

## Research Article

# A study on developing the evaluation scale of the polyphonic choir curriculum<sup>1</sup>

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### Abstract

The aim of this study is to develop a valid and reliable measurement tool that will enable the teachers to evaluate the polyphonic choir curriculum taught in the 10th grade in Fine Arts High Schools. It has been determined in the field research that there is no measurement tool for the evaluation of the polyphonic choir curriculum. Considering the steps of scale development, "The Evaluation Scale of Polyphonic Choir Lesson Curriculum" was prepared in this study. Teachers working in Fine Arts High Schools throughout Turkey and conducting polyphonic choir lessons participated in the research. The evaluation scale was prepared by taking the opinions of 5 experts in the field of choir education. In the first part of the evaluation scale, the demographic information of the participants, and in the second part, questions about the evaluation of the polyphonic choir curriculum were included, and validity and reliability studies were carried out. First of all, factor analysis was performed during the validity phase of the study. Kaiser-Meyer-Olkin (KMO) sample adequacy and Barlett sphericity test were applied to test its suitability for factor analysis. Within the scope of the validity studies of the study, total item correlations were also calculated with exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). Cronbach's Alpha test statistic was taken into account in determining the reliability of the scale. According to the results obtained, the content validity of the scale items presented to the experts was found to be statistically significant. In the analysis of the validity and reliability of the scale items, it was determined that the validity and reliability of the items were high. In line with the results obtained, it can be said that the "Polyphonic Choir Lesson Curriculum Evaluation Scale" has validity and reliability.

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## Introduction

When art, which is defined as an expression of an individual's creativity and imagination, is evaluated as an educational activity, it is shown as a systematic and disciplined process that allows the individual to express his feelings and thoughts artistically (Beyazkoç, 2021). It is foreseen that the education to be given in every field of art will be realized within a certain program, and it is aimed to carry out the music education, which is the main element of the study, in a systematic and effective manner.

Education programs should be developed by taking into account the daily conditions of education and training. Education programs have a structure that interacts with cultures and forms an important part of social life. This situation

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requires frequent reworking of the curricula, and it is ensured that the curricula are compatible with the current conditions with corrections and adjustments (Türkmen, 2020).

Therefore, it is observed that program evaluation studies have started to increase in recent years in order to keep the quality of education under control and to increase it (Albuz, 2004).

### **Fine Arts High Schools in Turkey**

In Turkey, a programmed music education is given within the body of Fine Arts High School at the secondary education level. In the Regulation of Fine Arts High Schools, it is stated that the establishment and aims of the schools are to provide students with basic knowledge and skills about fine arts and to be a source for raising qualified people in the field of fine arts (Web 1).

It is seen that the Fine Arts High School, where the foundation of vocational music education was laid, was first opened to education in Istanbul in the 1989-1990 academic year (Şahin, 2017). While there were 73 Fine Arts High Schools opened in different provinces in our country in 2016, it has been determined that the number of existing Fine Arts High Schools has reached 93 with the current research conducted in 2022. Fine Arts High Schools is a secondary vocational school. Fine Arts High School provides education in the fields of music and painting. If students are successful in special talent exams in the fields of music and painting, they gain the right to study at Fine Arts High Schools. While education is given in departments with a single branch and a capacity of 30 students, in some provinces the number of classes can be increased in order for the demand to be high and for many talented students to benefit from these trainings.

At the time the fine arts high schools were established, the education period was four years and the first year was given as a preparatory class. The courses in which basic music and painting education were given in the preparatory class were also available in addition to the intensive English program. With the decision of the Board of Education and Discipline No. 184 dated 07 June 2005, the preparatory class was abolished as of the 2005-2006 academic year and it was decided to reorganize the education period as four years (Official Gazette, 16.12.2006: 26378).

It is aimed to raise the students of the music department to a sufficient level in the field of music, together with the main courses such as musical hearing and reading lessons, instrument training, voice training, music history, orchestra, Turkish Art Music (TAM), Turkish Folk Music (TFM) main courses taught in the music education department, as well as the elective courses given in the field of music.

### **Polyphonic Choir Lesson**

There have been changes in the names of the courses in the Music Department of Fine Arts High School at certain intervals since 1990 (İlhan & Karabulut, 2018). The polyphonic choir lesson, which is one of the field lessons, has also undergone many changes on the basis of its name and the class in which it is applied. In the process, the changes announced by the Ministry of National Education Board of Education and Discipline were taken into account in the implementation of the lesson, which was called Chorus-Western Music Chorus and in its final form, called 'Polyphonic Chorus', and the changes shown in Table 1 were made.

**Table 1.** Changes Made in Fine Arts High School Polyphonic Chorus Curriculum in Turkey

<b>Date of Change</b>	<b>Changes Made</b>
September 1998	In Fine Arts High School, where education is given for 4 years together with the preparatory class, it has been decided to apply the choir lesson in the ninth grades, tenth grades and eleventh grades, except for the preparatory class.
May 2004	It was decided to include the choir lesson in the Preparatory class and to teach this lesson in all four classes.
2005	It was decided to abolish the preparatory class in Fine Arts High School. It was decided to change the choir lesson to "Western music choir education lesson" and to apply it as 1 hour in the ninth and tenth grades, and 2 hours in the eleventh and twelfth grades.
January 2014	It was decided that the 'Western music choral training course' would be removed from the ninth Grade and implemented as 2 hours in the tenth, eleventh and twelfth Grades.
February 2018	'Western music choir training course' was renamed again and was changed to 'Polyphonic choir lesson'. It was decided to remove the polyphonic choir lesson from the ninth and twelfth grades, and to apply it as 2 hours in the tenth and eleventh grades.

It is seen in the table above that the changes in the Polyphonic Chorus lesson are frequent and in short time periods. It can be said that one of the reasons for such changes in education programs is the inadequacy of program evaluations. Program evaluation studies have an important place in determining the effectiveness and success of the programs implemented in schools (Özdemir, 2009). In order to determine the feature to be measured in the evaluation process, it is necessary to collect the necessary information and reach a conclusion about the effectiveness of the program in line with this information (Fitzpatrick, Sanders, & Worthen, 2011). Since programs are structures that require continuous improvement, creating a program structure that meets the requirements and shows continuity requires continuous evaluation (Aygören, 2016).

The polyphonic choir lesson in Fine Arts High Schools, in which the voices of the students are trained and the ability to sing together in harmony, has undergone many changes. Therefore, the changes made also affected the curriculum of the course.

Evaluation of the polyphonic choir curriculum by the teachers who implement the program is very important in terms of the applicability, development and effectiveness of the program. In order to evaluate this program, an evaluation tool needs to be put forward.

### **Research Problem**

The aim of this research is to determine the psychometric properties of the scale developed for the teachers who attend the polyphonic choir course to evaluate the polyphonic choir curriculum. The main problem of this research is as follows: “What are the psychometric properties of the scale developed for the evaluation of the Polyphonic Choir Curriculum?” The sub-problems of this main problem are as follows:

- Is the scale developed for the evaluation of the Polyphonic Choir Curriculum valid?
- Is the scale developed for the evaluation of the Polyphonic Choir Curriculum reliable?

### **Method**

This research is a scale development study for the evaluation of the polyphonic choir curriculum taught in the 10th grade of fine arts high school with the opinions of teachers, and includes the survey model design, which is one of the quantitative research types (Ekiz, 2017; Büyüköztürk et al., 2020).

### **Study Group**

The universe of the research consists of the teachers who work in the Fine Arts High Schools in Turkey and who teach the polyphonic choir. In scale development studies, it is stated that the size of the sample should be at least 5 times larger than the number of items (Child, 2006). In this direction, since our study group addresses the universe, a sample group was not formed. Demographic information of polyphonic choir teachers in the study group is given below (Table 2).

**Table 2.** Characteristics of the teachers in the study group

Characteristics		n	%
<b>Gender</b>	<i>Female</i>	79	65,8
	<i>Male</i>	41	34,2
<b>Graduated School</b>	<i>Education Faculty</i>	104	86,7
	<i>Conservatory</i>	9	7,5
	<i>Faculty of Fine Arts</i>	7	5,8
<b>Period of Service in Fine Arts High School</b>	<i>1-5 years</i>	8	6,7
	<i>6-10 years</i>	22	18,3
	<i>11-15 years</i>	46	38,3
	<i>16-20 years</i>	31	25,8
	<i>20 years and above</i>	13	10,8
<b>Educational Status</b>	<i>Undergraduate</i>	91	75,8
	<i>Graduate</i>	21	17,5
	<i>Doctorate</i>	8	6,7
<b>Total</b>		120	100

In the table above, frequencies and percentages are given to examine the demographic information of the participating teachers.

When the gender variable is examined, it is seen that 65.8% of the participants are female and 24.2% are male. When the variable of the school they graduated from is examined, it is understood that 86.7% of the participants graduated from the faculty of education, 5.8% of the participants graduated from the faculty of fine arts, and 7.5% of the of the participants graduated from the conservatory. When the period of service in the fine arts high school is examined, it is seen that 6.7% of the participants worked in the Fine arts high school for 1-5 years, 18.3% of the participants worked in the Fine arts high school between 6-10 years, and 38.3% of the participants worked in Fine arts between 11-15 years. It was determined that 25.8% of the participants worked in Fine Arts High School between 16-20 years, and 10.8% of the participants worked in Fine Arts High School for 21 years or more. When the academic degrees of the teachers were examined, it was determined that 75.8% of the participants were undergraduate graduates, 17.5% of the participants were graduates, and 6.7% of the participants were doctoral graduates.

### **Preparation Process of the Polyphonic Choir Curriculum Evaluation Scale (PCCES)**

#### **Establishing the Item Pool**

While developing the evaluation scale for the polyphonic choir curriculum, it was determined that there was no evaluation scale in the relevant field by first scanning the literature. In this direction, an item pool was created for the evaluation scale by researching the scales made in different areas. The items were written under the headings of 'Purpose, Content, Teaching and Learning Situation and Assessment and Evaluation', which represent the four basic elements of the program. The created item pool was sent to two faculty members who are experts in their fields to be examined in terms of language and expression and to make necessary corrections. (Experts evaluated the items in terms of content validity, and also noted spelling mistakes, low sentences and expression mistakes in the written items.) After the necessary corrections were made, the item pool created for the preparation of the scale was sent to five experts.

#### **Getting Expert Opinion**

**Table 3.** Distribution of experts participating in the study by gender and titles

<b>Gender</b>	<b>Academicians</b>		<b>N</b>
	<b>Associate Professor.</b>	<b>Dr. Faculty Member</b>	
Female	1	1	2
Male	2	1	3
Total	3	2	5

Experts sent for the examination and evaluation of the prepared item pool were selected from academicians working in the field of polyphonic choir course. It was determined that 2 of the experts were female and 3 were male. It was seen that 1 of the female experts was Associate Professor, the other was a Dr. Faculty Member. It was determined that 2 of the male experts were Associate Professors and 1 of them was Dr. Faculty Member.

### **Pilot Application of the Polyphonic Choir Curriculum Evaluation Scale**

The scale, of which necessary corrections were made in line with expert opinions, was applied to 30 polyphonic choir teachers working in Fine Arts High Schools in Turkey.

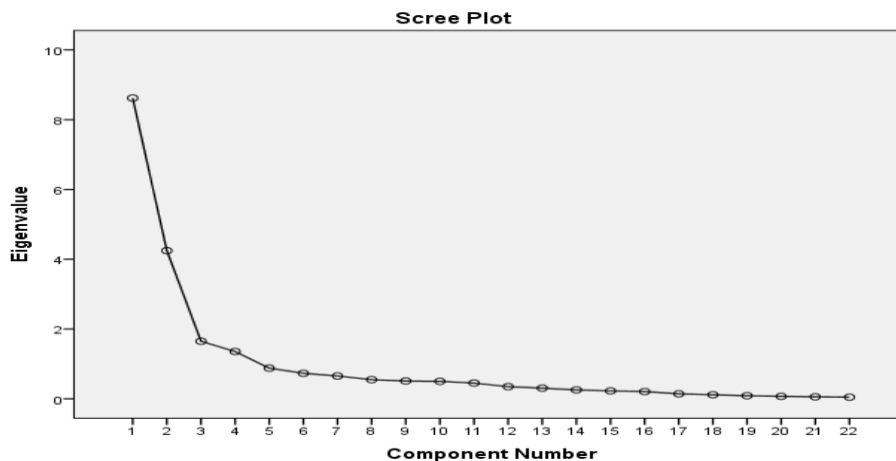
### **Analysis of the Data**

The validity and reliability study of the developed rating scale was carried out. In their study, Karakoç and Dönmez (2014) expressed the importance of a scale being valid and reliable as follows: In order for a scale to be valid and reliable, it is necessary to study and interpret in accordance with many criteria and standards during the development and use of the scale. Otherwise, the validity and reliability of the scale will decrease, and the ground will be prepared for some mistakes and biases in studies where the scale is used at the national and even international level (p. 40). The content validity of the prepared 24-item scale was examined by taking expert opinion on the adequacy of the content. In the validity phase of the study, factor analysis was performed first. Factor analysis is stated as a verification technique based on determining whether the answers given by the participants were given in a certain order during the development of the scale (Tavşancıl, 2002). The Kaiser-Meyer-Olkin (KMO) sample validity test and the Barlett sphericity test were used to check the suitability of the factor analysis. In line with the validity studies of the study, total item correlations were calculated by exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). In the exploratory and confirmatory factor analyzes, which are widely used in scale development studies, it is stated that EFA should be used if there is no known relationship between scale items, and CFA should be used if the relationship is examined and the descriptive factors and the items gathered under them are determined (Bandalos & Finney, 2010; Büyüköztürk, 2002; Kline, 2011, Quoted by: Orçan, 2018) Cronbach's Alpha test statistic was taken into account in determining the reliability of the scale.

### **Findings**

With the evaluation scale, a pilot application was carried out on a sample of 30 people. Question reliability was evaluated, and then the evaluation scale was applied to a large sample group of 120 people. The findings regarding the validity and reliability analyzes of the 'Polyphonic Choir Curriculum Evaluation Scale', which was applied to the large group after the pilot application, are included in this section.

### **Findings Concerning the Structural Validity of the Polyphonic Choir Curriculum Evaluation Scale**



**Figure 1.** Factor distribution of the 10th grade polyphonic choir curriculum regarding Eigenvalues

**Table 4.** Examining the questions about the 10th grade polyphonic curriculum

<b>Kaiser-Meyer-Olkin (KMO) value</b>		0.869
<b>Bartlett's Test</b>	<b>Chi-Square approximation</b>	2334.086
	<b>degrees of freedom (fd)</b>	231
	<b>p</b>	0.001

The Kaiser-Meyer-Olkin (KMO) value was found to be 0.869, and it was concluded that this value was quite “high” (Kaiser, 1974) for the factor analysis of the sample size. It is seen that the Bartlett test results ( $\chi^2=2334.086$ ,  $sd=231$ ,  $p=0.001$ ;  $p<0.05$ ) showing the correlation between the variables are significant and there is a correlation between the variables.

### First Factor Analysis

As a result of the EFA applied to the 24 questions in the scale in the first stage, it was revealed that the scale included 4 factors with a factor eigenvalue greater than 1. The first factor explained 38.615% of the total variance, the second factor explained 19.899 of the total variance, the third factor explained 6.930% of the total variance, and the fourth factor explained 5.734% of the total variance. At this stage, 2 items (M12, M19) that were distributed to more than one factor with similar factor loading were removed from the scale. In addition, at this stage, it was determined that there were no questions with a factor load of less than 0.30.

### Second Factor Analysis

After the items that were decided to be removed in the first factor analysis, EFA was performed for the second time. According to the results of the EFA performed for the second time, it was determined that the scale consisted of 4 factors with a factor eigenvalue greater than 1. It was seen that the first factor explained 39.185% of the total variance, the second factor explained 19.299% of the total variance, the third factor explained 7.495% of the total variance, and the fourth factor explained 6.157% of the total variance. It can be said that the total variance explained is sufficient. The factor load values and scale dimensions of the items that emerged after EFA are shown in the table below.

**Table 5.** Factor analysis results for Tenth Grades

Item no	Factor load values				Eigenvalue	Explained variance		
	Factor 1	Factor 2	Factor 3	Factor 4				
I23	0.924				8.621	39.185		
I22	0.917							
I24	0.909							
I21	0.834							
I20	0.760							
I14	0.635							
I11	0.471						4.246	19.299
I9		0.950						
I7		0.943						
I8		0.939						
I6		0.716						
I10		0.680						
I3		0.669						
I13		0.592			1.649	7.495		
I17			0.854					
I16			0.797					
I18			0.778					
I15			0.639					
I2				0.847	1.354	6.157		
I1				0.720				
I5				0.611				
I4				0.604				

Factor loads for Factor 1 ranged from 0.471 to 0.924, while loads for Factor 2 ranged from 0.950 to 0.592. It was determined that the loads for Factor 3 varied between 0.854-0.639, and the loads for Factor 4 varied between 0.847-0.604.

**Table 6.** Reliability analysis results for 10th grade

Items	Average	Standard deviation	Scale mean when item is removed	Scale variance when item is removed	Cronbach Alpha
I1	3,97	,647	72,48	,536	,918
I2	3,82	,809	72,63	,516	,918
I3	2,81	1,056	73,63	,444	,920
I4	4,03	,921	72,42	,627	,916
I5	4,08	,949	72,36	,639	,916
I6	2,67	1,133	73,78	,525	,918
I7	2,44	,915	74,00	,539	,918
I8	2,46	,925	73,98	,548	,917
I9	2,45	,934	73,99	,529	,918
I10	2,86	1,071	73,58	,589	,917
I11	3,99	,865	72,45	,583	,917
I13	2,02	,917	74,43	,355	,921
I14	3,99	,825	72,45	,580	,917
I15	2,77	1,158	73,68	,577	,917
I16	3,57	,994	72,88	,651	,915
I17	3,56	1,035	72,88	,689	,914
I18	3,54	1,092	72,90	,638	,916
I20	4,20	,816	72,24	,618	,916
I21	4,20	,805	72,24	,621	,916
I22	4,28	,777	72,17	,595	,917
I23	4,35	,774	72,09	,558	,917
I24	4,41	,772	72,03	,558	,917

Cronbach Alpha= 0.921

CA for factor 1 =0.915

CA for factor 2=0.904

CA for factor 3=0.873

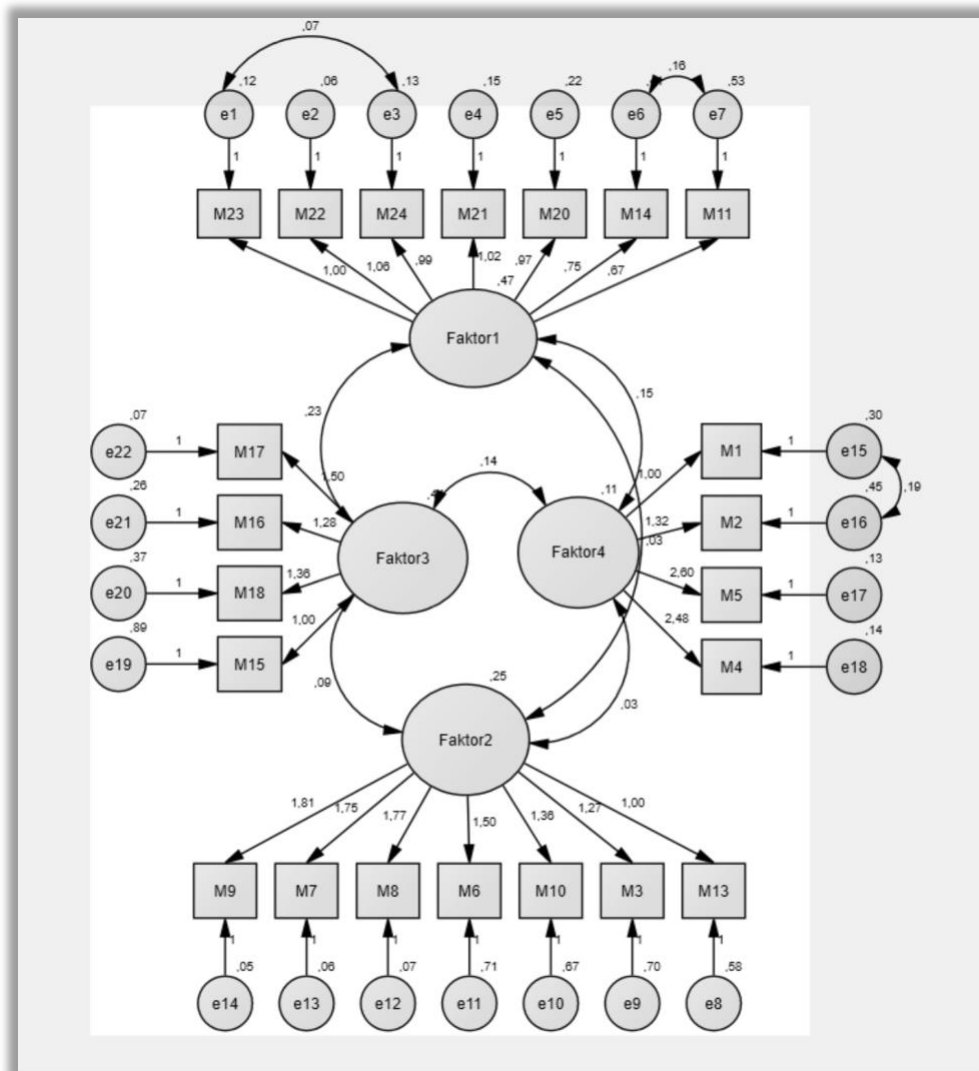
CA for factor 4=0.841

In the table above, the item averages, standard deviation, scale mean when the item was removed, scale variance when the item was removed, and Cronbach Alpha coefficient when the item was deleted are given in the table above. When the results of the reliability analysis were examined, the Cronbach Alpha value for the general reliability of the scale was found to be 0.921. The Cronbach Alphas for the subscales are shown in the table. In other words, it can be stated that the scale reliability is excellent. When all the items in the scale were evaluated, it was determined that there was no item that decreased the reliability of the scale. Therefore, no item inference was made as a result of the reliability analysis.

### **Confirmatory Factor Analysis**

Confirmatory factor analysis (CFA) study was conducted to provide evidence for the validity of the structure determined as a result of the explanatory factor analysis (EFA). The Chi-Square ( $\chi^2$ ) value is the most basic measurement in Confirmatory factor analysis used to test the general suitability of the model. This value serves to evaluate whether there is a difference between the sample covariance matrix and the covariance matrix adapted (modeled) by the model (Hu and Bentler, 1999:2). The  $\chi^2$  fit test is expected to be between 2 and 3. It compares the  $\chi^2$  value of the NFI model with the  $\chi^2$  value of the zero model. The null model (or independence model) is defined as an uncorrelated model for the measured variables. The NFI index takes a value between 0 and 1, and a threshold value of

0.90 is accepted as "good fit" (Hu & Bentler, 1999). The RMSEA value is expected not to exceed 0.08. CFI, the Comparative Fit Index, is an enhanced version of the NFI index. It also takes sample size into account and gives good results even with small samples. It is one of the most accepted and used indexes and its value is expected to be above 0.85 or 0.95. The GFI value, which is the Goodness Fit Index, is expected to be high due to its similarity to  $R^2$  in multiple regression. The GFI moves inversely with the degrees of freedom. Therefore, it can be said that it tends to increase as the ratio of sample size to degrees of freedom increases (Bollen, 1990: 256-259, Hoelter, 1983: 324-344). A threshold value of 0.90 is generally recommended, but when small sample sizes and factor loads are low, an evaluation can be made up to a threshold value of 0.95 (Shevlin and Miles, 1998: 85-90). The TLI index tends to decrease as the model becomes more complex, and the TLI value is expected to be above 0.90. In addition, although it is not as sensitive as NFI, it is sensitive to sample size and can give low fitness values, although other indices show good fit at low sample sizes. The fit values obtained for the model created as a result of the confirmatory factor analysis are given in the table below.



$$\chi^2/df=1.683<5, CFI=0.940, NFI=0.866, TLI=0.931 \geq 0.90, RMSEA=0.076.$$

**Figure 2.** Confirmatory factor analysis of the 10th grade polyphonic curriculum

In the figure above, the model for confirmatory factor analysis of the 10th Grade Polyphonic Curriculum is shown. When the first analysis of the scale consisting of four factors was made, it was determined that the model goodness of fit values was not at the desired level. Then, whether modifications could be made between the error terms was examined. By making modifications between the error terms e1-e3, e15-e-16, e6-e7, the goodness-of-fit values were provided to be acceptable and to a good level.



**Table 7.** Goodness of fit indexes for Confirmatory Factor Analysis (CFA)

Good fit	Acceptable fit	Values
CMIN/DF <3	CMIN/DF <5	1.683
0,97≤CFI≤1	0,95≤CFI≤0,97	0.940
0,95≤NFI≤1	0,90≤NFI≤0,95	0.866
0,95≤TLI≤1	0,90≤TLI≤0,95	0.931
0<RMSEA<0,05	0,06<RMSEA<0.08	0.076

As seen in the table, it can be said that the model has acceptable goodness-of-fit values and close fit with the data according to fit values as  $\chi^2/df = 1.683 < 5$ , CFI=0.940, NFI=0.866, TLI=0.931  $\geq 0.90$ , RMSEA=0.076. Therefore, it can be stated according to the results of confirmatory factor analysis that the values of goodness of fit are at a good and acceptable level and can be improved in larger sample groups.

### Conclusion

This study is a scale prepared for the evaluation of the polyphonic choir curriculum taught in the 10th grade in Fine Arts High School music departments by the course teachers who are the practitioners of the course. During the preparation of the scale, an item pool was created, the items were sent to two experts to be analyzed in terms of language and expression, and necessary arrangements were made. The item pool, which was examined and organized in terms of language and expression, was sent to five academicians who are experts in the field of polyphonic chorus and they were asked to evaluate whether the items were appropriate. The item pool, which was approved by the experts, was sent to 30 lesson teachers who took polyphonic choir lessons in Fine Arts High Schools across Turkey for pre-application. The "Polyphonic Choir Curriculum Evaluation Scale", which was prepared in line with expert opinions and applied as a pilot study to 30 teachers, consisted of 24 items. The construct validity of the scale of the evaluation of the polyphonic choir curriculum was first evaluated with explanatory factor analysis. Kaiser-Meyer-Olkin (KMO) sampling adequacy and Barlett sphericity test were applied to test the scale of the evaluation of the polyphonic choir curriculum for factor analysis. The KMO value was found to be 0.869 and this value was found to be quite "high" for factor analysis of the sample size. The Barlett test of sphericity was also found to be significant, and it was observed that there was a correlation between the variables. Cronbach's Alpha test statistics were taken into account for the reliability of the scale for the evaluation of the polyphonic choir curriculum. The Cronbach Alpha value for the general reliability of the scale was found to be 0.921. As a result, the scale was found to be reliable.

As a result, it is seen that the scale prepared to evaluate the Polyphonic Choir Curriculum is a valid and reliable measurement tool. In similar studies to be conducted, the study whose validity and reliability is ensured during the evaluation of the curriculum of different courses can be used and developed as an example.

### Biodata of Authors



**Gulay Lacin** was born in Siirt/Erüh in 1982. She studied at Diyarbakır Fine Arts High School between 1996 and 2000. She studied music teaching at Gazi University in 2001 and 2005 and graduated from this university in 2005. During her high school education, she took part in the TRT Diyarbakır Turkish Folk Music Youth Choir, and then continued to work as a contracted artist. While studying at university, she took part in Gazi University Academic Chorus and TRT Turkish Folk Music Chorus. She got good grades by participating in many competitions in the field of sound performance. After graduating from the university, she completed her master's degree at Erciyes University. She graduated from the Faculty of Fine Arts. At the same time, she was appointed to Diyarbakır as a music teacher. In 2020, she was accepted to the PhD program in the field of Music Education at Gazi University. She presented papers by participating in various congresses and symposiums during the postgraduate and doctorate process. She has publications in the fields of choir education, voice education and curriculum. Gülay Laçın works as a choir teacher at Diyarbakır Fine Arts High School and is the conductor of TRT Turkish Folk Music Children's Choir. She is also continuing her doctoral education. E-mail: gulay-batur@hotmail.com ORCID: 0000-0002-0515-0257



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## Appendices

## Appendix 1. Polyphonic Choir Lesson Evaluation Scale (Turkish)

1 Kesinlikle Katılmıyorum, 2 Katılmıyorum, 3 Kararsızım, 4 Katılıyorum, 5 Tamamen Katılıyorum

Çoksesli Koro Dersi Değerlendirme Ölçeği						
		1	2	3	4	5
	<b>Kazanım Boyutu</b>					
1	Programda kazanımlar açık ve anlaşılır bir şekilde ifade edilmektedir					
2	Kazanımlar toplu eğitim sürecinde ölçülebilir niteliktedir					
3	Kazanımlar öğrencilerin bireysel farklılıkları göz önünde bulundurularak hazırlanmıştır					
4	Kazanımlar öğrencilerin eserlerin doğru ve temiz bir şekilde seslendirmesi becerisi kazandırmaktadır					
5	Kazanımlar topluluk içerisinde şarkı söyleme bilinci kazandırmaya yöneliktir					
6	Kazanımlar belirlenirken öğrencilerin ihtiyaçları dikkate alınmıştır					
7	Kazanımlar öğrencilerin bilişsel gelişimlerine uygun düzeydedir					
8	Kazanımlar öğrencilerin duyuşsal gelişimlerine uygun düzeydedir					
9	Kazanımlar öğrencilerin devinimsel gelişimlerine uygun düzeydedir					
	<b>İçerik Boyutu</b>					
10	İçerik kazanımları gerçekleştirilebilecek düzeydedir					
11	İçeriğin hazırlanmasında kullanılan dil açık ve anlaşılırdır					
12	İçerik öğrencilerin ses gelişimleri ve seviyeleri dikkate alınarak hazırlanmıştır					
13	İçerikte bulunan eserler öğrencilerin ilgilerini çekecek düzeydedir					
14	İçerikte gereksiz bilgiler, ayrıntılar ve tekrarlar bulunmamaktadır					
	<b>Öğrenme Öğretme Süreçleri Boyutu</b>					
15	Programda önerilen yöntem ve teknikler 10. ve 11. sınıf öğrenci gelişim düzeyine uygundur					
16	Öğrenme-öğretme sürecinde önerilen yöntem ve teknikler derse olan ilgi ve motivasyonu artıracak niteliktedir					
17	Öğrenme-öğretme sürecindeki etkinlikler öğrencilerin derse aktif katılımını sağlar niteliktedir					
18	Program öğrenciye esnek öğrenme fırsatı verecek şekilde düzenlenmiştir					
19	Öğrenme- öğretilme süreci öğrencilerin bireysel ve grup halinde çalışmalarını destekler niteliktedir					
	<b>Değerlendirme Boyutu</b>					
20	Önerilen ölçme ve değerlendirme yöntem ve teknikleri kazanımları ölçecek niteliktedir					
21	Önerilen ölçme ve değerlendirme kullanılacak yöntem ve teknikler öğrencilerin bilgi, beceri, duyuş ve diğer performanslarını ölçecek niteliktedir					
22	Değerlendirmede kullanılan ölçütler açık bir şekilde ifade edilmiştir					
23	Programda ürünü değerlendirecek ölçme araçlarına (çoktan seçmeli, eşleştirme, boşluk doldurma, doğru-yanlış, testler gibi.) yer verilmiştir					
24	Programda süreci değerlendirecek ölçme araçlarına (gözlem formları, tutum ölçekleri, akr değerlendirme formları, kontrol listeleri vb. ) yer verilmiştir					

**Appendix 1.** Polyphonic Choir Lesson Evaluation Scale (English)

1 Totally Disagree, 2 Disagree, 3 Undecided, 4 Agree, 5 Totally Agree

<b>Polyphonic Choir Lesson Evaluation Scale</b>						
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
	<b>Outcome Dimension</b>					
1	The outcomes are expressed in the Program in a clear and understandable way					
2	The outcomes are measurable in the collective education process					
3	The outcomes have been prepared considering the individual differences of the students					
4	The outcomes give the students the ability to sing the works correctly and cleanly					
5	The outcomes are aimed at raising awareness of singing in the community					
6	The needs of the students were taken into consideration while determining the outcomes					
7	The outcomes are at a level suitable for the cognitive development of the students					
8	The outcomes are at a level suitable for the affective development of the students					
9	The outcomes are at a level suitable for the students' kinetic development					
	<b>Content Dimension</b>					
10	Outcomes of content are at a level that can be realized					
11	The language used in the preparation of the content is clear and understandable					
12	The content has been prepared taking into account the students' voice development and levels					
13	The works in the content are at a level that will attract the attention of the students					
14	The content does not contain unnecessary information, details and repetitions					
	<b>Learning and Teaching Dimension</b>					
15	The methods and techniques suggested in the program are suitable for the 10th and 11th grade students' development levels					
16	The methods and techniques suggested in the learning-teaching process will increase the interest and motivation in the course					
17	The activities in the learning-teaching process ensure the active participation of the students in the lesson					
18	The program is designed to give students flexible learning opportunities					
19	The learning-teaching process supports students to work individually and in groups					
	<b>Assessment Dimension</b>					
20	The proposed measurement and evaluation methods and techniques are of the nature to measure the achievements					
21	The methods and techniques to be used in the proposed measurement and evaluation are of the nature to measure the knowledge, skills, perception and other performances of the students					
22	The criteria used in the evaluation are clearly stated					
23	Measurement tools (such as multiple choice, matching, filling in the blanks, true-false, tests) that will evaluate the product are included in the program.					
24	Measurement tools (observation forms, attitude scales, acr evaluation forms, checklists, etc.) to evaluate the process are included in the program.					

Note: We report that the English language adaptation study of this scale has not been carried out.