provided by Science and Art Centers (BİLSEM) (Kılıç, 2015). To the extent that the problem of evaluating gifted individuals concerns the National Education system, it also concerns citizens of all countries. Because gifted individuals are rare public values in the country.

In order to develop gifted students, to be more beneficial to society in the future and to reveal their existing capacity, their characteristics must first be well known. Recognition of gifted students is very important for those who are interested in the education of the child, for them to achieve success by achieving a healthy development and to be able to reach higher qualifications. Consciously selected stimulants, equipment, consciously organized educational environments and activities to be offered to the child support gifted students in a healthy way and ensure that they use their development capacity at the highest level (Kadioglu & Afat, 2018).

However, gifted and talented students often fail to demonstrate their gifted abilities, as a result of the lack of appropriate educational policies and sometimes not being directed correctly. The number of gifted and specially talented people, which humanity cannot benefit from, is not small. Sometimes, while encountering the extraordinary achievements of an individual with a normal intelligence level, we can also encounter situations where they are not self-sufficient to put forward a great invention, not just individuals with superior skills (Bildiren, 2018). This shows that a special education program is needed for gifted people. Therefore, it is necessary to provide the environment and opportunities that are considered to be the most valuable resource of the society and whose numbers are limited, in order to prevent the loss of gifted individuals and to raise them in the most healthy and productive way. These students should be trained with appropriate programs and specially trained staff (Heuser et al. 2017).

The Role of Science and Art Centers in the Education of gifted students

Many countries started work on this issue early and developed various projects and models for the training of gifted. Israel, Russia, USA, China have developed high intelligence and inventor tests to identify gifted students. With these tests, they systematically screened their communities and established private schools and universities for the education of gifted. Due to the different approaches of countries about education systems and giftedness, opportunities for international student identification and education of gifted individuals vary. There are countries such as Sweden, which offer differentiated and individualized education to all their students, including gifted students, in ordinary formal education, on the other hand, there are also countries that open schools specific to selected students such as China and Russia (Genç, 2016).

Gifted Education in Turkey

In Turkey, in the historical process, it is seen that gifted children have received special training from childhood in order to be employed at important levels of the state administration. For example, the education of gifted children in the Nizamiye Madrasahs during the Anatolian Seljuk Period was continued in the Ottoman Empire with the Enderun School. Gifted children trained in these institutions worked at levels of the state (Akkutay, 1984). Considering the early periods of the history of the Republic, it is seen that the education of gifted children was given importance. In 1929, the Law No. 1416 on "Law of Students to be Sent to Foreign Countries" was enacted and it was aimed to raise gifted children. Within the framework of this law, which is still in effect today, the Ministry of Education has provided scholarships to gifted students to receive education at prestigious universities abroad; encouraged their development

in the fields of science, culture and arts (Levent, 2011). In 1948, a law numbered 5245, known as the "Law of Wonder Children" and also referred to as "İdil Biret-Suna Blood Law", was passed in order to continue the studies in the field of art and to raise talented artists; In this way, gifted children were provided with education abroad. In the early 1960s, in line with the decisions of the National Education Council, it has decided to open science high schools in order to train gifted students in the fields of science and mathematics. The opening of science high schools in Turkey has been made in the field of gifted education is seen as one of the most important steps. In the 1990s, Science and Art Centers (BİLSEM) was established by the Ministry of National Education in order for gifted students in pre-school, primary and secondary education institutions to receive education in their spare time to the extent of their interests and abilities; In these centers, it is aimed for children to conduct research and inventions based on critical thinking (For detailed information, see. Pak and Özden, 2018). The purpose of BİLSEMs is clearly regulated in the 1st Article of the "Ministry of National Education Science and Art Centers Directive" published in February 2007 and numbered 2593. According to this article, the purpose of BİLSEMs is " To ensure that gifted children / students in pre-school, primary and secondary school age are aware of their individual abilities and use them at the highest level by developing their capacities, students are selected, enrollment, education, training, selection of administrators and teachers, and the establishment and functioning of science and art centers to regulate the procedures and principles related to this issue. " (MEB, 2007).

Today, it is seen that the education of gifted students is supported by Science and Art Centers where reinforcement courses are given to gifted students affiliated with the Ministry of National Education. However, their number is very insufficient. These centers serve approximately 8-10 thousand students in Turkey in general. However, due to the 500 thousand gifted students in Turkey, it is also estimated to be two thousand due to genius level students. These students with a high level of understanding and infrastructure that can open the way to the country in the future. Programs applied to talented students in science and art centers are handled within the scope of Science and Art Centers Directive. In addition, the Special Education Services Regulation also includes some issues regarding the functioning of the institution (MEB, 2012). There is no program like formal education in these centers. The education of gifted and talented students needs to be improved and some aspects of their talents should be developed through activities that will highlight their interests and abilities with a curriculum that will be prepared in accordance with the education of these students (Levent and Bakioğlu, 2013; Dağlıoğlu et al. 2010; Sak et al. 2015).

Science and Art Centers Problems and Suggestion

While the positive aspects of being talented in society are generally taken into consideration, the difficulties faced by talented people can be ignored by the society. Undesirable behaviors can occur when their success is not supported, or their students cannot be understood, or when these students are not understood. Learning skills and motivation are high in areas where special talented students are interested. They can work independently in these areas and be productive. However, when they are forced to comply with the speed of their peers in school life, cannot meet their learning needs and have to progress slowly, their motivation gradually decreases. While working on their own in their areas of interest, they may experience academic failure with low motivation in school life, while their motivation is high. Some of the undesirable behaviors of specially talented students in school can be listed as follows: They can get bored in the classroom environment because they learn quickly according to their peers, and can complain by their teachers on the grounds that they disrupt class order (Çitil, 2018). They can achieve success especially in the primary school period without much effort, but since this will prevent them from gaining the habit of studying, they may have difficulty in success in the following years. Failure to understand the words used by his peers due to his rich vocabulary may cause them to be alone. Hypersensitivity can cause them to develop various anxiety and fears, and they can easily get hurt. Students may lose their self-confidence and wear themselves out due to the high expectations that arise with feelings of perfectionism. Due to the diagnosis of “special talent”, high expectations of the family and teachers and not giving the child a chance to make mistakes may cause psychological problems (low self-confidence, depression, introversion, etc.). Because they are always in question, they may have conflicts with their teachers in the classroom and the family national and can be considered as rebellious (Öztabak, 2018).

In the study of Kazu and Şenol (2012), in which the findings about the problems teachers encounter in the education of gifted students were examined, it was observed that most of the teachers encountered problems related to the physical environment conditions of the Science and Art Centers in the education of gifted students. Similarly, in the study of Sezginsoy (2007), it was concluded that the physical equipment status of the teachers in the centers was not sufficient. In these studies, it was concluded that the teachers did not find the building equipment conditions

of the centers, materials, game tools, playgrounds, computers, library resources sufficient. In the results of Tantay (2010) 's research, teachers' opinions are that there are many physical deficiencies in BILSEM.

The results of Sezginsoy (2007), show that the problems encountered in the education-training situation are that teachers do not receive sufficient in-service training, therefore they do not know how to apply education for gifted students in centers. The problem stated in parallel with this problem is the lack of a regular training program for teachers to follow for gifted students. In the study of Özkan (2009), the program implemented in BILSEMs needs to be prepared by the Ministry of Education and enriched by institutions such as universities and Scientific and Technical Research Council of Turkey (TUBITAK), that the execution of BILSEMs based on instructions instead of regulations creates problems, will contribute to the development of teachers and administrators; they concluded that they do not find the in-service training seminars related to the training of gifted people sufficient.

As can be seen, the results of the studies are similar to each other. Besides of these studies, schools for the education of students in the gifted students in Turkey were examined. However, within the scope considered in this study, it was observed that a versatile and balanced education system was not present in any of the schools examined. The applied programs are available in separate branches such as music, sports, fine arts, science and generally at the high school level.

Need for a new system of Science and Art Center for gifted students' education

In light of this information, in this study, a new education system that has been proposed for gifted students from kindergarten to university in Kızılçullu Science and Art Center, Buca, İzmir, Turkey to receive special education in science and arts, to learn by living through in nature camps and laboratory studies, and to receive education with competencies created according to their interests.

Gifted Students Education Model of Kızılçullu Science and Art Center

BİLSEM (Science and Art Center): Preschool, primary and secondary education institutions continuing gifted or talented students in formal education institutions to discover their talents and themselves in line with their interests besides their education. It is a private educational institution established to ensure the highest level of development. Within the scope of the study, it is aimed to explain to Kızılçullu Science and Art Center (KSAC), where gifted students living and studying in Buca district of Izmir, from kindergarten to university, can receive special education free of charge. In Kızılçullu Science and Art Center is aimed to ensure that gifted students are discovered and noticed in the society, guide gifted students in line with their interests and abilities, enable them to develop their special talents and use their capacities, enable and guide them to conduct interdisciplinary research and activities; ensure that they are successful individuals in the future by being supported throughout their education life, support the use of the work to be put forward for gifted people and our society. It is also aimed to enable them to show themselves in national and international platforms.

KSAC Mentor Selection

At the Kızılçullu Science and Art Center, where a different education model is applied, students are educated by a team with a master and doctorate degree specializing in their fields, students spend time in workshops according to their abilities outside the normal curriculum, and their skills are developed and different aspects are brought forward.

KSAC Gifted Student Selection

Selection of students to Kızılçullu Science and Art Center, where students can receive education service without paying any fee, in order to contribute to the education they receive at school. Students first go through an interview and a questionnaire. Thus, special interests are determined. Special abilities, skills and capacities of students are taken into account in shaping the programs to be implemented at the center. In addition to collective lessons that include current developments in science and art and adopt teamwork spirit, scientific project studies and individual studies in the field of art are conducted in line with their interests. Besides these, talented students in the fields of natural sciences, mathematics, astronomy, music, painting, photography, robotics, coding, ceramics, and philosophy are planned to work in talent workshops where practice courses are held.

Facilities of KSAC Curriculum and Teaching Process

Special trainings are given to students to develop inquisitive and solution-oriented thought structures, to create a sense of curiosity and awareness, to dream, to discover and develop themselves in line with their skills and interests in

science and art. Educational arrangements are made to meet the need for some learning features such as learning and processing information much faster than the peers of gifted students.

For this purpose, museums, libraries, observatories, R&D centers, laboratories, industrial establishments, universities, botanical gardens, concerts, art workshops, festivals and exhibition visits are organized for students to learn by seeing and living. In addition to these activities, science, art and nature camps are organized periodically in order to help students gain awareness of nature and the environment and to carry out applied works on site. In these camps, it is planned that the students actively participate in scientific lessons and workshops in nature, as well as social and cultural sharing with their peers through social activities.

Figure 1.
Studies in Kızılçullu Science and Art Center

Entrepreneurship, environmental problems, social problems, global problems etc., where schools from different countries participate and are asked to fulfill these tasks by assigning tasks to students in a certain period of time. By participating in international online competitions, students are provided with the opportunity to work with their peers internationally, improve their English, demonstrate their talents, gain the ability to find a solution to a particular problem, improve their vision and socialize.

In line with their abilities, gifted students studying at the Kızılçullu Science and Art Center have the opportunity to present their projects carried out under the supervision of academicians who are experts in their fields, in different national and international organizations.

Gifted students studying at the Kızılçullu Science and Art Center are have the opportunity to participate in international organizations by benefiting from these opportunities, to present in international organizations, to develop self-confidence, and to share social and cultural with their peers.

Figure 2.
Studies in Kızılçullu Science and Art Center

Evaluation-Achievement of Gifted Students educated in Kızılçullu Science and Art Center

The benefits expected to be gained as a result of the educational activities to be carried out at the Kızılçullu Science and Art Center, which is planned to be established for the education of gifted students, are detailed below:

- By conducting field studies, trips, science, art and nature camps with gifted students, students actively live on-site, learn by seeing, gain awareness of nature and the environment, and share social and cultural with their peers through social activities,
- To explore the areas of interest and talent by conducting scientific project studies, individual studies and workshops in the field of art, in line with their collective courses and interests, in order to contribute to the education they receive at school, and to adopt a team working spirit, following current developments in science and art,

Figure 3.
Music Studies in Kızılçullu Science and Art Center

- Preventing students from getting habit of getting bored and studying habits such as boring and disrupting the classroom order, as they learn quickly with the lessons they take and applied workshops in line with their interests,
- By participating in international competitions attended by peers from different countries, working with their peers in the international arena, developing their foreign language skills, exhibiting their talents, acquiring the ability to find a solution to a particular problem, and developing and socializing their vision,
- To overcome the lack of self-confidence, which comes with the perfectionism feelings that can create a disadvantage for gifted students with the projects to be carried out under the consultancy of academicians who are experts in their fields at universities, to be able to express themselves, to be world people, by participating in different organizations national and international.

Figure 4.
Science Studies in Kızılçullu Science and Art Center

- To develop organizational abilities by taking various duties in national and international events to be held, to work in a planned manner, to produce solutions, to take responsibility,

Directing young people to their interests and abilities with the activities to be carried out, one of the most important problems seen in today's youth, removing young people from bad habits, directing their interests in the right direction, preventing them from developing various anxiety and fears due to their hypersensitivity, depression, inward closure due to high expectations. They gain the benefits of preventing psychological problems such as low self-confidence, etc.

Figure 5.
Robotic-Coding Studies in Kızılçullu Science and Art Center

Within the scope of Kızılçullu Science and Art Center, specially talented students are be trained as individuals who are responsible, equipped in every sense, recognizable in the society, who can plan their time and future, and respect their environment and nature.

Figure 6.

Nature Camp Studies in Kızılçullu Science and Art Center

Sustainability Plan of Kızılçullu Science And Art Center

• Kızılçullu Science and Art Center is provide training within the framework of the curriculum created with an academic team with a doctorate and master's degree. The curriculum and activities are updated in line with the students' developments, interests and wishes, and their continuity will be provided.

• Training satisfaction levels, requests and complaints given to the students through questionnaires and meetings will be determined and updates will be made on the education model.

The BUCA IMSEF contest organized by the center will be repeated every year, and students of the Kızılçullu Science and Art Center will take part in this organization.

Figure 7.

Social Responsibility Studies in Kızılçullu Science and Art Center

Science, arts and nature camps that will be held are also activities that are continuous and students will gain different experiences.

Representative of the last 53 participation as Turkey representative of students each year to different organizations and from these 53 organizations from these overseas, held last sustainability of the international connections the center with students who attended the Buca IMSEF fair will be provided.

Gifted students from kindergarten to university will be trained at Kızılçullu Science and Art Center. Lesson plans will be arranged according to students' interests and educational status. Below is a sample annual plan covering one-year activities and sample monthly and weekly plans for primary, secondary and high school students.

New Approach for Gifted Education: An International Organization That Brings Together Gifted Students From Around The World-BUCA IMSEF

Kızılçullu Science and Art Center team organizes the national and international music and science fair Buca IMSEF (International Music Science Energy Engineering Fair) in Izmir-Buca district with the approval of the Ministry of National Education. It is a new approach for internationalization of gifted student education. The organization includes categories of physics, chemistry, biology, mathematics-computers, energy-engineering and music-piano. Domestic and international students will exhibit their projects and talents in the field of science and music, and will be evaluated and awarded by academics who are experts in their fields. Students of the Kızılçullu Science and Art Center will also take on tasks such as guiding international teams, helping the organization team, and displaying their talents on stage at ceremonies. These tasks will contribute to the students such as socializing with their peers national

and international, gaining team spirit, taking part in the organization and solving problems, self-development by being aware of scientific and artistic activities carried out worldwide.

Figure 8.
Categories of BUCA IMSEF

According to the data obtained from Buca District National Education, there are 182 official and private schools from kindergarten to university in Buca district of İzmir. The distribution of these schools is given in Table 1 and Table 2 below.

Table 1.
The Distribution of the Schools in Buca District of Izmir

School Type	Public	Private	Total
Kindergarten	4	55	59
Primary School	32	9	41
Secondary School	27	10	37
Imam Hatip Secondary School	5	-	5
Anatolian High School	9	9	18
Science High School	1	5	6
Social Science High School	1	-	1
Fine Arts High School	1	-	1
Sports high school	1	-	1
Vocational and Technical Anatolian High School	6	-	6
Anatolian Imam Hatip Highschool	3	-	3
Special Education Business Application Center	1	-	1
Private Vocational Training Center	1	-	1
Public Education Center	1	-	1
Guidance and Research Center	1	-	1
Total	94	88	182

Table 2.
Number of Students in Public and Private Schools in Buca District of Izmir

School Type	Number of Schools / Institutions	Number of Teachers	Number of Students	Number of Classrooms	Number of Students per Classroom
Public	94	4009	72956	1728	42
Private	88	991	6792	514	13
Total	182	5000	79748	2242	36

79748 students receive education in 182 schools in Buca district. Of these students, 487 students were identified as gifted by the Counseling and Research Center of Buca District National Education Directorate.

Working Study Plan of Kızılçullu Science and Art Center

Gifted students from kindergarten to university will be trained in Kızılçullu Science and Art Center. Gifted students guided by the guidance units of the schools and individual applications will be accepted at the center through written or oral interviews. The number of gifted students who will receive education at the center will be determined according

to the physical conditions of the building. Lesson plans will be arranged according to students' interests and educational background. Below is a sample one-year plan covering one-year activities and sample monthly and weekly plans for primary, secondary and high school students.

Table 3.

Kizilçullu Science And Art Center Sample Annual Plan

Kızılçullu Science And Art Center Sample Annual Plan	
Date	**Activity**
January-June	Science and Art Classes, Talent Workshops
February	Kızılçullu Science and Art Center Students Piano Concert
May-December	Scientific Project Studies
February-April	Regional and Final Project Competition Participation
March- October	Participation in National and International Project Competitions
April	Science, Nature and Art Camp with secondary school students
April-December	Social Responsibility Projects Related to Environmental Awareness within the Scope of Buca District
May	Kızılçullu Science and Art Center Choir Concert
May	Online Entrepreneurship Competition
June	Science, Nature and Art Camp with high school students
June	Science and Art Center Year End Concert
July	International Youth Summer Camp
August	National and International Youth Summer Camp
July-August	Summer school
September- October	BUCA IMSEF
October-May	Young Achievement Company Program
October-December	Science and Art Classes, Talent Workshops
November	Science, Nature and Art Camp with Secondary and High School Students
November- December	Online Creativity Competition

Table 4.

Kızılçullu Science And Art Center Sample Training Calendar For High School Students

Kızılçullu Science And Art Center Sample Training Calendar For High School Students	
Date	**Education Subject**
1.Week	What is Science?
	What is the Project?
	What is Music?
	Inventions Affecting Human History
2.Week	Scientific Ethics
	Scientific Study Methods
	Music Periods
3.Week	Let's Know Scientists
	Nanotechnology
	Music Periods
4.Week	Renewable Energy
	Inventions Affecting Human History
	Life of Famous Musicians
5.Week	Black Holes, Discovery of Matter Waves, Displaying Black Holes
	Introduction to the Quantum World
	Getting to Know the musical instruments
6.Week	Biotechnology

	Nobel Awards
	Getting to Know the musical instruments
7. week	Nature Education and Endemic Species
	Professions of the Future
	Solfege and Choral Works
8. week	Smart Materials
	Evolution of Scientific Thought and Modern Science
	Solfege and Choral Work
9. week	Test animals
	The world's first minutes
	Music and Math Relationship
10. week	Forensic Biochemistry
11. week	Sustainable Future
	Piano Study
	Biomimetics
12. week	Interesting Properties of Planets
	Classical Western Music Instruments
	Scientific Projects

Table 5.

Kızılçullu Science and Art Center Primary School Students Sample Weekly Work Program

Kızılçullu Scıence And Art Center Prımary School Students Sample Weekly Work Program					
Monday	Tuesday	Wednesday	Thursday	Friday	Hour
Coding and robotics lesson	Healthy living skills	Fun Science and Project Work	Let's Know The Sky	Inventions that affect human history	40 min
Coding and robotics lesson	Music education with cymbals	Fun Science and Project Work	Let's Know The Sky	Social Life Skills and Drama	40 min
Storytelling	Music education with cymbals	Nature education	Nature education	Polyphonic choral work	40 min

Table 6.

Kızılçullu Science and Art Center Secondary School Students Sample Weekly Work Program

Kızılçullu Scıence And Art Center Secondary School Students Sample Weekly Work Program					
Monday	Tuesday	Wednesday	Thursday	Friday	Time
Philosophy for kids	Coding and Robotics Lesson	Science and technology study	Renewable energy	Astronomy education	40 min
Polyphonic choral work	Coding and Robotics Lesson	Scientific Project Work	Piano-Solfeggio Training	Astronomy education	40 min
Nature Education and Introduction of Endemic Species	Short Film Workshop	Let's get to know the Scientists	Nature Education and Introduction of Endemic Species	Inventions that affect human history	40 min

Short Summary

Science and Art Centers receive education of gifted students in Turkey is not sufficient both in number are also experiencing some problems in training at these centers. When the studies on this subject are examined, it is seen that the Science and Art Centers mostly encounter problems related to physical environment conditions and physical equipment such as materials, game tools, playgrounds, libraries and sports halls in the education of gifted students.

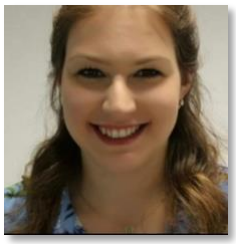
There are other important problems encountered in Science and Art Centers, insufficient in-service training of teachers and problems arising from the lack of regulation.

In this study, considering these problems encountered in Science and Art Centers, Kızılçullu Science and Art Center has been proposed as a new science and art center model to serve in İzmir's Buca district. Kızılçullu Science and Art Center is designed as a center where gifted students from kindergarten to university can receive special education from educator with master's and doctorate degrees, learn by living with science, art, nature camps and laboratory studies, and where students can receive education according to the curriculum created according to their interests. In Kızılçullu Science and Art Center, gifted students are guided in line with their interests and abilities, and they are provided to improve themselves according to these abilities. In the center, which has agreements with 51 international organizations, students are given the opportunity to develop their visions by participating in international organizations with their studies in the field of science and art.

In addition, BUCA IMSEF (BUCA International Music Science Energy Engineering Fair) international science and art competition will be held every year at the Kızılçullu Science and Art Center. Students studying at the center will also take part in this organization and will have the opportunity to make social, cultural, scientific exchanges and improve their foreign language with their peers.

As a result, Kızılçullu Science and Art Center a general model of Turkey such as Science and Art Center. With the implementation of this education system in Science and Art Centers, the problems encountered in the training will be largely resolved and gifted students will benefit more with active learning from these centers.

Biodata of Authors



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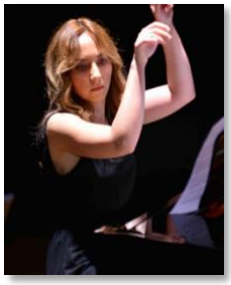

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