



Research Article

**ART AND DESIGN EDUCATION THROUGH THE EYES OF GASTRONOMY AND
CULINARY ARTS STUDENTS**

Özkan SÜZER^{1*} (orcid.org/ 0000-0002-6086-4543)

Evrim ÇAĞLAYAN² (orcid.org/ 0000-0001-7360-6984)

¹Karabük Üniversitesi, Safranbolu Turizm Fakültesi, Gastronomi ve Mutfak Sanatları Bölümü, Karabük, Türkiye

²Karabük Üniversitesi, Fethi Toker Güzel Sanatlar ve Tasarım Fakültesi, Resim Bölümü, Karabük, Türkiye

Abstract

The origin and exact reason for the emergence of art remain unclear; however, art has been practiced in various forms by people throughout history. A review of the historical process of art reveals numerous works created using diverse techniques and materials, demonstrating its connection with other disciplines through its unique characteristics. One of the disciplines where art plays a significant role in both educational and practical processes is gastronomy and culinary arts. The curriculum of gastronomy and culinary arts programs often includes various art-related courses. Additionally, the artistic qualities of gastronomy have increasingly drawn the attention of researchers. This study aims to examine the attitude of gastronomy and culinary arts students toward art and art-related courses. The novelty of this research is that the perspectives of students in the field of gastronomy towards art have not been extensively investigated. The research utilises a quantitative methodology and has gathered 371 data points through a survey. The data has gathered from 19 distinct universities in Turkey that provide gastronomy education. Factor analysis, frequency analysis, and difference tests have conducted on the collected data using statistical software. The findings indicate that students are interested in art-related courses. Moreover, they perceive these courses as important and necessary, both in terms of individual contributions and societal impact. It is advised to prioritise art-related courses to enhance interdisciplinary methodologies and to promote further research that explicitly examine the connection between gastronomy and art.

Keywords: Gastronomy, Culinary Arts, Education, Art

Introduction

Art is one of the most definitive activities in the history of humanity. “Art is almost as old as humankind. It is a form of work, and work is an action unique to human beings,” (Fischer, 2022, p.30). The earliest examples of art can be observed in various aspects of primitive human life, from houses to clothing. These artistic expressions, emerging in the lives of primitive peoples, were shaped by either belief in magic or functional needs. According to Read (2018), art encompasses a variety of activities that primitive communities collectively referred to as art. Humans, striving to assert dominance over nature, also harnessed art for this purpose. The relationship between humans, nature, and art, which originated in the earliest periods of human history, has evolved and persisted to the present day. “Art is one of the most definitive activities in the history of humanity. Art means the intelligence that senses life and puts it into the most interesting and beautiful forms” (Edman, 1977, p. 7). The ideas developed through sounds, forms, colors, and words are the initial elements that play a significant role in the emergence and development of art. The Latin term ‘ars’ translates to ‘organize’. This concept, known as ‘art’ in English, has been thought about, discussed, and defined in various ways throughout history. “Although many definitions of art have been proposed, a common definition to conclude the debates has not been determined” (Keser, 2005, p. 291). This is evident when examining the definitions from philosophers who have shared their views on art. However, considering that art evolves alongside society, it is understandable that a fixed definition does not exist. Time alters the emergence of social events and how individuals perceive life for various reasons. With these changes, the concept of art has been constantly questioned and revised.

*Corresponding Author: ozkansuzer@karabuk.edu.tr

DOI: 10.33083/joghat.2024.459

In today's changing world conditions, the definition of art is becoming more difficult due to the development of digital technologies, the strengthening of the conceptual dimension and the interaction of different disciplines. In the postmodernist world, art could not fit into its own shell and artists managed to break it. Art has now become a broad concept touching many fields from mathematics to medicine. From a banana taped to a wall (Cascone, 2019) to complex electronic circuits, many different things are included in the concept of art. Just like Marcel Duchamp did with a 'Fountain' in the 1917 (Duchamp, 1917).

Erinç (2004) explains art by dividing it into two sub-definitions as 'general' and 'special'. In general terms, art means doing a job like a master and the work done and the product is the work of a master. In its special meaning, art refers to the art process that takes place between the elements of the triangle consisting of the artist, the artwork and the recipient. The general definition of art covers many fields and gastronomy and culinary arts can be included in this group. "Because, although the practical processes in these fields are quite different, the superior performances are expressed as art" (Çağlayan, 2019, p. 3087). "Gastro-relates to the stomach and, by extension, the whole digestive system, starting at the mouth, while nomos means rule or regulation. Gastronomy therefore refers to rules or norms in respect of eating and drinking" (Santich, 2004, p.16). Sezen (2021, p.7) stated that there are 17 different definitions of gastronomy found in the literature and that the definitions differ according to the period, geography, people, and experiences.

Figure 1. Artistic Plate Design Process (Uçuk, 2023b)



It is stated that the oldest examples revealing the relationship between gastronomy and art date back to Çatalhöyük Neolithic settlements. Uhri (2021, p.22) mentions the oldest examples of residential architecture and emphasizes the saying 'if there is a house, there must be a hearth' and states that hearths were used for cooking in Çatalhöyük houses. Based on this statement, it can be said that gastronomy first established a relationship with architecture. Art and gastronomy are two diverse realms of human creativity, each offering distinct sensory experiences. The relationship between gastronomy and art has become more complex today. Today, the activities emerging under the name of culinary arts are expressed as an art. "Gastronomy can be considered as postmodern art within this differentiating face of art" (Sipahi, Ekincek and Yılmaz, 2017, p.396). It is seen that this relationship between gastronomy and art is accepted as a means of artistic communication (Ekici Çilkin, 2021, p.337).

Aim of the Research

The better understanding of the relationship between gastronomy and art over time has led researchers in the related field to art concepts. In the relevant literature, contemporary research can be seen analysing the relationship between gastronomy and fine arts. The research carried out by Uçuk (2023a), Bulut (2019), Çağlayan (2019), Sipahi et al. (2017), Justiniano, Jaría-Chacón and Valls-Pasola (2017), Wansink, Mukund and Weislogel (2016), Myhrvold (2011), Neely (2007) and Brown (2005) can be given as similar examples to related research. In these research; Uçuk (2023a) "tried to reveal the relationships between gastronomy and art branches of painting and music", Bulut (2019) "aimed to delve into the differences between the presentation of dishes with an artistic outlook, and the presentation of the food as is, with specific reference to the images of the picturesque work by the sophisticated artist Jean Michel Basquiat, whose work often involve elements

of gastronomy”, Çağlayan (2019) “aimed to question the relationship between gastronomy, which is included in the general meaning of art, and basic art education, which is included in the special meaning”, Sipahi et al. (2017) “aimed to question the relationship between gastronomy and art, which is an interdisciplinary study area”, Justiniano, Jariá-Chacón and Valls-Pasola (2017) “aimed to develop an analysis of literature on experience as an innovative element for the services sector”, Wansink, Mukund and Weislogel (2016) “analysed which countries depict which foods and how food depiction changes over time”, Myhrvold (2011) “explained how food can be art”, Neely (2007) “answered the question of the nature of an art work and whether or not food can be considered art” and Brown (2005) “has worked on the integration of Eisner's philosophy of art education into culinary arts education.”

Following the increasing number of arts research, the art courses that should be included in gastronomy curricula have also become clearer. When Gastronomy and Culinary Arts programs are examined, it is seen that in addition to vocational field courses, there are also courses with different names such as ‘basic art education’, ‘aesthetics and philosophy of art’, ‘basic art and aesthetics’, ‘food and art’ or ‘art history’ (Çağlayan, 2019). The aim of the research is to examine the gastronomy and culinary arts students’ attitudes towards art and related courses. By determining the attitudes of the students who will be among the culinary artists of the future, it is expected to shed light on their education process and contribute to their access to multidisciplinary education.

Methodology

Quantitative research methods were used to analyse art and design education in relation to gastronomy and culinary arts students. A questionnaire, based on the ‘attitude scale towards art education’ developed by Ayaydın and Kurtuldu (2010), was used to measure students’ attitudes. The scale used in this research is both valid and reliable. The research sample consisted of students from the Department of Gastronomy and Culinary Arts. A questionnaire was prepared and distributed to gastronomy students in various departments throughout Turkey. The departments where the questionnaire will be applied were selected based on the criterion of having courses in their curriculum related to art education and design. To determine the sample size, various formulas were considered, and it was concluded that 371 participants would be sufficient for a population size of 10,000 or less, with a sampling error of 0.05 (Yazıcıoğlu and Erdoğan, 2004). Convenience sampling was used due to the difficulty of reaching the sample population. The convenience sampling method allows the researcher to select sample groups that are in proximity, adding practicality to the research (Saunders, Lewis, and Thornhill, 2016). The demographic characteristics of the participants are as shown in Table 1.

Table 1. Socio-Demographic Characteristics of the Participants

Variable	Group	n	%
Gender	Male	112	30
	Female	259	70
Grade Level	1st Grade	117	31
	2nd Grade	125	34
	3rd Grade	65	18
	4th Grade	64	17
Age	18-24	316	85
	25+	55	15
University	Karabük	163	43,9
	Bayburt	35	9,4
	Kütahya Dumlupınar	25	6,7
	Balıkesir	23	6,1
	Mardin Artuklu	21	5,6
	İstanbul Medipol	17	4,5
	Hatay Mustafa Kemal	15	4,0
	Hasan Kalyoncu	13	3,5
	İstanbul Galata	12	3,2
	Gaziantep Islam Science and Technology	10	2,6
	Nevşehir Hacı Bektaş Veli	8	2,1
	Gaziantep	7	1,8
	Bingöl	7	1,8
	Osmaniye Korkut Ata	6	1,6
Eskişehir Osmangazi	2	0,5	

Kilis 7 Aralık	2	0,5
İstanbul Rumeli	2	0,5
Ankara Hacı Bayram Veli	2	0,5
Konya Technical	1	0,2

5-point likert scale was used to evaluate the scale. The questionnaire first asked for demographic information and then included items related to the scale. A printed and online questionnaire was administered to gastronomy students at various universities in Turkey between May and July 2023, and 371 valid responses were obtained. The obtained questionnaires underwent various analyses. Firstly, an exploratory factor analysis was conducted to determine the distribution of scale items and dimensions in the sample. Subsequently, a confirmatory factor analysis was performed to validate the structure obtained from the exploratory factor analysis. Descriptive statistical analyses were made and then difference tests were performed to determine the differences according to demographic characteristics. Some package programmes [SPSS (Statistical Package for Social Sciences) for Windows and AMOS (Analysis of Moment Structures)] were used for the related analyses.

This study was conducted with the approval of the Ethics Committee for Human Research in Social Sciences at Karabuk University (Protocol No. 2023/04-33), granted during the meeting held on May 29, 2023 (Decision No. 2023/04-33).

Findings

For this section of the study, statistical analyses were conducted on the variables identified for the research purpose. Explanations and interpretations were provided based on the findings. Since the scale used in the study will be applied in a new sample group and discipline, it was decided to determine its structure by factor analysis. In factor analysis, more than one item is gathered under a certain group with the criterion of being close to each other. This analysis assumes that the relationship between variables is linear and helps to reduce the number of variables by excluding variables that do not belong to any group (Kozak, 2018). Before proceeding to descriptive analyses and difference tests, exploratory factor analysis (EFA) was first performed to determine the factors of the study, and then the structure was confirmed by confirmatory factor analysis (CFA). As a result of the exploratory factor analysis, a 5-factor structure was obtained. Although there are different approaches, factor loadings should be at least 0.40 as a result of the analysis (Güriş and Astar, 2015). Following this guideline, items with a factor loading below 0.40 were discarded starting from the item with the lowest factor loading. The analysis was then repeated after each discarded item. In this context, items 7, 13, 18 and 19 were removed from the analysis because their factor loadings were below 0.40, respectively. The analysis was repeated as a result of the eliminations, and it was seen that the 21st item was included under two dimensions with a value lower than 0.10. The related item is an overlapping item. Demir and Koç (2013) stated that if an item is included under two dimensions with a value less than 0.10, the related item should not be included in the analysis. In this context, the 21st item was also excluded from the analysis and the analyses were repeated. After making the relevant inferences, a 5-factor structure was obtained.

Table 2. Attitude Scale Towards Art Education

Factors	Factor Load	Variance Explanation (%)
Individual Contribution		
25- I don't regret the time I spend on artistic studies.	0,815	35,728
29- Art education is not only a field of practice but also a process of gaining knowledge.	0,740	
24- I think that art education is very effective in the personal development of individuals.	0,727	
26- I think that individuals who have art education will have a stronger social bond with their environment.	0,713	
27- I am happy to be able to convey my feelings through artistic works.	0,694	
28- I think every artwork has something to be respected.	0,687	
20- I enjoy getting to know the arts of different countries through art education.	0,653	
23- I think that art education is as important as other educational processes.	0,640	
22- All work completed during the art education process is enjoyable.	0,635	
16- I also enjoy doing artistic work in my free time.	0,594	
15- I think that artistic skills can also be developed after graduation.	0,532	

Factors	Factor Load	Variance Explanation (%)
17- I think that physical improvements should be made in our working environments.	0,504	
Social Impact/Importance		
11- I believe that the status of the art educator in society is low.	0,754	6,842
10- I think that art education is not sufficiently valued in society.	0,677	
12- I believe that the process of art education has an intellectual dimension.	0,644	
Preference		
9- I chose this field because I believe in the necessity of art education.	0,789	5,974
8- I chose this field considering my talent for art.	0,778	
14- I think that the responsibility of the artist and art educator is more than other professions.	0,624	
Expectation		
5- I consider it very important that the educators who teach art courses in our department set an example for us with their own works.	0,709	5,246
2- I would like the hours allocated to art education to be more than other courses.	0,683	
3- I would like my work to be used in out-of-school activities.	0,617	
Artistic Development		
6- I think that the reason for some of the mistakes I have experienced in my field depends on our educators.	0,639	4,260
4- I find the course topics and contents useful and interesting for myself.	0,618	
1- I think that art education has given me artistic selectivity.	0,524	
Total Variance Explanation (%)		58,01
KMO Sampling Measurement Value Adequacy: 0,919		
Bartlett's Test of Sphericity (Chi-square / sd / p (significance level): 3714,705/ 276/ 0,000)		

The exploratory factor analysis conducted for art education revealed five dimensions: individual contribution, social impact/importance, preference, expectation, and artistic development. The dimensions were named based on relevant literature and decided by the researchers. For five factors across 24 statements, the Kaiser-Meyer-Olkin (KMO) sample measurement value of adequacy was 0.919, with a significance level of $p=0.000$ and a variance explanation ratio of 58.01% (see Table 2).

The structure was explained with the analyses. After this, it will be useful to confirm the structure by performing confirmatory factor analysis. With CFA, it is aimed to test the dimensional distribution of previously developed scales whose construct validity has been tested (Büyüköztürk et al., 2017). In the light of the relevant information, first level confirmatory factor analysis was performed to test the construct validity and dimensional distribution of the scale used.

One of the first points to be considered in the first level confirmatory factor analysis is the standardised regression coefficients. The standardised regression coefficient (factor loading) should be at least 0.50 (Hair et al., 2014). It is recommended to remove the items below this value from the analysis. The dimensions obtained in the exploratory factor analysis of the Attitude Towards Art Education Scale were subjected to first level confirmatory factor analysis. At this point, item 11 in the social contribution/importance dimension (0,447), item 14 in the preference dimension (0,449) and item 6 in the artistic development dimension (0,350) were excluded from the analysis because the standard regression coefficient was below 0,50. After these changes, all items were significant ($p<0.001$) and t values were acceptable ($p<0.001$ in case of $t>2.56$). After examining the factor loadings and significance levels of the CFA model presented in ‘appendix a’ as figure, the goodness of fit values was evaluated. Fit indices are used to determine whether the data obtained in confirmatory factor analysis are compatible with the model. If the fit indices fall within the acceptable range, it can be concluded that the CFA model is valid. In order to measure whether the fit indices are within acceptable ranges as a result of CFA, a single index should not be considered, but a decision should be made according to the overall indices by taking multiple goodness of fit as a reference (Kline, 2011).

Table 3. First Order CFA Model Goodness of Fit Indices of the Attitudes Towards Art Education Scale

Index of Fit	RMSEA	χ^2/sd	CFI	SRMR	GFI	AGFI	TLI	IFI
Conclusion	0,65	2,58	,914	,041	0,890	0,858	,899	,915

Table 3 shows the goodness of fit indices obtained as a result of the first level CFA of the Attitudes Towards Art Education Scale. It is possible to say that the indices obtained are within the recommended ranges and the general goodness of fit is provided. From this point of view, the structure of the attitude towards art education scale was confirmed with 5 dimensions and 21 items. After the explanation and validation of the scale, it should be determined whether the data are normally distributed before proceeding to difference tests and descriptive tests. Although there are different methods to determine the normal distribution (Kolmogorov-Smirnov, Shapiro-Wilk et al.), one of the most common ones is to check the skewness-kurtosis coefficients. There are different interpretations about the range in which these coefficients should be. Kline (1998) stated that values up to +3/-3 range can be considered normal. When the values of the items forming the scale were analysed, it was seen that the largest skewness value was -1,47 and the kurtosis value was 2,49. From this point of view, normal distribution was determined in the data, and it was decided that it was appropriate to apply parametric tests. Descriptive statistics were analysed to determine the level of students' participation in the dimensions and items that make up the scale. The mean and standard deviation values of the students' variables related to art education are shown in Table 4.

Table 4. Descriptive Values Related to Attitude Items Towards Art Education

Items	\bar{x}	σ
Individual Contribution	4,23	,618
29- Art education is not only a field of practice but also a process of gaining knowledge.	4,40	,752
15- I think that artistic skills can also be developed after graduation.	4,38	,808
20- I enjoy getting to know the arts of different countries through art education.	4,34	,812
25- I don't regret the time I spend on artistic studies.	4,33	,792
24- I think that art education is very effective in the personal development of individuals.	4,28	,821
28- I think every artwork has something to be respected.	4,27	,891
17- I think that physical improvements should be made in our working environments.	4,23	,901
23- I think that art education is as important as other educational processes.	4,21	,823
26- I think that individuals who have art education will have a stronger social bond with their environment.	4,09	,941
22- All work completed during the art education process is enjoyable.	4,03	,943
16- I also enjoy doing artistic work in my free time.	4,00	,968
27- I am happy to be able to convey my feelings through artistic works.	4,19	,862
Social Impact/Importance	4,13	,776
10- I think that art education is not sufficiently valued in society.	4,22	,973
12- I believe that the process of art education has an intellectual dimension.	4,04	,882
Expectation	4,00	,737
5- I consider it very important that the educators who teach art courses in our department set an example for us with their own works.	4,14	,971
3- I would like my work to be used in out-of-school activities.	4,11	,891
2- I would like the hours allocated to art education to be more than other courses.	3,75	1,069
Artistic Development	3,84	,859
1- I think that art education has given me artistic selectivity.	3,90	1,023
4- I find the course topics and contents useful and interesting for myself.	3,78	1,020
Preference	3,60	1,020
8- I chose this field considering my talent for art.	3,62	1,115
9- I chose this field because I believe in the necessity of art education.	3,57	1,125
Total	3,96	,579

According to Table 4, the mean of students' attitudes towards art education was found to be 3.96. When evaluated in terms of art education dimensions, individual contribution ($\bar{x}=4,23$), social impact/importance ($\bar{x}=4,13$), expectation ($\bar{x}=4,00$), artistic development ($\bar{x}=3,84$) and preference ($\bar{x}=3,60$) are prioritised. In addition, when the scale statements were analysed, “29- Art education is not only a field of practice but also a process of gaining knowledge.” ($\bar{x}=4,40$) was the statement with the highest participation. From this point of view, it is possible to say that students see art education as an important source of knowledge in the individual contribution dimension. The next least attended item is “15- I think that artistic skills can also be developed

after graduation.” ($\bar{x}=4,38$). It is normal for students to be willing to develop their skills after graduation in parallel with their interest in the artistic parts of their professions. The item with the least participation is the item “9- I chose this field because I believe in the necessity of art education.” ($\bar{x}=3,57$) in the preference dimension. Although gastronomy departments are departments related to art, they are not main art departments. It is understandable that the main motivation for students to choose gastronomy departments is not “the necessity of art education”. When the second item with the least participation is examined, the statement “8- I chose this field by considering my talent for art” ($\bar{x}=3,62$) is encountered. In parallel with what was said in the previous item, gastronomy is not a main art branch, and it is understandable that students do not consider their artistic competences too much when choosing gastronomy departments. However, it should be noted that the load of this item is still above the average.

After conducting descriptive analyses, difference tests were performed to determine any variations in the relevant scale and its dimensions based on demographic characteristics. As the scale exhibited normal distribution, parametric difference tests were employed. To compare two independent groups, t-tests were used, while variance analysis was used to compare more than two groups. The tables report the variables for which significant differences were found in the analyses. Additionally, information is provided regarding the variables for which no significant difference was found.

Table 1. Differences of Attitude Scale towards Art Education according to Gender

Factors	Gender	N	\bar{x}	t	p
Individual Contribution	Male	112	4,09	-2,906	,004
	Female	259	4,29		
Preference	Male	112	3,58	-,218	,827
	Female	259	3,61		
Expectation	Male	112	3,93	-1,097	,274
	Female	259	4,03		
Artistic Development	Male	112	3,74	-1,448	,148
	Female	259	3,88		
Social Impact/Importance	Male	112	4,03	-1,670	,096
	Female	259	4,17		
Total	Male	112	3,87	-1,864	,063
	Female	259	4,00		

The study analysed the results of an independent sample T-Test to determine whether there was a difference in mean responses of participants based on gender in relation to sub-dimensions of the attitude towards art education scale. The results showed a significant difference only in the individual contribution dimension. In the dimension of individual contribution, it was observed that female ($\bar{x} = 4.29$) participated more than male ($\bar{x} = 4.09$) ($p < 0.05$). This statistic shows that women tend to view artistic activities and art education as a more important source of self-improvement than men. However, no significant gender differences were found in other dimensions of the scale or in the total scale. The study analysed the differences among students based on their grade levels using ANOVA analysis, as the class contained multiple variables. The Levene statistics were examined first, and it was determined that they were homogeneously distributed, with values greater than 0.5.

Table 2. Differences of Attitude towards Art Education Scale According to Grade Level

Factors	Grade Level	N	\bar{x}	F	p	Differences
Individual Contribution	1 st Grade	117	4,29	2,509	,059	
	2 nd Grade	125	4,26			
	3 rd Grade	65	4,04			
	4 th Grade	64	4,25			
Preference	1 st Grade	117	3,73	,999	,393	
	2 nd Grade	125	3,52			
	3 rd Grade	65	3,56			
	4 th Grade	64	3,55			
Expectation	1 st Grade	117	4,05	,359	,359	
	2 nd Grade	125	3,96			
	3 rd Grade	65	3,90			
	4 th Grade	64	4,09			
Artistic Development	1 st Grade	117	4,03		,020	
	2 nd Grade	125	3,75			

	3 rd Grade	65	3,67	3,319	1>3
	4 th Grade	64	3,82		
Social Impact/Importance	1 st Grade	117	4,10		
	2 nd Grade	125	4,18		
	3 rd Grade	65	3,97	1,647	,178
	4 th Grade	64	4,25		
Total	1 st Grade	117	4,04	2,057	,106
	2 nd Grade	125	3,93		
	3 rd Grade	65	3,83		
	4 th Grade	64	3,99		

The analysis revealed a significant difference in the dimension of artistic development between classes based on students' attitudes in art education. It was observed that students in lower grades had a higher participation rate compared to those in upper grades. At this point, it can be thought that the fact that the students in the lower grades have taken few courses with artistic content and therefore their level of curiosity is high may be effective. No significant difference was found in the other dimensions of the scale and in general. A similar situation is also observed for the age variable. Since the sample is mostly students, the age range is low. For this reason, the "25+" age group was formed in order to make a healthier analysis by combining the upper age groups and the difference with the "18-24" group was examined.

Conclusion and Discussion

Various results were obtained from this research which was conducted to examine the gastronomy and culinary arts students' attitudes towards the art and related courses. According to the findings, it can be stated that the attitudes of gastronomy students towards art education are generally above average. Through installations, performances, and culinary activism, artists, and chefs alike advocate for positive change in food systems and consumption patterns (Guthman, 2008, p.438). Culinary arts are shaped by these views, and it can be considered as a positive situation that the attitudes of the students, who are the future representatives of this art, towards art, are above average. Research indicates that knowledge of art and design is essential for individuals being trained in the field of gastronomy and culinary arts (Çağlayan, 2019, p.3093).

According to the findings of exploratory factor analysis, it was seen that gastronomy and culinary arts students' attitudes toward art education courses were in the categories of individual contribution, social impact/importance, preference, expectation, and artistic development. According to the findings, it was concluded that students were more inclined towards individual and social contribution dimensions of art, while they were less inclined towards artistic development and preference dimensions. It can be stated that; there is no significant difference was found in the related analysis, and it was seen that the majority of students had high attitudes towards art education. The positive attitude of the students towards art reflects the relationship between gastronomy and art. Gastronomy and art have a positive relationship due to their interdisciplinary structures. The use of basic design elements and principles not only allows for the creation of artworks but also transforms plate presentations into artworks. Culinary artistry has been intertwined with visual aesthetics for centuries (Sutton, 2010, p. 352).

The artistic attitude of the students at different universities can be interpreted as that the studies in this field should continue to increase. In addition, it is recommended to conduct experimental research that will positively improve students' attitudes towards art.

References

- Ayaydin, A., and Kurtuldu, M. K. (2010). Sanat eğitime yönelik tutum ölçeğinin geliştirilmesi. *Firat University Journal of Social Science*, 20(2), 201-209.
- Brown, J. N. (2005). Integrating Eisner's arts education philosophy into culinary arts education. *Journal of Culinary Science and Technology*, 4(1). https://doi.org/10.1300/J385v04n01_10.
- Bulut, S. H. (2019). Gastronomi estetiğinin resim ve fotoğraf kavramları üzerinden incelenmesi [A glance at the aesthetics of gastronomy, with reference to the concepts of image and photograph]. *Fine Arts*, 14(2), 145-149. [10.12739/NWSA.2019.14.2.D0233](https://doi.org/10.12739/NWSA.2019.14.2.D0233)
- Büyüköztürk, Ş., Çakmak, E. K., Akgün, Ö. E., Karadeniz, Ş., and Demirel, F. (2017). *Bilimsel araştırma yöntemleri*. Pegem Akademi Publishing.

- Cascone, S. (2019). *Maurizio Cattelan Is Taping Bananas to a Wall at Art Basel Miami Beach and Selling Them for \$120,000 Each*. Artnet News, <https://news.artnet.com/market/maurizio-cattelan-banana-art-basel-miami-beach-1722516>
- Çağlayan, E. (2019). Temel sanat eğitimi dersinin gastronomi ve mutfak sanatları eğitimindeki yeri ve önemi [The role and importance of basic art education in the education of gastronomy and culinary arts]. *İnsan ve Toplum Bilimleri Araştırmaları Dergisi*, 8(4), 3084-3095. <https://doi.org/10.15869/itobiad.629732>.
- Demir, S. B. and Koç, H. (2013). Coğrafya dersi tutum ölçeği: Geliştirilmesi, geçerlik ve güvenilirlik çalışması. *Electronic Turkish Studies*, 8 (8), 1765- 1777. <http://dx.doi.org/10.7827/TurkishStudies.4934>.
- Duchamp, M. (1917). *Fountain*. Sfmoma, <https://www.sfmoma.org/artwork/98.291/>.
- Ekici Çilkin, R. (2021). Gastronomi ve Güzel Sanatlar [Gastronomy and Fine Arts]. Güler, O., Akdağ, G. and Kale, A. (Eds.), *Disiplinlerarası Bakış Açısıyla Gastronomi Kavramlar, Araştırmalar ve Çalışma Önerileri* içinde (pp 337-348). Detay Yayıncılık.
- Edman, I. (1977). *Sanat ve insan* [Art and human]. (T. Oğuzkan, Trans.) İnkılap ve Aka.
- Erinç, S. M. (2004). *Resmin eleştirisi üzerine* [Criticism of painting] (2nd ed.). Ütopya.
- Fischer, E. (2022). *Sanatın gerekliliği* [Necessity of art] (10th ed.). (C. Çapan, Trans.). Sözcükler.
- Guthman, J. (2008). Bringing good food to others: investigating the subjects of alternative food practice. *Cultural Geographies*, 15(4), 431-447. <https://doi.org/10.1177/1474474008094315>.
- Gürüş, S. and Astar, M. (2015). *Bilimsel araştırmalarda SPSS ile istatistik*. İstanbul: Der Yayınları.
- Hair, J. F., Black, W. C., Babin, B. J. and Anderson, R. E. (2014). *Multivariate data analysis: Global perspective*. Pearson Education. New Jersey: Prentice Hall.
- Justiniano, M. N. H., Jaría-Chacón, N., and Valls-Pasola, J. (2017). Innovation and experimental services: The role of multidisciplinary arts in creative gastronomy toward a research agenda. *Dirección y Organización*, 61, 32-47. <https://diposit.ub.edu/dspace/bitstream/2445/117732/1/674092.pdf>.
- Keser, N. (2005). *Sanat sözlüğü* [Dictionary of art]. Ütopya.
- Kline, R. B. (1998). *Principles and practice of structural equation modeling*. NY: Guilford Publications.
- Kline, R. B. (2011). *Principles and practice of structural equation modeling*. (Third Edition). New York: The Guilford Press.
- Kozak, M. (2018). *Bilimsel araştırma: Tasarım, yazım ve yayım teknikleri*. (4. Baskı). Ankara: Detay Yayıncılık.
- Myhrvold, N. (2011). The art in gastronomy: A modernist perspective. *Gastronomica: The Journal of Food and Culture*, 11(1), 13-23. <https://doi.org/10.1525/gfc.2011.11.1.13>.
- Neely, C. (2007). The significance of food in culture: Is taste an art form? *UW-L Journal of Undergraduate Research*, 10, 1-4.
- Read, H. (2018). *Sanat ve toplum* [Art and society]. (E. Kök, Trans.). Hayalperest.
- Santich, B. (2004). The study of gastronomy and its relevance to hospitality education and training. *Hospitality Management*, 23 (1), 15–24. [https://doi.org/10.1016/S0278-4319\(03\)00069-0](https://doi.org/10.1016/S0278-4319(03)00069-0).
- Saunders, M., Lewis, P. and Thornhill, A. (2016). *Research methods for business students*. (7th ed.). Essex: Pearson.
- Sezen, T.S. (2021). Gastronomi Nedir? Shipman Z.D. (Eds.). *Gastronomide geçmiş, bugün ve gelecek* içinde, (pp. 1-70). Detay Yayıncılık.
- Sipahi, S., Ekincek, S. and Yılmaz, H. (2017). Gastronominin sanatsal kimliğinin estetik üzerinden incelenmesi. *Journal of Tourism and Gastronomy Studies*, 5(3), 381-396. 10.17932/IAU.GASTRONOMY.2017.016/gastronomy_v05i1003.
- Sutton, D. E. (2010). Food and the Senses. *Annual Review of Anthropology*, 39, 209-223. <https://doi.org/10.1146/annurev.anthro.012809.104957>.

- Uçuk, C. (2023a). Gastronominin sanat dalları ile ilişkisi: resim ve müzik ile ilişkisi üzerine kavramsal bir değerlendirme. *IDEART Uluslararası Tasarım ve Sanat Dergisi*, 1(1), 51-61.
- Uçuk, C. (2023b). *Gastronomide Tabak Prezantasyonu: Nasıl Estetik Tabaklar Tasarlayabiliriz?* Ankara: Nobel Yayıncılık.
- Uhri, A. (2021). Din, kültür ve mutfak. Shipman Z.D. (Eds.) *Gastronomide geçmiş, bugün ve gelecek* içinde. (ss. 1-70). Detay Yayıncılık.
- Wansink, B., Mukund, A., and Weislogel, A. (2016). Food art does not reflect reality: A quantitative content analysis of meals in popular paintings. *SAGE Open*, 6(3). <https://doi.org/10.1177/2158244016654950>.
- Yazıcıoğlu, Y. and Erdoğan, S. (2004). *SPSS Uygulamalı Bilimsel Araştırma Yöntemleri*. Ankara: Detay Yayıncılık.