

Developing Attitude Scale, Reliability and Validity for Pre-Service Teachers towards Drama Lesson

Özkan Çelik¹, Hafife Bozdemir², Gökhan Uyanık²

¹Muğla Sıtkı Koçman University, Turkey

²Kastamonu University, Turkey

Correspondence: Gökhan Uyanık, Kastamonu University, Turkey.

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Abstract

The purpose of this study is to develop an attitude scale for pre-service teachers towards drama lesson. Survey model was used in study. The sample of study consisted of 258 pre-service teachers. "Attitude scale towards drama lesson for pre-service teachers" was developed and used as data collection tool. Exploratory and confirmatory factor analyses were used to provide evidence for construct validity of scale. For factor analysis, SPSS 19.0 statistical package software was used and Kaiser Meyer Olkin test (KMO) and Bartlett Sphericity test methods were used to determine suitability of data to principal component analysis. In confirmatory factor analysis, suitability of model which came out in exploratory factor analysis was checked out. Lisrel 8.7 package software was used in this process and it was benefited from the values of chi-square (χ^2), Degrees of Freedom (df), and Root-Mean-Square Error of Approximation (RMSEA). Drama experts' opinions were taken in order to ensure content validity. In conclusion, the final form of scale which consisted of 31 items was obtained and Cronbach alpha (Cronbach's α) value was calculated to get internal consistency coefficient. This calculated value was determined as .965.

Keywords: drama, pre-service teachers, scale development, attitude

1. Introduction

With the current developments, there is a passing from teacher-centered education environment that teacher guided students to student-centered education environment that students are active and responsible for their learning. With this passing, the importance of methods that provides active participation in learning process increases gradually. One of the methods that provide active participation is drama. Drama methods might include other methods according to determined content. Drama is an efficient method that contains learning types such as experience-based learning, learning with action, active learning, learning via interaction, social learning, learning by discussing, learning by discovering, emotional learning, learning by establishing cooperation and concept learning (Önder, 2003). Drama takes part in many levels of education environments methodically from pre-school to elementary school, from secondary school to university.

1.1 Drama in Education

Drama is an art form in which people perform actions such as reflecting the human condition, playing a role, transforming to someone or something (Taylor, 2000). Students and teachers actively regenerate their perceptions regarding to world and humans by playing role in drama. Moreover, they deepen and expand their understandings about human except their roles (McNaughton, 2004). Teacher and all class learn from each other by sharing (Prendiville & Toye, 2007). Students are both participants and observers. So they interact each other and configure their reactions and actions about the roles that was created unrealistically (Andersen, 2004). Drama processes provide opportunities to explain their reactions about students' class status through writing and dialogue and allow them to focus these reactions privately.

With the passing of time, students' reactions and thoughts expand and are shared with other students. Teachers and students are allowed to create context that they play their reactions in cooperative learning environment (Crump & Schneider, 2002). In drama processes, beside learning and socialization, in one hand drama enhances trust and respect according to someone; on the other hand drama emphasizes social suppressive power that comes with being a member

of a group according to someone and develops communication and problem-solving skills for others. Other qualities that were gained with drama are being participant instead of passivity, forehandedness and being independent instead of being independent, maturation and democratization (San, 1990). Interactive learning and teaching environments can be created by using drama by oneself or in lessons to make the program more creative and interesting in school (Baldwin, 2009).

Creative drama in education prepares opportunities for students and paves the way for various interactions. It aims to be conscious of students to their bodies, feelings, thoughts and goings-on. When creative drama is used as a method in lessons, students can both learn the lessons' subjects effectively and also become skillful at compliance, trust, collaboration, critical thinking, creativity and communicating with others which are general purpose of education by participating in creative drama's background study (Aykaç & Adıgüzel, 2011). Participants, who take part in creative drama activities must be ready to work within a group firstly, feel comfortable and safe and be ready to explore new and different ways to themselves. The group leader who will direct this type of activity must take education even a little on acting and dramatics (Can & Cantürk-Günhan, 2009).

In literature regarding effectiveness of drama, there are a number of studies in different issues and different sample groups (Akınoğlu & Akbaş, 2010; Altıkulaç & Akhan, 2010; Arslan, Şahin, Şahin & Akçay, 2011; Avcıoğlu, 2012; Aykaç & Adıgüzel, 2011; Çam, Özkan & Avınç, 2009; Çelen, Akar-Vural, 2009; Dorion, 2009; Gomez, 2010; Karadağ, Korkmaz & Çalışkan, 2007; Kırmızı, 2007; Köseoğlu & Ünlü, 2006; Nicholls & Philip, 2012; Oğur & Bağcı-Kılıç, 2005; Özbek & Baturay, 2009; Şimşek, Topal, Maden & Şahin, 2010; Wright, Diener & Kemp, 2013; Yavuzer, 2012). Considering these studies, drama is a highly effective teaching and discipline method in education especially at preschool and primary school ages. Effectiveness of the methods that used in educational environments might be vary depending upon many different reasons. One of these variables is attitudes and interests of teachers towards lesson and method.

1.2 Measuring Pre-Service Teachers' Attitude Towards Drama Lesson

Beliefs of teachers about learning and teaching play an important role in increasing students' interests to lessons in all fields (Levitt, 2002). Positive attitudes of teachers who will achieve the goals in learning environments towards a lesson have an impact on students' learning opportunities and performances (Kim, 2011). In this regard, it is important to know pre-service teachers' attitudes towards drama lesson. Thus, it is possible to say that attitude is a psychological tendency and this tendency is expressed by evaluating a particular entity with positive or negative degree (Eagly & Chaiken, 1993).

1.3 Rationale and Purpose for This Study

Teachers who are in leading position in drama process should direct, form and affect students' learning (Prendivill & Toye, 2007). Therefore, being competent is so important that teachers are able to use drama actively in education. Accordingly, drama is a compulsory lesson in many departments of the university faculties. Attitudes of pre-service teachers towards drama lesson might give an idea about using drama in their careers effectively and efficiently. In this sense, there are many researches regarding attitudes towards drama lesson (Başçı & Gündoğdu, 2011; Ceylan & Ömeroğlu, 2011; Fenli, 2010; Ünal, 2004). Many researches aim at developing attitude scale towards drama lesson. These are attitude scale towards drama lesson (Adıgüzel, 2006), attitude assessment scale towards drama in pre-school education (Ceylan & Ömeroğlu, 2011), creative drama attitude scale (Okvuran, 2000) and drama lesson attitude scale in primary education (Ünal, 2004). Attitudes towards drama in different education levels were discussed in researches that were carried out (Akınoğlu & Akbaş, 2010; Altıkulaç & Akhan, 2010; Avcıoğlu, 2012; Aykaç & Adıgüzel, 2011; Dorion, 2009; Gomez, 2010; Nicholls & Philip, 2012; Wright, Diener & Kemp, 2013; Yavuzer, 2012). It was not found out any scale which was aimed to determine pre-service teachers' attitudes towards drama lesson. Hence, the purpose of this study is to develop a scale to determine attitudes of pre-service teachers towards drama lesson.

2. Method

2.1 Participant Characteristics

This research was conducted in spring term of 2013-2014 academic years. Research population consisted of the students who were studied at Gazi University Faculty of Education, Kastamonu University Faculty of Education and department of pre-school teacher and classroom teacher education. Sample was determined with purposive sampling method and consists of 258 pre-service teachers who studied at 3rd and 4th grade level in these undergraduate programs.

2.2 Sampling Procedures

The research sample was chosen from 3rd and 4th year pre-service teachers because they took drama lessons at 3rd and 4th grade and have sufficient knowledge to practice in this field. Descriptive statistics regarding working group who carried out scale work can be seen in Table 1.

Table 1. Descriptive statistics of pre-service teachers in the participant group

University	Gender	Department			
		Classroom Teacher Education		Pre-School Teacher Education	
		<i>f</i>	%	<i>f</i>	%
Gazi University	<i>Female</i>	106	41.09	35	13.57
	<i>Male</i>	27	10.47	5	1.94
Kastamonu University	<i>Female</i>	45	17.44	13	5.04
	<i>Male</i>	23	8.91	4	1.55
Total		201	77.9	57	22.1

According to Table 1, working group consisted of 258 students, while 77.9% of them studied at undergraduate program of primary school teaching, 22.1% of these students studied at undergraduate program of preschool teaching.

2.3 Research Design

This section of the research consisted of survey model, population and sample, data collection device, implementation process and analysis of data.

In this study, survey model was used. According to Cohen & Manion (2007), survey studies, like attitude studies, are the ideal research method that can be used for studies required broad participation sampling. "An attitude scale towards drama lesson for pre-service teachers" was developed and used as data collection tool.

Studies in scale development phase, to determine attitude levels of pre-service teachers towards drama lesson are stated below.

2.4 Scale Development Phase

Researchers did literature research regarding attitude and measuring with attitude scale and then they prepared a draft questionnaire consisted of 45 items as a result of examining of theoretical structure on this issue. Besides, scales whose validity and reliability studies were done and which are in literature related attitudes towards drama were examined by researchers and benefited from this scale forming the draft questionnaire and writing scale items. Prepared items were examined by drama experts, assessment and evaluation experts and language experts, 5 items were crossed out by achieving a consensus in accordance with expert recommendations and 40-questioned final draft was completed. While 20 items contain positive statement, 20 items contain negative statement. Items are rated in quinary Likert-type as Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4) and Strongly Agree (5).

2.5 Materials and Procedure

In data analysis phase of attitude scale's development process towards drama lesson for pre-service teachers it was conducted to 271 pre-service teachers, after 13 scales which were filled inappropriately or uncompleted were removed and data analysis were carried out on 258 scales. Various analyses were carried out to provide evidence for reliability and validity of the scale. Exploratory and confirmatory factor analyses were used to provide evidence for construct validity. SPSS 19.0 statistical software package was used for factor analysis and Kaiser Meyer Olkin test (KMO) and Bartlett Sphericity test methods were used to determine the suitability of data to principal component analysis for factor analysis. Obtained factors were named by researchers by considering common characteristics of materials. In confirmatory factor analysis, sustainability of model which revealed in exploratory factor analysis was controlled. Within this period, LISREL 8.7 software package, Chi-square (χ^2), Degrees of Freedom (DF), and Root-Mean-Square Error of Approximation (RMSEA) values were used.

Opinions of drama expert were taken in order to ensure content validity of developed scale. In conclusion, final form of scale which consists of 31 items was completed and Cronbach alpha ($C\alpha$) value was calculated to get internal consistency coefficient.

3. Results

This section includes the findings of research.

3.1 Findings Regarding Validity

Rotated Principal Component Analysis was used for construct validity analysis of developed attitude scale towards drama lesson. Suitability of obtained data to Principal Component Analysis was determined with Kaiser-Meyer-Olkin (KMO) coefficient and Bartlett Sphericity test values. As a result of implemented factor analysis, 9 items (1, 5, 14, 15, 20, 29, 32, 34, and 37) which were not suitable for scale's structure and loaded more than one dimension were removed from scale and it was continued with remaining 31 items. As a result of analysis, KMO value was calculated as .963. Moreover, it was reached a finding that chi-square statistic test values, which was obtained as a result of Bartlett Sphericity test, were significant ($\chi^2=5738.89$, $df=465$, $p=.000$). Eigenvalues for scale items can be seen in Scree Plot graph in Figure 1.

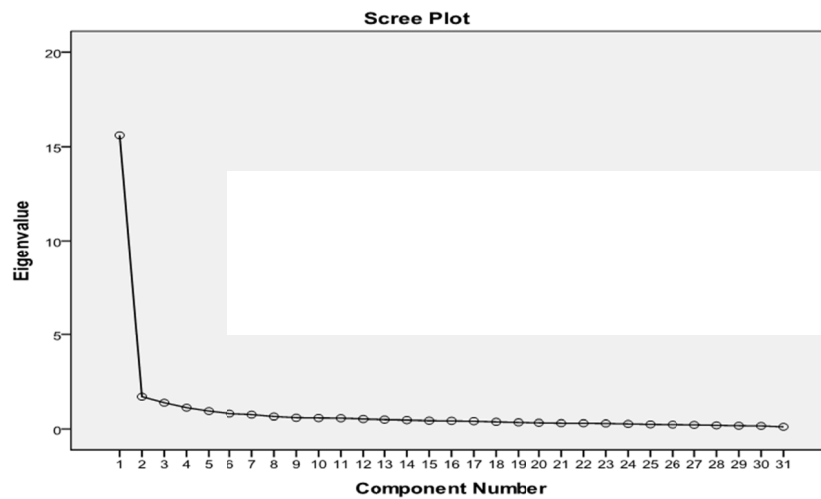


Figure 1. Eigenvalues for scale items

Factor analyses were made by using varimax method of vertical rotation methods and factor loads lower cut-off point was taken as .45. Exploratory factor analysis results belonging to remaining 31 items can be seen in Table 2.

Table 2. Exploratory factor analysis values regarding factors belonging to “Attitude scale towards drama lesson for pre-service teachers” items.

Items	Factors			
	F1	F2	F3	F4
24. I believe drama lessons develop my imagination.	.735			
22. I think my self-confidence increases thanks to drama lessons.	.724			
31. I think I will improve my ability of making quick decision thanks to drama lesson.	.717			
9. I believe drama lesson affects my comprehension skill positively.	.706			
28. I believe drama lesson improve my sense of responsibility.	.705			
7. I think drama lesson will change my perspective on events.	.691			
27. I believe drama lesson will improve my creative ability.	.690			
6. I believe I know myself better thanks to drama lesson.	.686			
2. I think drama lesson affects my communication skill positively.	.645			
16. I can control my emotions better thanks to drama lesson.	.634			
8. I think drama lesson contributes to my professional ability.	.600			
23. I find drama lessons entertaining.	.592			
26. I feel comforted after drama lessons.	.507			
17. Drama lesson do not contribute to my education.		.653		
12. I do not think drama lessons will improve my empathy ability.		.643		
21. I think drama lesson is not suitable for adult groups.		.638		
40. I think drama lesson does not contribute to my moral development.		.606		
3. I see drama lesson as timewasting.		.599		
36. I see having much information about drama lesson as unnecessary.		.576		
11. I do not believe drama lesson contribute to my social sensitivity.		.563		
19. Drama lesson is one of the least important lessons for me.		.562		
33. Increasing drama lessons numerically makes me happy.			.729	
4. I do my drama lesson homework in pleasure.			.683	
13. I want drama activities take much longer.			.678	
35. I want to be a drama teacher in the future.			.619	
18. I try to provide active participation in drama activities.			.587	
10. I participate in drama activities voluntarily.			.554	
39. I worry about having trouble in drama lesson.				.787
38. I do not think I fulfill drama lesson’s necessities.				.746
30. I feel myself desperate in drama lessons.				.683
25. Taking part in drama lesson activities make me annoy.				.563

According to Table 2, it is seen that 31 items of scale were gathered in four factors. Item numbers which is involved in factors were determined as 13 in the first factor, as 8 in the second factor, as 6 in the third factor and as 4 in the fourth factor. When aforementioned factors are examined, the first factor was named as “*Positive Attitude of Drama Lesson for Improving Personal and Professional Skills*”, the second factor was named as “*Negative Attitude of Drama Lesson for Improving Personal and Professional Skills*”, the third factor was named as “*Positive Attitude for Drama Lesson Activities*” and the fourth factor was named as “*Negative Attitude for Drama Lesson Activities*”.

According to exploratory factor analysis in Table 2, items’ load values in first factor show a change between .735 and .537, items’ load values in second factor show a change between .653 and .562, items’ load values in third factor show a change between .729 and .554, items’ load values in fourth factor show a change between .787 and .563. In addition to this, when examined factors’ variance percentages, it is seen that first factor explains 23,688% of variance by itself, second factor explains 15,023% of variance by itself, third factor explains 14,957% of variance by itself, fourth factor explains 10,165% of variance by itself. And it is seen that four factors explain 63,833% of total variance. Moreover, when examined eigenvalues that can give an idea about predicting importance level, it is seen that first factor’s value is 7,343, second factor’s value is 4,657, third factor’s value is 4,637, and fourth factor’s value is 3,151. Load values regarding factors in scale can be seen in Table 3.

Table 3. Load values regarding factors in scale

Factors	Eigenvalues	Stated Variance Percentage (%)
F1	7,343	23,68
F2	4,657	15,02
F3	4,637	14,95
F4	3,151	10,16
		Total 63,81

F1: Load values of first factor

F2: Load values of second factor

F3: Load values of third factor

F4: Load values of fourth factor

Results obtained by exploratory factor analysis were tried to verify the structure by testing with confirmatory factor analysis. It can be seen data regarding confirmatory factor analysis in Figure 2.

In Figure 2, it can be seen that error variances of items and load values of factors related to items regarding the structure that was obtained via confirmatory factor analysis. And it can be seen that when examined the relation values of items with factors, correlations vary between .63 and 1.00. Moreover, when examined relation values between factors, it is seen that correlations vary between .71 and .83. As a result of confirmatory factor analysis of model, Chi-square (χ^2) value is 942.14, degree of freedom (df) is 428, $p=0.000$ and Root-Mean-Square Error of Approximation (RMSEA) is 0.068. In accordance with these obtained information, it can be said that scale’s items are suitable in terms of representativeness of structure.

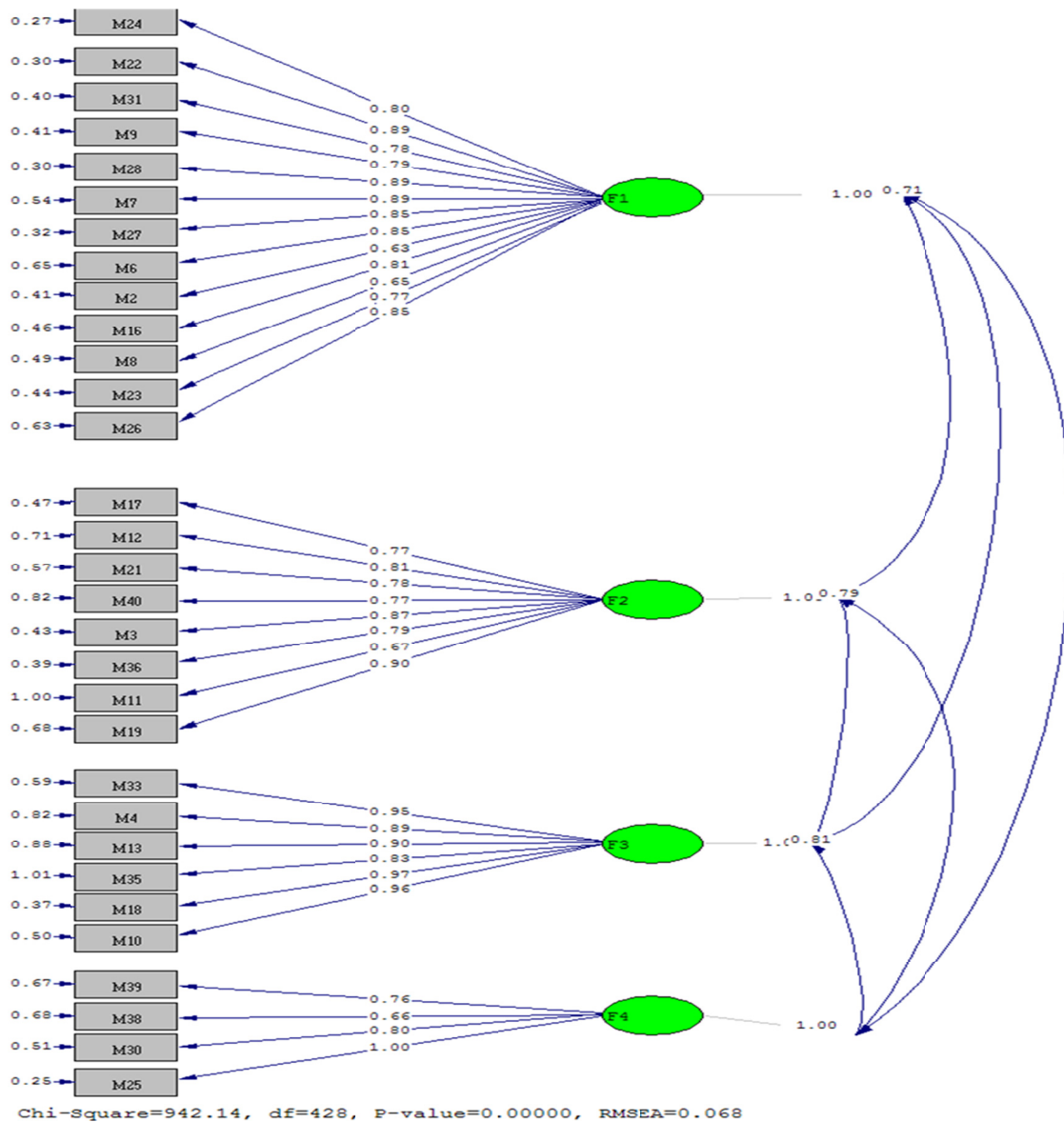


Figure 2. Data regarding confirmatory factor analysis

3.2 Findings Regarding Reliability

Cronbach Alpha (Cra) internal consistency coefficient was calculated so as to provide reliability in scale’s development process. As a result of analysis, all Cronbach Alpha (Cra) values of scale were found as .965. For the first factor of scale, Cronbach Alpha (Cra) coefficient of “Positive Attitude of Drama Lesson for Improving Personal and Professional Skills” was found as .950; for the second factor, Cronbach Alpha (Cra) coefficient of “Negative Attitude of Drama Lesson for Improving Personal and Professional Skills” was found as .888; for the third factor, Cronbach Alpha (Cra) coefficient of “Positive Attitude towards Drama Lesson Activities” was found as .880 and for the fourth factor, Cronbach Alpha (Cra) coefficient of “Negative Attitude towards Drama Lesson Activities” was found as .836. In accordance with these obtained values, it can be said that the scale is reliable sufficiently.

4. Discussion

As a result of implemented factor analysis on scale items, 9 items (1, 5, 14, 15, 20, 29, 32, 34, 37) which were not suitable for scale’s structure and loaded more than one dimension were removed from scale and it was continued with remaining 31 items. As a result of analysis, KMO value was calculated as .963. Moreover, it was reached a finding that chi-square statistic test values, which was obtained as a result of Bartlett Sphericity test, were significant ($\chi^2=5738.89$, $df=465$, $p=0.000$). Factor analyses were made by using varimax method of vertical rotation methods and factor loads lower cut-off point was taken as .45. It is seen that 31 scale items were gathered in four factors. Item numbers which is involved in factors were determined as 13 in the first factor, as 8 in the second factor, as 6 in the third factor and as 4 in the fourth factor.

Results obtained by exploratory factor analyses were tried to verify the structure by testing with confirmatory factor analysis. Correlation values of factor relations of items vary between .63 and 1.00. Moreover, correlation values of inter-factor relations vary between .71 and .83. As a result of confirmatory factor analysis of model, Chi-square (χ^2) value was found as 942.14, degree of freedom (df) was 428, $p=.000$ and Root-Mean-Square Error of Approximation (RMSEA) was 0.068. So as to provide reliability in scale's development process, Cronbach Alpha ($C\alpha$) internal consistency coefficient was calculated. As results of analyses, all Cronbach Alpha ($C\alpha$) values of scale were found as .965.

5. Conclusions and Suggestions

Drama was often discussed as a method in studies and effectiveness of this method on students' achievements, attitudes and interests was examined. In addition to that, pre-service teachers' attitudes towards drama and self-sufficiency for using drama method were studied. When looked to studies for pre-service teachers' attitudes towards drama lesson, Şahin (2010) examined pre-service class teachers' attitudes towards drama lesson and used "Attitude Scale for Creative Drama Lesson", which was developed by Adıgüzel (2006), as data collection tool in his study. Likewise, Ünal (2004) examined pre-service class teachers' attitudes towards drama lesson in primary education and used "Attitude Scale for Drama Lesson in Primary Education", which was developed by himself as data collection tool in his study.

Ceylan & Ömeroğlu (2011) developed "Assessment Scale towards Drama in Preschool Education" within the scope of scale development studies to assess pre-service preschool teachers' attitudes about drama training. Başçı & Gündoğdu (2011) found out pre-service teachers' attitudes and opinions towards drama lesson and used "Attitude Scale for Creative Drama Lesson", which was developed by Adıgüzel (2006), as data collection tool in his study. When looked to these studies, Ceylan & Ömeroğlu (2011) and Ünal (2004) developed respectively "Attitude Scale for Pre-service Preschool Teacher and Class Teachers". These developed scales do not include all pre-service teachers. It was discussed only drama in "Attitude Scale for Creative Drama Lesson", which was developed by Adıgüzel (2006) for all pre-service teachers.

In this study, drama lesson was examined with a general approach and it includes not only creative drama but also educational drama as well. If pre-service teacher have positive attitude towards this lesson, they will probably use drama method in class in their teaching life. In this study, pre-service teachers' attitudes towards drama lesson can be found out with developed scale and in accordance with the results, it can be made arrangements about drama lessons in faculty of education in universities.

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Appendix A

Attitude Scale towards Drama Lesson for Pre-service Teachers

There are some statements about drama lesson below. You are asked to indicate your contributory level for each statement. Please mark only one checkbox for each statement. After reading the statements, please mark the most suitable option with (X). Items are rated as Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4) and Strongly Agree (5). Please do not leave any blank item.

Thank you for sparing time.

No	Items	(1) Strongly Disagree	(2) Disagree	(3) Neutral	(4) Agree	(5) Strongly Agree
1	I think drama lesson affects my communication skill positively.					
2	I see drama lesson as timewasting.					
3	I do my drama lesson homework in pleasure.					
4	I believe I know myself better thanks to drama lesson.					
5	I think drama lesson will change my perspective on events.					
6	I do not think drama lesson contributes to my professional ability.					
7	I worry about having trouble in drama lesson.					
8	I participate in drama activities voluntarily.					
9	I do not believe drama lesson contribute to my social sensitivity.					
10	I do not think drama lessons will improve my empathy ability.					
11	I want drama activities take much longer.					
12	I can control my emotions better thanks to drama lesson.					
13	Drama lesson do not contribute to my education.					
15	Drama lesson is one of the least important lessons for me.					
16	I think drama lesson is not suitable for adult groups.					
17	I think my self-confidence increases thanks to drama lessons.					
18	I find drama lessons entertaining.					
19	I believe drama lessons develop my imagination.					
20	Taking part in drama lesson activities make me annoy.					
21	I feel comforted after drama lessons.					
22	I believe drama lesson will improve my creative ability.					
23	I believe drama lesson improve my sense of responsibility.					
24	I feel myself desperate in drama lessons.					
25	I think I will improve my ability of making quick decision thanks to drama lesson.					
26	Increasing drama lessons numerically makes me happy.					
27	I want to be a drama teacher in the future.					
28	I see having much information about drama lesson as unnecessary.					
29	I do not think I fulfill drama lesson's necessities.					
30	I believe drama lesson affects my comprehension skill positively.					
31	I think drama lesson does not contribute to my moral development.					



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