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### **Development of an Attitude Scale Towards Art-Integrated Social Studies Course\***

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#### **Abstract**

This study aims to develop a valid and reliable scale for determining the attitudes of gifted individuals towards the art-integrated social studies course. The sample of the study consists of a total of 350 academically gifted students at the 5th-grade level who responded to the measurement tool during the second semester of the 2021-2022 academic year in Science and Art Centers (SAC) [*Bilim ve Sanat Merkezi, (BILSEM) in Turkish*] in two central districts of Istanbul, one on the Anatolian side and the other on the European side. Evidence regarding the psychometric properties of the scale form was obtained through the analyses conducted on the validity and reliability of the data obtained from the sample to determine the scale's construct validity. Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were performed on the entire dataset obtained from the study group to determine the scale's construct validity. As a result of the Exploratory Factor Analysis (EFA), a scale consisting of 50 items and three sub-dimensions was obtained. Based on the judgments reflected by the scale items, the sub-dimensions of the scale were named "attitude towards art-integrated social studies course", "attitude towards art", and "attitude towards social studies course". The three-factor structure of the scale explains 43.45% of the total variance. CFA results revealed that this three-factor structure shows acceptable fit values [ $\chi^2 /sd= 2.26$ , RMSEA=0.06, S-RMR=0.06, GFI=0.76, AGFI=0.73, CFI=0.90]. To determine the reliability of the scale, the calculated Cronbach Alpha internal consistency coefficient is "0.95" for the whole scale and .95, .88, and .84 for the sub-factors, respectively. The findings indicate that the scale is a valid and reliable measurement tool for determining attitudes towards art-integrated social studies courses.

**Keywords:** Art-integrated social studies teaching, arts and social studies, social studies teaching, social studies for gifted and talented learners, gifted and talented education, gifted learners, attitude scale.

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## Introduction

Social studies, which combines social and humanities disciplines within a subject area, is a course with a quite extensive scope in the curricula. This broad scope can also be explained by the historical and educational expectations that are assigned to and shape the social studies course. In its broadest sense, social studies is defined as "an educational program that uses the knowledge and methods from social sciences and humanities to raise effective citizens who can make knowledge-based decisions and solve problems in constantly changing national and global conditions" (Öztürk, 2007, p. 24). However, the fact that social studies is generally perceived as a boring, unappealing course that reflects mostly on the adult world and aims to teach a series of historical events to the students, can be considered as one of the most significant problems related to social studies (Öztürk (2007), therefore, states that social studies course should be made more appealing, understandable, and creative in the eyes of the students. Art, in its broadest sense, is "an activity requiring imagination, creativity, and talent (...) It is the superior creativity that emerges as a result of the methods used in expressing an emotion, a thought, a design, or beauty" (Art History 1, [*Sanat Tarihi 1*] p. 8). As can be understood from the definition, art is an activity produced by humans, which depicts the individual's situation within society through changes and is inherent to humanity.

In summary, social studies is a course that aims to combine knowledge from various disciplines to create well-rounded citizens. However, there is a need to make the subject more appealing and engaging for students. Art, on the other hand, is a creative expression that reflects the human experience and has the potential to enhance the social studies curriculum by making it more engaging and relatable to students.

As mentioned above, social studies is a field of study formed by the combination of many social science disciplines such as geography, history, anthropology, economics, sociology, and psychology. Considering this characteristic of social studies, similarly, it is clear that art and social studies are related and complementary disciplines, as humans have expressed their existence from the past to the present, their development in society, cultural formations and expressions, emotions, aesthetic understandings, and the products of reflections of social structures through art.

In the context of the relationship between social studies and art, social sciences provide information about human experiences, while art has the power to offer a deep understanding of human experiences through personal participation. The integration of social sciences and art can be considered an approach that offers the opportunity to closely examine the disciplines in the field of social studies through art. This approach allows for the exploration of the relationship between social sciences and art through art works by understanding how society shapes art and how art is affected by social, economic, historical, and political developments. (Manifold, 1995).

Integrating art and social sciences subjects in the curriculum can lead to a new approach that offers enjoyable learning experiences for students, considering the natural relationship between these two subject areas. For teachers, the integration of arts and social sciences subjects can provide new opportunities for understanding the nature of both fields, such as diversifying teaching methods and techniques, evidence and object-based teaching, and identifying students' interests and talents.

VanTassel-Baska and Stambaugh (2006) emphasize the importance of social studies education in meeting the educational needs of gifted students by exposing them to in-depth and complex real-life problems that need to be addressed in their education. They stress the importance of education in this direction for some gifted students who have natural talents in the disciplines involved in social studies, and who will be the problem-solving leaders of the future. Similarly, Smutny (2002) states that

social studies subjects integrated with art will provide gifted students with in-depth and diverse perspectives, and that student will be able to acquire skills in analyzing and interpreting significant events and processes. In social studies courses, gifted students need instructional interventions such as differentiation and enrichment to develop their learning levels, interests, and talents and to meet their educational needs in every subject area (Kahveci, 2019). Integrating art with social studies topics can provide opportunities for instructional interventions that can meet the educational needs of gifted students.

There are many studies examining the integration of art into the curriculum. These studies report positive outcomes of art, such as thinking skills, student responsibility, learning levels, and academic achievement (Eisner, 1998; Garrett, 2013; Gullatt, 2008; Romero, 1996; Smutny, 2002).

### **Development of Attitude Scale and the Importance of Research**

Turgut and Baykul (2010) define attitude as "a person's tendency to show positive or negative behavior towards any object, event, person or group of people, behavior" (Turgut & Baykul, 2010, p. 322). In short, attitude is one of the variables affecting success in education. Positive attitudes facilitate learning or increase success, while negative attitudes make learning difficult or lead to failure. Since it is not possible to measure psychological characteristics like attitude with a few questions, these types of variables need to be measured with valid and reliable scales (Turgut & Baykul, 2010). In Turkey, the theoretical framework mentioned above regarding the social studies course integrated with art emphasizes the importance of developing a valid and reliable scale, as well as the existence of a need to determine the attitude towards a course designed in this quality from the perspective of the existing literature and the student in this subject.

In this study, due to the need for a valid and reliable measurement tool that can measure student attitudes towards the interdisciplinary structure that emerges from the integration of art and social studies, an attitude scale for the social studies course integrated with art has been developed, and a validity and reliability study has been conducted.

### **Methodology**

#### ***Research Model***

This research is a scale-based study to determine the validity and reliability of the Attitude Scale towards Art-Integrated Social Studies Course.

#### ***Sample***

In the study, two central districts in Istanbul, one on the Anatolian side and the other on the European side, were purposively selected for the Science and Art Centers (BİLSEM) during the second semester of the 2021-2022 academic year. A total of 350 academically gifted [*özel yetenekli, in Turkish*] students at the 5th-grade level, attending the Individual Talents Recognition Program selected from these centers using the purposive sampling method, constitute the study group. Purposive sampling is a method in which the selected sample is considered rich in the necessary information and suitable for representing the universe in the context of the study's purpose, depending on the available resources when the in-depth research is intended (Fraenkel & Wallen, 2006; Büyüköztürk et al., 2012). In scale development research, the evaluation of sample size is based on theoretical guidelines, which suggest that 100 participants are considered weak, 200 as moderate, 300 as good, 500 as very good, and 1000

as excellent. However, some studies argue that a sample size between 50 and 100 subjects can also be sufficient for scale development purposes (Williams et al., 2010; Sapanas & Zeller, 2002). Additionally, it has been suggested that the sample size during scale development should range between 5 and 10 times the number of items in the scale (Conway & Huffcutt, 2003). Considering these criteria for determining sample size in scale development studies, the sample size for this particular research is deemed appropriate according to both guidelines.

### **Development Process of Data Collection Tool**

Increasing the relevance, representativeness, and clarity of a scale's items and statements to increase face and content validity allows them to accurately measure the intended construct. Face validity indicates the extent to which items and statements measure the intended construct, while content validity indicates the extent to which items and statements comprehensively represent the construct. In this direction, the scale should be developed in consultation with the relevant literature, field experts and the participants for whom the scale is recommended, in a way that is clear, simple, specific and includes items related to the research objectives of the study (Rattray & Jones, 2007; Lietz, 2010). During the development of the Attitude Scale for Art-Integrated Social Studies Course, firstly, a literature review was conducted on the education of gifted students, integrated teaching, and attitudes towards art and social studies courses; the relationship between these attitudes was studied with the conceptual framework of integrated learning, and 15 gifted 5th-grade students at the Science and Art Centers (The Individual Talents Recognition Program) [*In Turkish, Bireysel Yetenekleri Farkettirme Programı BYF*] level were asked to write a composition on the topic "Write your opinions on the use of art in Social Studies course." As a result of examining and analyzing student compositions and the related literature, relevant sources, and similar data collection tools, a total of 65 items were created. The scale is answered based on the five-point (Strongly Agree, Agree, Undecided, Disagree, Strongly Disagree) Likert scaling described by Likert (1932). In preparing this initial form, cognitive and affective expressions related to integrated learning, art, and social science courses were attempted to be selected while writing the items; it was ensured that the items did not consist of factual expressions, were expressed in a clear and simple language, and did not include more than one judgment, thought, and affective expression in one item. In the scale, the expressions "strongly agree" (5) and "agree" (4) were used to indicate approval of the opinions expressed in the items; to indicate disapproval of the opinions, the expressions "strongly disagree" (1) and "disagree" (2) were used. The expression "undecided" (3) was included to indicate that there is no positive or negative opinion about the items.

### **Expert Opinion**

To evaluate the scope and appearance validity of the items in the item pool, the opinions of five experts with expertise in the fields of Gifted Education, Social Studies Teaching, and Art Education were consulted. The experts were asked to evaluate the items in the pool as appropriate, not appropriate, and should be revised/explained. Necessary revisions were made on the items deemed necessary in line with the opinions of the experts. After a preliminary screening with expert opinions, it was decided to remove 12 items from the scale. After the expert opinions, the scale, which was prepared as 53 items, was also asked to be answered by 20 gifted students at the 5th-grade level by reading the items aloud and expressing the parts they had difficulty in understanding in order to evaluate their comprehensibility, and necessary corrections were made in line with the feedback. The appearance and scope validity of the scale was ensured and made ready for implementation.

### ***Application***

The Attitude Scale for Art-Integrated Social Studies Course was applied to 350 gifted and talented 5th grade students who took the Social Studies Course within the scope of the Individual Talents Recognition Program at Science and Art Centers during the second semester of the 2021-2022 academic year. The validity and reliability analysis of the scale was conducted based on the data obtained from this application.

### ***Analysis of Data***

The study group was assessed using the Attitude Scale for Art-Integrated Social Studies Course, and statistical analyses were conducted to determine the psychometric properties of the scale. First, the scale's construct validity was examined through Exploratory Factor Analysis (EFA). The principal components analysis, which is the most frequently used method in factor analysis, was employed to identify the factors under which the questions in the attitude scale were grouped concerning the art-integrated social studies course. In this analysis, the components are calculated using the entire variance of the observed variables, and all of this variance is present in the solution (Ford et al., 1986). The research data were examined using the SPSS 20.0 software.

### **Results**

#### ***Findings Related to Construct Validity***

##### ***Exploratory factor analysis***

Although the origin of factor analysis, a multivariate statistic that aims to find new relationships and dimensions that conceptually come together by evaluating many interrelated variables together, is attributed to Charles Spirman's two-factor theory, which he published in 1904 and titled "Determining and measuring general intelligence," its statistical clarity and general framework have been reached through Karl Pearson's studies (Büyüköztürk, 2002; Harman & Harman; Ford et al., 1986). As a statistical method, hypothesis testing allows researchers to examine the validity of a specific assumption. For this purpose, various methods are used to analyze and evaluate the hypothesis. Analysis methods such as factor analysis are important tools that contribute to the hypothesis testing process and can flexibly adapt to different research designs such as concept development and case studies (Rummel, 1988).

In order to evaluate whether the scale is suitable for factor analysis, the first step is to assess the sample size. Although there are different opinions in the literature regarding the sample size, it is believed that samples with a lower limit of 30 and an upper limit of 500 are suitable for many research studies (Büyüköztürk et al., 2012). Despite the general guidelines for factor analysis suggesting that a sample size of 100 is weak, 200 is moderate, 300 is good, 500 is very good, and 1000 or more is excellent, it is stated that a sample size of at least 50 and at most 100 subjects is sufficient to represent and evaluate the psychometric properties of social structure measurements in both hypothetical and real research examples, in order not to cause an excess in the sample size (Williams et al., 2010; Sapanas & Zeller, 2002).

As can be seen, the recommended sample size required to complete the factor analysis of a group of items answered by the participants varies greatly. In this study, the sample size criterion is met with 355 participants. In the second step, Kaiser Meyer Olkin (KMO) and Barlett Sphericity Tests were conducted to evaluate whether the scale meets the suitability conditions for factor analysis. The

KMO index ranges from 0 to 1, and 0.50 is considered suitable for factor analysis. For factor analysis to be appropriate, Bartlett's Sphericity Test must be significant ( $p < .05$ ) (Williams et al., 2010; Tavşancıl, 2010). In the study, based on the analysis of 53 items, it was found that the KMO sample adequacy coefficient was .926. Bartlett's Sphericity Test, which was conducted to evaluate whether the correlation matrix was equal to the unit matrix, was significant ( $\chi^2 = 9138.568$ ,  $p < .01$ ). Considering these results, it was decided that the dataset is suitable for factor analysis, and the analysis started.

The factor load value, a coefficient used to explain the relationship between items and factors, requires the application of certain criteria to eliminate items that do not measure the same structure in the analysis. According to these criteria, the load values of the items in the factors they belong to should be high. A factor load value of 0.40 or higher is a good measure for selection. Items should ideally exhibit a high loading value on one factor while maintaining low loading values on other factors. A minimum difference of 0.10 between the two highest loading values is recommended. (Büyüköztürk, 2010). It is an excellent solution for the common factor variances of items to be close to 1 or above 0.66. However, it is generally difficult to meet this in practice. In factor analysis, variables with low common variance can be removed from the analysis, the factor analysis can be redone, and factors containing three or fewer items are generally weak and variable. Factors with five or more items are stronger and more desirable statistically (Costello & Osborne, 2005).

Nevertheless, it is important to refer to the original research questions that are constantly addressed while reviewing the scale and to protect the items that are thought to reflect the theoretical areas underlying the survey despite the weak psychometric analysis (Ratray & Jones, 2007). In order to determine the number of factors to be removed, both the Kaiser criterion and the Scree test are examined, and in addition, the Varimax factor rotation technique is used to minimize the number of variables exhibiting high loadings in each factor (Shrestha, 2021). The Varimax rotation strategy, one of the rotation strategies, aims to clarify factors by producing factors with a high correlation with a smaller cluster, and the interpretation of factors is useful (Rennie, 1997).

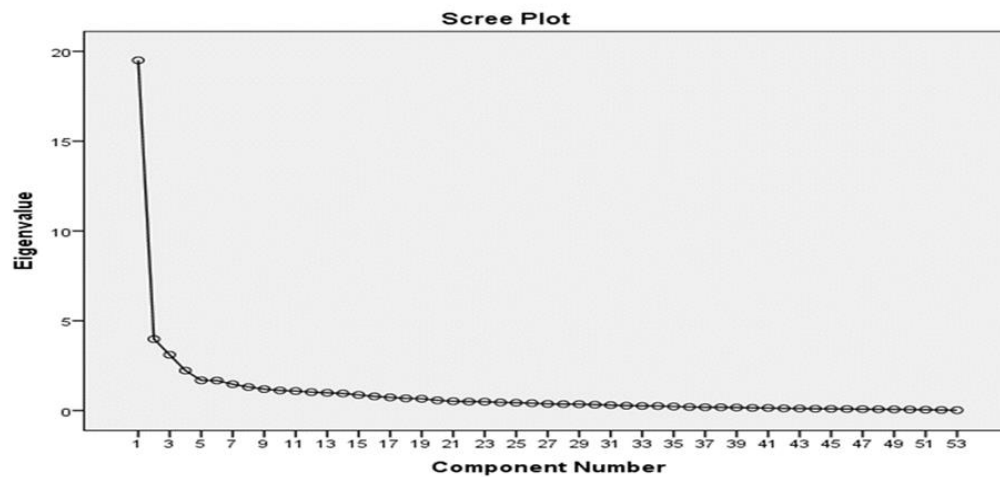
Considering these criteria, it was decided to remove three problematic items (items 13, 23, and 28) from the scale as a result of examining the consecutive factor analysis of the Attitude Scale for Art-Integrated Social Studies Course, which was conducted in the SPSS 22.0 environment, following the varimax rotation results. As a result of the exploratory factor analysis performed with the principal components method and varimax rotation, a three-factor structure explaining 43.457% of the total variance with 50 items with factor loads above 0.40 was obtained. The final version of the scale was established with 50 items, ensuring structural validity through the conducted analyses. The factor loadings obtained from the varimax rotation applied to the scale, item means, standard deviations, item-test correlation coefficients, and factor analysis results are presented in Table 1.

Upon investigating the correlations among the items within the sub-dimensions of the scale, it was observed that all items demonstrated low, medium, and high levels of association at a 0.01 significance level. Table 1 displays the correlation values between the items in the finalized version of the scale and the overall scale score. A closer look at Table 1 reveals that every item on the scale exhibits a relationship with the total scale score at low, medium, and high levels of correlation, with a significance level of 0.01. Table 1 presents the correlation values between the items in the final version of the scale and the total scale score. Upon examining Table 1, it can be seen that all items in the scale are related to the total scale score at low, medium, and high levels at the 0.01 significance level. The correlation values provided regarding the item validity and homogeneity of the scale serve as evidence that the scale items are valid and measure the same structure. When both item-item correlation values and item-test correlation values are examined, it can be seen that the items in the scale have an

adequate level of validity. The Scree Plot Graph, drawn according to the factor loadings, is presented in Figure 1:

**Figure 1**

*Scree Plot of Factor Loadings Related to the Scale*



**Table 1**

*Factor Analysis Results for the Attitude Scale Towards Integrated Social Studies Course with Art*

Factor 1. (Explained Variance: 22,478)	$\bar{x}$	SS	Item Test Correlation	Factor Load
Items				
33. Including art in Social Studies courses broadens our perspective on art.	3,71	1,07	,678**	,717
38. It is important to include art topics in Social Studies courses.	3,79	1,03	,679**	,716
40. Including art in Social Studies courses is beneficial.	3,91	1,02	,726**	,702
32. Including art in Social Studies courses helps me understand art better.	3,46	1,20	,633**	,686
34. I enjoy participating in integrated arts Social Studies courses.	3,76	1,14	,696**	,683
53. Art is a part of Social Studies.	3,61	1,11	,635**	,665
44. Using art in conjunction with Social Studies courses benefits art.	3,86	0,96	,622**	,658
48. Integrated arts Social Studies courses help me understand artistic elements in my environment better.	3,74	1,00	,592**	,644

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42. Integrating art with Social Studies topics and activities helps in the formation of art works.	3,78	0,96	,608**	,643
47. Integrated arts Social Studies courses add meaning to my daily life.	3,67	1,13	,651**	,639
35. I don't have difficulty understanding Social Studies topics when they are taught with art.	3,89	1,00	,631**	,639
36. I understand the topics I struggle with in Social Studies courses more easily when they are taught with art.	3,44	1,06	,590**	,635
43. Integrated arts Social Studies courses help me see the relationship between different branches of science.	3,69	1,01	,622**	,634
45. Integrated arts Social Studies courses help me understand historical elements in my environment better.	3,87	0,94	,558**	,629
29. Art should be included in Social Studies lessons.	3,84	1,08	,676**	,623
50. The topics of Social Studies lessons inspire art.	3,51	1,07	,595**	,598
30. The information we learn in Social Studies lessons plays a role in the field of art.	3,42	1,05	,624**	,588
27. Art can be used in many topics in Social Studies lessons.	3,71	1,10	,632**	,583
49. Artworks are nourished by the topics of Social Studies lessons.	3,54	1,06	,535**	,582
46. Knowledge learned in Social Studies lessons is needed to understand art studies.	3,34	1,05	,483**	,581
26. Using art in activities in Social Studies lessons is beneficial.	3,69	1,04	,647**	,553
31. Integrating art with Social Studies lessons helps me understand and solve problems.	3,52	1,10	,576**	,552
24. Social Studies and art should be used together in Social Studies lessons.	3,66	1,15	,638**	,544
25. I understand the topics related to Social Studies lessons better when taught with art.	3,34	1,16	,606**	,537
39. The art in Social Studies lessons is connected to our culture.	4,09	0,89	,549**	,507

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37. Historical and archaeological studies in Social Studies are related to art.	3,81	0,99	,545**	,495
41. In historical artifacts, the expression of original interpretations and thoughts related to their periods carries artistic value.	4,00	0,90	,589**	,490
52. Art helps us solve problems in society.	3,79	1,06	,544**	,455
51. Art allows us to recognize problems in society.	3,75	1,01	,541**	,452
Factor 2. (Explained Variance:10,515)				
Items				
20. I enjoy participating in art activities.	4,06	1,01	,551**	,750
19. I enjoy learning through art practices.	3,99	1,07	,566**	,708
22. I am excited to participate in art activities.	3,95	1,04	,573**	,688
17. Art enhances our sensitivity to emotions and thoughts.	4,34	0,82	,495**	,676
21. Art helps me develop different perspectives.	4,17	0,92	,574**	,647
16. Art is necessary for the development of societies.	4,29	0,91	,523**	,621
15. Art is a field that allows a person to express their emotions and thoughts in a different way.	4,42	0,77	,378**	,610
18. I enjoy being in spaces where artworks are exhibited.	3,99	1,03	,574**	,609
Factor 3. (Explained Variance:10,464)				
Items				
4. The Social Studies course helps me to become an active citizen.	4,32	0,77	,363**	,629
10. The topics I learn in the Social Studies course are useful.	4,12	0,86	,468**	,624
3. I think Social Studies course is important for understanding social life.	4,23	0,84	,432**	,612
5. Social Studies course is important for participating in social life.	4,11	0,89	,457**	,579
1. The topics of the Social Studies course interest me.	4,01	0,93	,369**	,578
11. What I learn in the Social Studies course helps me develop different perspectives.	3,67	0,97	,463**	,574

2. Doing research in Social Studies course increases my scientific research skills.	4,15	0,89	,394**	,571
9. Social Studies course is among the courses I like.	3,67	1,12	,334**	,558
6. I think the Social Studies course is effective in solving daily life problems.	3,91	1,01	,447**	,542
7. The Social Studies course helps me learn ways to solve the problems I encounter in life.	3,66	0,97	,432**	,541
14. I enjoy talking about the topics of the Social Studies course.	3,63	1,06	,447**	,536
8. I like to do research from different sources while studying the topics of the Social Studies course.	3,54	1,04	,394**	,523
12. The Social Studies course helps me understand my own culture and different cultures.	4,19	0,77	,283**	,401

*KMO (Kaiser-Meyer-Olkin) Value: 0.924,*

*Explained Variance: 43.457%*

### **Confirmatory Factor Analysis**

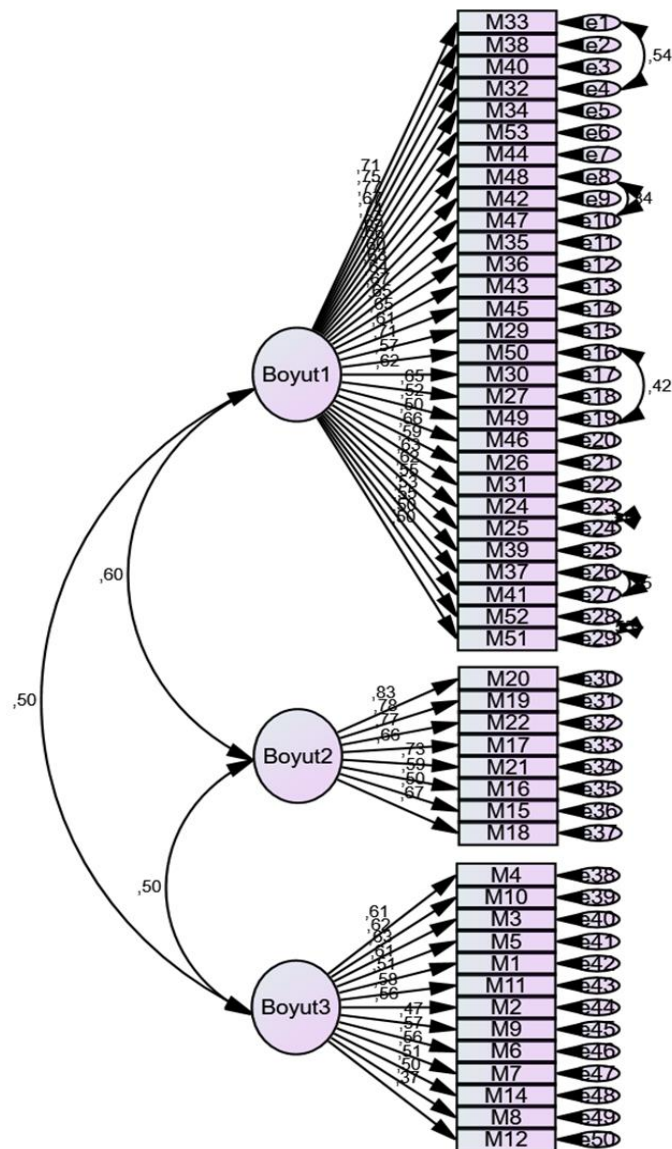
Confirmatory Factor Analysis (CFA) is a statistical technique used to test the validity of a proposed measurement model and determine how well the observed data fits the proposed model, in contrast to Exploratory Factor Analysis (EFA), which involves determining the underlying factor structure of the observed variables and latent factors without any prior biased idea. This is important in terms of validating the assessment by controlling the interpretation of the obtained scores (Sun, 2005). In CFA, numerous fit indices are used to determine the adequacy of the tested model. Since fit indices have strong and weak aspects in evaluating the fit between the theoretical model and the real data, it is recommended to use many fit index values to reveal the model's fit. The most commonly used ones are Chi-Square Goodness Fit Test, Goodness Fit Index (GFI), Adjusted Goodness Fit Index (AGFI), Comparative Fit Index (CFI), Root Mean Square of Errors (RMR or RMS), and Root Mean Square Approximation of Errors (RMSEA) (Cole, 1987; Sümer, 2000). As a result of the exploratory factor analysis, confirmatory factor analysis was performed to determine the fit indices of the model consisting of 50 items and three sub-dimensions. When the fit indices obtained as a result of the confirmatory factor analysis were examined; the value obtained as  $\chi^2/sd=2.2$  is significant and acceptable (Schermelleh et al., 2003).

The GFI, AGFI, CFI, RMSEA, and RMR values were found to be .76, .73, .90, .06, and .06, respectively. It can be seen that the calculated  $\chi^2$ , RMSEA, CFI, and RMR fit indices in the DFA analysis provide acceptable fit indices. The low GFI and AGFI indices of the scale can be explained by the fact that the sample size influences these indices. Although the sample size is essential for making inferences about the model in confirmatory factor analysis, there are different opinions regarding this number (Hox, 1998). These opinions suggest that a sample size of 10 times the number of items or 20 for each item may be required, or that the sample size should not be less than 200 (Molwus et al.,

2013; Rosseel, 2020). In line with the relevant opinions, it is seen that all the items in the three factors of the scale, which meet one of the criteria regarding the relationship between sample size and the number of items, have a significant value ( $p < 0.05$ ). The path diagram for the confirmatory factor analysis is shown in Figure 2, and the regression analysis results are presented in Table 2.

**Figure 2**

*Confirmatory Factor Analysis Path Diagram*



**Table 2**

*Regression Analysis Results for Attitude Scale towards Social Studies Course Integrated with Art*

Item			Factor Load	S.E.	C.R.	P
33	<---	Dimension1	,709			
38	<---	Dimension1	,748	,074	13,605	***
40	<---	Dimension1	,767	,073	13,951	***
32	<---	Dimension1	,674	,059	17,981	***
34	<---	Dimension1	,737	,082	13,407	***
53	<---	Dimension1	,652	,080	11,873	***
44	<---	Dimension1	,657	,069	11,952	***
48	<---	Dimension1	,599	,072	10,894	***
42	<---	Dimension1	,631	,069	11,487	***
47	<---	Dimension1	,639	,082	11,630	***
35	<---	Dimension1	,674	,072	12,266	***
36	<---	Dimension1	,651	,076	11,857	***
43	<---	Dimension1	,649	,073	11,809	***
45	<---	Dimension1	,610	,068	11,100	***
29	<---	Dimension1	,708	,078	12,882	***
50	<---	Dimension1	,571	,077	10,399	***
30	<---	Dimension1	,618	,076	11,253	***
27	<---	Dimension1	,652	,080	11,864	***
49	<---	Dimension1	,524	,077	9,528	***
46	<---	Dimension1	,496	,075	9,034	***
26	<---	Dimension1	,656	,075	11,947	***
31	<---	Dimension1	,591	,079	10,752	***
24	<---	Dimension1	,634	,083	11,531	***
25	<---	Dimension1	,618	,084	11,253	***
39	<---	Dimension1	,548	,064	9,979	***
37	<---	Dimension1	,525	,071	9,561	***
41	<---	Dimension1	,552	,065	10,040	***
52	<---	Dimension1	,500	,076	9,108	***

Item			Factor Load	S.E.	C.R.	P
51	<---	Dimension1	,500	,073	9,104	***
20	<---	Dimension2	,827			
19	<---	Dimension2	,777	,061	16,309	***
22	<---	Dimension2	,770	,059	16,107	***
17	<---	Dimension2	,656	,049	13,066	***
21	<---	Dimension2	,731	,053	15,030	***
16	<---	Dimension2	,586	,056	11,394	***
15	<---	Dimension2	,498	,049	9,425	***
18	<---	Dimension2	,673	,061	13,487	***
4	<---	Dimension3	,607			
10	<---	Dimension3	,621	,122	9,384	***
3	<---	Dimension3	,625	,119	9,427	***
5	<---	Dimension3	,609	,125	9,243	***
1	<---	Dimension3	,507	,126	7,997	***
11	<---	Dimension3	,576	,135	8,857	***
2	<---	Dimension3	,556	,123	8,607	***
9	<---	Dimension3	,472	,150	7,527	***
6	<---	Dimension3	,566	,140	8,728	***
7	<---	Dimension3	,564	,134	8,712	***
14	<---	Dimension3	,507	,143	7,986	***
8	<---	Dimension3	,502	,141	7,928	***
12	<---	Dimension3	,374	,100	6,138	***

As seen in Table 2, the item factor correlation coefficients are 0.500 to 0.737 for the first factor, 0.498 to 0.827 for the second factor, and 0.374 to 0.625 for the third factor, indicating that all items are significant ( $p < 0.05$ ). Based on these values, each item is appropriate and serves the general purpose of the factor and the scale they belong to.

#### **Findings Related to Reliability**

Internal consistency is a measure of reliability that assesses the extent to which items within a test or instrument consistently measure the same underlying concept. This is associated with the

correlation between the test items and is represented by a value ranging from 0 to 1. (Tavakol & Dennick, 2011; Bonett et al., 2015; Taber, 2018).

High internal consistency signifies that the items pertinent to the intended concept are accurately assessed, while low consistency implies a tenuous relationship or the measurement of disparate constructs. Widely utilized methods for evaluating internal consistency encompass Cronbach's alpha, split-half reliability, and item-total correlations. A dependable Cronbach scale typically spans from  $0.80\alpha$  to  $1.00\alpha$ , indicating elevated reliability. In the present instance, the computed  $C\alpha$  coefficients amount to .95, denoting a considerably reliable scale (Cortina, 1993; Bonett, 2002). The scale's Cronbach Alpha internal consistency coefficient, which has taken its final form through factor analysis, has been calculated. The analysis results for the reliability of the scale are given in Table 3.

**Table 3**  
*Reliability Analysis Results for the Attitude Scale Towards Social Studies Course Integrated with Art*

	$C\alpha$
Factor 1	0,950
Factor 2	0,881
Factor 3	0,843
Attitude Scale for Integrated Social Studies Course with Art	0,952

The Cronbach's alpha value, which indicates how well the individual items (questions, items, etc.) of a measurement tool are related to each other and whether they represent a single sub-feature of the concept being measured, is a value between 0 and 1. Generally, a value of 0.7 and above is considered to have good internal consistency and reliability (Tavakol & Dennick, 2011; Taber, 2018). The obtained  $C\alpha$  coefficients show that the scale used is quite reliable. Since the obtained  $C\alpha$  coefficients are .95, it indicates that the scale is highly reliable.

### **Naming of Factors and Scoring of the Scale**

As a result of the analyses, the factors of the scale, which emerged in a three-factor structure, and the expressions in these factors were examined. The opinions of three different field experts were taken and named, as shown in Table 4.

**Table 4**  
*Factors of Attitude Scale Towards Social Studies Course Integrated with Art*

Numbers	Names of the Factors
Factor 1	Attitude Towards Integrated Social Studies Course with Art
Factor 2	Attitude Towards Art
Factor 3	Attitude Towards Social Studies Course

In the Likert technique, also called the summary rating scale, the responses obtained from each item are added up or averaged to obtain the respondent's score on the scale (Vaske et al., 2017). Based on research findings that negative test statements in the scales can cause internal consistency and systematic measurement errors in factor structures (Cheng & Hamid, 1997; Wong et al., 2003; Turgut & Erden, 2013), the highest score that can be obtained from the scale without a negative item is 250, while the lowest score is 50.

## **Results and Discussion**

A literature review on the subject has been conducted in the scale development studies for the social studies course integrated with art, and a pool of 65 items has been created. The 65 items in the pool were presented to the evaluation and opinions of five experts to ensure the content and face validity of the scale. At this stage, after the expert evaluations and opinions, it was decided to remove 12 items. In the factor analysis performed with 53 items, considering the criteria that the variables with low common variance should be removed from the analysis, the factor analysis can be performed again, and the factors containing three or fewer items will generally be weak and variable, after the results of the varimax rotation, it was decided to remove the problematic three items (items 13, 23, and 28) from the scale, resulting in a 50-item and three-sub dimensional scale. The factors revealed by the factor analysis were named as "Attitude towards social studies course, art, and social studies course integrated with art." As a result of the analyses conducted, the scale items explain 43.45% of the total variance. After the exploratory factor analysis, which shows that the scale consists of three factors, confirmatory factor analysis (CFA) was performed to verify the factor structures formed. According to the results obtained from the confirmatory factor analysis, the three-factor structure of the scale is consistent with the available data.

The Cronbach Alpha internal consistency coefficient has been calculated for the reliability of the measurement tool. The internal consistency coefficient of the obtained scale has been calculated as "0.95". In terms of Cronbach Alpha reliability coefficient values, if the coefficient is  $0.60\alpha \leq 0.80$ , the scale is reliable, and if it is  $0.80\alpha \leq 1.00$ , the scale is highly reliable. The obtained  $C\alpha$  coefficients indicate that the developed Art-integrated Social Studies Learning Attitude Scale is quite reliable. Participating in art activities and learning through art can enable students to reassess the potential of art as a tool for socially interacting with the society they live in and public spaces (Richardson, 2010). Education within modern civilization, which causes adverse environmental conditions such as pollution, depletion of natural resources, climate change, and threatened biodiversity, should not ignore issues such as ecology and social problems (Graham, 2007).

In the educational environment, student attitudes towards the course can be positively influenced by supportive practices that promote a positive inclination in each stage of the content, implementation, and evaluation of the curriculum, where the student is not passive, relates the content to life, and is creative. The inclusive nature of art, the richness of expression it brings to an individual's emotions and thoughts, its coexistence with tolerance for different opinions and a culture of democracy, and its sensory gains can positively affect students' attitudes towards the course in art-integrated education programs.

The Integrated Art and Social Studies Learning Attitude Scale, which is being developed, can be said to be important in terms of providing scientific data to researchers who want to implement the integrated course and teaching idea in today's education understanding, which needs new interdisciplinary connections every day, and the potential to produce scientific knowledge on the integration of art and social studies subjects.

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