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Abstract

The aim of this study is to examine the creativity of university students studying in the field of fine arts in terms of demographic and school factors. In this context, the Kaufman creativity areas of the participant students were examined through a comparative approach on the basis of the comparative relational survey research model. The study group of this research consists of 241 Fine Arts Faculty students. Kaufman Creativity Fields Scale was used to collect research data. According to the analysis of the data, the academic creativity of the participating students was low, their mechanical creativity was at a medium level, and their artistic creativity was at a high level. In addition, significant differences were found in the creativity areas and levels of the students according to gender, department type, class and achievement levels. It was observed in the research that the academic creativity of the participating students was low. In this context, activities and practices for students' skills such as research, problem solving, and using the scientific method in original processes can be included in all departments of the relevant faculties.

Introduction

Considering the definition of creativity, the literature on the subject is as rich as the definition of intelligence, with both classical and modern contributions (Corazza 2016; Corazza & Lubart, 2020; Kharkhurin 2014; Mayer 1999; Parkhurst 1999; Sternberg 1988; Weisberg 2015). Creativity is a multifaceted, variable and complex process. There are a wide variety of factors that influence people's creativity, from interpersonal components (for example, cognitive strengths, personality or motivation) to external components such as the social environment (Amabile and Pillemer, 2012; Hofreiter et al., 2021). Following this perspective, numerous studies have focused on the workplace (e.g. Amabile et al., 2004; Shalley et al., 2004), schools (e.g. Cole et al., 2004). et al., 1999; Yi et al, 2013), in the arts (Kara, 2021; Kibici, 2022), and cultures (for example, Maddux and Gilinsky, 2009).

Rehn and De Horoz (2009) revealed that the novelty aspect of the creative process can be based on reducing or simplifying things. Therefore, many features in positive, negative or opposite directions are included in the concept of creativity (Sternberg & Kaufman, 2010). Creative thinking is a dynamic activity that takes place consciously and subconsciously and includes mental operations. Creativity is a property of the mind, not a special talent. It is considered that creativity may emerge earlier because the more activities are done, the more creative they become.

“Creativity requires both originality and effectiveness”. This definition is in line with most definitions that can

be found in the relevant literature, but a debate is still active as to the number of criteria needed to define creativity (Kharkhurin 2014; Runco & Jaeger 2012; Weisberg 2015). As Corazza (2016) claimed, he *emphasized only a form of creativity specific to a field, rather than a complete creativity phenomenon, in which the originality and effectiveness of a stream of thought and/or action is positively regarded by some observers*. It is like photographing a wave at its highest peak: it may be the pivotal moment, but it does not represent the entire undulating phenomenon, missing the dynamics that lead to creative success.

Creativity is fundamentally a dynamic phenomenon, and there are at least two main reasons for changing the standard definition of creativity to account for this dynamism. The first reason is that the creative process is an activity characterized by risk in the sense that creative results are unpredictable. If they were, they could not be original and therefore creativity would be rejected. When an actor engages in a creative activity, perhaps challenging the latest highly consolidated information in a field, it means that originality and effectiveness cannot be guaranteed (Mursid, Saragih & Hartono, 2022; O'byrne et al., 2018). As in Corazza (2016), we define the event in which the goals of the creative process are not achieved as a state of creative failure. The latter should not be conceived as failure: creative failure is an integral part of the process, and indeed all great creative geniuses share the ability to go on and emerge from some fruitless conditions, others perhaps insurmountable and enough to let go. Creative inconsistency is an extremely significant condition in the process, so the theoretical framework and the definition of creativity on which the theoretical framework is built should be able to include it.

The second reason a static framework is inadequate is that even when results are produced positively from a creative process, estimating their value in terms of originality and effectiveness is a potentially uncertain, never-ending process. In the history of art, science, and technology, there are numerous examples of tangible and abstract ideas and works that were at first harshly criticized or rejected, but which, after a few years, sometimes tens or hundreds of years, lead to creative disruption. Here is an example: Vincent Van Gogh's paintings were completely neglected by critics and the public during the painter's sadly short life. Indeed, Vincent was able to sell only one of his paintings in his lifetime. Success would only come after his death, thanks to the efforts of his fans, who organized the first Van Gogh exhibitions and had to struggle against the critics of the period. For these two main reasons, Corazza (2016) introduced the dynamic definition of creativity, which predicts that "*creativity requires potential originality and effectiveness*". The difference comes from the introduction of "potential" into the definition of creativity. The level of potential rests upon the challenge posed to the knowledge available throughout the creative process. If one stays within the comfortable limits of available knowledge, focuses on bright and correct answers, the potential tends to zero. The potential for originality and effectiveness requires extreme energy to go beyond prior knowledge.

There is no solid agreement on the best structure of creative domains. Studies investigating self-reported creative behavior and abilities often result in different numbers and categories of domains (Ivcevic & Mayer, 2009; Kaufman, 2012; Diedrich et al., 2018; Benedek et al., 2019; Ozdemir, 2021; Ozturk, 2023), many of which are often intellectual. It includes aspects of STEM-related and artistic (including visual, writing, and performance) creativity. It is worth noting that most of the above studies were conducted in Western countries. As Kandemir and Kaufman (2019) suggest, the creativity domain structures may differ in different countries. For example,

Werner et al. (2014) applied the Revised Creativity Domain Questionnaire (CDQ-R) (Kaufman et al., 2009) to a Chinese sample and found that a five-factor model was more appropriate than the current four-factor model (constructed with an American sample).

Mengili (2007) and Sungur (1988) discussed creativity in four dimensions: 1- Scientific Creativity: It is the creation of an innovative idea by using scientific laws, rules and methods. 2- Artistic Creativity: It is a source of power that helps to achieve personal or social goals with inner inspirations in a free environment. Even if it can be developed with education, having a natural talent is a prerequisite (Atan; 2000; Kibici , 2022). 3- Technological Creativity: It is a type of production-targeted creativity based on scientific discoveries. Industrial creativity mainly includes technological creativity as well as other types of creativity. This type of creativity is oriented towards continuous research and improvement of what is researched. 4- Industrial Creativity: Industrial creativity comprises of a combination of scientific, artistic and technological creativity. Research and development centers have begun to be established in order to create or change a product or service in the industry (Akat, Budak, Budak; 1999; Rouquette; 1992; Çakir, Öztürk, & Ünal, 2019).

The ability to create is a multifaceted ability. In terms of creativity, the development of the method of projecting the process of concretizing the creative idea comes at the beginning of the individual difficulties. Moreover, in today's world of confusion, art and design, when considered as a professional discipline, is a complex, multi-disciplinary action that has to cooperate with many sub-disciplines without a single field of study or product field. Since art and design are the result of the act of creation, it is not enough for the designer to find a good idea. Entrepreneurial skills, the use of opportunism in using new communication tools, and the ability to adapt the knowledge and skills learned in one field to another related field in a unique way are among the qualities of the artist and the designer (Akca & Kavak, 2021; Amabile, 1988; Kurt, 2021; Norman, 2007).

It is obvious that some factors other than creativity in the fields of science and technology are involved in art, and that elements such as 'innovation, originality, invention' alone will not be sufficient in order to be able to talk about a work of art (San, 2008). Creativity is the only feature that defines the artist. The innovation that the artist tries to bring will be hindered by tradition; the artist, on the other hand, has to create, seeks new ways, and that's exactly why he crosses borders. Writer Thomas Mann also adopts what the composer Schonberg famously said: "Art comes not from being able, but from being compelled." (Ozkaya, 2000).

Given that artistic products have a creativity dimension, it can be mentioned that there is a relationship between creativity and all fields of fine arts such as cinema, literature, photography, painting, theatre, music, acting, composition etc. While arranging branches of art such as art according to their own structural and technical rules, the creativity of the artist, who has been involved from the very beginning, cannot be denied (Sevimli, 2019). As stated by many educators who have a crucial role in the contemporary education system, the place of creativity in art education is indisputable. For this reason, discovering and developing the creativity of students in their education and training processes, the level of creativity in the social environment and country they live in, from the family environment they raised, is closely related to the qualifications of educational institutions. In this context, it is considered that the determination of the creativity areas of the students studying at the Fine Arts

Faculties will contribute significantly to art education.

Conrad defines artistic creativity as “the emergence of an effective harmonious metaphor within a creative search, research and discovery process that includes the concepts of sensation, perception, emotion, and imagination” (San, 2007) is to create artwork. The artist sets out from a problem in his/her work and embarks on an imaginary journey in the solution process. Creativity in children is an effort to transform this imagination and critical thinking into a lifelong behavior (Kırıçoğlu, 2014). An artist's creation expresses an activity in which the real world is assimilated, recognized, evaluated, made conscious, interpreted, and thus a spiritual communication emerges (Artut, 2004; Dalkıran, 2008; Küçüköner, 2018). San (2010) claims that the mental thinking stages of scientific and technical creativity and artistic creativity are not different from each other. However, scientific creativity uses the left hemisphere of the brain, while artistic creativity uses the right hemisphere. In order for the desired level of creativity to emerge, the whole brain must work in interaction.

The environments in which individuals live play an important role in the development of their problem-solving abilities and creativity. Learning-teaching environments in art education requires to be restructured in order to raise individuals who think creatively, solve problems, access information, use and share information, give priority to scientific literacy and inquiry, show persistence in their studies, and have positive feelings even after failure. So as to move away from classical education, to achieve the goals set in visual arts teaching and to develop students' mental skills, making visual arts teaching practical on an original basis, integrating it with daily life, enriching with new learning methods where students gain learning satisfaction, their curiosity is stimulated and their creativity is supported, should be adapted to the fine arts curriculum and put into effect.

Apart from the aforementioned studies, the main problem of this research in terms of bringing a different dimension to the subject of creativity for our country is the question of "what are the field-specific and individual factors related to these characteristics of visual arts students with creative thinking skills". For this purpose, answers to the following questions were sought in the study:

- What is the level of Kaufman creativity of the students of the Faculty of Fine Arts?
- Do the creativity levels of the students of the Faculty of Fine Arts differ significantly according to their genders?
- Do the creativity levels of the students of the Faculty of Fine Arts differ according to their departments?
- Does the creativity of the students of the Faculty of Fine Arts differ according to their grade levels?
- Do the creativity levels of the students of the Faculty of Fine Arts differ according to their achievement?

Method

This study aims to examine the creativity characteristics of the students of the faculty of fine arts in terms of some variables. The study was designed with the comparative relational survey model and the comparison type relational model within the scope of the general survey model. Apuke (2017) defines the general survey model as “the screening arrangements made on the whole universe or a group, sample or sample to be taken from it in order to make a general judgment about the universe”. In the screening model, the event, individual or object that is the

subject of the research is accepted in its own conditions and as it is. Based on these explanations, the current research fits the general screening model as well as the comparative relational screening model because it examines the dependent variable in terms of independent variables. "Comparative relational screening model is a research model that aims to determine the existence and/or degree of variation between one or more dependent variables according to two or more independent variables" (Apuke, 2017).

Study Group

Kaufman creativity characteristics of the students of faculties of fine arts in Konya and Ankara were investigated with a comparative approach, and the scope of the was first defined. The target population of this study consists of fine arts faculty students studying at state universities in Türkiye. Reaching all fine arts students studying in these provinces requires excessive time, effort and economy. In this respect, the representation of the study universe was provided by the cluster sampling method. This sampling method has been preferred because the variables studied are generally found in groups in the sample and have easy, economical and accessible features.

In this context, firstly, the list of faculties of fine arts in two provinces was prepared, and as a result of preliminary examinations, it was seen that there were more than 2000 students in this province in the 2021-2022 academic year. A total of 241 students from the state universities were included in the research process. It is understood that the number of samples reached is sufficient based on the theoretical sample size (1065 for 1,000,000) calculated for the 95% confidence level and the 3% deviation amount (Anderson, Kelley & Maxwell, 2017).

Data Collection Tools

Personal Information Form for Students

In the personal information form, 12 questions were included in this section to determine the students' gender, grade level, school type, parental education status, socio-economic level, previous semester mathematics course grade and similar characteristics. During the preparation process of the this form, studies on the subject in the literature were examined and various questions were developed for the personal information form. Then, the personal information form took its final form in line with the feedback given by the experts, who were shown to 2 faculty members from the field of educational sciences, as field experts, to examine the questions.

Kaufman Creativity Test

In this study, the Turkish version of the (KCT) developed by Kaufman (2012) and adapted into Turkish by Şahin (2016) was used to measure the creativity perceptions of the students of the faculty of fine arts. The Turkish version of the 'KCT' consists of 42 items in 5-point Likert type, just like the English original. The grading is "not at all," "very little," "moderately," "a lot," and "very much," with a scoring of 0, 1, 2, 3, and 4, respectively. There is no item in the scale to be calculated by reversing. Scale items are distributed over five subscales. Construct validity analyzes with confirmatory factor analysis included five items of KCT: Academic Creativity (eleven items), Mechanical Creativity (eight items), Artistic Performance Creativity (nine items), Self/Daily Creativity

(nine items), and Artistic Creativity (five items).

The subscale score is calculated from the sum of the scores given to the item belonging to each subscale, and the total scale score is calculated from the sum of the subscale scores. The reliability of the scale and its subscales was calculated only with the Cronbach's alpha internal consistency coefficient. Cronbach's alpha internal consistency reliability coefficients ranged from 0.87 for the whole scale and between 0.76 and 0.88 for the subscales. Acceptable reliability coefficients were found for both subscales and total scale. In line with the data obtained within the scope of this study, the Cronbach alpha internal consistency reliability coefficients of the scale for measuring creativity perception were found to be 0.89 for the whole scale and between .78 and .89 for the subscales. The values obtained show that the scale is reliable for this study as well.

Data Analysis Techniques

Non-parametric tests were used to analyze the differentiation of Kaufman Creativity test scores of Fine Arts faculty students according to various variables. While deciding to use non-parametric tests, the conformity of the scores obtained from the scale and subscales to the normal distribution was tested. In this context, it was determined that the arithmetic mean and median values of the scores obtained from the scales were close to each other, and the peak values were generally far from the other two values. Yurt (2011) states that close arithmetic mean, median and peak values are an indicator of normal distribution. In this direction, it was decided that these three values obtained within the scope of the research were not acceptable, taking into account other criteria.

On the other hand, it is stated that the values obtained as a result of dividing the skewness and kurtosis values by the standard error of both values are between -1 and +1, which is a proof of the normal distribution (Morgan, Leech, Gloeckner, & Barrett, 2011). It is understood that the obtained values are not suitable for normal distribution. Other ways of testing the normal distribution are also suggested. Among these ways, as well as graphical options (Q-Q chart, etc.), normality tests (such as Kolmogorov-Smirnov, Shapiro-Wilk) are also used. The Q-Q graphs and normality test results obtained within the scope of this research show that the data are not normally distributed. Based on all these bases, it was concluded that non-parametric tests could be used in the study.

Finding

In Table 1, the arithmetic mean of the academic creativity subscale of the Faculty of Fine Arts students is 3.41; the arithmetic mean of the scientific/mechanical creativity subscale was 2.75; and the arithmetic mean of the Creativity in the Field of Artistic Performance subscale was 3.12. It is seen that the arithmetic mean of the Self/Daily Creativity subscale is 3.81 and the arithmetic mean of the Self/Daily Creativity Artistic Creativity subscale is 3.59. Based on the arithmetic averages obtained, it is understood that the Scientific/Mechanical Creativity of the participant students is 'low', the Creativity in the Field of Academic Creativity and Artistic Performance is at 'moderate', and the Self/Daily Creativity and Artistic Creativity are at 'high'.

As seen in Table 2, the Kaufman Creativity levels of Fine Arts faculty students according to their gender, Academic Creativity ($t= 1.188$; $p>0.05$), Scientific/Mechanical Creativity ($t= - 3.871$; $p<0.05$), Creativity in the Field of Artistic Performance ($t= -1.955$; $p >0.05$); Self/Daily Creativity ($t= 1.663$; $p>0.05$) and Artistic Creativity ($t= 0.493$; $p>0.05$) values were calculated.

Table 1. Descriptive Analysis of the Kaufman Creativity Fields of the Faculty of Fine Arts Students

	N	Minimum	Maximum	Mean	Standard Deviation
Academic Creativity	241	1.18	5.00	3.41	0.80
Scientific/ Mechanical Creativity	241	1.00	5.00	2.75	1.00
Creativity in the Field of Artistic Performance	241	1.00	5.00	3.12	1.06
Self/ Daily Creativity	241	1.00	5.00	3.81	0.93
Artistic Creativity	241	1.00	5.00	3.59	0.93

According to these t values, a significant difference was found in the field of scientific mechanics according to the gender factor. When the average scores of the students are examined, it is seen that male participants are at a higher level than female students in the mentioned dimension. However, there was a significant difference in the other sub-dimensions of the Kaufman Creativity Scale according to the gender of the students.

Table 2. t-Test Analysis of the Differences in the Kaufman Creativity Area Scores of the Faculty of Fine Arts Students by Gender

Gender		N	Mean	Standard Deviation	t	P
Academic Creativity	1	156	3.36	0.80	-1.188	0.236
	2	85	3.49	0.79		
Scientific/ Mechanical Creativity	1	156	2.57	0.98	-3.871	0.000
	2	85	3.08	0.95		
Creativity in the Field of Artistic Performance	1	156	3.03	1.03	-1.955	0.052
	2	85	3.30	1.09		
Self/ Daily Creativity	1	156	3.89	0.91	1.663	0.098
	2	85	3.68	0.95		
Artistic Creativity	1	156	3.61	0.98	0.493	0.622
	2	85	3.55	0.85		

As seen in Table 3, Kaufman Creativity levels of the students of the Faculty of Fine Arts according to their departments was carried out with the F test. According to the analysis, Academic Creativity ($F= 4.463$; $p<0.05$), Scientific/ Mechanical Creativity ($F= 3.165$; $p<0.05$), Artistic Performance Creativity ($F= 4,526$; $p<0.05$); Self/Daily Creativity ($F= 4.489$; $p<0.05$) and Artistic Creativity sub-scale ($F= 10,798$; $p<0.05$) were calculated.

According to these F values, a significant difference was found in all dimensions of the Kaufman Creativity Scale according to the section variable. According to Scheffé test analysis, it was seen that the students studying in the Painting department achieved higher creativity scores compared to their peers in other departments.

Table 3. The F-Test Analysis of the Differences in the Kaufman Creativity Area Scores of the Faculty of Fine Arts Students according to their Departments

Creativity	Department	N	Mean	Standard	F	p
				Deviation		
Academic Creativity	Painting Department	44	4.15	0.94	4.463	0.005
	Graphics Department	122	3.31	0.79		
	Traditional Turkish Arts	38	3.61	0.80		
	Ceramic Department	37	3.37	0.55		
	Total	241	3.41	0.80		
Scientific/ Mechanical Creativity	Painting Department	44	3,54	1.43	3.165	0.025
	Graphics Department	122	2.74	0.96		
	Traditional Turkish Arts	38	2.83	1.05		
	Ceramic Department	37	2.27	0.71		
	Total	241	2.75	1.00		
Creativity in the Field of Artistic Performance	Painting Department	44	4.03	0.90	4.526	0.004
	Graphics Department	122	2.98	1.01		
	Traditional Turkish Arts	38	3.42	1.10		
	Ceramic Department	37	3.10	1.10		
	Total	241	3.12	1.06		
Self/ Daily Creativity	Painting Department	44	4.68	0.27	4.489	0.004
	Graphics Department	122	3.69	0.95		
	Traditional Turkish Arts	38	4.00	0.87		
	Ceramic Department	37	4.01	0.79		
	Total	241	3.81	0.93		
Artistic Creativity	Painting Department	44	4.23	1.12	10.798	0.000
	Graphics Department	122	3.47	0.89		
	Traditional Turkish Arts	38	3.97	0.82		
	Ceramic Department	37	3.88	0.82		
	Total	241	3.59	0.93		

In Table 4, Kaufman Creativity levels of Fine Arts faculty students according to grade levels was carried out with the F test. According to the analysis, Academic Creativity ($F=1.706$; $p>0.05$), Scientific/ Mechanical Creativity ($F=1.929$; $p>0.05$), Artistic Performance Creativity ($F=0.369$; $p>0.05$); Values were calculated for Self/ Daily Creativity ($F=1.486$; $p>0.05$) and Artistic Creativity sub-scale ($F=6.476$; $p<0.05$). According to these F values, a significant difference was found only in the field of artistic creativity of the Kaufman Creativity Scale compared to the class variable. According to Scheffé test analysis, it was found that the students studying in the fourth and

third grades had significantly higher artistic creativity than the students in the lower grades.

Table 4. F-Test Analysis of the Differences in the Kaufman Creativity Area Scores of the Faculty of Fine Arts Students by Grade Levels

Creativity	Grade		Standard		F	p
	Level	N	Mean	Deviation		
Academic Creativity	1	77	3.32	0.77	1.706	0.166
	2	63	3.30	0.91		
	3	56	3,56	0.71		
	4	45	3,53	0.76		
	Total	241	3.41	0.80		
Scientific/ Mechanical Creativity	1	77	2.83	1.04	1.929	0.126
	2	63	2.87	1.00		
	3	56	2.77	1.04		
	4	45	2.44	0.83		
	Total	241	2.75	1.00		
Creativity in the Field of Artistic Performance	1	77	3.06	1.02	0.369	0.775
	2	63	3.07	1.08		
	3	56	3.22	1.01		
	4	45	3.19	1.17		
	Total	241	3.12	1.06		
Self/ Daily Creativity	1	77	3.67	0.90	1.486	0.219
	2	63	3.75	0.98		
	3	56	3.95	0.81		
	4	45	3.96	1.03		
	Total	241	3.43	0.93		
Artistic Creativity	1	77	3.34	0.91	6.476	0.000
	2	63	3.81	0.97		
	3	56	3.95	0.68		
	4	45	3.80	1.01		
	Total	241	3.59	0.93		

As seen in Table 5, Kaufman Creativity of the students of the Faculty of Fine Arts according to their success levels is seen. According to the F-test analysis, Academic Creativity subscale ($F=6.610$; $p<0.05$), Scientific/Mechanical Creativity ($F=3.415$; $p<0.05$), Artistic Performance Creativity ($F=1.582$; $p>0.05$); Self/Daily Creativity ($F=6.308$; $p<0.05$) and Artistic Creativity subscale ($F=$ Artistic Creativity; $p<0.05$) were calculated. According to these F values, a significant difference was found in all sub-scales of the Kaufman Creativity Scale, except for the Creativity dimension in the Artistic Performance Field, according to the achievement variable. According to Scheffé test analysis, it was seen that students with very high achievement levels achieved higher creativity scores

compared to their other peers.

Table 5. F-Test Analysis of the Differences in the Kaufman Creativity Area Scores of the Faculty of Fine Arts Students according to their Achievement

Creativity	Achievement	Standard				F	p
		N	Mean	Deviation			
Academic Creativity	1	92	3.59	0.72	6.610	0.002	
	2	113	3.33	0.83			
	3	36	2.58	0.45			
	Total	241	3.41	0.80			
Scientific/ Mechanical Creativity	1	92	2.80	0.96	3.415	0.035	
	2	113	2.77	1.02			
	3	36	1.71	0.39			
	Total	241	2.75	1.00			
Creativity in the Field of Artistic Performance	1	92	3.27	1.07	1.582	0.208	
	2	113	3.05	1.05			
	3	36	2.76	0.92			
	Total	241	3.12	1.06			
Self/ Daily Creativity	1	92	4.08	0.80	6.308	0.002	
	2	113	3.66	0.97			
	3	36	3,56	1.03			
	Total	241	3.81	0.93			
Artistic Creativity	1	92	4.02	0.75	19.269	0.000	
	2	113	3.33	0.93			
	3	36	2.97	1.08			
	Total	241	3.59	0.93			

Discussion and Conclusion

The research, which examines the creativity fields and characteristics of the students of the Faculty of Fine Arts, was carried out on a sample of university students consisting of different departments of the relevant faculty. According to the research findings, it was seen that the Scientific/Mechanical Creativity, which is one of the sub-dimensions of the Kaufman Scale, of the Faculty of Fine Arts students was at 'low', their Academic Creativity and Artistic Performance were at a 'moderate' level, and their Self/Daily Creativity and Artistic Creativity were at a 'high' level. These fumes are similar to the findings of the studies conducted by Artut (2004), Dikici (2006), Dikici study (2006), Kara (2020), Kibici (2022), and Mwiria (1987). In Dikici's (1996) study in which the creativity levels of high school students who received and did not receive art education were compared, it was observed that students who received art education achieved high averages especially in the fields of artistic and daily creativity. Creativity and art education are concepts that directly affect each other. Traditional education, devoid of creative understanding and qualifications, is considered an unacceptable approach in today's contemporary education

methods. Unfortunately, some schools have an understanding that blunts creative critical thinking by bringing academic-analytical thinking to the fore (Artut, 2007). Mwiria (1987) stated that as a result of their studies, creativity potential increases especially with art-based activities and education, and that creativity is stronger in adults than in young people. In other words, we can develop creativity with education. The high artistic creativity of the participants in the study, especially in the last year, is also similar to the results of the studies in the literature (Zaeske et al., 2022). On the other hand, creativity, experience and openness to experience are highly correlated in the personality literature (Feist, 1998; Puryear Vd., 2017). According to Zaeske et al., academic experiences specific to the field and sharing it with the social environment improve the creativity of individuals. For this reason, we can say that the students who are studying in the last year develop their creativity as their experience in fine arts increases.

Another variable discussed in the study is the comparison of the creativity of the participants according to their gender. According to the research findings, a significant difference was found only in the field of scientific mechanics creativity according to the gender variable. No significant gender-specific differences were found in other creativity domains. In the study, it was found that male students had a higher level of creativity in the field of scientific mechanics than female students. On the other hand, in the four sub-dimensions of the Kaufman creativity scale, both genders have obtained equivalent environments. These findings are similar to the findings of the studies of Koçak, İçmenoğlu (2012), Sonmaz (2002) and Reese, Lee, Cohen and Pucket (2001) and Yontar (1999). Studies on the relationship between gender and creative thinking scores show different results according to the tests they use, sample and research designs. There is an ongoing debate on the gender variable, which is significantly dependent on cultural variables. There are many studies in the literature regarding this result. In the researches of Pala (1999), Tuna (1999), Sonmaz (2002) and Reese, Lee, Cohen and Pucket (2001) no significant differences were found according to gender. In the sample of Koçak, İçmenoğlu (2012) including gifted students (Science high school), male students achieved slightly higher averages. In the findings of Yavuzer (1996) and Yontar (1999), no significant difference was found in terms of gender. In his study, Pruit (1989) determined that both male and female students have creative potential and can be increased with education. Oyundoyin and Olatoye (2007) suggested that although creativity performances are partially related to the gender factor, many factors such as education, intelligence, motivation and learning area will lead to a significant change in creativity.

Another striking finding reached in the study is related to the differences in Kaufman creativity areas regarding the department variables of the participating students. As to the findings of the study, a significant difference was found in all dimensions of the creativity scale according to the department variable. According to further analysis, it was seen that the students studying in the Department of Art achieved higher creativity scores compared to their peers studying in the ceramics, traditional arts and graphics departments. This finding is similar to the findings of Dođru (2022), Kara (2020) and Kibici (2022) studies. According to the curriculum of YÖK (2022), the students in the Departments of Art try to reflect the volume, space, movement and light effects, form, drawing, color, tonal differences, texture features and similar elements in different works through pictorial elements. In addition, the combination of the elements in the painting in various ways creates an original composition. Composition allows to tell real or unreal events and phenomena, to describe a story or simply to create abstract visual images. In this respect, the students of the Department of Art try to come up with many creativity-based composition products

throughout their academic learning-teaching processes. These activities may have caused the moments to achieve higher levels of development in their creative areas. Today, the art of painting in faculties of fine arts aims to train artists who are partially independent from other fields and who can express themselves with both traditional and contemporary materials with their original styles.

The last finding reached in this study is the comparison of creativity areas and levels with respect to the achievements of the participants. As regards the findings, a significant difference was found in all other dimensions of the Kaufman Creativity Scale, except for the Creativity dimension in the Field of Artistic Performance, as to the achievement variable. According to Scheffé test analysis, it was observed that students with very high achievement levels exhibited high levels of creativity. According to Rosenbusch, Brinckmann and Bausch (2011) and Matejun (2016), success-specific factors such as academic competence, interest and motivation play an important role in the reflection of creativity and innovation skills in any field. According to these researchers, realizing their goals in the field and being open to changes come to the fore in producing original performances in creativity and innovations in the field. In this respect, it is desirable in terms of the learning outcomes of Fine Arts faculties that the creativity of the students who are academically successful and competent in their art-oriented courses is at a high level.

Based on the findings of this study, several suggestions can be made to shed light on practice and new studies. First of all, instructors can give more place to creative education in art classes. Creative education should be included more in the curriculum. The effect of working methods and course-specific activities on students' creativity can be examined with a larger sample group consisting of students studying at faculties of Fine Arts. Seminars, conferences and workshops can be held on creativity, creativity in art education and creativity in the field of visual arts. In addition, in future studies, on the basis of qualitative research methods, the curricula of Fine Arts Faculties can be examined in terms of supporting and inclusion of creativity areas. Finally, it was observed in the research that the academic creativity of the participating students was low. In this context, activities and practices for students' skills such as research, problem solving, and using the scientific method in original processes can be included in all departments of the relevant faculties.

References

- Akat, İ., Budak, G., & Budak, G. (1999). *Business Management*. Izmir, Peace Publications
- Akca, F. & Kavak, G. (2021). Scale of Visual Creativity in Art: A Study on Scale Development and Construct Validity. *International Journal on Social and Education Sciences (IJonSES)*, 3(3), 439-456. <https://doi.org/10.46328/ijonSES.94>
- Amabile, T. M., & Pillemer, J. (2012). Perspectives on the social psychology of creativity. *The Journal of Creative Behavior*, 46(1), 3-15.
- Amabile, T. M., Schatzel, E. A., Moneta, G. B., & Kramer, S. J. (2004). Leader behaviors and the work environment for creativity: Perceived leader support. *The leadership quarterly*, 15(1), 5-32.
- Amabile, T.M. (1988). *A Model of Creativity and Innovation in Organizations*. Handbook of Creativity, Cambridge University Press.

- Anderson, S. F., Kelley, K., & Maxwell, S. E. (2017). Sample-size planning for more accurate statistical power: A method adjusting sample effect sizes for publication bias and uncertainty. *Psychological science*, 28(11), 1547-1562.
- Apuke, O. D. (2017). Quantitative research methods: A synopsis approach. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 33(5471), 1-8.
- Artut, K. (2004). *School before picture education*. Ankara: Moment
- Artut, K. (2007). *Art education theories and methods*. Ankara: Moment Publishing
- Atan, A. (2000). In art Freedom and Authenticity. *Turkey Art Magazine*, 43, 16–23
- Benedek, M., Bruckdorfer, R., & Jauk, E. (2020). Motives for creativity: Exploring the what and why of everyday creativity. *The Journal of Creative Behavior*, 54(3), 610-625.
- Cole, D. G., Sugioka, H. L., & Yamagata-Lynch, L. C. (1999). Supportive classroom environments for creativity in higher education. *The journal of creative behavior*, 33(4), 277-293.
- Corazza, G. E., & Lubart, T. (2020). Intelligence and creativity: Mapping constructs on the space-time continuum. *Journal of Intelligence*, 9(1), 1.
- Corazza, G. E., & Lubart, T. (2020). The big bang of originality and effectiveness: A dynamic creativity framework and its application to scientific missions. *Frontiers in Psychology*, 11, 575067.
- Corazza, G. E. (2016). Potential originality and effectiveness: The dynamic definition of creativity. *Creativity research journal*, 28(3), 258-267.
- Çakir, E., Öztürk, M. S., & Ünal, M. (2019). Interpainting as a creating method in digital illustration: Reinterpretations from movie scenes. *Bilim Eğitim Sanat ve Teknoloji Dergisi*, 3(2), 78-88.
- Dalkıran, A. (2008). İslamiyet Öncesi Türk Sanatı'nda Şamanizm'in Etkisi. *Ahmet Keleşoğlu Eğitim Fakültesi Dergisi*, (25), 371 -390.
- Diedrich, J., Jauk, E., Silvia, P. J., Gredlein, J. M., Neubauer, A. C., & Benedek, M. (2018). Assessment of real-life creativity: The Inventory of Creative Activities and Achievements (ICAA). *Psychology of Aesthetics, Creativity, and the Arts*, 12(3), 304.
- Dikici, A. (2006). Art Education and Students' Creativity Levels. *Education and Science*, (139), 3-9.
- True, O. (2022). Statue and Image arts education Kaufman Creativity of His Students of fields Examination. *Ulakbilge*, 71, 1-15
- Feist, G.J. (1998). A meta-analysis of personality in scientific and artistic creativity. *Personality and Social Psychology Review*, 2(4), 290–309.
- Hofreiter, S., Zhou, X., Tang, M., Werner, C. H., & Kaufman, J. C. (2021). COVID-19 lockdown and creativity: exploring the role of emotions and motivation on creative activities from the Chinese and German perspectives. *Frontiers in Psychology*, 12, 617967.
- Ivcevic, Z., & Mayer, J. D. (2009). Mapping dimensions of creativity in the life-space. *Creativity Research Journal*, 21(2-3), 152-165.
- Kandemir, M. A., & Kaufman, J. C. (2020). The Kaufman domains of creativity scale: Turkish validation and relationship to academic major. *The Journal of Creative Behavior*, 54(4), 1002-1012.
- Black, S. (2020). Prospective Visual Arts Teachers' Innovation Skills and Attitudes towards Computer Assisted Instruction. *International Journal of Technology in Education and Science (IJTES)*, 4(2), 98-107.
- Kharkhurin, A. V. (2014). Creativity. 4in1: Four-criterion construct of creativity. *Creativity research journal*,

26(3), 338-352.

- Kirisoglu, OT (2014). *Art is an adventure*. Ankara: Pegem A Publishing
- Kibici, V.B. (2022). An Analysis of the Relationships between Secondary School Students' Creativity, Music Achievement and Attitudes. *International Journal on Social and Education Sciences (IJonSES)*, 4(1), 87-100. <https://doi.org/10.46328/ijonnes.304>
- Koçak, R., & İçmenoğlu, E. (2012). Emotional intelligence and creativity as predictors of life satisfaction among gifted students. *Turkish Psychological Counseling and Guidance Journal*, 4(37), 73-85.
- Kurt, İ. (2021). An overview to private (foundation) universities in Turkey from the terms of society and education. *Journal of Research in Social Sciences and Language*, 1(1), 30-41.
- Küçüköner, M. (2018). Ani'deki Selçuklu Yapılarının Gravür Resimleri. *Konya Sanat*, (1), 66-79.
- Maddux, W. W., & Galinsky, A. D. (2009). Cultural borders and mental barriers: the relationship between living abroad and creativity. *Journal of personality and social psychology*, 96(5), 1047.
- Mayer, R. E. (1999). Fifty years of creativity research. In: Sternberg Robert J., editor. *Handbook of Creativity*, pp. 449–460. Cambridge UP; Cambridge.
- Mengili, B. (2007). *Determining the level of creativity in businesses*. Master Thesis, Celal Bayar University Institute of Social Sciences.
- Morgan, G. A., Barrett, K. C., Leech, N. L., & Gloeckner, G. W. (2011). *IBM SPSS for introductory statistics: Use and interpretation*. New York: Routledge.
- Mursid, R., Saragih, A.H., & Hartono, R. (2022). The Effect of the Blended Project-based Learning Model and Creative Thinking Ability on Engineering Students' Learning Outcomes. *International Journal of Education in Mathematics, Science, and Technology (IJEMST)*, 10(1), 218-235. <https://doi.org/10.46328/ijemst.2244>
- Mwiria, K. (1987). *Creativity and innovativeness among Kenyan primary school children*. Creativity and Innovativeness Project, SCR4, Nairobi, Kenya.
- Norman, A.D. (2007). *The Design of Future Things*. New York: Basic Books.
- O'Byrne, W.I., Radakovic, N., Hunter-Doniger, T., Fox, M., Kern, R., & Parnell, S. (2018). Designing Spaces for Creativity and Divergent Thinking: Pre-Service Teachers Creating Stop Motion Animation on Tablets. *International Journal of Education in Mathematics, Science and Technology (IJEMST)*, 6(2), 182-199. DOI:10.18404/ijemst.408942
- Oyundoyin, J. O., & Olatoye, R. A. (2007). Gender factor as a correlate of students' performance on creativity and intelligence tests in Oyo State secondary schools. *African Journal for the Psychological Study of Social Issues*, 10, 251-262.
- Ozkaya, S. (2000). *In art Genius and Creativity, Schoenberg, Adorno, Thomas Mann*. Istanbul: Pan Publishing
- Özdemir, Y. (2021). Analysis of the relationship among leadership styles, school culture and student achievement. *Journal of Research in Social sciences and Language*, 1(1), 77-90. <http://dx.doi.org/10.20375/0000-000E-5544-6>
- Ozturk, O.T. (2023). Examination of 21st century skills and technological competences of students of fine arts faculty. *International Journal of Education in Mathematics, Science, and Technology (IJEMST)*, 11(1), 115-132. <https://doi.org/10.46328/ijemst.2931>
- Pala, M. (1999). *Investigation of Creativity in Children aged 7-11 living in kindergartens and with their families*.

- Ankara University, Institute of Science and Technology, Ankara.
- Parkhurst, H. B. (1999). Confusion, lack of consensus, and the definition of creativity as a construct. *The Journal of Creative Behavior*, 33(1), 1-21.
- Pruit, R. P. (1989). Fostering creativity. The innovative classroom environment. *Educational Horizons*, 68(1), 51-54.
- Puryear, J. S., Kettler, T., & Rinn, A.N. (2017). Relationships of personality to differential conceptions of creativity: A systematic review. *Psychology of Aesthetics, Creativity, and the Arts*, 11(1), 59–68.
- Reese, H. W., Lee, L. J., Cohen, S. H., & Puckett Jr, J. M. (2001). Effects of intellectual variables, age, and gender on divergent thinking in adulthood. *International Journal of Behavioral Development*, 25(6), 491-500.
- Rehn, A. & De Cock, C. (2009). Deconstructing creativity. In Rickards T., Runco MA, Moger S. (eds.), *The Routledge companion to creativity*, pp. 222–231. New York, NY: Routledge.
- Rouquette, M. (1992), *Creativity*. Istanbul, Presses Universitaires de France, İletişim Publications.
- Rosenbusch, N., Brinckmann, J., & Bausch, A. (2011). Is innovation always beneficial? A meta-analysis of the relationship between innovation and performance in SMEs. *Journal of business Venturing*, 26(4), 441-457.
- Runco, M. A., & Jaeger, G. J. (2012). The standard definition of creativity. *Creativity research journal*, 24(1), 92-96.
- San, I. (2010). *Art education theories*. Ankara: Utopia Publishing House
- San, İ. (2008). *Art and Education, Creativity-Basic Art Theories-Art Criticism Approaches*. Ankara, Utopya Publishing House.
- Sevimli, M. A. (2019). Üçüncü Sinema’ya Erden Kiral Filmleri Üzerinden Bir Bakış: Kanal Ve Bereketli Topraklar Üzerinde. *Konya Sanat*, (2), 15-32.
- Cute, A.D. (2015). *Creativity and art in the context of cinema as an Example: Akira Kurosawa*. Doctorate Thesis, Istanbul University Social Sciences institute
- Shalley, C. E., Zhou, J., & Oldham, G. R. (2004). The effects of personal and contextual characteristics on creativity: Where should we go from here?. *Journal of management*, 30(6), 933-958.
- Sonmaz, S. (2002). *Examining the Relationship between Problem Solving Skills and Creativity and Intelligence*. Master Thesis. Marmara University, Institute of Educational Sciences, Department of Psychological Counseling and Guidance.
- Sternberg, R. J. (Ed.). (1988). *The nature of creativity: Contemporary psychological perspectives*. CUP Archive.
- Tuna, U.K. (1999). *An Investigation of the Creativity of the First Grade Secondary School Children with and Without Job Training*. Unpublished Master Thesis. Marmara University Institute of Science and Technology. Istanbul.
- Weisberg, R. W. (2015). On the usefulness of “value” in the definition of creativity. *Creativity research journal*, 27(2), 111-124.
- Weisberg, R. W. (2015). On the usefulness of “value” in the definition of creativity. *Creativity research journal*, 27(2), 111-124.
- Yavuzer, H. (1989). *Creativity*. Istanbul: Bogazici University Publishing House
- Yi, X., Hu, W., Plucker, J. A., & McWilliams, J. (2013). Is there a developmental slump in creativity in China? The relationship between organizational climate and creativity development in Chinese adolescents. *The*

Journal of Creative Behavior, 47(1), 22-40.


Yontar, T.A. (1999). Creative Thinking test Drawing of the product Turkish in your sample Usage. *Education and Science*, 23(112), 45-49.

YÖK Atlas. (2022). *Beautiful arts Faculty [Faculty of Fine Arts]*. Retrieved from <https://yokatlas.yok.gov.tr/onlisans-program.php?b=30188>, 10.06.2022

Zaeske, L. M., Harris, T. P., Williams, A., Scheibel, G., Long, H., & Kerr, B. A. (2023). Creative adolescent experiences of education and mental health during COVID-19: A qualitative study. *Psychology in the Schools*, 60(2), 460-478.

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