



## Research Article

# An Investigation on the Creativity of Turkish Fine Arts High School Students: A Case Study<sup>1</sup>

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### Abstract

Creativity is one of the important areas in gifted education. In this research, the creativity characteristics of Fine Arts High School Painting Department students were tried to be identified. This study is conducted as a case study and Torrance Test of Creativity Figural Form was applied to 11<sup>th</sup> and 12<sup>th</sup> grade students of Painting Department of Anatolian Fine Arts High School in West Black Sea Region in 2016-2017 academic year spring semester. As a result of the test evaluations, it was observed that the students had a low level of creativity.

### Keywords

creativity, gifted children, fine arts high school students

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## **Introduction**

A well-equipped and good education to learn and produce is of utmost importance for all gifted individuals (as in studies made in different countries) as well as all individuals, when contributions to the countries are considered. These individuals are not able to use their potentials sufficiently in primary and secondary education. (Ataman, 2003; Baykoç-Dönmez, 2011; Enç, 1979; Walker, 2002). However, it is necessary to diagnose and develop their skills and abilities.

## **Gifted Education in Turkey**

In Turkish National Education system, gifted and talented children have become a group that was somewhat neglected and out of scope when compared with the children in other branches of special education. Because these individuals can not receive proper training, their abilities are lost in the average skill set and cannot be improved. Thus these individuals can not be utilized properly and this creates a gap that can not be solved for the society. These children need to be educated early on and to be productive and creative individuals who have the opportunity to practice what they learn and contribute to society (Ataman, 2004; Davaslıgil, 2004).

In the history, the period when the gifted individuals were best evaluated was the Enderun Schools during the Ottoman Empire period. Today, Enderun, the source of education for the gifted people in many developed countries, has formed a 600-year-old empire with civil and military administration, education science and arts staff. In the history of Turkish Republic, importance was given to the education of the gifted and talented individuals, and various resources were created for these special people with various regulations in the law. After the establishment of the Turkish Republic under the leadership of Mustafa Kemal Atatürk, Atatürk's educational principals guided the Turkish education system and his views on military, economic, administrative, scientific and artistic fields of 85 years ago are still valid and valuable today. The Turkish national education system education programs for regulations of these individuals' education, which started with Enderun and were prepared with the emphasis on the development of national, moral and cultural values within the universal cultural framework, based on Atatürk's principles and reforms and Atatürk nationalism, have been followed by the law of 1929 for those who want to learn specialized courses in the western countries to account for state and government business enterprises. These arrangements were followed by 1940 Village Institutes, Laws issued in 1948-1956, 1959 Homogeneous Talent Groups, 1962 Science High Schools, 1964 Special Upper Classes, 1970 Anatolian High Schools and 1989 Anatolian Fine Arts High Schools ( Baykoç- Dönmez, 2011).

Anatolian Fine Arts High Schools have been established for the purpose of educating the gifted and talented students in the field of music and painting, after middle school. With the support of TUBİTAK, which has been established to

educate scientists and serving the researchers to conduct researches on learning and teaching technologies, Science High Schools, Anatolian High Schools, Anatolian Fine Arts High Schools and Science and Art Centers (established in 1993) continued to be structured for gifted children's education with the decree-law numbered 1997/573 in Turkey (Baykoç Dönmez, 2011).

Gifted children have special talents in one or more of the following areas: painting, music, drama, theater and other related areas, and they are diagnosed with giftedness control and talent lists by evaluation of art experts. These kids are the children who have a good sense of rhythm, good coordination, can distinguish musical and other sounds well, understand musical relations, they like and sensitize musical activities, they have tone memory, use rhythm, melody and harmony to react immediately, they use music to express their feelings, and experiences, compose original compositions and enjoy dance and dramatic events performed with music. In the field of arts, these are the kids who draw various object paintings, give depth to drawings, and exhibit planned and good proportions. They take art seriously and like art, exhibit originality in artistic activities, they are willing to try new materials and experiences, they are interested in artistic activities of other people, they like to do three dimensional works with materials such as clay, plaster, ceramics and so on (Metin, 1999).

In other words, these kids are the children who have the creativity skill which is the basic principle of art education, exists in all people, differs from person to person, can not be learned because it is an inborn feature, but can be improved when necessary education environment is regulated (Yılmaz, 2009).

We encounter with big inventions and artworks with creativity, one of the most complex, mysterious and impressive features of human behavior, as a senior product of artistic creativity in every aspect of life (Cevher Kalburan, 2012).

Creativity is defined as extracting something new from knowns, arriving at a new, original synthesis, finding new solutions to a set of problems, and according to the creative ability approach of Londav (1974), creativity is the ability to make connections between relationships that have not been established before, so that they can introduce new experiences, new ideas, new products in a new scheme of thinking. The creativity process is accompanied by some abilities and qualities such as intuition, imagination, experimentation, research, testing, finding out, getting rid of molds, it is also accompanied by curiosity as an egress, and originality as a result. In addition to characteristics in the creativity process and events such as innovation, originality, extraordinary, irregularity, and variation, a certain suitability and synthesis must be added (San, 2010, pp. 4). As San (2010) defines, these kids are also the children who are in the creativity process. And according to San (2010) retrieved from Fromm, they have the abilities and talents of the first genre, one of the two types of creativity with creative activities involving creative activities such as drawing,

composing, writing novels and poetry which can be learned and improved by researches. These children can undoubtedly also exhibit a second kind of creativity that can not come to be seen with a product that is a form of creative attitude and behavior which is at the root of creativity. (San, 2010; pp.4).

Their creativity needs to be improved in order for these children to be able to exhibit their creativity. It is important to think of ways to create new ideas for creativity, to use ways of thinking in creating new ideas, to use the left and right sphere of the brain together, being spontaneous by being aware of the feelings and desires within the human being, to set new connections by giving up mentally minded thoughts, expanding the boundaries of knowledge and launching extraordinary thoughts, participating in activities that enhance and develop creativity, develop creative behaviors such as stretching their creative muscles, enjoying thinking that develops creativity, promoting creativity such as self-advocacy, adventurous behavior, and being in an enriched or a relaxed educational environment away from stress (Üstündağ, 2002; Yılmaz, 2009).

Contrary to the ability to think divergently is often neglected to the convergence of young peoples' developing minds as well as children. While convergent thinking, focusing on the determination of correct answers; Divergent thinking spreads and removes many possible solutions or issues. A primary school child, who was tested for creativity, was asked "What does this shape look like?", the child responded, and after responding, he said, "My answer was correct, wasn't it, my dear teacher!". In this situation, the invigilator expects not the correct answer but the student's own original response in the creativity test. In this context, the slogan of thinking divergent towards convergent thinking for creativity is accepted (Gartenhaus, 1997; Trans. Onur & Mergenci, 2000).

According to Sak (2014), there are some creativity myths such as; creativity is an unknown, that it is out of consciousness, every creator is a bit crazy, everyone is actually a little creative, creativity is not taught, and listening to Mozart has an effect on creativity.

According to Robinson (2003), the distinction between art and science is an academic illusion. Science should be associated with reality, objectivity, impartiality and reality; while art is associated with emotions and intuitions in different systems in society and the art balances the education, provides a richer range of resting, enjoyment and learning environment other than study life for the children and young people.

Among the studies that describe creativity in relation to IQ are Guilford's Mindset Model (1970), Torrance's Creative Thinking Test (1974), Gardner's Multiple Intelligence Theory (1983), and Renzulli's Enrichment Triad Model (1977) (Robinson, Shore & Enersen, 2007).

In the light of these developments, it was aimed to develop the creativity of these children in their creative process and to educate them in the best way during their education at Fine Arts High Schools established for the education of the gifted children in Turkey in 1989. Table 1 summarizes some of the following studies related to the assessment tools used for creativity of students in the Fine Arts High School in Turkey and the students in the other education levels.

**Table 1.** Studies on Creativity Characteristics of Students of Fine Arts High School Students

Tinci, 2014	The impact of Turkish creation mythology on the creativity of 6th grade visual arts students
Akgül, 2014	Developing a model to explain the mathematical creativity of gifted students
Baltacı, 2013	The role of visual values in the child's creativity performance
Akilli, 2012	Evaluation of creativity and critical thinking tendencies of primary school 8 <sup>th</sup> grade students.
Susuz, 2012	The influences of using different techniques and tools in middle school visual arts lesson on the creativity of students
Akman, 2010	The life satisfaction predictive power of the levels of emotional intelligence and creativity of the gifted students in secondary education
Sıdar, 2011	The effect of the creativity of students studying in science art centers on their problem-solving skills.
Konak, 2008	The artistic creativity levels of the 6 <sup>th</sup> grade primary school students.
Avcı, 2005	The process of lithograph techniques in terms of unearthing the creativity skill and developing it in art education
Genç, 1999	Art education and creativity in children aged between 12-18
Bahadırılı, 1999	Mastery and creativity in sculpture; sculpture tradition from ancient time to present in Antakya.
Karayağmurlar, 1990	Creativity and education in art.
Apaydın, 1993	The role of writing in art education and creativity.
Karayağmurlar, 1993	Abstraction in artistic creativity and its role in contemporary art, competence in art.
Tunç, 1994	Personal creativity and shaping in original lithograph
Çakır, 1998	Creativity in artistic production and cinema.
Özkaya, 1999	Prodigy and creativity in art

<https://tez.yok.gov.tr/UlusalTezMerkezi/tezSorguSonucYeni.jsp>

Table 1 examines the creativity performances of gifted students in relation to the use of critical thinking tools, emotional intelligence and life satisfaction, problem solving, different techniques in the picture, and relation to a developed model.

### **Gifted Education and Creativity**

When studies in the world are examined; It has been seen that such an approach could be grounded in creative thinking, product creation and empathy,

communication and interaction, where creativity can be developed in an interdisciplinary approach in cooperation with science, technology, engineering, art and mathematics (STEAM) (Guyotte, Sochacka, Constantino, Kellam & Walther, 2015). It has been determined that after-school enrichment art activities help improve the secondary school students' social, cognitive capacities; provide deeper learning, reduce the anxiety, develop brighter and creative ideas in academic fields, increase school achievements, and remove students from test hell and trap (Afterschool, Alliance, 2012). It has also been determined that studies in the field of ecology help develop students' creativity and critical thinking skills (Song, 2012), implementation of the art as a therapy program has positive effects on students who have emotional and behavioral disabilities (Isis, Bush, Siegel & Ventura, 2016). Some studies showed that, Dallas schools have developed imaginative skills through programs that include artwork, resulting in creative learning (Deasy, 2008); Informing about improvisation, theater, dance, creative writing, music, legislation, and painting has given rise to participants becoming innovators in their own fields, and being open to critical thinking and change (Hackbert, 2010); As a result of giving art, science, music, theater, law, religion, dance, management and business lessons at a college in Oklahoma, students are awarded by attending to recital, concert, exhibition arrangements related to these fields and develop campus culture by teaching them the way of creative thinking apart from the university programs (Garrett, 2013). Parallel with these studies according to Balsley (2012), creativity is; making connections with different disciplines, exchanging ideas with people from the same art field, performing electronic devices in a completely closed position, expressing and writing the one's feelings and thoughts through their conversations.

In a study comparing the creativity of students from interdisciplinary fields, creativity test was applied which measures fluency in divergent thinking, creativity value, quality and achievement dimensions. As a result of the research, the creativity of art students was found higher and it was seen that among the different demographic characteristics of the students as a result of the regression analyzes made, the educational status was the most important indicator of creativity; In another study, students' intelligence and creativity in science, art, and the arts were compared, and it was found that the creativity of the students in different fields was different, and that the most powerful role of creativity was the students' personality characteristics as a result of the regression analysis (Furnham, Batey, Booth, Patel & Lozinskaya, 2011).

In another comparative research, parallel with this work, the self-esteem and creativity in daily routines of the fine arts and management department students were compared and found that the arts students were more confident and creative and it was observed that daily routine periods of both groups were different and the

most creative time period of the fine arts students was after 10.00 in the morning (Wang & Chern, 2008).

Children participating in the Boldt and Broks (2006) art programs were found to be more spontaneous, specializing in their fields, independent, and more generous. It has also been determined that creative arts have created and developed positive relationships, academic motivation, responsibility and respect climate; cognitive, cognitive, self-directed and positive behavior skills, academic achievement, attention, problem solving and improvement of the children were identified with less TV watching and more social environment in this process, and art education can also be practiced in individuals, after school and in communities. Rostan (2005) evaluated the artistic skills, creativity and drawings of 7-11 year old art students with specialists. Students have devoted themselves to working with problem solving, experience, technical skills, and creative imagination and have made their drawings. All students portrayed life and imagination interactions in their work; The ability to show gender, experiences, technical skills, perseverance, ability to change (modification) in creativity has been found to be the most important determinant in creativity.

Longitudinal study with art students was also carried out. Thomas and Chan (2013) studied art students in Australia with a longitudinal research; They noted that art education has improved the creativity of students and achieved success. Reynolds (2012) identifies that creativity can be called through reading and writing, also Song (2012) claims that environmental science can be exploited to improve creativity; While Olsen, Zhbanova, Parpucu, Alkouri and Rule (2013) state that handicrafts are important in moving books and tools to improve creativity, Bradford (2012) and Henriksen (2005) identify that the environment and project regimes are influential in creativity; Kaczmarek (2012) and Lane (2012) point out that the intrinsic motivation is important in creativity in their work, and Ruppert (2010) indicates that developing creativity is important in the economy and business life of the country.

As compiled above, both Turkey and the world are seen to have utilized different disciplines to develop creativity in their views and research, and that creativity is a dominant skill in all disciplines, especially in education.

There are not many studies investigating the creativity levels of the students of Fine Arts High Schools established in Turkey to develop giftedness and creativity in the field of art. Identifying creativity in talent areas is important to have an idea about the necessity of supporting the creativity of students.

The purpose of this study is to determine the level of creativity of the students studying at a Fine Arts High School in Turkey. The research problem of this study is "What is the level of creativity of the Fine Arts High School students?". Sub-problems of the research are the ones that determine the creativity of the students of Fine Arts High School;

- What are the fluency, flexibility, originality, and elaboration scores?
- Is there a relationship between the fluency, flexibility, originality, and elaboration scores?
- What is the level of relationship between the fluency, flexibility, originality, and elaboration scores?

## **Method**

### **Research Model**

Case study has been made in this research. The case study is a distinctive research strategy used to answer scientific questions. In this approach one or more cases, environments, programs, social groups or other interrelated systems are examined in depth (Büyüköztürk, Kılıç Çakmak, Erkan Akgün, Karadeniz & Demirel, 2010).

### **Participants**

The students in the 11<sup>th</sup> and 12<sup>th</sup> grades of Painting Department of the Fine Arts High School in the province of the fourth region according to the human development index, which has 302.229 population in the West Black Sea Region, constituted the experimental group.

### **Data Collection Tools**

Torrance Creativity Test consists of two forms, Verbal and Figural Form Torrance Test of Creativity has been used in this study. The Figural test has three subsets - Picture Construction, Picture Completion, and Parallel Lines. The figural form is scored on fluency, flexibility, originality, and elaboration.

Research data were collected from an Anatolian Fine Arts High School in the Western Black Sea Region at the beginning of 2016-2017 Spring term.

### **Data Analysis**

Torrance creativity test figural form results were evaluated by the researcher who had previously been trained on these tests. Data were analyzed by Kolmogorov-Smirnov Z test and t test using IBM SPSS statistics software package program.

## **Results**

In this study, Creativity Levels of Fine Arts High School Students are listed as shown in Table 1.



**Table 2.** Creativity scores of Grade 11 students

Participants	Grade 11				
	Gender	Fluency	Flexibility	Originality	Elaboration
D1	Female	15	13	16	52
D2	Male	11	10	13	46
D3	Female	19	13	24	54
D4	Male	9	7	16	50
D5	Female	14	9	20	43
D6	Female	16	13	16	55
D7	Male	6	1	11	34
D8	Female	24	15	17	76
D9	Female	8	6	9	52
D10	Female	15	10	24	108
D11	Male	7	4	15	115
D12	Male	6	6	12	41
D13	Female	21	17	26	111
D14	Female	9	6	10	71
D15	Female	17	15	17	59
D16	Female	6	6	10	31
D17	Male	13	7	3	36
D18	Female	13	10	18	59
D19	Female	9	9	15	34

Participants of grade 11 students consist of 6 males and 13 females totally 19 students.

**Table 3.** Creativity scores of Grade 12 students

Participants	Grade 12				
	Gender	Fluency	Flexibility	Originality	Elaboration
D20	Female	10	7	25	36
D21	Male	10	10	14	113
D22	Female	0	0	4	3
D23	Female	10	9	13	84
D24	Male	12	10	9	80
D25	Female	21	14	17	85
D26	Female	9	8	8	69
D27	Female	3	3	1	15
D28	Female	10	6	20	54
D29	Female	13	7	2	33
D30	Female	12	12	9	43
D31	Female	14	10	24	118
D32	Female	14	12	14	104
D33	Female	8	6	9	26

Participants of grade 12 students consist of 2 males and 12 females totally 14 students.

Overall participations consist of 8 males and 25 females totally 33 students.

Arithmetic means  $\bar{X}$  of grade 11 students

Fluency ( $\bar{X}=12.5$ ), Flexibility ( $\bar{X}=9.3$ ),

Originality ( $\bar{X}=15.3$ ), Elaboration ( $\bar{X}=59.0$ )

Arithmetic means  $\bar{X}$  of grade 12 students

Fluency ( $\bar{X}=10.4$ ), Flexibility ( $\bar{X}=8.1$ ),

Originality ( $\bar{X}=12.0$ ), Elaboration ( $\bar{X}=61.4$ )

In this test the fluency score is given to each completed figure. The originality score is given as "no score or maximum 5 points" in ordinary replies. Flexibility score increases if draws from different drawing categories. Elaboration is scored by

counting each line in every drawing. Therefore, rather than complete each type of test in the test, from ordinary or conventional answers, capturing originality, drawing from different categories and getting as detailed as possible increases the creativity scores of the test takers (Torrance , 1972).

## **Discussion**

Research results seen that Anatolian Fine Arts High School which serves creativity as one of the characteristics of gifted students Painting department students got low level creativity scores. This result confirms the view that these children are not able to receive training according to their needs so their talents have disappeared as Ataman (2004), Davaslıgil (2004) and Baykoç-Dönmez (2011) stated. In fact, in the historical period the education of the gifted people which started with Enderun school established in the Ottoman Empire continued with the education programs prepared with the reform and principles of Atatürk and many laws and regulations during the Turkish Republic period. In spite of all these arrangements, are these children still neglected, out of context and not sufficiently creative compared to the children in other branches of special education?

These children are selected for Anatolian Fine Arts High School with a selection test. And the students of painting department are the children who perform talent in art, exhibit originality, interest in art even in their leisure time, and enjoy the art as Metin (1999) sorted the characteristics.

Why, then, can not sufficiently demonstrate the creativity that is fundamental to art education according to Yılmaz (2009)? In fact, we also expect high level creativity from these students Cevher Kalburan (2012) stated.

These children are children who are expected to be children who are in the creativity process in the educational institution they are studying as San (2010) stated, and who have first and even second kind of creativity as retrieved from Fromm (2010). The fact that their creativity is at this level low reminds of Ustundag's (2002) argument that creativity must be developed in order for these children to exhibit their creativity and that these developmental paths are not sufficiently worked out. According to Gartenhaus (1997), divergent thinking towards convergent thinking in creativity could not be realized in these children. Has no learning space been created for these children who are studying art?

Guyotte et al. (2015), Afterschool Alliance (2012), Song (2012), Isis et al. (2016), Deasy (2008), Hackbert (2010), Garrett (2013) and Balsley (2012) emphasize that art education is effective in creativity and nurtures different disciplines. Do these students' programs not be fed sufficiently by different disciplines? Maybe this is because Maths, Science, Social studies have limited syllabus.

Furnham et al. (2011) found that the most important and powerful role of creativity was found as personality characteristics of individuals. The reason why

these students showed inadequate creativity maybe because their personality is not or cannot be developed sufficiently. In this study, as in Wang and Chan (2008)'s and Furnham et al. (2011)'s studies, the relationship between creativity characteristics of these students and self-esteem, personality characteristics and intelligence variables were not studied, and this is not a study that compares the creativity characteristics of students in different fields. However, although they are studying art, finding of these two researches do not overlap with the finding that students in art education perform higher creativity. From this respect, the finding contradicts with Boldt ve Brooks (2006)'s finding. According to Rostan (2005), technical skill and knowledge are important in creativity. These students are taught art techniques and despite having different techniques and experiences in art, their creativity is low.

This study is not a longitudinal study. In Thomas and Chan's (2013) studies, the creativity of art students has evolved over the years and their success is increasing. These are grade 11 and 12 students. Despite years of arts education until the last years of secondary education, why are they still not creative enough? This situation raises the conclusion that they do not have enough literacy work as Reynolds (2012) suggested or they do not have internal motivation which is an effective factor in creativity according to Kaczmarek (2012) and Lane (2012).

For Turkey, developing the economy, business life and, most importantly, developing creativity in education is extremely important. Maybe more than Ruppert (2010) suggested in the US.

This research is limited with only students of a painting department in an institution in a city in the Western Black Sea Region. We cannot generalize for all of the Fine Arts High Schools in Turkey. The use of only the figural form of Torrance creativity test and not the verbal part of it is also a limitation in this study.

## **Recommendations**

### **Recommendations for Practice**

These students' programs can be supported by different disciplines. Creativity development practices can be applied. Development of students' personality can be targeted, especially improving their motivation.

### **Recommendations for Future Research**

Verbal form of Torrance test of Creativity can be used. Or a more comprehensive creativity scale can be applied.

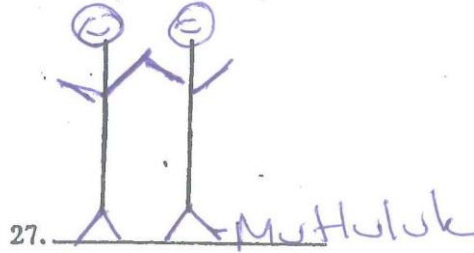
Correlations of different variables related to creativity can be determined.

A larger sampling can be taken into consideration.

## Epilogue



26. sorrow



27. Happiness

Drawing number 26 is a student's drawing. In this drawing, a child is behind the door and there is a wall between them and the adult. The student wrote "sorrow" under the drawing. The drawing next to it belongs to the author, the child and the adult is in hand, and "happiness" was written next to it. Wish to be in hand and happy with these children...

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