Özkaya, P. G. (2022). The effect of creative drama on attitudes towards Turkish lessons and Turkish language skills: A meta-analysis study. *Ana Dili Eğitimi Dergisi*, *10*(4), 792-809.



# The Effect of Creative Drama on Attitudes towards Turkish Lessons and Turkish Language Skills: A Meta-Analysis Study

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## Abstract

The purpose of the current study is to determine the effect of creative drama on the attitudes of students from different levels of education in Turkey towards Turkish lessons and Turkish language skills. To this end, a meta-analysis of the studies examining the effect of creative drama on the attitudes towards Turkish lessons and Turkish language skills was conducted. Within the context of the study, it was also tried to determine whether the effect values vary depending on the type of publication, the education level of the participants, and the domain of attitude moderator variables. A total of 17 studies were included in the meta-analysis study. The sample size of the studies included in the meta-analysis was 733 people, including 424 participants in the experimental group and 309 participants in the control group. The studies included in the metaanalysis are heterogeneous. In addition to the publication bias result of the funnel plot, Orwin's Safe N analysis, Duval and Tweedie's Trim and Fill and Egger's regression analysis revealed no publication bias. Effect values were calculated according to the random effects model. Cohen's d coefficient was used in the effect value calculations. The Q test and p significance coefficient were used to determine the moderator variable effect. In the study, it was determined that creative drama has a positive and high level effect on the attitudes towards Turkish lessons and Turkish language skills. When the results of the moderator variable analysis were examined, it was seen that the variance between studies for the moderator variable of publication type was not significant in terms of the attitudes towards Turkish lessons and Turkish language skills while it was significant in favor of high school level for the moderator variable of education level and in favor of speaking skill for the moderator variable of domain of attitude.

Keywords: Turkish teaching, Turkish language skills, attitude, creative drama, meta-analysis

# Yaratıcı Dramanın Türkçe Dersine ve Türkçe Dil Becerilerine Yönelik Tutuma Etkisi: Bir Meta Analiz Çalışması

# Öz

Bu çalışmanın amacı, yaratıcı dramanın Türkiye'de farklı öğrenim düzeylerinde öğrenim gören öğrencilerin Türkçe dersine ve Türkçe dil becerilerine yönelik tutumlarına etkisinin belirlenmesidir. Bu amaç doğrultusunda yaratıcı dramanın Türkçe dersine ve Türkçe dil becerilerine yönelik tutuma etkisini inceleyen araştırmaların meta analizi yapılmıştır. Araştırma kapsamında; etki değerlerinin yayın türü, katılımcıların öğrenim düzeyi, tutum alanı moderatör değişkenlerine göre farklılık gösterip göstermediği de belirlenmeye çalışılmıştır. Meta analiz çalışmasına 17 araştırma dâhil edilen çalışmaların örneklem büyüklüğü deney grubunda 424 katılımcı, kontrol grubunda 309 katılımcı olmak üzere toplam 733 kişidir. Meta analize dâhil edilen çalışmaların grafiğinin yayın yanlılığına ilişkin sonucuna ek olarak Orwin'in Güvenli N analizi, Duval ve Tweedie'nin Kırpma ve Doldurması ve Egger'in regresyon analizi ile yayın yanlılığının olmadığı tespit edilmiştir. Etki değerleri rastgele etkiler modeline göre hesaplanmıştır. Etki değeri hesaplamalarında Cohen'in d katsayısı kullanılmıştır. Moderatör

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değişken etkisinin belirlenmesinde Q testi ve p anlamlılık katsayısı kullanılmıştır. Araştırmada yaratıcı dramanın Türkçe dersine ve Türkçe dil becerilerine yönelik tutum üzerinde pozitif yönde ve yüksek düzeyde olduğunu bir etkisi olduğu tespit edilmiştir. Moderatör değişken analizi sonucu incelendiğinde yayın türü moderatör değişkeni için çalışmalar arası varyansın Türkçe dersine ve Türkçe dil becerilerine yönelik tutum açısından anlamlı olmadığı; öğrenim düzeyi moderatör değişkeni ehine, tutum alanı moderatör değişkeni için ise konuşma becerisi lehine anlamlı olduğu görülmüştür.

Anahtar Kelimeler: Türkçe eğitimi, Türkçe dil becerileri, tutum, yaratıcı drama, meta analiz

#### Introduction

Turkish teaching is a life-long process that develops as intertwined with life. In this respect, it is important that the teaching methods to be preferred in Turkish lessons should be able to improve the language skills of students, provide them with the opportunity to learn by doing and experiencing, enable students to relate what they have learned to life, and increase their interest in and motivation towards the lesson. In the Turkish Curriculum, it is stated that "the curriculum is structured in an integrated manner to include knowledge, skills and values that will enable students to acquire language skills and cognitive skills related to listening/watching, speaking, reading and writing that they can use throughout their lives, develop themselves individually and socially by using these skills, communicate effectively and acquire reading and writing skills willingly with a love of Turkish" (Millî Eğitim Bakanlığı [MEB], 2019). In this context, besides developing the basic language skills of students, the main objective of Turkish lessons is to develop a love of language in students. Given that Turkish lessons should focus on developing skills rather than knowledge in students, it is important to make use of practical approaches, methods and techniques (Keşaplı, 2019). In addition to being an active teaching method that allows learning by doing and experiencing, creative drama can be accepted as a suitable method for the accomplishment of the main objectives of the Turkish lessons by increasing students' interest and motivation through gamification processes.

Creative drama can be defined as "a group's enacting using role-playing and improvisation techniques based on their own experiences with a focus on a certain subject and in a certain place under the guidance of an instructor" (Adıgüzel, 2019, p. 73). Creative drama has a multi-stage and systematic process that includes "warm-up/preparation", "enactment" and "evaluation" stages. These stages can be explained as follows:

"Warm-up/Preparation: It is the stage where the body is activated, the senses are used intensively at the same time, introspective activities are performed, and group dynamics are established with activities to foster confidence and adaptation. The purpose of this stage is to prepare for the next stage by providing some insights into the subject as well as establishing group dynamics.

Enactment: It is the stage in which the subject is addressed, shaped and all the activities for formation are carried out. It is the stage where improvisation, role playing, and other techniques are predominantly used, and which is a starting point within the framework of the subject to be enacted.

Evaluation/Discussion: It is the stage where discussions and evaluations are made on educational gains or emerging formations" (Adıgüzel, 2019, p. 136-140).

While performing creative drama practices in education, students are warmed up to the subject physically, mentally and emotionally during the warm-up/preparation stage, they are made to feel the concepts related to the subject and their prior knowledge about the subject is determined. In the enactment phase, play-like processes are used, and situations related to the subject are enacted by using drama techniques (improvisation, role playing, etc.). Interim evaluations are made to deepen the understanding of the subject. In the evaluation/discussion stage, a discussion is held on the subject, experiences are evaluated, and the level of achievement is determined by making use of different measurement tools. In this way, learning by doing and experiencing has been accomplished.

Creative drama in education as a method focuses on the development of affective and cognitive abilities such as personality and identity, social cohesion, teamwork, cooperation, social sensitivity, life experience, empathy, critical thinking, awareness, communication, interaction, learning by experiencing, self-knowledge, discovery of talents, democratic attitudes, aesthetic behaviours,

linguistic and expressive power. At the same time, it does this in a process-oriented and studentcentred manner (Keşaplı, 2019). The reasons for the use of creative drama as a method in education can be listed as follows; being student-centred, based on the process, making the student active and providing the student with the opportunity to express himself/herself (Özbey & Sarıkaya, 2019). Through student-centred drama activities, many abstract, complex and different subjects can be made concrete in the mind of the student through enactment (Kurudayıoğlu & Özdem, 2015). Given the delineations above, it can be said that creative drama is a method that increases students' interest in and desire for the lesson and helps them develop positive attitudes towards the lesson. Smith (1968, as cited in Kağıtçıbaşı, 2003) defines attitude as the tendencies that are attributed to individuals and that regularly form their thoughts, feelings and behaviours about a psychological object. Accordingly, attitudes are not just a behavioural or emotional tendency, but an integration of intellectual, emotional and behavioural tendencies (Kağıtçıbaşı, 2003). The emotional component of the attitude includes the individual's excitement towards the events and objects that are the subject of the attitude (Tavsancil, 2014). The emotional aspect of the attitude far outweighs the other aspects because if a person is eager towards a particular object or situation, he/she will be provided with the opportunity to go in that direction and make an effort in that direction (Toraman & Ulubey, 2016). In other words, increasing the interest in and desire for lessons brings success. In this connection, while educational activities are carried out, it is important to choose the methods that will increase students' interest in and desire for the lesson so that the success of students can be increased, and they can develop positive attitudes towards the lesson.

When the literature is reviewed, it is seen that there are many meta-analysis studies as well as individual studies examining the effects of creative drama on students' academic achievement (Akdemir & Karakuş, 2016; Alacapınar & Uysal, 2020; Cantürk-Günhan, 2016; Özbey & Sarıkaya, 2019; Özdemir-Şimşek & Karataş, 2020; Ulubey, 2018; Ulubey & Toraman, 2015) and attitudes towards lessons (Alacapınar & Uysal, 2020; Özbey & Sarıkaya, 2019; Toraman & Ulubey, 2016). In these studies, it was concluded that creative drama positively affects academic achievement and attitude towards the lesson. Within the context of language teaching, it has been concluded that creative drama is an effective method in developing students' language skills (Aykaç & İlhan, 2014; Galente & Thomson, 2017; Jie, 2021; Susar-Kırmızı, 2015; Öztürk-Pat & Yılmaz, 2021; Terzioğlu-Ünveren, 2018; Türkel & Öz, 2020), vocabulary (Arpağ, 2018; Kır-Cullen, 2021; Koçpınar, 2018; Metinnam & Erdoğan, 2016, Şahin, 2018; Şenol, 2011) and in the teaching of grammar (Kodaz, 2007; Özkaya and Altuntaş, 2021; Şimşek et al., 2010; Teke & Gedizli, 2016; Türkel & İnnalı, 2020; Yeşilyurt, 2011) and that it increases students' interest in the lesson (Aytaş & Özcan, 2019; Keşaplı, 2019; Kurudayıoğlu & Özdem, 2015; Özcan, 2020). There are also experimental studies examining the effects of creative drama on students' attitudes towards Turkish lessons and Turkish language skills (Çam-Türkan, 2020; Erden, 2016; Erdoğan, 2013; Erdoğan, Erdoğan & Uzuner, 2018; Ergüder, 2019; Erkan & Aykaç, 2014; İsbir-Abrekoğlu, 2019; Kara, 2010; Kardaş, 2018; Kılıç, 2018; Öz, 2018; Özber, 2019; Susar-Kırmızı, 2008; Tanrıkulu & Yoğurtçu, 2018; Türkel, 2011). Each of these studies in the literature has concluded in itself that creative drama has a positive effect on the attitudes towards Turkish lessons and Turkish language skills. However, given that the effects of creative drama on the attitudes towards Turkish lessons and Turkish language skills differ in these studies, a meta-analysis study is needed in order to evaluate and generalize the results of the studies as a whole. When the relevant literature was reviewed, it was seen that there is no metaanalysis study on the effect of creative drama on the attitudes towards Turkish lessons and Turkish language skills. In this regard, the purpose of the current study is to determine the effect of creative drama on the attitudes of students studying at different education levels in Turkey towards Turkish lessons and Turkish language skills. To this end, a meta-analysis of the studies examining the effect of creative drama on the attitudes towards Turkish lessons and Turkish language skills was conducted. Within the context of the current study, it was also tried to determine whether the effect values vary depending on the type of publication, the education level of the participants, and domain of attitude moderator variables.

## Method

## **Research Model**

The current study aimed to determine the overall effect sizes related to the effect of creative drama on students' attitudes towards Turkish lessons and Turkish language skills by using the metaanalysis method. Meta-analysis refers to the process of combining and reinterpreting similar studies on a particular subject using various methods and reaching new results (Bakioğlu & Göktaş, 2018). In meta-analysis, similar studies on a subject, theme or field of study are grouped within certain criteria, and the quantitative findings of these studies are combined and interpreted (Dincer, 2021). Metaanalysis, also called the synthesis of quantitative research, is a powerful approach to summarize and compare results from the experimental literature (Card, 2011). Based on these definitions, it can be said that meta-analysis is a research method that provides an overall effect size by combining the quantitative results obtained from more than one primary study on a subject. When the literature is examined, it is seen that there are different studies examining the effect of creative drama on students' attitudes towards Turkish lessons and Turkish language skills. However, it has been determined that the sizes of the effect of creative drama on students' attitudes towards Turkish lessons and Turkish language skills differ in the studies found in the literature. This revealed the necessity of expressing the research results holistically. This holistic expression is possible by combining the results obtained from the studies by subjecting them to meta-analysis and reaching an overall effect size. In this connection, within the context of the current study, the studies designed to determine the effect of creative drama on the attitudes towards Turkish lessons and Turkish language skills were examined and an overall effect size was tried to be reached with the meta-analysis method. In addition to reaching an overall effect size by combining the results of different studies, the differences in the effect sizes calculated between the studies by using meta-analysis can be examined in terms of variables such as the type of publication and age, gender and education level of the participants. In this context, the differences in the effect sizes calculated according to the studies on the effect of creative drama on the attitudes towards Turkish lessons and Turkish language skills were examined through the moderator variables (education level, publication type, domain of attitude).

# **Collection and Coding of the Data**

The data of the study were collected in March 2022. In order to reach the studies used in the current study, a search was conducted by using the keywords "Türkçe eğitimi, Türkçe dil becerileri, tutum, yaratıcı drama" and their English translations "Turkish teaching, Turkish language skills, attitude, creative drama" in the following databases: Google Academic, YÖK National Thesis Centre, ULAKBİM TR Index, ProQuest, indexes in ISI database (SCI, SCI Expanded, SSCI, AHCI and ESCI), ERIC and Education Full Text (H. W. Wilson, EBSCOhost) databases. It was seen that the studies reached were conducted between the years 2004 and 2020. Then, the criteria of the inclusion of the reached studies in the meta-analysis were determined. These criteria are: (1) It should be a graduate thesis completed between 2004 and 2020 or an article published in peer-reviewed journals, (2) It should be on the determination of the effect of creative drama on the attitudes towards Turkish lessons and/or Turkish language skills (listening/watching, speaking, reading and writing), (3) It should be a single group pretest-posttest or experimental-control group (quasi) experimental research, (4) It should include creative drama activities undertaken by the participants in the experimental group while including traditional teaching methods administered to the participants in the control group, (5) It should use data collection tool(s) to determine the effect of creative drama on the attitudes towards Turkish lessons and Turkish language skills, (6) The numbers of the participants in the experimental and control groups should be given, (7) It should present arithmetic means, standard deviations, p values or other statistics required to calculate the effect size. These criteria were also used as the exclusion criteria. If the articles produced from graduate theses were reached while collecting the data, not the articles but the graduate theses were included in the meta-analysis with the assumption that they contain more data, and the probability of publication bias is relatively low. The review was reported according to PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses)

guidelines (Moher, Liberati, Tetzlaff & Altman, 2009). The PRISMA flow diagram of the search to identify and screen the analytical resources is presented in Figure 1.



Figure 1. PRISMA flow diagram

As can be seen in Figure 1, as a result of the search conducted by using the keywords "Türkçe eğitimi, Türkçe dil becerileri, tutum, yaratıcı drama" and their English translations "Turkish teaching, Turkish language skills, attitude, creative drama", a total of 100 studies were reached. When these studies were examined, it was seen that twenty-two of them dealt with the relationship between creative drama and attitude within the scope of Turkish lessons and/or Turkish language skills. When the studies were evaluated in line with the inclusion criteria of the meta-analysis study, two studies were not included in the meta-analysis because they were aimed at examining the attitude towards creative drama within the scope of Turkish lessons, two studies were excluded as they did not report the values required for the necessary calculations, and three were excluded as they were articles produced from theses. In one study (Kara, 2010), since the experimental procedure was applied by forming a control-experimental group within three separate groups, the experimental procedure for each group was accepted as one study and thus this study was included in the meta-analysis as three different studies. As a result, a meta-analysis was conducted on 17 studies that met the inclusion criteria. The total sample size of the studies included in the meta-analysis is 733 participants, 424 participants in the experimental group and 309 participants in the control group.

In line with the determined criteria for inclusion in the meta-analysis, a form was created for the studies to be included in the current study and the studies were coded in this form. In the coding form, information about the name of the study, author(s), publication year, education level, publication type, domain of attitude, number of participants in the experimental and control group, post-test arithmetic mean, standard deviation, p values were included. Apart from the researcher, two

field experts also coded the research data, and as a result of the consensus meetings, it was seen that a full consensus was achieved on the coding. In this way, reliability in the coding was established.

# **Publication Bias**

Publication bias can be expressed as the studies included in the meta-analysis are not strong enough to represent all the studies on that subject. This is because the use of a nonrepresentative proportion of significant studies or studies differentially giving results in, say, a positive direction will lead to a nonrepresentative set of studies in the meta-analysis data set. A standard meta-analysis model will then result in a conclusion biased toward significance or positivity (Duval & Tweedie, 2000). Since publication bias is an important factor that threatens the validity of the research (Dwan, Gamble, Williamson & Kirkham, 2013; Sutton, 2009), in the current study, first, the status of publication bias was determined in the studies included in the meta-analysis. In the study, the status of publication bias was examined by using the funnel plot, Orwin's Safe N analysis, Duval and Tweedie's Trim and Fill analysis, and Egger's regression test. In this connection, the funnel plot showing the possibility of publication bias in the meta-analysis study is given in Figure 2.



*Figure 2.* Related to the Effect of Creative Drama on the Attitudes towards Turkish Lessons and Turkish Language Skills

When the funnel plot in Figure 2 is examined, it is seen that the studies included in the metaanalysis are generally gathered in the middle section and distributed symmetrically on both sides of the vertical line showing the combined effect size. The symmetric distribution of the studies around the effect size axis and their collection in the middle of the standard error axis indicate the low probability of publication bias. However, the funnel plot alone is not sufficient to determine the probability of publication bias (Card, 2011; Pigott, 2012). For this reason, in addition to the publication bias result of the funnel plot, by using Orwin's Safe N analysis, Duval and Tweedie's Trim and Fill and Egger's regression analysis, publication bias was also examined. The obtained findings are presented in Table 1.

Table 1.

Reliability tests on the probability of publication bias

Orwin's Safe N	Duval	Egger Test	
(-/+ .01 S.O.F) Required Studies*	Trimmed	Observed/Filled	(q)
1074	0	.659(.659)	.055

\*The number of studies required for Cohen's d coefficient to reach a value outside the range of +/-.01

According to Table 1, the high number of studies to be reached as a result of Orwin's Safe N analysis indicates low publication bias. This shows that there is no need to add new studies to the meta-analysis to bring Cohen's d coefficient to a value outside the +/-.01 range, which is considered "insignificant". The result of the Duval and Tweedie test shows that the effect values formed as a result of removing the studies that negatively affect the publication bias from the meta-analysis or adding their symmetrical counterparts to the meta-analysis do not differ from the observed values. In addition, the fact that the result of the Egger test is insignificant (p>.05) confirms that there is no publication bias in the study.

## **Model Selection**

In order to calculate effect sizes in meta-analysis studies, first, it is necessary to determine the model through which the effect sizes will be calculated. These models are divided into two as fixed effects model and random effects model (Borenstein, Hedges, Higgins & Rothstein, 2009). The fixed effects model basically assumes that all the studies included in the meta-analysis have exactly the same effect size value, that is, the standard deviation between them is zero. The random effects model assumes that the effect sizes are different in the studies and tries to calculate this difference (Bakioğlu & Göktaş, 2018). When calculating the overall effect size, the fixed effects model is used for homogeneous distributions of effect sizes, and the random effects model is used for heterogeneous distributions (Cooper, 2016; Deeks, Higgins & Altman, 2008). The fact that the sample characteristics are affected by different variables indicates that the use of the random effects model is more appropriate (Yorulmaz, Iliman-Püsküllüoğlu, Çolak & Altınkurt, 2021). In this context, it is recommended to use the random effects model in studies in the field of social sciences (Field & Gillett, 2010). Due to the differentiation of the elements such as participant characteristics and scope of the studies included in the current study; it was deemed appropriate to use the random effects model in this meta-analysis study.

# Heterogeneity

In the study, heterogeneity tests were performed to determine whether the effect sizes showed a heterogeneous distribution. Heterogeneity is about the extent to which effect sizes vary in a meta-analysis (Sen & Yıldırım, 2020). The Q value is used to determine the heterogeneity of the effect sizes of the studies included in the meta-analysis (Dincer, 2021). However, the Q test only gives information about whether there is heterogeneity or not, it cannot determine the degree of heterogeneity. The I<sup>2</sup> value is used to measure the degree of heterogeneity (Huedo-Medina, Sánchez-Meca, Marín-Martínez & Botella, 2006). I<sup>2</sup> is the percentage of variance arising from the heterogeneity between effect sizes. An I<sup>2</sup> value of 25% or less is considered a low, 50% is considered a medium, and 75% and above is considered a high level of heterogeneity (Higgins & Thomson, 2002; Pigott, 2012). In this meta-analysis study, the Q value was used to determine the state of heterogeneity, and the I<sup>2</sup> value was used to determine the magnitude of heterogeneity. Accordingly, the Q value was calculated as 47.214 ( $sd_{(Q)}$ = 16; p=.000). These values indicate that the studies included in the meta-analysis are heterogeneous. The  $l^2$  value was determined to be 66.111. This value confirms that the studies included in the meta-analysis have medium (near high) heterogeneity. The heterogeneity of the studies included in the meta-analysis forms the basis for examining the reasons for the difference between effect sizes. In this connection, the differences in the effect size calculated according to the studies on the effect of creative drama on the attitudes towards Turkish lessons and Turkish language skills were examined through the moderator variables (education level, publication type, domain of attitude).

# **Calculation of Effect Sizes**

In the meta-analysis study, Cohen's d coefficient was used in the effect value calculations and the confidence level was accepted to be 95% in all the calculations regarding the effect value. Cohen's d coefficient of d<.20 indicates a low level of effect,  $.20 \le d < .50$  indicates a medium level of effect, and

.50≤d indicates a high level of effect (Cohen, 1988). Effect sizes were interpreted by taking these values as reference values.

In the current study, the moderator variable effect of the variables of education level, publication type and domain of attitude on the effect values calculated according to the effect of creative drama on the attitudes towards Turkish lessons and Turkish language skills was also examined. The Q test and p significance coefficient were used to determine the moderator variable effect.

# **Research and Publication Ethics**

In this study, all the rules specified to be followed within the scope of "Higher Education Institutions Scientific Research and Publication Ethics Directive" were followed. None of the actions specified under the title of "Actions Contrary to Scientific Research and Publication Ethics", which is the second part of the directive, were not carried out.

# Findings

# Findings Regarding the Characteristics of the Studies Included in the Meta-Analysis

The findings regarding the characteristics of the studies included in the meta-analysis are presented in Table 2.

# Table 2.

Descriptive	information	about the studie	es included in	the meta-analysis
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Author name/ Publication year	Attitude	Education level	Type of publication	$\overline{X}$ Experimental	SExperimental	NExperimental	$\overline{X}_{\text{Control}}$	Scontrol	Ncontrol	Ρ	Cohen's d	Serror
Çam-Türkan (2020)	Turkish lesson	Middle school	Doctoral thesis	128.230	5.280	30	102.230	18.980	30	-	1.886	.309
Erden (2016)	Reading	Middle school	Master's thesis	90.070	20.260	27	89.440	18.930	29	-	.032	.267
Erdoğan (2013)	Writing	Undergraduate	Article	-	-	24	-	-	-	.001	.769	.232
Erdoğan et al. (2018)	Reading	Primary school	Article	-	-	16	-	-	-	.909	029	.250
Ergüder (2019)	Writing	Primary school	Master's thesis	3.800	.530	26	3.610	.700	24	-	.308	.285
Erkan and Aykaç (2014)	Writing	Primary school	Article	148.700	20.910	23	135.780	27.670	21	-	.531	.307
İsbir- Abrekoğlu (2019)	Writing	Middle school	Master's thesis	125.300	30.760	20	101.350	25.210	20	-	.852	.330
Kara (2010a)	Turkish lesson	Middle school	Doctoral thesis	4.421	.869	21	3.832	1.343	19	-	.526	.332
Kara (2010b)	Turkish lesson	Middle school	Doctoral thesis	4.157	.950	22	3.943	1.165	21	-	.202	.306

Kara (2010c)	Turkish lesson	Middle school	Doctoral thesis	4.138	1.019	26	3.857	1.111	26	-	.264	.279
Kardaş (2018)	Turkish lesson	Middle school	Master's thesis	36.917	3.232	12	34.125	4.674	16	-	.677	.392
Kılıç (2018)	Writing	High school	Master's thesis	3.730	.620	33	2.710	.910	32	-	1.314	.274
Öz (2018)	Speaking	Undergraduate	Master's thesis	131.288	15.005	45	114.882	15.671	45	-	1.069	.225
Özber (2019)	Writing	Primary school	Master's thesis	-	-	22	-	-	-	.001	.814	.246
Susar- Kırmızı (2008)	Reading	Primary school	Article	-	-	37	-	-	-	.013	.430	.172
Tanrıkulu and Yoğurtçu (2018)	Turkish lesson	Middle school	Article	-	-	15	-	-	-	.011	.756	.293
Türkel (2011)	Writing	Middle school	Doctoral thesis	116.680	21.700	25	95.280	23.165	25	-	.953	.298

X : Arithmetic mean; n: Sample size; S: Standard deviation; p< .05; Cohen's *d*: Effect size; S<sub>error</sub>: Standard error

As can be seen in Table 2, a total of 17 studies, including 5 doctoral theses (29%), 7 master's theses (42%) and 5 articles (29%) were included in the meta-analysis. Five of these studies (29%) were conducted on primary school students as participants, 9 of them (53%) on middle school students as participants (53%), 1 of them (6%) on high school students as participants and 2 of them (12%) on undergraduate students as participants. When the studies included in the meta-analysis are examined according to domain of attitude in which the effect of creative drama is measured, it is seen that 6 studies (35%) focused on the attitudes towards Turkish lessons, 1 study focused on attitudes towards speaking skill (6%), 3 studies focused on the attitudes towards reading skill (18%) and 7 studies focused on the attitudes towards writing skill (42%). In one study (Kara, 2010), since the experimental procedure was applied by forming a control-experimental group within three separate groups, the experimental procedure for each group was accepted as one study and thus this study was included in the meta-analysis as three different studies.

# Findings Related to the Effect of Creative Drama on the Attitudes towards Turkish Lessons and Turkish Language Skills

The purpose of the current study is to determine the effect of creative drama on the attitudes towards Turkish lessons and Turkish language skills. In this connection, the forest graph on the effect of creative drama on the attitudes towards Turkish lessons and Turkish language skills is presented in Figure 3, and the statistics on the effect size are presented in Table 3.



## Meta Analysis

*Figure 3.* Forest Graph on the Effect of Creative Drama on the Attitudes towards Turkish Lessons and Turkish Language Skills

## Table 3.

The result of the analysis on the effect of creative drama on the attitudes towards Turkish lessons and Turkish language skills

k	n	$EB_{mean}$	р	Z	Serror	EBlower	EBupper
17	733	.660	.000	5.799	.114	.437	.883

k: The number of studies included in the meta analysis; n: Sample size; EB<sub>mean</sub>: Mean effect size; S<sub>error</sub>: Standard error; EB<sub>lower</sub> – EB<sub>upper</sub>: Lower and upper limits of effect size

According to Figure 3, except for one of the studies included in the meta-analysis (Erdoğan et al., 2018), positive effects are observed in favour of the experimental group. In addition, the weights of the studies included in the analysis are close to each other. This closeness in terms of the weights of the studies shows that the contribution of the combined studies to the overall effect size is similar. When the effect sizes of the studies included in the meta-analysis are examined, it is seen that the study with the highest effect size belongs to Çam-Türkan (2020), and the study with the lowest effect size belongs to Erdoğan et al. (2018).

When Figure 3 and Table 3 are evaluated together, according to the results of the metaanalysis conducted with 17 studies, it is seen that the effect value of creative drama on the attitudes towards Turkish lessons and Turkish language skills is .660 (p<.05) and the standard error of the effect size is .114. These values show that the overall effect size is positive and high. The findings of the metaanalysis study revealed that the attitudes of the experimental group students instructed with the creative drama method towards Turkish lessons and Turkish language skills are higher than the attitudes of the control group students instructed with traditional methods towards Turkish lessons and Turkish language skills.

# Findings Related to the Effect of Creative Drama on the Attitudes towards Turkish Lessons and Turkish Language Skills depending on the Moderator Variables

In line with the general purpose of the current study, it was examined whether the effect of creative drama on the attitudes towards Turkish lessons and Turkish language skills varies depending on the education level, publication type and domain of attitude. The obtained results are presented in Table 4.

# Table 4.

The results of the analysis on the effect of creative drama on the attitudes towards the Turkish lessons and Turkish language skills depending on the moderator variables

Moderator	Levels of the	k	$EB_{mean}$	EBlower	EBupper	sd	Q	Р
variable	moderator variable							
Education	Primary school	5	.412	.148	.676	3	11.555	.009
level	Middle school	9	.672	.306	1.039			
	High school	1	1.314	.778	1.850			
	Undergraduate	2	.924	.607	1.241			
Type of	Doctoral thesis	5	.759	.163	1.355	2	1.578	.454
publication	Master's thesis	7	.731	.390	1.072			
	Article	5	.479	.204	.755			
Domain of	Turkish lessons	6	.713	.215	1.210	3	13.304	.004
attitude	Speaking	1	1.069	.628	1.511			
	Reading	3	.196	113	.506			
	Writing	7	.797	.565	1.028			

When the results of the moderator variable analysis in Table 4 are examined, it is seen that the variance between the studies for the moderator variable of publication type is not significant in terms of the variable of attitudes towards Turkish lessons and Turkish language skills (p>.05). This shows that creative drama has a positive effect on the attitudes towards Turkish lessons and Turkish language skills, regardless of the types of publications (doctoral thesis, master's thesis, article) included in the meta-analysis. However, the variance between the studies for the moderator variables of education level (Qeducation level=11.555 sd=3; p<.05) and domain of attitude (Qdomain of attitude=13.304 sd=3; p<.05) is significant in terms of the variable of attitudes towards Turkish lessons and Turkish language skills. Accordingly, the fact that the studies were conducted at different education levels and domains of attitude changes the effect size calculated for the attitudes towards Turkish lessons and Turkish language skills. When the means of the effect sizes are examined, it is seen that the effect of creative drama on the attitudes towards Turkish lessons and Turkish language skills is higher in the study conducted at high school level in terms of education level, and in the study on speaking skill in terms of domain of attitude. It can be stated that these results are in favour of the experimental group students who were instructed with the creative drama method.

# **Discussion and Results**

In the current study, a meta-analysis of the studies examining the effect of creative drama on the attitudes towards Turkish lessons and Turkish language skills was made. Within the context of the study, it was also determined whether the effect values vary depending on the moderator variables of publication type, education level of the participants and domain of attitude.

According to the results of the meta-analysis conducted with 17 studies, creative drama has a high level of effect on the attitudes towards Turkish lessons and Turkish language skills. When the effect values and the forest graph are evaluated together, it is seen that the experimental group students who were instructed with creative drama as a method developed more positive attitudes towards Turkish lessons and Turkish language skills compared to the control group students who were instructed with traditional methods. This result shows that creative drama is an effective method for students to develop positive attitudes towards Turkish lessons and Turkish le

studies in the literature (Çam-Türkan, 2020; Erden, 2016; Erdoğan, 2013; Erdoğan, et al., 2018; Ergüder, 2019; Erkan & Aykaç, 2014; İsbir-Abrekoğlu, 2019; Kara, 2010; Kardaş, 2018; Kılıç, 2018; Öz, 2018; Özber, 2019; Susar-Kırmızı, 2008; Tanrıkulu & Yoğurtçu, 2018; Türkel, 2011), it is emphasized that creative drama is an effective method for developing positive attitudes towards Turkish lessons and Turkish language skills and that it can be used in mother tongue teaching. All these studies support the result obtained in the current study.

In line with the general purpose of the current study, it was examined whether the effect of creative drama on the attitudes towards Turkish lessons and Turkish language skills varies depending on the moderator variables of education level, publication type and domain of attitude. When the results of the moderator variable analysis are examined, it is seen that the variance between the studies for the moderator variable of publication type is not significant for the variable of attitudes towards Turkish lessons and Turkish language skills. This shows that creative drama has a positive effect on the attitudes towards Turkish lessons and Turkish language skills, regardless of the types of publications (doctoral thesis, master's thesis, article) included in the meta-analysis. The fact that there is no significant difference between the variances in terms of publication type indicates that the studies included in the study are representative of the general population. Before starting the meta-analysis during the data collection stage, if the articles produced from the graduate theses were reached, not the articles but the graduate theses were included in the meta-analysis with the assumption that they contain more data, and the probability of publication bias is relatively low. As a result of the publication bias analyses conducted in this direction, it was determined that there was no publication bias. In the literature, it is stated that printed publications such as articles and books are considered suitable for publication if they have a strong effect or statistical significance, and this may be a problem in terms of publication bias in meta-analysis studies (Rust, Lehmann & Farley, 1990). For this reason, in order to avoid publication bias, in case of accessing the articles produced from the graduate theses, the graduate theses were included in the meta-analysis and thus more reliable results were tried to be obtained.

When the moderator variable of education level (primary school, middle school, high school, undergraduate) is examined, it is seen that the variance between studies is significant in terms of the variable of attitudes towards Turkish lessons and Turkish language skills. Accordingly, the fact that the studies were conducted at different education levels changes the effect size calculated for the attitudes towards Turkish lessons and Turkish language skills. When the means of the effect sizes are examined, it is seen that the effect of creative drama on the attitudes towards Turkish lessons and Turkish language skills is higher in the study conducted at the high school level in terms of education level. Within the scope of the meta-analysis, there is only one study representing the high school education level (Kılıç, 2018). For this reason, since it would not be correct to generalize this effect size to high school groups, it would be more appropriate to say that it only gives information about the current situation. When the study, which represents the high school level in the education level variable, was removed and the analysis was repeated, it was determined that the variance between the studies was not significant (Qeducation level= 5.976 sd=2; p>.05). This situation supports the conclusion that the effect size representing the high school education level is high due to the high effect size of the study in question. When the findings regarding the moderator variable of education level (primary school, middle school, high school, undergraduate) are examined, it is seen that the effect sizes belonging to all the education levels are positive. This reveals that creative drama is an effective method on the attitudes towards Turkish lessons and Turkish language skills at all the education levels. In many studies in the literature conducted at different education levels and in different disciplines, it has been concluded that creative drama is effective on students' attitudes (Akdemir, 2020; Altıkulaç & Akhan, 2010; Erdoğan, 2016; Kadan, 2013; Kars, 2018; Özçelik & Aydeniz, 2012; Öztürk & Korkmaz, 2020; Soylu-Makas, 2017). Accordingly, it can be said that creative drama is effective in different education levels and different disciplines.

When the moderator variable of domain of attitude (Turkish lessons, speaking, reading, writing) is examined, it is seen that the variance between studies is significant in terms of the variable of attitudes towards Turkish lessons and Turkish language skills. Accordingly, the fact that the studies

were conducted in different domains of attitude changes the effect size calculated for the attitudes towards Turkish lessons and Turkish language skills. When the means of the effect sizes are examined, it is seen that it is higher in the study on speaking skill in terms of domain of attitude. There is only one study representing attitudes towards speaking within the scope of the meta-analysis (Öz, 2018). In order to determine whether this effect size only gives information about the current situation for the study conducted by Öz (2018), the study representing the attitudes towards speaking was removed and the analysis was repeated; however, it was again determined that the variance between the studies was significant (Qdomain of attitude= 9.503 sd=2; p<.05). In this connection, it can be concluded that although it is represented by a single study, creative drama is more effective on the attitudes towards speaking than the attitudes towards the other language skills and Turkish lessons. It is thought that this situation is due to the fact that speaking skill is the basic element of verbal communication. It has been pointed out in many studies that creative drama is an effective method that strengthens individuals' communication skills, increases social skills and improves cooperation (Arslan, Erbay & Sargin, 2010; Aykaç & Keski, 2014; Batdı & Elaldı, 2020; Dereli, 2018; Orta, 2009; Karacil-Kılıçaslan & Yayla, 2018; Yeler, 2018). Considering the communication-enhancing aspect of creative drama, it is acceptable that it improves the attitude towards speaking skill, which is the basic element of communication, compared to the other skills, which concurs with the result of the current study. Moreover, when the findings related to the moderator variable of domain of attitude (Turkish lesson, speaking, reading, writing) are examined, it is seen that the effect sizes belonging to all the domains of attitude are positive. This shows that creative drama is an effective method on the attitudes towards Turkish lessons and Turkish language skills.

As a result of the meta-analysis study, it was concluded that creative drama is an effective method for students to develop positive attitudes towards Turkish lessons and Turkish language skills. Thus, creative drama can be used to foster students' positive attitudes towards mother tongue education. It has been observed that the experimental studies examining the effect of the use of creative drama as a teaching method on the attitudes towards Turkish lessons and Turkish language skills are quite limited especially at high school and undergraduate education levels. Similarly, although it was determined in this study that creative drama had a high effect size on the attitude towards speaking skill, the number of experimental studies examining the effect of creative drama on the attitudes towards speaking skills is very few in the literature. In this context, the number of experimental studies at all levels of education from pre-school to higher education and in all the Turkish language skills, especially speaking skill, will enable to obtain healthier results for examining the effect of creative drama on the attitudes studies at all levels of education from pre-school to higher education and in all the Turkish language skills, especially speaking skill, will enable to obtain healthier results for examining the effect of creative drama on the attitudes in terms of education level and Turkish language skills.

## **Research and Publication Ethics**

In this study, all the rules specified to be followed within the scope of "Higher Education Institutions Scientific Research and Publication Ethics Directive" were followed. None of the actions specified under the title of "Actions Contrary to Scientific Research and Publication Ethics", which is the second part of the directive, were not carried out.

## **Authors Contribution Rate**

The study is single-authored and the research belongs to the responsible author.

## **Conflict of Interest**

There is no situation that may constitute a conflict of interest in this research.

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(\*The researches marked with an asterisk indicate the studies included in the meta-analysis)

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