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Abstract

In this study, 21st century skills and technological tendencies of the students of the Faculty of Fine Arts were examined with a relational approach in terms of some variables. With this aim, the 21st century skills and technological competences of the students of the Faculty of Fine Arts were compared in terms of gender and grade level variables. In this respect, this study is a comparative relational survey research. The study was carried out with 198 students studying fine arts at different universities in Turkey. The 21st century skills scale and the technological susceptibility scale were used as data collection tools. In the study, t-test for independent groups, one-way analysis of variance and correlation analysis techniques were used for data analysis. In the study, it was found that the 21st century skills of fine arts students were relatively high, while their technological susceptibility was moderate. It was found that the 21st century skills and technological predispositions of the participant students differed in terms of gender and grade level. Finally, a positive, significant and high-level relationship was found between the 21st century skills and technological predispositions of the students of the Faculty of Fine Arts.

Introduction

The Faculty of Fine Arts was founded in 1983 as the School of Applied Fine Arts and was transformed into the Faculty of Fine Arts in 1992. Today, the Faculty provides education in the fields of art and design with its Ceramics, Graphic Arts, Cartoon and Animation, Sculpture, Painting, Printing Arts and Glass departments. Faculties of Fine Arts aim to provide an art education that can be defined at national and international level, compatible with the needs and conditions of the university, city and country, while providing education with an understanding in which students can define and express themselves with free, original and creative expression opportunities, while also supporting a multi-disciplinary working environment. Adopting the principle of raising qualified graduates in the integrity of art, design and practice, students are admitted to all departments of the faculty with pre-registration and special talent exam (Özdemir, 2022; Öztürk & Öztürk, 2022; YOK Atlas, 2022).

Today, it is necessary to see science, technology and art as a whole, to question and recreate people and education.

The world is full of beauties that cannot be bought or measured for money. Learning to see, love and add new beauties to current ones should be the main purpose of life. We should teach our children and young people to see, to love, to research, to be creative, to work with the head, body and hand (Kavcar, 1986; Kibici, 2022; Noroozi et al., 2013; Van der Spoel, et al., 2020). Nowadays, the possibilities created by the rapidly developing technology are being followed by the artists. Technology has provided the artist with the opportunity to try different methods and use different forms of expression while producing and presenting works of art. Artists make works that combine both auditory and visual elements in their quest to activate and influence the audience or participant with the possibilities offered by technology (Özdemir, 2022; Wands, 2006). Ultimately, technology and digital life have become the indispensable reality of today (Noroozi & Hatami, 2018; Popov et al., 2014; Sünbül, Gündüz & Yılmaz, 2022; van Ginkel et al., 2019). Artists, as individuals who best describe their period, use the applications and approaches in technology in their works. Rapid and radical developments in science (especially technology) have caused art to move away from its traditional structure and create a much different visuality and understanding. Developments in science and technology have led to technical diversity, the formation of new forms and the emergence of new branches of art. New genres and understandings have developed in art such as internet art, video art, digital art/new media art, interactive art, hybrid art. In addition, art also helps to prepare unique and remarkable products that will make the products produced different from the similar ones in today's toughest competition. The growth of active individuals in this field will be accelerated by students with 21st century skills and technological susceptibility. Since our age is the age of information and communication, it has become compulsory to use technologies in terms of sharing information and meeting the need for communication. Digital technologies are the fastest and most effective in this field. In these technologies, image production, presentation of images and aesthetic dimension come to the fore. In other words, art plays a distinctive role here as well (Erdoğan, 2020).

21st century skills express the characteristics that enable individuals to become good citizens and qualified workers in this century's information society (Ananadou & Claro, 2009; Murat & Cam, 2021). Key skills used, on the other hand, refer to developing a form of cognitive, behavioral or emotional expertise not only in school life but also beyond school. Skills are not just technical, but they can also be general as well as represent some complex forms of expertise. This comprehensive definition of skills makes it possible to take into account the diversity of dispositions, knowledge and abilities that a student must possess to demonstrate a particular form of expertise (Chehimi & Alameddine, 2022; Lamb, Maire, & Doecke, 2017).

In order for students to gain 21st century skills, a mental transformation must first be carried out in the entire education system. In this respect, human capital in schools should be increased, teachers should be trained to gain these skills, professional cooperation in schools should be increased, and schools should be structured as learning communities (Noroozi & Sahin, 2022; Saavedra & Opfer, 2012). Besides, Nieveen and Plomp (2018) state that the acquisition of these skills is possible with studies to be carried out at the classroom, school level and system level. According to the literature, 21st century skills are discussed as 13 skills under three main headings (Council of Europe, 2015; Küçüktığlı, 2022; Partnership For 21st Century Skills, 2013; Sünbül, 2000): 1. Learning and Innovation Skills (Creative Thinking, Critical Thinking, Problem Solving, Communication, Cooperation) 2. Information, Media and Technology Skills (Information Literacy, Information and Communication Technologies

(ICT) Literacy, Media Literacy) 3. Life and Career Skills (Flexibility and Adaptation, Self-Management, Social Skills, Productivity and Accountability, Leadership).

When we look at the content of 21st century skills and the scope of developments in technology, it is seen that there are some direct and indirect relations between them. We can say that technological competencies aiming at the effective integration of information technologies into the learning-teaching process are directly related to 21st century skills such as information, media and technology skills (Henderson, Finkelstein & Beach, 2010; St Louis et al., 2021). Effective use of tablet computers, interactive whiteboards and the internet should of course be considered within the scope of information and communication technologies literacy. In addition, since access to information will become easier through tablet computers with the internet network, it is inevitable to experience accuracy, validity and reliability problems due to excessive information overload and unfiltered access to information. Elimination of these negativities should also be considered within the scope of information literacy. Again, the prevalence of internet access within the scope of technological developments may leave students vulnerable to the internet, which is a media source. Media literacy, which is one of the 21st century information, media and technology skills, is within the scope and purpose of media literacy, both to provide students with the ability to distinguish whether the information they reach over the internet is real or fictional, and to enable them to look at the media critically (Lampropoulos et al., 2021; Shadiev & Wang, 2022; Shafie et al., 2019; Zhang & Zou, 2020). As it is understood, 21st century skills are the skills that are necessary for individuals to lead their lives in a more qualified way, to solve the problems they encounter more easily, to analyze the events experienced in their environment or society from different perspectives, and to be more successful in their professional and social lives. Individuals can acquire 21st century skills, which are classified as learning and renewal, life and career, information, media and technology skills, at all educational stages from primary school to higher education (Binkley et al., 2010; Peschl H, Deng C, Larson, 2020).

Today's contemporary societies have transformed from the industrial societies of the 20th century to the information societies of the 21st century due to the rapid development of technology and the increasing need for information. In order for individuals to adapt to the information society and to fulfill the increasing demands of the 21st century business world, they need to have a number of skills, unlike the individuals who have only knowledge and have a diploma of the 20th century (Wang, 2022). The business world seeks not only employees who do their job well, but also individuals who are creative, problem-solving, productive, responsible, self-managed, strong in communication and equipped with social skills. Of course, it is obvious that individuals who cannot use technology and cannot adapt to new technologies and ideas will not be successful in society today and in the future. For these reasons, it is important that the skills called 21st century skills are acquired by individuals and integrated into education programs in line with this purpose. Undoubtedly, if we are talking about a skill, we need to be able to measure that skill. For this purpose, standards to be gained to individuals with 21st century skills should be determined and appropriate scales should be developed according to these standards (OECD, 2018; Shadiev et al., 2022a, b). In this context, it is thought that there is a significant relationship between individuals' predisposition to technology and having 21st century skills.

Technological Susceptibility is defined by Parasuraman (2000) as “people's tendency to adopt and use new

technologies to achieve their goals in their home and work lives". Technological Susceptibility is a variable that explains individuals' attitudes towards accepting new technologies and is based on individuals' personal characteristics. It is a structure that is frequently used in researches where technological innovations are important and in this direction, examining the decision-making processes of consumers (Blut & Wang, 2020). Parasuraman (2000) classified technological susceptibility under two categories. These are divided into two opposing groups as those that increase (motivators) and decrease (inhibitors) the Technological Susceptibility of individuals. These two dimensions constitute the total technological predisposition of individuals and have an important place in the Technological Susceptibility Index (Parasuraman, 2000). The relationship between this belief and personal characteristics, which is defined as Technological Susceptibility, and technology adoption behavior has been examined in the literature (Acheampong et al., 2017; Lin, Shih & Sher, 2007; Parasuraman, 2000).

Turkey is a country with a young population. With a good education offered to them, all young people can be well prepared for the society of the future. Technology has become an indispensable part of education for a good education in our age. Although there are many reasons for the use of technology in education, it can be argued that especially the globalization and the increasing importance of global labor force are effective in the widespread use of technology in education and training processes. In this process, efforts to benefit from technology in developed countries are tried to be realized in developing and underdeveloped countries with the efforts of international organizations such as the World Bank and UNESCO and some other global organizations. In short, in today's first period of the 21st century, all countries, large and small, developed and developing, are working to benefit from technology in their education systems. Today, studies on coding education stand out as one of these studies. Although coding is not a new concept, it has gained a place in pre-school and primary education levels, which are accepted as basic education, relatively quickly in the last few years (Dede, 2010; OECD, 2018; Şentürk, 2021).

In order not to fall behind the times due to the developing and changing living conditions, the education system should follow the scientific and technological developments and then renew and update itself in order to adapt to the period we live in. The importance of art education is great because the individual who receives art education develops the student in many ways and gives a critical perspective and a pluralistic understanding. According to Uçan (2002), art education is one of the main guiding factors in the education of the individual, since the individual is a versatile and multi-component entity. Recognition, development and orientation of the existing capacity known to exist in each individual is possible with education (Hanci, 2022; Kırışoğlu, 2002). Preparing the individual for life by using critical thinking skills is also possible with art education. However, the development of information technologies affects all kinds of education services. Raising creative students who use knowledge and produce new knowledge, not just students who acquire knowledge, can only be achieved with a modern education. Developing creativity requires being equipped especially in the information age. The share of creativity is quite large in the transformation of savings into thought and thought into reality. Creativity can be taught to the individual with the appropriate education and can be developed significantly (Akdeniz et al., 2016; Ceran, 2022; Edeer, 2005; Özkan, 2022; Sünbül, 2002; Kibici, 2022). At the same time, the development of a society is directly related to the creativity of the people in that society. For this reason, societies that want to develop have to adopt and use innovations in science, technology and art.

It is essential to learn multidimensional, multidimensional and democratic thinking in order to keep up with the unlimited and rapid variability, endless demands and expectations of our age, and to be able to criticize the orientation and facts that we find negative in it. It is necessary to re-develop all kinds of education and training methods in order to realize the right socialization, to bring and teach these values to the growing generations, and to make them understand that each new generation must surpass the previous one. These new educational approaches should be multidimensional, multidimensional, containing continuous innovations and supporting creativity. As such, the role of art education in gaining 21st century skills and technological competencies comes to the fore again. The fact that the necessary importance is not given to art education in pre-school, primary school, secondary school, high school, university and non-formal education institutions comes before us. Whether it is non-formal or non-formal education, programmed or non-programmed education, art sometimes as an end, sometimes as a tool, but always and must be involved in all types and processes of education (Erinç, 1985; Kaleli, 2021).

In this context, 21st century skills and technological predispositions of students studying at faculties of fine arts were investigated in relation to demographic variables. For this purpose, answers to the following questions were sought in the study:

- What are the 21st century skills and technological susceptibility of the students studying at the Faculties of Fine Arts?
- Do the 21st century skills and technological susceptibility of the students studying at the Faculties of Fine Arts differ significantly according to the gender variable?
- Do the 21st century skills and technological susceptibility of the students studying at the Faculties of Fine Arts differ significantly according to their grade levels?
- Is there a significant relationship between 21st century skills and technological susceptibility of students studying in Fine Arts Faculties?

Method

In this research, comparative relational screening model, one of the quantitative methods, was used to investigate the 21st century skills and technological susceptibility of the Faculty of Fine Arts students. This model is a research model that aims to identify a past or present situation as it exists, and in this context, deals with the relationships between variables with a comparative approach (Neuman, 2000). The data obtained from the research were collected through Google Forms. Screening studies are researches that try to determine the abilities, skills and interests of people who participate in any subject (Kothari, 2004).

The research was carried out with the students of faculties of fine arts studying at universities in Konya, Ankara, Istanbul and Kastamonu in the 2021-2022 academic year. In the determination of the research group, the easily accessible sample was preferred and the teachers working in the province where the researcher worked were taken as the study group. It is essential to choose an easy sample group in order to speed and practicality in the research (Kruger, 1994). In this context, 198 participant students were included in the study.

Data Collection Tools

The data collection tool used in the study consists of three parts. The first part is called the "Personal Information Form" and includes the students' gender, grade levels, departments, grade point averages, etc. It consists of five statements about their status. The second part of the data collection tool is the "Multidimensional 21st Century Skills Scale" developed by Çevik & Şentürk (2019), and the third part is the Technological Susceptibility scale developed by Parasuraman (2000).

21st Century Skills Scale

The 21st Century Skills Scale is a multidimensional scale developed by Çevik and Şentürk (2019). Multidimensional 21st Century Skills Scale "Information and Technology Literacy Dimension" (15 items); "Critical Thinking and Problem Solving Skills Dimension" (6 items); "Entrepreneurship and Innovation Skills Dimension" (10 items), which consists of "Social Responsibility and Leadership Skills Dimension" (4 items) and "Career Awareness Dimension" (6 items). Since there were seven negative statements in the scale, the coding was reversed. The Multidimensional 21st Century Skills Scale has a 5-point Likert structure and the scale is graded as "5- Strongly agree", "4-agree", "3-Partially agree", "2-Disagree" and "1-Strongly disagree". Evaluation ranges of Multidimensional 21st Century Skills Scale are "Very Negative Score Range" between 1.00-1.80, "Negative Score Range" between 1.81-2.60, "Negative Scoring Range" between 2.61-3.40. Intermediate Score Range" is "Positive Score Range" between 3.41-4.20, and "Very Positive Score Range" between 4.21-5.00. In order to verify the five-dimensional structure of the Multidimensional 21st Century Skills Scale developed by Çevik and Şentürk (2019), confirmatory factor analysis was performed and it was observed that the obtained fit index values met the necessary criteria. In order to ensure the reliability of the scores obtained from the scale in the study, the Cronbach Alpha internal consistency coefficients for the sub-dimensions and the whole scale were calculated. Accordingly, the reliability coefficient value of the whole scale was determined as .892. Cronbach Alpha internal consistency coefficients were found to vary between .811 and .835 for sub-dimensions. The values obtained as a result of both analyzes show that the scores obtained from the scale are highly reliable.

The Technological Susceptibility Scale

The Technological Susceptibility Scale is a measurement tool developed by Parasuraman (2000) in order to measure the technological predisposition of individuals. Based on the paradoxical situations that technologies create in individuals, this scale suggests that individuals' personality traits will affect their technology acceptance and use behaviors. Due to this feature, many studies in the related literature have explained the acceptance and use of these technologies by individuals and consumers, especially in the context of technological services (Liljander, Gillberg, Gummerus, & van Riel, 2006; Lin & Chang, 2011). In addition, Technological Susceptibility is a construct frequently used by social scientists, communicators and marketers. It is commonly used in cases where technological innovation affects individuals' decisions and in research based on these decisions. In addition, it is a psychographic structure used in marketing activities for the acceptance and promotion of new technological services and in determining the consumers who will use the services (Blut and Wang, 2020). This scale consists

of 10 items in a 5-point Likert Form. There are 5 positive and 5 negative items in the scale. Negative items are reverse scored and included in the total score. As a result of the factor analysis, it was seen that the scale had a one-dimensional structure. This single factor explains about 58.2% of the variance that the scale wants to measure. Factor loads of all items in one dimension are over .40. In addition, as a result of the Cronbach Alpha test, the reliability coefficient of the one-dimensional structure of the scale was found to be .89. These findings show that the scale is a valid and reliable measurement tool for applying to the students of the faculty of fine arts.

Data Analysis Techniques

Statistical SPSS package programs were used in the data analysis process of the study. Before starting the data analysis, it is necessary to determine the normality of the distribution and the homogeneity of variance in order to decide which statistical techniques to use (Joldanova et al., 2022). For this reason, first of all, skewness – kurtosis values, Q-Q Plot, graphics of the data were evaluated and Kolmogorov – Smirnov and Shapiro – Wilk normality tests were performed. In order for the data to be analyzed by parametric techniques, the Shapiro-Wilk normality test p values should be greater than .05 (). As a result of the analysis carried out, it was seen that the data of the 21st Century Skills Scale and Technological Susceptibility Scale belonging to the students of the Faculty of Fine Arts met the assumptions of normal distribution. In this context, Independend Samples t-Test, F-Test and Pearson Correlation Coefficient techniques were used in the study.

Findings

Table 1 shows the results of the descriptive analysis calculated on the scores of the students of the Faculty of Fine Arts on the 21st YY Skills scale and its subscales. According to the analysis, the faculty students in the research sample were 3.51 in the “Information and Technology Literacy Skills” dimension of the 21st Century skills scale; 3.82 in the dimension of "Critical Thinking and Problem Solving Skills"; 3.79 in the dimension of “Entrepreneurship and Innovation Skills”; 3.85 in the dimension of “Social Responsibility and Leadership Skills”; the weighted average values of 3.82 in the dimension of “Career Awareness” and 3.76 in the total score averages of the scale were found. According to these findings, "Information and Technology Literacy Skills" of the students of the faculty of fine arts were found to be at a medium level, whereas the other dimensions of the 21st century skills scale and their total score averages were at a high level. Considering all dimensions of the scale, it was observed that students' perceptions of 21st century skills were at a high level.

Table 1. Descriptive Analysis Results of 21st Century Skills of Students in Fine Arts Faculties

	N	Minimum	Maximum	Mean	Std. Deviation
Information and Technology Literacy Skills	198	1.00	4.75	3.51	1.01
Critical Thinking and Problem Solving Skills	198	2.00	5.00	3.82	0.78
Entrepreneurship and Innovation Skills	198	1.50	5.00	3.79	0.92
Social Responsibility and Leadership Skills	198	2.00	4.63	3.85	0.67
Career Awareness	198	2.00	4.75	3.82	0.86
21st Century Skills Total	198	1.80	4.83	3.76	0.74

Table 2 shows the results of the descriptive analysis calculated on the scores of the students studying at the Faculties of Fine Arts on the Technology Susceptibility Scale. According to the analysis, the weighted average of the scores obtained from the Technology Susceptibility Scale of the fine arts faculty students in the research sample was found to be 3.59. This finding indicates a moderate technological susceptibility.

Table 2. Descriptive Analysis Results Regarding the Technological Adequacy of Students in Fine Arts Faculties

	N	Minimum	Maximum	Mean	Std. Deviation
Technology Susceptibility	198	1.00	5.00	3.59	0.88

Table 3 shows the results of the comparison between the scores of the students studying at the Faculties of Fine Arts, according to their gender, from the 21st century skills scale. According to the analysis, a significant difference was found in the mean scores of the participant students in the "Information and Technology Literacy Skills" dimension of the scale, according to the gender variable. When the source of the difference is examined, it is seen that male students have higher information and technology literacy skills than their female peers. However, no significant difference was found between the genders in the other dimensions of the 21st Century skills scale and in the total score averages ($p>0.05$).

Table 3. Comparison of 21st Century Skills of Students in Fine Arts Faculties by Gender

21st Century Skills		N	Mean	Std. Deviation	t	p
Information and Technology Literacy Skills	1	108	3.38	1.11	-1.992	0.048
	2	89	3.66	0.86		
Critical Thinking and Problem Solving Skills	1	108	3.88	0.71	1.091	0.277
	2	89	3.75	0.85		
Entrepreneurship and Innovation Skills	1	108	3.81	0.85	0.281	0.779
	2	89	3.77	1.00		
Social Responsibility and Leadership Skills	1	108	3.91	0.61	1.398	0.164
	2	89	3.78	0.74		
Career Awareness	1	108	3.92	0.83	1.928	0.055
	2	89	3.69	0.88		
21st Century Skills Total	1	108	3.78	0.67	0.467	0.641
	2	89	3.73	0.82		

Table 4 shows the results of the comparison between the scores of the students studying at the Faculties of Fine Arts, according to their gender, from the technology susceptibility scale. A significant difference was found in the mean scores of technology susceptibility of the participant students according to the gender variable. When the source of the difference was examined, it was seen that male students were more inclined to technology than their female peers.

In Table 5, the results of the comparison between the scores of the students studying in the Faculties of Fine Arts from the 21st century skills scale according to their grade levels are shown.

Table 4. Comparison of Students' Adequacy to Technology According to Gender in Fine Arts Faculties

		N	Mean	Std. Deviation	t	p
Technology Susceptibility	1	108	3.46	0.81	2.229	0.027
	2	89	3.74	0.93		

Table 5. Comparison of 21st Century Skills of Students in Fine Arts Faculties by Grade Level

21st Century Skills		N	Mean	Std. Deviation	F	p
Information and Technology Literacy Skills	1	65	3.35	1.10	2.749	0.044
	2	39	3.44	0.85		
	3	52	3.46	1.04		
	4	41	3.90	0.91		
	Total	197	3.51	1.01		
Critical Thinking and Problem Solving Skills	1	65	3.67	0.90	2.483	0.062
	2	39	3.74	0.55		
	3	52	3.87	0.81		
	4	41	4.07	0.68		
	Total	197	3.82	0.78		
Entrepreneurship and Innovation Skills	1	65	3.60	1.02	3.969	0.009
	2	39	3.56	0.94		
	3	52	3.96	0.79		
	4	41	4.09	0.77		
	Total	197	3.79	0.92		
Social Responsibility and Leadership Skills	1	65	3.71	0.82	2.436	0.066
	2	39	3.84	0.44		
	3	52	3.88	0.71		
	4	41	4.06	0.48		
	Total	197	3.85	0.67		
Career Awareness	1	65	3.72	0.97	2.971	0.033
	2	39	3.70	0.78		
	3	52	3.78	0.91		
	4	41	4.16	0.57		
	Total	197	3.82	0.86		
21st Century Skills Total	1	65	3.61	0.86	3.386	0.019
	2	39	3.68	0.56		
	3	52	3.77	0.75		
	4	41	4.06	0.62		
	Total	197	3.76	0.74		

According to the analyses, a significant difference was found in the "Information and Technology Literacy Skills",

"Entrepreneurship and Innovation Skills", "Career Awareness" dimensions of the scale and the total mean scores of the participant students according to the grade level ($p<0.05$). According to Sheffe test analysis, it was found that senior students have higher 21st century skills compared to students in 1st and 2nd grades. However, no significant difference was found in the "Critical Thinking and Problem Solving Skills" and "Social Responsibility and Leadership Skills" dimensions of the scale according to grade level ($p>0.05$).

Table 6 shows the results of the comparison between the scores of the students studying in the Faculties of Fine Arts from the technology susceptibility scale according to their grade levels. According to the analysis, a significant difference was found in the technology inclination of the participant students according to the grade level ($p<0.05$). According to further analysis, senior students feel more prone to technology than those in lower grades.

Table 6. Comparison of Students' Adequacy to Technology According to Grade Levels of Fine Arts Faculties

		N	Mean	Std. Deviation	F	p
Technology Susceptibility	1	65	3.36	0.98	3.563	0.015
	2	39	3.75	0.47		
	3	52	3.52	1.04		
	4	41	3.87	0.69		
	Total	197	3.59	0.88		

Table 7 shows the relationship between the variables related to 21st century skills of the students studying at the Faculties of Fine Arts and the technological susceptibility variable. According to the analyzes performed with the Pearson Correlation Coefficient technique, a positive significant relationship was found between the skill levels of the participant students in the total and sub-dimensions of the 21st Century scale and their technological disposition ($p<0.05$). The “Information and Technology Literacy Skills” subscale of the 21st century skills scale showed the highest correlation coefficient value with technological disposition. In the study, it was observed that the perception of competence in 21st century skills increased as students' technological predisposition increased.

Table 7. The Relationship between 21st Century Skills and Technological Susceptibility of Students studying in Fine Arts Faculties

	Technology Susceptibility	
21st Century Skills	r	p
Information and Technology Literacy Skills	.641**	0.000
Critical Thinking and Problem Solving Skills	.480**	0.000
Entrepreneurship and Innovation Skills	.480**	0.000
Social Responsibility and Leadership Skills	.491**	0.000
Career Awareness	.512**	0.000
21st Century Skills Total	.569**	0.000

Discussion and Conclusion

Significant results were obtained in this study, in which the 21st century skills and technological predispositions of the students studying at the Faculties of Fine Arts were examined. According to the research findings, it was seen that the 21st century skills of the participant students were at a high level, while their technological susceptibility was at a moderate level. There are studies in the literature that overlap with the results of this study. Kara (2020), Koyuncuoğlu (2021a), Tunagör & Aydın (2021), Uyar and Çiçek (2021) found that 21st century skills of teachers are high in their research in which they examined the 21st century skills of teachers in different branches according to various variables. Higher education institutions are the leading institutions of innovation, discovery and scientific research for countries (Abari, Oyetola, & Perakendeayo, 2014). In this context, the education and opportunities provided by higher education institutions providing undergraduate education should be qualified to ensure that the students they train are ready for technological innovations, 21st century skills and professionally.

As to the findings of the study, it was determined that there was no significant difference between the 21st century skills of the students of the Faculty of Fine Arts and the gender variable. It has been concluded that the 21st century skills of female and male students are very close to each other. Similar studies in the literature support this finding of the study (Woods et al., 2021; Yalçın, 2020; Noise, Aslan, & Avcı, 2020). According to another finding of the study, there was a significant gender difference in the predisposition of the participating students to technology. It has been found that male students are more prone to technology than their female peers. In most of the studies, it is stated that the readiness, susceptibility and competence of men for technology are at high levels (Asimaki & Vergidis, 2013; Doğru, 2020; Kara, 2021; Kibici, 2022; Koh & Chai, 2011; Koyuncuoğlu, 2022). As a matter of fact, in the study of Kibici (2022) on music teachers, it was found that male participants spent more time, interested and felt more competent in technology compared to their female colleagues. In this respect, active processes involving time, efficiency and deepening towards technology did not make men more prone to this issue.

Another finding of the study is about 21st century skills and technology susceptibilitys according to the grade levels of the students of the faculty of fine arts. According to the research findings, both the 21st century skills and the level of technology affinity differ according to the grade level. In the study, as the grade levels of the participating students increase, their 21st century skills and their tendency to technology increase. These findings are similar to the findings of studies in the literature (Black, 2020, Black, 2021, Kaleli, 2021, Kibici. & Sarıkaya, 2021, Koyuncuoğlu, 2021b, Matejun, 201), Mannerström et al., 2018, Right, 2020, Rosenbusch, Brinckmann, & Bausch, 2011). According to Allen and Velden (2012), student-centered teaching programs and competencies in emerging technologies contribute to the in-depth development of 21st century skills and the basic competencies that support these skills. 21st century skills and technological competencies develop effectively in learning-teaching processes. A university student who has not been able to develop and transform himself according to new conditions and needs cannot be expected to have 21st century skills. Moreover, 21st century skills also include lifelong learning. Similarly, failure to provide a suitable educational environment, especially at the university level, will lead to inadequacy in terms of high-level skills and the result will be inefficiency in its simplest form

(Chalkiadaki, 2018). According to Morris, Shirokova, and Tsukanova (2017), the training that people receive depending on the field they study contributes to the development of high skills and technological competencies. The themes such as the inclusion of technology-oriented courses in the advancing classes, especially in fine arts faculties, creativity, critical thinking, and producing original products in all of the curricula. Themes such as putting technology-oriented courses in the advancing classes, especially in fine arts faculties, creativity, critical thinking, and producing original products in all curricula enabled students to develop their 21st skills and technological predispositions.

The last finding reached in the research is about the relationship between the 21st century skills and technological predispositions of the students of the faculty of fine arts. As to the research findings, a very high correlation was found between the two variables. The highest correlation coefficient was found between the "Information and Technology Literacy Skills" sub-dimension of the 21st Century skills scale and technological disposition. In general, it was found that 21st century skills increased as students' technological predisposition increased. These findings are similar to those of the studies conducted by Matejun (2016) and Rosenbusch, Brinckmann, and Bausch (2011). According to Rosenbusch, Brinckmann and Bausch (2011) and Matejun (2016), susceptibility, interest and applications in technology have an important place in the creation of innovative skills, innovation potential and entrepreneurial competencies of people in any subject area. In this age, where technology is developing rapidly and skills peculiar to the 21st century come to the fore in all areas, it is of great importance for individuals to adapt quickly to this situation. In order for individuals to use information technologies effectively and correctly, the integration of information and communication technologies into education and their predisposition to these issues are important (Anderson & Dexter, 2005). On the other hand, technological innovations provide valuable educational tools for 21st century education (Yu & Durrington, 2006).

The findings of this study will provide important information on the creation of policies and innovative arts education conditions that will improve the 21st century skills and technological competencies of students studying at faculties of fine arts during and after their academic careers. It is recommended that fine arts faculties include innovative and entrepreneurial features in their curricula on the basis of 21st century skills and technological developments, and their capacity to support students in these subjects should be monitored with an objective and measurable approach. In this context, strategic action plans can be prepared for fine arts faculties to develop their innovative and technological capacities. In this study, 21st century skills and technological predispositions of students studying at faculties of fine arts are discussed in terms of demographic variables. However, no research has been found on the reflection of students' 21st century skills and technological predispositions after graduation. In this context, longitudinal studies can be conducted to monitor 21st century skills and technological susceptibility after graduation.

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