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Examining the Relationships between High School Students' Interests in Music and Their Creativity

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Abstract

In this study, high school students' interest in music and their creativity were analyzed relationally. For this purpose, high school students' interest in music and their creativity were compared in terms of school type, gender and grade level variables. Comparative relational survey model was used as a method in this study. In this study, which was carried out on 9th and 11th grade students in public and private schools in three different cities in Turkey, the scales were applied to a total of 315 students. 'Personal Information Form', 'Affinity for Music Scale', and 'Kaufman Creativity Scales' were used to collect research data. In the analysis of the obtained data, arithmetic mean, standard deviation, correlation coefficient, t test and analysis of variance techniques were used. According to the research findings, the interest and creativity of the participants towards music was found to be moderate. Finally, significant and positive relationships were found between high school students' interest in music and their creativity.

Introduction

Art is a communication field where imagination and creativity are used effectively and emotions and thoughts are expressed in an aesthetic way. This area has existed from prehistoric times to the present and shows changes within itself. Change, as a reflection of life and society, is the expression of a subjective world that includes people and their environment (Doğru, 2020; Black, 2020; Kibici, 2021; Özdemir, 2021; Sarıkaya, 2022). To create is to change. When the written and oral sources are scanned, it is mentioned about creativity, which covers all areas that we define as ordinary daily works, from art to design, from science. For this reason, there are different definitions for the concept covering different fields. According to Bartlett, who sees creativity as a kind of problem solving, creativity is to leave the known way, to be open to new and experiment, in short, to get rid of patterns. Getzels, on the other hand, bases creativity on the divergent and convergent unity of intuition and rational imagination and the ability to analyze, imagination and control (Arnheim, 2012; Heskett, 2013; San, 2008).

There is a consensus among researchers that creativity can be defined as “the ability to generate new and valuable ideas” (Boden, 2009). This definition refers to the production of “something that is both original and valuable” (Sternberg and Sternberg, 2012) or a “conceptual leap” by combining existing knowledge (Guzdial and Riedl, 2019; Avwerhota, et al. 2022). Creativity is a process rather than a product. Making an interesting picture or writing something contrary to thinking can be examples of creative work (Sünbül, 2002a, 2002b). However,

determined people are at the center of the creative processes when they paint, sculpt, write and play. Art branches are the most common examples of creativity. But creative thinking is found in almost all phases of life. Children can surprise their teachers by giving unconventional answers to questions or thinking creatively with a very strong sense of humor (DeBord, 1997).

Based on these definitions and explanations, we can define creativity as the ability to create something that does not exist in one's memory, to do something that everyone knows, in different ways than everyone else, and to develop new ideas (Kibici, 2022). However, we should also state that, unlike other areas of creativity, the concept of aesthetics comes into play in artistic creativity. There are various views on the emergence of artistic creativity. Fromm talks about two types of creativity in the field of art. The first is the activities that depend on the ability, such as painting, composing music, writing novels, poetry, which can be learned and developed with various methods and exercises, and at the end of this process, the product is revealed. The second is the creative attitude and behavior that is the basis of all kinds of creativity. In this type of creativity, the product may not be revealed. While the first type can be defined as an ability, the second is a character trait that can be developed by processing the abilities of seeing, perceiving and reacting (Heskett, 2013; San, 2008).

From an individual perspective, creativity research aims to understand how and why a person is creative. What happens in that person's mind and brain when they produce a creative idea or produce a piece of creative work? What cognitive factors play a role in directing creative thoughts and actions? And why do some people have more creative ideas or achievements than others? In general, two types of creative thinking are commonly distinguished (Sünbül, 2002; Schiavio & Benedek, 2020): creative idea generation and creative problem solving, as well as “divergent” and “convergent” thinking, referring to the structure of Guilford's intelligence model. It is also called creativity (Guilford, 1967). Creative idea generation refers to the generation of different possible responses to problems that are not fully defined. While such open-ended problems have a wide range of solutions, ideas will differ considerably in their creative quality, some more novel and influential than others (Glăveanu, 2014b).

Although we sometimes associate creativity with eccentric scientists or solo composers who withdraw from society until their work is done, creativity is not always understood as a stand-alone activity. In fact, complex creative work typically relies on collaboration between experts from different fields, and creative performances often require an ensemble or team of contributors. Also, creative work develops and exists in the broader context of its sociocultural environment and especially its recipients (Glăveanu, 2014b). Art education enables the child to perceive and evaluate his environment better (Kaleli, 2020a, 2020b, 2021; Kara, 2021; Kibici & Sarıkaya, 2021; Turhal, 2022; Yağışan & Sünbül, 2009). Art education provides the first step for creativity by teaching not only to look but also to see, hear and hear (Kara, 2022; Kibici, 2021; Ersoy, 1993). All children have the ability to be creative, however, creative environments should be prepared for the development of their abilities (Bell, 1997). Kırıçoğlu (2002) states that creativity developed through art cannot be directed to every field and artistic creativity can only develop with a planned and programmed education, and says, "There is neither learning nor creativity in an art lesson, which is done by jumping from one tool to another, from one subject to another" (p. 7).

Creativity is often attributed to humans. But as Park (2019) asks: When we see something as a work of art, should

it just be created, chosen and combined by humans? We are used to the idea that people can create things or ideas that other people consider “new” – this occurs in almost every field every day (Cádiz et al, 2021). If art education is personal, it improves creativity. It is known that each individual has different interests and skills. All kinds of conditions should be prepared in order to develop and direct them. Only then does education support creativity and affect it positively. In this period, education should be continued by enabling the student to both think with artistic elements and make applications in order to improve his creativity (Koyuncuoğlu, 2021; Uysal, 2005).

Creativity studies typically focus on general aspects of creativity common to all artistic fields, or on specific field-specific elements (Akdeniz et al., 2015; Ekici, 2021; Héroux, 2018; Kaufman & Baer, 2005; Kaufman & Sternberg, 2010). Creativity in music performance (Barros et al., 2017; Clarke, 2012; Kenny & Gellrich, 2002) and more recently music interpretation (Lisboa et al., 2011; Héroux & Fortier, 2014; Héroux, 2016; Payne, 2016; Wise et al. , 2017) tried to explain the relationships between musical skills, performance and interpretation and creativity. Artistic creativity refers to individuals' ability to produce original, appropriate and aesthetically pleasing artistic products (Abraham, 2018) and includes a series of actions in different fields such as musical improvisation, drawing creativity and literary creativity (Chen, Beaty & Qiu, 2020). In the literature on creativity in art, some authors focus on art (Yokochi & Okada, 2005), while others focus on the creativity dimension (Howard et al., 2008). However, there is a very strong relationship between art and creativity (Akca & Kavak, 2021; Kibici, 2022; Glavenau, 2014; Kaufman, 2012). Creativity in music, as an important art field, has been the subject of many studies (Bailes & Bishop, 2012; Hargreaves, MacDonald, & Miell, 2012; Kokotsaki, 2010; Lothwesen, 2020).

Music provides individuals with thinking skills, problem solving, collaborative work (Şendurur & Akgül Barış, 2002), cognitive development, emotional development, social development, cultural development (Kılıç, 2016), increasing attention to the lesson, interpreting, evaluating different contents with their own aesthetic measures (Varış & Cesur, 2012), improving memory, increasing students' harmony with each other, supporting desire and motivation (Yoder-White, 1993), providing a sense of aesthetics, activating audio-visual and psychomotor abilities. In addition to the positive effects of music on the individual's affective and psychomotor behaviors, it has been stated in many studies that music plays an important role in the cognitive learning of the individual. The role and effectiveness of music education is clear in the individual's recognizing the environment and the world, understanding and synthesizing the events around him in a healthy and balanced way, as well as using processes such as attention, perception, memory, and insight at the highest level (Şendurur, Akgül Barış, 2002). Music and music education supports the development of academic and personal skills such as critical thinking, creative thinking, problem solving and learning how to work collaboratively towards these goals. Intensifying children's interests, developing positive attitudes towards music and music lessons, learning music can be achieved by increasing the quality of their lives. Educational arrangements that can make the majority of students feel successful by making them successful can be a factor in the development of positive attitudes towards music lessons. Making students successful requires contemporary music learning methods by placing music, which is an abstract art branch, on concrete foundations and providing learning convenience (Öztopalan, 2007).

The importance of understanding and making sense of music and being a conscious, educated consumer is

emphasized in the formation of musical interest. According to Zenker (2000), he emphasizes that music education has an important task in order to acquire a conscious music listener. Because students in schools should be able to make informed choices and judgments about music and understand the music they hear, rather than just expressing whether they like or dislike music. Students are also music consumers who listen to the radio, go to concerts and buy CDs. So they are the ones who will shape future music consumption. For this reason, they will make choices that will affect the world with the choices they make in art and music. Therefore, they have to have an understanding of music. For this reason, students should be given a musical education that will enable them to make the best decision about the style of music they choose to listen to. As stated earlier, various studies have been conducted to determine the factors affecting music interest. Some of the factors identified have helped us to make very different interpretations of taste, to see that musical taste is not only evaluated individually and can enable greater forces to be shaped. When the preferences and tastes of individuals when it comes to music are examined, it is seen that this is not a random match. There are some social, psychological or individual factors that form the basis of these preferences. As these factors change, their musical tastes also begin to change. When the factor underlying the preference and this process are examined, we can also make sense of this change (Özen, 2019). The importance of studying creativity is often underestimated by researchers (Forgeard & Kaufman, 2015), but when it comes to music this may be less of an issue than in some other fields. Few can question the idea that music is a creative field of human activity. The interdisciplinary field where music and creative thinking intersect is very popular and well studied, but the number of direct studies on the relationship between interest in music and creativity is quite scarce. For this reason, it is important in terms of art education to examine music lessons, which have an important place in raising creative individuals, and the interest in music at different age groups and grade levels. In this context, in this study, it is aimed to examine the creativity and music interests of high school students with a relational approach. In this context, answers to the following questions were sought in the study:

- What is the level of interest of high school students towards music?
- Do high school students' interest in music differ according to gender, school type and grade level?
- What is the creativity level of high school students?
- Does the creativity of high school students differ according to gender, school type and grade level?
- Is there a significant relationship between high school students' interest in music and their creativity?

Method

The main purpose of the method chosen in music education research is to discover the conditions for an analytical procedure that produces the best possible analytical performance. In this context, survey research models have an important place (Küçüküçü, 2022). As a result of these stages, the comparative relational survey method was used in the study in order to examine the interests and creativity levels of high school students towards music. Within the framework of this model, the interests and creativity of high school students towards music were examined comparatively according to gender, music genre and family interest in music. In addition, the relationship between high school students' interest in music and their creativity was tried to be explained in the study.

The population of the research consists of students who continue their education in different high schools in Konya, Mersin and Ankara. The purpose of the research to be conducted in these provinces is the researcher's

connections, research permits and ease of communication. The sample of the study consisted of students studying at private and public high schools. In order to collect the researcher data, necessary permissions were obtained from the schools included in the research with a preliminary interview. In addition, it was stated to the students that the scales could be administered at a time convenient for them and that participation in the research was voluntary, not compulsory. In this context, 315 students who voluntarily agreed to participate in the study were included in the research sample. Considering the demographic distribution of the sample, 170 participants are girls and 145 participants are boys. All students are in the eighth grade.

Data Collection Tools

Interest in Music Scale

Okay and colleagues (2015) developed the 'Affinity for Music Scale for High School Students', a self-report tool that assesses interest in music in any given situation by focusing on students. In this respect, a reliable and valid scale has been applied in the thesis by focusing on an age group that has so far lacked a systematic measurement of interest in music at high school level. While the total of the scale includes 29 items, they show a distribution in a total of 5 sub-dimensions. Responses to the items of the scale are listed on a five-point Likert scale, ranging from completely agree to completely disagree. Exploratory and confirmatory factor analyzes show that the scale of interest in music has high construct validity in five dimensions for high school students. In addition, the Cronbach Alpha analyzes of the current thesis on high school students showed that the sub-dimensions of the interest in music scale had a reliability coefficient between .85 and .92. Again, the internal consistency-Cronbach's Alpha coefficient for the whole scale was calculated as .92. This value shows that the scale of interest in music has high reliability and internal consistency for high school students.

Kaufman Creativity Test

It is a self-report-based Likert-form scale consisting of 41 items divided into five sections. This scale consists of 5 dimensions of creativity: 'Academic creativity', 'Mechanical Creativity', 'Creativity in the Field of Artistic Performance', 'Self/Daily Creativity' and 'Artistic Creativity'. The scale, which was originally developed by Kaufman (2012), was adapted to different languages. As a result of the explanatory factor analysis performed to investigate the construct validity of the scale, a five-factor structure consisting of 42 items was obtained. This construct was tested on a different sample group. Confirmatory factor analysis suggested that the construct was compatible except for one item. Cronbach's alpha internal consistency coefficients for the sub-factors ranged from .87 to .77. The Cronbach's alpha coefficient for the entire scale is .90. The discriminant validity of the sub-factors was investigated using the difference between the lower and upper 27% group scores. As a result, a significant difference was found between the scores of the lower and upper groups. These results show that the Turkish version of the Kaufman Creativity Scale is a valid and reliable tool for high school students.

Data Collection and Analysis

Students who agreed to participate in the study were asked to mark the choices they deem appropriate for the

Music Interest Scale and the Kaufman Creativity Scale, respectively, in order to determine their level of music interest and creativity, after the personal information form containing sociodemographic data. Since the data collection process is in the pandemic process, distance, hygiene and mask rules were followed throughout the process. In this process, which took place with the online method, it took a short time for the participants to fill out the scale forms. However, since music is a subject related to subjective situations such as interest and creativity, the participants voluntarily completed the measurement tools.

Parametric statistical techniques were used in the study in which the music interest and creativity levels of high school students were examined comparatively in terms of demographic factors. Since the data obtained from the music interest and creativity scales of high school students met the assumptions of normal distribution (Yurt, 2011), Parametric Statistics Techniques were used in the analyzes performed on this variable. In this context, the Independent Sample t-Test was used to compare the music interest and creativity levels of high school students according to their gender and school type. In addition, one-way analysis of variance technique was used to compare the music interest and creativity levels of high school students according to the class variable. Further analyzes were performed with the Scheffe Test in the groups whose analysis of variance results were significant.

Results

Table 1 shows the descriptive statistical values of high school students' music interests. According to the analyses, the mean scores of the first year high school students in the 5 sub-dimensions of the music interest scale are respectively; 2.71 ± 0.56 for positive attitudes towards playing instruments; 2.55 ± 0.70 for positive attitudes towards going to a concert, 2.17 ± 0.85 for negative attitudes towards playing instruments and going to concerts, 3.19 ± 1.12 for attitudes towards singing, for attitudes towards listening to music 2.53 ± 0.57 and the interest scale total scores were calculated as 2.55 ± 0.37 . According to these findings, high school students' attitudes towards singing are high, while their negative attitudes towards playing instruments and going to concerts are low. In general, it was observed that the participants had a moderate musical interest in other dimensions of the scale.

Table 1. Descriptive Statistics on Music Interests of High School Students

	N	Minimum	Maximum	\bar{X}	Sd
Positive attitudes towards playing instruments	315	0.00	4.22	2.71	0.56
Positive attitudes towards going to concerts	315	0.00	4.43	2.55	0.70
Negative attitudes towards playing instruments and going to concerts	315	0.00	5.00	2.17	0.85
Attitudes towards singing	315	0.00	5.00	3.19	1.12
Attitudes towards listening to music	315	0.00	4.00	2.53	0.57
Interest Scale Total Score	315	0.00	2.92	2.55	0.37

When Table 2 is examined, the Kaufman Creativity Test mean scores of high school students are 2.97 ± 0.88 in the self/daily creativity dimension, 3.26 ± 0.68 in the mechanical creativity dimension, 3.33 ± 0.75 in the artistic performance dimension, and in the artistic performance dimension, respectively. In the creativity dimension, 3.25 ± 0.88 points and in the academic creativity dimension 4.80 ± 0.97 points were calculated. According to these findings, it was found that the academic creativity of high school students was high and the other creativity was moderate.

Table 2. Descriptive Statistics of High School Students' Creativity Levels

	N	Minimum	Maximum	Mean	Std. Deviation
Self/Everyday Creative	315	1.00	4.91	2.97	0.88
Mechanical/scientific	315	2.00	4.71	3.26	0.69
Creativity in the Field of Artistic Performance	315	2.00	5.00	3.33	0.75
Artistic Creative	315	1.78	5.00	3.25	0.88
Scholarly Creative	315	2.00	4.80	3.61	0.97

Table 3 shows the comparison results of high school students' scores obtained from the musical interests scale by gender. According to the analysis, a significant gender-related difference was observed in the dimensions of "attitude towards listening to music", "attitude towards singing" and total music interest mean scores of the participating students ($p < 0.05$). On the other hand, no significant gender difference was found in other dimensions of the music interest scale ($p > 0.05$). According to the averages of the groups, it was found that the girls achieved high averages in the dimensions of 'attitude towards listening to music', 'attitude towards singing' and total music interest.

Table 3. Comparison of High School Students' Music Interests and Recognition Levels of Musical Instruments by Gender

	Gender	N	\bar{X}	Sd	t	p
Positive attitudes towards playing instruments	Girl	170	2.78	0.50	2.221*	0.027
	Boy	145	2.64	0.61		
Positive attitudes towards going to concerts	Girl	170	2.41	0.67	1.702	0.090
	Boy	145	2.27	0.73		
Negative attitudes towards playing instruments and going to concerts	Girl	170	2.17	0.83	-1.321	0.121
	Boy	145	2.19	0.87		
Attitudes towards singing	Girl	170	3.39	1.10	3.460*	0.001
	Boy	145	2.96	1.10		
Attitudes towards listening to music	Girl	170	2.35	0.52	0.677	0.499
	Boy	145	2.30	0.63		
Interest Scale Total Score	Girl	170	2.60	0.30	2.520*	0.012
	Boy	145	2.49	0.44		

$p < 0.05$

When Table 4 is examined, it has been observed that there is no significant difference depending on the gender variable in the mean scores of mechanical creativity, Creativity in the Field of Artistic Performance and artistic creativity ($p>0.05$). However, significant differences were found in the dimensions of academic creativity and self/daily creativity according to the gender variable. Compared to the group averages, the female students' average scores in the dimensions of self/daily creativity were found to be higher. On the other hand, academic creativity score averages of male students were found to be significantly higher.

Table 4. Comparison of Creativity Levels of High School Students by Gender

	Gender	N	Mean	Std. Deviation	t	p
Self/ Everyday Creativity	Female	170	3.09	0.94	2.756*	0.006
	Male	145	2.82	0.77		
Mechanical Creativity	Female	170	3.27	0.67	0.229	0.819
	Male	145	3.25	0.72		
Creativity in the Field of Artistic Performance	Female	170	3.31	0.73	-0.357	0.722
	Male	145	3.34	0.78		
Artistic Creativity	Female	170	3.30	0.87	1.092	0.276
	Male	145	3.19	0.89		
Academic Creativity	Female	170	3.49	0.96	-2.374	0.018
	Male	145	3.75	0.97		

$p^*<0.05$

Table 5 shows the comparison results of high school students' scores obtained from the musical interests scale according to the class variable. According to the Analysis of Variance, significant differences were observed in all dimensions and total scores of the participant students' interest in listening to music scale depending on the class variable ($p<0.05$). According to Sheffe test results, 9th grade students have more positive and higher music interest compared to 11th grade students. As the grade level of the students increases, their interest in music decreases.

When Table 6 is examined, it was observed that there was no significant difference in the mean scores of mechanical creativity and academic creativity depending on the class variable ($p>0.05$). On the other hand, mechanical creativity, Creativity in Artistic Performance, self/ everyday creativity and artistic creativity scores were significantly different depending on the class variable ($p<0.05$). According to the Sheffe test results, 9th grade students achieved higher averages in these creativity dimensions compared to 11th grade students.

Table 7 shows the comparison results of high school students' scores obtained from the musical interests scale according to the type of school they study. According to the t-test analysis, a significant difference was observed in the dimension of “negative attitudes towards playing instruments and going to concerts” of the participant students and their total music interest mean score depending on the school type ($p<0.05$). On the other hand, no significant differences were found in other dimensions of the music interest scale depending on the type of school ($p>0.05$). According to the results of the Sheffe test, students studying at private high schools have a significantly higher interest in music.

Table 5. Comparison of High School Students' Music Interest Levels by Class Variable

	Class Level	N	\bar{X}	Ss	F	p
Positive attitudes towards playing instruments	9	132	2.83	0.46	7.285*	0.000
	10	106	2.72	0.53		
	11	77	2.51	0.68		
Positive attitudes towards going to concerts	9	132	2.49	0.71	5.219*	0.006
	10	106	2.23	0.61		
	11	77	2.25	0.76		
Negative attitudes towards playing instruments and going to concerts	9	132	2.12	0.87	1.147	0.319
	10	106	2.27	0.78		
	11	77	2.12	0.91		
Attitudes towards singing	9	132	3.48	0.92	8.214*	0.000
	10	106	3.09	1.18		
	11	77	2.82	1.23		
Attitudes towards listening to music	9	132	2.47	0.48	9.073*	0.000
	10	106	2.30	0.57		
	11	77	2.11	0.64		
Interest Scale Total Score	9	132	2.68	0.17	9.356*	0.000
	10	106	2.52	0.36		
	11	77	2.36	0.53		

p* < 0.05

Table 6. Comparison of Creativity Levels of High School Students by Class Variable

	Class Level	N	Mean	Std. Deviation	F	p
Self/ Everyday Creativity	9	132	3.15	0.96	5.197*	0.006
	10	106	2.84	0.81		
	11	77	2.83	0.76		
Mechanical Creativity	9	132	3.30	0.73	2.339*	0.097
	10	106	3.24	0.71		
	11	77	3.20	0.58		
Creativity in the Field of Artistic Performance	9	132	3.48	0.78	4.772*	0.009
	10	106	3.20	0.77		
	11	77	3.24	0.62		
Artistic Creativity	9	132	3.46	0.84	7.111*	0.001
	10	106	3.12	0.92		
	11	77	3.05	0.80		
Academic Creativity	9	132	3.65	1.05	0.708	0.494
	10	106	3.65	0.93		
	11	77	3.50	0.90		

p* < 0.05

Table 7. Comparison of High School Students' Music Interest Levels by School Type

	School Type	N	Mean	Std. Deviation	F	p																																																				
Positive attitudes towards playing instruments	Public	162	2.65	0.63	1.942	0.053																																																				
	Private	153	2.78	0.46			Positive attitudes towards going to concerts	Public	162	2.30	0.75	1.193	0.234	Private	153	2.39	0.65	Negative attitudes towards playing instruments and going to concerts	Public	162	2.05	0.88	2.535*	0.012	Private	153	2.30	0.80	Attitudes towards singing	Public	162	3.16	1.17	0.475	0.635	Private	153	3.22	1.07	Attitudes towards listening to music	Public	162	2.27	0.63	1.733	0.084	Private	153	2.38	0.50	Interest Scale Total Score	Public	162	2.49	0.47	3.032*	0.003	Private
Positive attitudes towards going to concerts	Public	162	2.30	0.75	1.193	0.234																																																				
	Private	153	2.39	0.65			Negative attitudes towards playing instruments and going to concerts	Public	162	2.05	0.88	2.535*	0.012	Private	153	2.30	0.80	Attitudes towards singing	Public	162	3.16	1.17	0.475	0.635	Private	153	3.22	1.07	Attitudes towards listening to music	Public	162	2.27	0.63	1.733	0.084	Private	153	2.38	0.50	Interest Scale Total Score	Public	162	2.49	0.47	3.032*	0.003	Private	153	2.61	0.22								
Negative attitudes towards playing instruments and going to concerts	Public	162	2.05	0.88	2.535*	0.012																																																				
	Private	153	2.30	0.80			Attitudes towards singing	Public	162	3.16	1.17	0.475	0.635	Private	153	3.22	1.07	Attitudes towards listening to music	Public	162	2.27	0.63	1.733	0.084	Private	153	2.38	0.50	Interest Scale Total Score	Public	162	2.49	0.47	3.032*	0.003	Private	153	2.61	0.22																			
Attitudes towards singing	Public	162	3.16	1.17	0.475	0.635																																																				
	Private	153	3.22	1.07			Attitudes towards listening to music	Public	162	2.27	0.63	1.733	0.084	Private	153	2.38	0.50	Interest Scale Total Score	Public	162	2.49	0.47	3.032*	0.003	Private	153	2.61	0.22																														
Attitudes towards listening to music	Public	162	2.27	0.63	1.733	0.084																																																				
	Private	153	2.38	0.50			Interest Scale Total Score	Public	162	2.49	0.47	3.032*	0.003	Private	153	2.61	0.22																																									
Interest Scale Total Score	Public	162	2.49	0.47	3.032*	0.003																																																				
	Private	153	2.61	0.22																																																						

p* $<$ 0.05

In Table 8, the scores obtained by high school students from the creativity scale are compared according to the type of school they study. According to the t-Test analysis, a significant difference was observed in the mean scores of the participant students in the dimension of 'academic creativity' depending on the type of school ($p<$ 0.05). On the other hand, no significant differences were found in other dimensions of the creativity scale depending on the type of school ($p>$ 0.05). According to the test results, the academic creativity of the students studying at private high schools is significantly higher.

Table 8. Comparison of Creativity Levels of High School Students by School Type

	School Type	N	Mean	Std. Deviation	F	p																																									
Self/ Everyday Creativity	Public	162	2.97	0.90	0.042	0.967																																									
	Private	153	2.97	0.85			Mechanical Creativity	Public	162	3.25	0.69	-0.224	0.823	Private	153	3.27	0.70	Creativity in the Field of Artistic Performance	Public	162	3.28	0.73	-1.147	0.252	Private	153	3.38	0.77	Artistic Creativity	Public	162	3.23	0.89	-0.300	0.765	Private	153	3.26	0.86	Academic Creativity	Public	162	3.50	0.97	-2.070*	0.039	Private
Mechanical Creativity	Public	162	3.25	0.69	-0.224	0.823																																									
	Private	153	3.27	0.70			Creativity in the Field of Artistic Performance	Public	162	3.28	0.73	-1.147	0.252	Private	153	3.38	0.77	Artistic Creativity	Public	162	3.23	0.89	-0.300	0.765	Private	153	3.26	0.86	Academic Creativity	Public	162	3.50	0.97	-2.070*	0.039	Private	153	3.73	0.96								
Creativity in the Field of Artistic Performance	Public	162	3.28	0.73	-1.147	0.252																																									
	Private	153	3.38	0.77			Artistic Creativity	Public	162	3.23	0.89	-0.300	0.765	Private	153	3.26	0.86	Academic Creativity	Public	162	3.50	0.97	-2.070*	0.039	Private	153	3.73	0.96																			
Artistic Creativity	Public	162	3.23	0.89	-0.300	0.765																																									
	Private	153	3.26	0.86			Academic Creativity	Public	162	3.50	0.97	-2.070*	0.039	Private	153	3.73	0.96																														
Academic Creativity	Public	162	3.50	0.97	-2.070*	0.039																																									
	Private	153	3.73	0.96																																											

p* $<$ 0.05

When the statistically significant correlation coefficients in Table 9 are examined, it is understood that there are moderately significant relationships with scores ($r=$ 0.123; $p<$ 0.029) and artistic creativity ($r=$ 0.243; $p<$ 0.000),

positive attitudes towards playing instruments and self/daily creativity ($r=0.229$; $p<0.000$), mechanical creativity ($r=0.161$; $p<0.004$), Creativity in the Field of Artistic Performance. Positive attitude towards going to a concert scores with self/everyday creativity ($r=0.176$; $p<0.002$), mechanical creativity ($r=0.125$; $p<0.026$), Artistic Performance Field Creativity scores ($r=0.137$; $p<0.015$), and it is understood that there are positive and moderately significant relationships with artistic creativity ($r=0.287$; $p<0.000$). Attitudes towards singing and self/everyday creativity ($r=0.374$; $p<0.000$), mechanical creativity ($r=0.307$; $p<0.000$), Artistic Performance Field Creativity scores ($r=0.302$; $p<0.000$) and artistic creativity it is understood that there are positive and moderately significant relationships with ($r=0.318$; $p<0.000$). Attitudes towards listening to music and self/everyday creativity ($r=0.143$; $p<0.011$) were positively and moderately significant with academic Creativity scores ($r=0.123$; $p<0.029$) and artistic creativity ($r=0.176$; $p<0.002$). Relations are evident. Finally, with the total scores of the interest in music scale, self/daily creativity ($r=0.405$; $p<0.000$), mechanical creativity ($r=0.33$; $p<0.000$), Creativity in Artistic Performance ($r=0.313$; $p<0.000$) and artistic creativity ($r=0.442$; $p<0.000$) were found to be positively and highly significant. According to these coefficients, it can be mentioned that there is a significant and positive relationship between high school students' music interests and especially their artistic creativity levels.

Table 9. Analysis of the Relationships between High School Students' Music Interests and Creativity Levels

		Creativity in the				
		Self/ Daily Creativity	Mechanical Creativity	Field of Artistic Performance	Artistic Creativity	Academic Creativity
Positive attitudes towards playing instruments	r	.229**	.161**	.123*	.243**	0.046
	p	0.000	0.004	0.029	0.000	0.418
Positive attitudes towards going to concerts	r	.176**	.125*	.137*	.287**	0.053
	p	0.002	0.026	0.015	0.000	0.345
Negative attitudes towards playing instruments and going to concerts	r	0.004	0.042	0.027	0.035	0.048
	p	0.939	0.463	0.627	0.536	0.393
Attitudes towards singing	r	.374**	.307**	.302**	.318**	0.007
	p	0.000	0.000	0.000	0.000	0.899
Attitudes towards listening to music	r	.143*	0.100	0.099	.176**	.123*
	p	0.011	0.075	0.079	0.002	0.029
Interest Scale Total Score	r	.405**	.330**	.313**	.442**	0.098
	p	0.000	0.000	0.000	0.000	0.083

$p^*<0.05$, $p^{**}<0.01$

Discussion and Conclusion

Please According to the research findings, high school students' interest in music was found to be moderate. In general, female students have a significantly higher interest in music compared to their male peers. In various studies conducted on this subject, it has been observed that female students have more positive attitudes and

interests towards music activities than male students (Hale, 2006; Nacakcı, 2006, Phillips 2003; Saruhan & Deniz, 2011). Similar to the findings of this study, according to one of the study results of Hale (2006), female students' positive attitude and interest in singing, their participation in singing activities, and their willingness to participate in any future singing activities are higher than male students. . According to Saruhan & Deniz (2011), the fact that female students have a more positive attitude and interest towards music than male students may be due to the fact that male students are against music, matching music with emotionality and not associating this situation with gender roles. For this reason, it should be emphasized and taken into account by families, teachers and school administrators that playing music has nothing to do with sexual identity.

According to the findings of the study, significant differences were found in the class levels of high school students in their interest in music lessons. According to the analysis, it was seen that high school students studying in lower grades had higher musical interest than students in upper grades. These findings were similar to the findings of studies conducted by Akıncı (2018), Ferahlıoğlu, Tepecik and Kalyoncu (2014), Saruhan and Deniz (2011). In the studies conducted by Saruhan and Deniz (2011) Ferahlıoğlu, Tepecik and Kalyoncu (2014) at secondary school level and Akıncı (2018) at high school level, students studying in lower grades showed more positive attitudes and interests in art and related activities compared to their peers in upper grades. The reason why the students in the upper classes have low interest in music can be explained by their preparation for the university entrance exam. In this study, students in the upper class of high school achieved the lowest interest scores. The preparatory work for the university exams and the study habits and attitudes of the students in this direction may have been effective in the emergence of this result.

According to another finding of the study, significant differences were found in high school students' interest in music lessons in the types of schools they study. Students studying in private schools have a significantly higher musical interest than their peers studying in public schools. Similarly, in the studies of Çakır (1990) and Yurdakul (1990), considering the high expectation and influence of parents in private schools, they are seen as important factors in students' interest in music.

Another variable discussed in this study is about the creativity of the participant students. According to the research findings, it was found that the academic creativity of high school students was high and the other creativity was moderate. According to other findings of the study on this subject, the creativity of high school students shows partial differences according to gender, school type and class variables. On the other hand, female students' self/everyday creativity was found to be higher than male students' academic creativity. In addition, 9th grade students achieved higher levels of creativity compared to 11th grade students. It has been found that high school students studying in private schools have higher artistic creativity levels compared to their peers in public schools. These findings are similar to the research findings of Baer (1999), Baer and Kaufman (2008), He and Wong (2021), Warren et al. (2018). In a comprehensive review of studies comparing the mean scores of creative tests between the two genders, significant differences were found in approximately 50% (Baer, 1999) and even 84% (Baer & Kaufman, 2008) of the studies reviewed. In these studies, while women came to the fore with their artistic creativity, men achieved high averages in academic abilities and related creativity skills. Another important finding about creativity in this article is that students' grade levels are closely related to creativity. Artistic and

other creativity scores of students in lower grades and younger ages were found to be higher. These findings are similar to the research findings of Adelson (1984), Agnoli et al. (2019), Audia and Goncalo, (2007), Bogoyavlenskaya (2013), Frensch and Sternberg, (1989) and Wiley (1998). Although it is not similar to the rate in our country, there is a decrease in the level of creativity as age progresses throughout the world. In the study of Bogoyavlenskaya (2013), it was observed that there was a decrease in creativity scores of six-year-old children when they started primary school. Similarly, Torrance states that when children start school, their creativity stagnates or begins to decline due to academic expectations, limitations and authority (Ferguson, 2011). Environmental factors are at the root of this decline. Because children who start school and enter a new environment recognize the rules and authority.

According to another finding of the study, significant and positive correlations were found between high school students' interest in music and their creativity levels. These findings are similar to those of Güven & Erol (2019), He, Wong & Hui (2017), Heyworth (2013), Kiehn (2003), Küpana (2015), Schellenberg, Corrigan, Dys & Malti (2015), Zhou (2021). Similar to their research findings. In the research conducted by Zhou (2021), positive and significant relationships were found between participation in choral work and creative thinking. At the same time, listening to choral music positively affects the creativity of the participants. In Heyworth's (2013) study on the development of social and thinking skills with music, it was observed that students became more participatory individuals through music, they felt themselves as part of the school, and their creative thinking skills increased. According to the results of the study, music supports children's social, emotional and cognitive development by increasing their self-esteem, sense of belonging, cooperation, creative thinking and active participation in learning. In a literature study conducted by Küpana (2015), it was aimed to reveal the relationship between cognitive, social and emotional learning and music education. Among the results reached in the study, it was found that music is a way of self-expression, improves group experience, cognitive and social-emotional learning skills. Creative actions help to achieve a cohesive self-image as a person in which creativity is an integral part of personal identity (Freeman, 1993; Petkus, 1996). In this context, it can be mentioned that there is a close relationship between people's creativity characteristics, musical interests, attitudes and behaviors.

This study was conducted on high school students. A similar study can be conducted on different age groups (eg 6-15 years). In this study, the relationship between interest in music and the level of creativity was examined. More research can be conducted to examine the relationship between their interest in music and other variables (such as self-concept, self-esteem, self-efficacy). Experimental research can be done to improve interest, attitude and creativity towards music. Since male students show lower scores than girls in both interest in music and artistic creativity in the research, it is useful to encourage especially boys to participate in this process, along with girls, while planning and implementing musical activities.

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