

## Effect of Creative Drama Method on the Success in Basic Language Skills, Grammar and Vocabulary Teaching Fields in Turkish Lesson: Meta-Analysis Study

### Yaratıcı Drama Yönteminin Türkçe Dersindeki Temel Dil Becerileri, Dilbilgisi ve Sözcük Öğretimi Alanlarındaki Başarıya Etkisi: Meta-Analiz Çalışması

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**ABSTRACT:** The purpose of this study was to determine the effect of the creative drama method on the success in basic language skills (listening, reading, speaking, writing), grammar, and vocabulary teaching fields in Turkish lessons by using the meta-analysis method. 37 Effect sizes within 24 different studies were reviewed. Publication type, class level, skill areas, practice time were used as moderator variables in this research. Comprehensive Meta-Analysis 2 (CMA 2) was utilized to analyze the studies determined in the research. According to the results, the creative drama method creates positive (significant) impacts on basic language skills, grammar, and vocabulary teaching fields ( $z=9.959$ ;  $p=.000$ ). As time increases in creative drama applications, the effect of application increases at the same time. However, it is also found that the effect of the creative drama method on students' success does not significantly vary by publication type and class level. Moreover, the effect of creative drama on students' success varies by skill areas while the highest effect size is in speaking skill and the lowest effect size is in vocabulary teaching.

**Keywords:** Creative drama, meta-analysis, Turkish education, language skills.

**ÖZ:** Araştırmanın amacı, yaratıcı drama yönteminin Türkçe dersindeki temel dil becerileri (dinleme, okuma, konuşma, yazma), dilbilgisi ve sözcük öğretimi alanlarındaki başarıya etkisini meta-analiz yöntemiyle belirlemektir. Araştırmada 24 farklı çalışmada yer alan 37 etki büyüklüğü incelenmiştir. Araştırmada moderatör değişkenler olarak yayın türü, sınıf düzeyi, beceri alanları, uygulama süresi ele alınmıştır. Araştırmada belirlenen çalışmaların analizi için Comprehensive Meta Analysis 2 (CMA 2) programı kullanılmıştır. Araştırma sonuçlarına göre yaratıcı drama yönteminin temel dil becerileri (okuma, dinleme, konuşma, yazma becerileri), dilbilgisi ve sözcük öğretimi alanlarındaki başarı üzerinde olumlu (anlamlı) bir etkiye sahip olduğu tespit edilmiştir ( $z=9.959$ ;  $p=.000$ ). Yaratıcı drama uygulamalarında süre arttıkça uygulamanın etkisinin arttığı belirlenmiştir. Ancak yaratıcı drama yönteminin öğrenci başarılarına etkisinin yayın türüne ve sınıf düzeyine göre anlamlı bir farklılık göstermediği bulunmuştur. Yaratıcı dramanın öğrenci başarılarına etkisinin beceri alanlarına göre anlamlı bir farklılık gösterdiği, en yüksek etki büyüklüğü değerinin konuşma becerisinde, en düşük etki büyüklüğü değerinin ise sözcük öğretiminde olduğu belirlenmiştir.

**Anahtar kelimeler:** Yaratıcı drama, meta-analiz, Türkçe eğitimi, dil becerileri.

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The primary way to express oneself is to use the native language effectively. Improvement of native language starts with listening skills and continues with becoming skillful at speaking skills. Reading and writing skills are accompanied by school life (Burns & Siegel, 2017). Much as the individual has trained in all the language skills, the improvement and the way of using the native language effectively are provided by training on language skills after primary school. Again, the individual who uses his native language well will succeed in other fields and communicate effectively at the same time. Similarly, it is explained that the improvement of language skills in the Turkish Course Curriculum affects learning, personal, social, and professional competencies in other fields (Ministry of National Education [MoNE], 2019, p. 8).

Methods and techniques for different teaching levels are utilized for native language teaching from preschool to higher education. Using different method and techniques make the teaching process more effective and productive (Küçük-Avcı et al., 2019; Yücer, 2011). It must be noted that using different methods and techniques is vital for four main language skills in the Turkish Course Curriculum (MoNE, 2019, p. 8)

Today, it is aimed for students to attend the lesson actively and learn through experience via different methods and techniques. The student, in this way, will attend the lesson by becoming aware of his own learning process, and also the teacher guide him during this process (Cornelius-White, 2007; McCombs, 2012). One of the most frequently used methods that allow the student to be active in the lesson during native language teaching processes is creative drama. Words which are the most important elements of language teaching and also creative drama which uses body language as a tool are frequently used in language teaching thanks to these relevant properties (Eski, 2019). Therefore, there have been conducted different studies reviewing the use of creative drama in Turkish lessons and also its effects on students' knowledge and skills. For findings of relevant studies, using the creative drama method in lessons affects language skills (Brouillette, 2012; Haruyama, 2010; Rose et al., 2000; Türkel, 2011), vocabulary knowledge (Yumurtacı & Mede, 2021) and grammar skills (Boudreault, 2010) positive. Morgül (1999, p. 38) expressed that proper ambiance for teaching language skills can be provided by creative drama. In language teaching, grammar structures and words can be taught thanks to creative drama without the need for memorization (Kütükçü, 2010, p. 57). Concerning the results of studies in literature, we can mention that creative drama is an effective and current method for language teaching. This paper discussed the creative drama method because the reasons that relevant method is frequently used in lessons and there are many studies conducted about different skills. The meta-analysis method, based on combining the results of studies conducted in different places and times (Çelebi-Yıldız, 2002), was utilized to reveal the effect of the creative drama method in the skill areas related to Turkish lesson.

### **Theoretical Framework**

Drama word that is lexicalized from the root of 'dran' in Greek means to do, to act; this word has also been used for presentations with specific messages intended for the audience since the ancient theater period. Aristoteles defines drama as the re-creation of a situation or movement in life. Drama is not transferring the reality in life as

it is, but reflecting it through different people or events (Nutku, 1990; Lehman, 1986, as cited in San, 1990). Events in life are reviewed under the guidance of the teacher and within the group interaction processes (Polisini, 1993) within the creative drama, which is explained as a process in which imaginary thought turns into action and expands the life experience without being on the stage (Courtney, 1989; Heathcote, 1984).

Creative drama is a versatile teaching method to bring in cognitive, affective, and psychomotor skills; field of education in creating an understanding of art to provide an opportunity to be used and educated all the senses; a discipline with description, explanation, and control processes (Üstündağ, 1996). The development of creative drama in Turkey dates back to the first period of the republic. The foundations of creative drama were laid by combining the dramatization technique used in the education process in the period before the Republic with İsmail Hakkı Baltacıoğlu's understanding of theater at school. However, the emergence of modern creative drama was in the 1980s. There can be developed active learning, cooperation, and solidarity process if drama which is a separate discipline on its own is used in education (Calp et al., 2016). Creative drama practices are interactive and learner centered. It facilitates the learning processes of students by developing creativity. The student, in creative drama, has the advantage to make practicing in physical, emotional, and cognitive dimensions through different situations examples (Maden, 2010). The creative drama that holds peer learning and learning by doing is based on a constructivist approach that depends on collaboration. Creative drama, in language teaching, stirs emotions and brings a rich learning experience. Since students actively participate in the process with peers based on collaboration, they improve affective characteristics such as self-esteem, and self-efficacy (Williams & Burden, 1997; Zafeiriades, 2009).

Since more than one sense is used in creative drama applications, the learning process accelerates, and the permanence of the learned information increases. Creative drama is based on conveying feelings and thoughts with gestures and facial expressions; namely, learning by doing. Therefore, students' comprehension and expression skills will also improve with creative drama applications. The use of creative drama in Turkish lessons, which is based on comprehension and expression skills, will contribute to students' development of their existing first language knowledge and transforming this knowledge into a skill (Karadağ & Çalışkan, 2005; Uysal, 2014). It is possible for students to actively participate in the teaching-learning processes and to develop their speaking skills with appropriate teaching, methods, and techniques. Students can actively participate in the lesson, accompanied by improvisation and animations, through the creative drama methods used in Turkish lessons. Versatile individuals who can speak, write, research, question, and think critically can be raised through creative drama activities in the classroom (Aykaç, 2011). Creative drama is accepted as a powerful and effective method in teaching language skills because it enables the development of imagination for writing, listening, and speaking and it also provides easier analysis and assembly of a text (Harrison, 1999). It is necessary to use a method that gives skill and behavior by doing and living like creative drama in Turkish teaching, focusing on acquiring skills rather than knowledge transfer. Creative drama activities include listening, speaking, reading, and writing skills. Spelling, punctuation, and grammar topics can be taught by supporting these skills, in direct and indirect contact with each other, with creative drama practices (Kavcar et al., 1995).

Different themes can be discussed via creative drama. Skills can be developed during applications with various practices in different areas such as communication skills, empathy, self-knowledge, communication with the environment, physical and mental relaxation, creativity, working with a group, attention, and focus, effective observation, and control of senses and emotions (Oruç, 2013, p. 41). This is because it can be emphasized that creative drama is a set of versatile applications that allow the development of more than one skill.

The benefits to be used creative drama in the teaching process are aligned as follows:

- Since more than one sense organ is used in the creative drama process and active participation is ensured, students learn the subjects faster and easier.
- The student learns permanently by doing and living the knowledge thanks to creative drama.
- Comprehension levels increase as students participate directly in the learning experience.
- Drama activities increase motivation, keep attention alive and enable students to use their creativity and imagination.
- Intellectual skills, as well as language skills, develop.
- During the creative drama, the brain's right hemisphere, which is associated with creativity, is used, and thus, abilities in the field of imagination, art, and thought are developed.
- It helps students to gain values such as self-esteem, empathy, and helpfulness (Adıgüzel, 2021; Ulaş, 2008; Wagner, 1976; Wessels, 1987; Yalçın & Aytaş, 2006).

Different students explain that creative drama applications in language education contribute to the teaching process. According to Maley and Duff (1984), the use of creative drama applications in language education provides students with a fun teaching process with realistic applications. Creative drama practices improve students' reading skills (Booth, 1985; McMaster, 1998; Rose et al., 2000), speaking skills (Haruyama, 2010; Wiyanti et al., 2018), writing skills (Bal-İncebacak, 2017; Schneider & Jackson, 2000; Türkel, 2011), listening skills (Brouillette, 2012; De la Cruz et al., 1998; Prendiville & Toyne, 2007; Yavuz, 2017). Moreover, there also are studies that mention that creative drama is beneficial in grammar teaching (Boudreault, 2010; Bush, 1985; Even, 2011) and vocabulary teaching (Abdinazarov, 2021; Demircioğlu, 2010; Yumurtacı & Mede, 2021). However, in these studies, the effect of the creative drama method was examined in certain skill areas, and the meta-analysis method, which is based on combining the results of studies conducted in different places and times (Çelebi-Yıldız, 2002), was not used.

It is seen when the meta-analysis studies on skills associated with Turkish lesson are analyzed that there are meta-analysis studies reviewing listening skill (Kansızoğlu, 2017a), writing skill (Atasoy, 2021; Graham et al., 2021; Kansızoğlu & Bayrak Cömert, 2017; Özkaya, 2020; Şahin, 2019; Sidekli & Uysal, 2017), reading skill (Doğan, 2017; Sidekli & Çetin, 2017; Sur, 2022), grammar teaching (Kansızoğlu & Sulak, 2019;

Özkaya, 2020) and vocabulary teaching (Kansızoğlu, 2017b). However, the creative drama method was not reviewed in the studies above.

There are meta-analysis studies on creative drama methods in different fields in literature. It is seen when the literature is scrutinized that studies are focusing on creative drama and educational processes. Conard and Asher (2000) analyzed eight studies and found that creative drama did not affect primary school children's self-concept under various conditions. Batdı and Batdı (2015) examined 40 studies in their meta-analysis study and expressed that creative drama had a significant and positive effect on academic achievement. 47 studies were included in the study belonging to Lee et al., (2015); for their results, drama-based pedagogy had a positive and significant effect on successful outcomes. Moreover, there have also been found positive effects on psychological and social outcomes Ulubey and Toraman (2015) analyzed 65 studies and concluded that creative drama increases academic success. Akdemir and Karakuş (2016) analyzed 27 thesis studies and determined that the creative drama method had a positive effect on academic success. Another meta-analysis study was conducted by Cantürk-Günhan (2016). According to his findings, the creative drama method used in mathematics teaching is successful compared to continuing education and the average effect size is at a strong level. Toraman and Ulubey (2016) performed a survey and according to the results of the meta-analysis of 30 studies, the creative drama method positively affected the attitudes of the students towards the lessons. Biçer (2017) scrutinized 22 studies and found that the creative drama method had a great effect on the academic achievement of students. Moreover, it was observed that student-centered methods in Turkish lessons are effective on students' academic success. Ulubey (2018) included 63 studies in his research and revealed that creative drama positively affected students' social skills, basic language skills, and higher-order thinking skills. 61 postgraduate theses were reviewed by Özbey and Sarıkaya (2019); for their results, the drama method had a positive and strong effect on academic achievement, permanence, motivation, and social skills, and a positive and moderate effect on attitude. Alacapınar and Uysal (2020) researched 23 postgraduate theses and found that the effect size of creative drama used in mathematics education is high for academic success and retention; it also is moderate for attitude at the same time. Batdı and Elaldı (2020) included 24 studies in their meta-analysis and highlighted that drama has a positive effect on social communication skills. Er-Türküresin (2020) researched 19 studies and observed that the creative drama method had a very high effect size on the success of the social sciences course. 32 studies were examined in the study conducted by Lee et al. (2020). According to the results, drama-based pedagogy had a significant and positive effect on achievement, attitudes, 21st-century skills, drama skills, and motivation. Özdemir-Şimşek and Karataş (2020) examined 16 postgraduate thesis and found that creative drama in science education has a significant effect on science achievement. The effect of creative drama on success in different courses is discussed in the meta-analysis studies in the literature. Relevant studies evaluated the effects of creative drama practices on academic achievement, development of basic language skills, affective and social skills. However, it is seen that there are no meta-analysis studies that can cover the entire Turkish course. For this reason, experimental studies examining the effects of the creative drama method on different areas in Turkish lessons (listening, reading, speaking, writing, grammar, vocabulary teaching) were reviewed

with the meta-analysis method. One or more of the teaching areas within the scope of the Turkish course were discussed in these studies examining the effectiveness of the creative drama method with the meta-analysis method. The lack of meta-analysis studies covering the whole field of Turkish education and dealing with the creative drama method is a great loss for the literature. Therefore, this study conducted a comprehensive meta-analysis research that revealed the effectiveness of the creative drama method in Turkish teaching and addressed language skills, vocabulary teaching and grammar.

In this manner, the purpose of this study was to determine the effect of the creative drama method on the success in the fields of basic language skills, grammar, and vocabulary teaching in Turkish lessons by using the meta-analysis method. For this purpose, answers to the following questions were sought in the study:

1. What is the effect of the creative drama method on the success of basic language skills, grammar, and vocabulary teaching in Turkish lessons?
2. Is there a significant difference between the effect sizes of the studies according to the publication type of the studies?
3. Is there a significant difference between the effect sizes of the studies according to the class level in which the studies were conducted?
4. Is there a significant difference between the effect sizes of the studies according to the skill field in which the research is conducted?
5. Is there a significant difference between the effect sizes of the studies according to the implementation period of the studies?

## Method

### Research Model

This research used the meta-analysis method. Glass (1976, p. 3) interpreted meta-analysis as the ‘analysis of analyses’. More clearly, meta-analysis is a “statistical analysis of a large collection of analysis results from individual studies for the purpose of integrating the findings” (Glass, 1976, p. 3). Meta-analysis means the statistical synthesis of results in study series (Borenstein et al., 2019). According to Dinçer (2014, p. 4), meta-analysis is “classifying similar studies on a subject, theme or field of study under certain criteria and interpreting the quantitative findings of these studies by combining them.”

Meta-analysis provides some different advantages over other classical review methods in research synthesis. Some of the relevant advantages are as follow: each step is reported in a disciplined and clear way so that the process is open to review and repetition, the main findings of the study can be summarized effectively, the effect size can be calculated, unlike other methods, and it offers the opportunity to deal with many research findings in an organized manner (Lipsey & Wilson, 2001, as cited in Üstün & Eryılmaz, 2014). In this direction, the results of experimental research in the field were evaluated to review the effect of the creative drama method on some skills in Turkish lessons in terms of different variables. The application steps followed in the study for this evaluation are as follows.

### Research Process

The first step of the research process is to determine the problem. After determining the research problem, similar studies (Batdı & Batdı, 2015; Batdı & Elaldı, 2020; Biçer, 2017; Cantürk-Günhan, 2016; Er-Türküresin, 2020; Özbey & Sarıkaya, 2019; Toraman & Ulubey, 2016; Ulubey, 2018; Ulubey & Toraman, 2015) regarding the topic were reviewed to specify the keywords for scanning. Relevant keywords are: “drama,” “creative drama,” “dramatization,” “drama” and “language skills,” “drama” and “Turkish,” “drama” and “reading,” “drama” and “writing,” “drama” and “listening,” “drama” and “speaking,” “drama” and “grammar,” “creative drama” and “Turkish,” “drama” and “language skills.”

The third process of the research is to determine the databases to scan. “Council of Higher Education National Thesis Center,” “Google Scholar,” “Ulakbim TR Index,” and ERIC databases were scanned in this study. In the determined databases, 10 doctoral dissertations, 39 master’s thesis, and 32 articles on the subject were reached. In addition, the reference lists of similar studies were examined to see if there was a missed study. The last scan was done on February 17, 2021. The criteria to be considered in determining the studies to be included in the meta-analysis were determined in the fourth step of the study. These criteria are as follows:

- 1) The study was conducted in an experimental/quasi-experimental design with a pretest-posttest control group,
- 2) The study was performed to scrutinize the effect of the creative drama method on developing one or more of the Turkish language skill areas (reading, listening, speaking, writing, grammar, vocabulary teaching),
- 3) Experimental and control groups were included in the study. The students in the experimental group received training with the creative drama method and the control group with the traditional method.
- 4) Statistical analysis results for the experimental and control groups give the post-test measurements, arithmetic mean, standard deviation, and significance values,
- 5) Teaching level, experimental application period, publication type, skill type, and sample number are clearly stated in the study,
- 6) The study was conducted and published in Turkey,
- 7) The study is a master’s/doctoral thesis, or a scientific article published in printed/electronic journals,
- 8) The tests used in the study are those that meet the normality assumption,
- 9) The study was conducted on primary and secondary school students in Turkey.

In consideration of relevant criteria, studies with the following characteristics were not included in the meta-analysis:

- 1) Studies researching the effect of creative drama on social and/or affective skills,
- 2) Studies in which the skill area whose success is measured is not fully determined (measuring more than one skill in a complex with a measurement tool under the title of “Academic success”),
- 3) Studies in which the measurement tool used in the study is insufficient in terms of validity and reliability,

- 4) Studies in which an application/achievement test is used for a theme in the textbook, not a skill,
- 5) Studies providing training to the group determined as the control group too,
- 6) Studies in which two skills (e.g., reading and listening) are measured with a single measurement tool,
- 7) Studies providing education on subjects within the scope of a high school literature lesson,
- 8) Studies without the necessary statistical data and application time,
- 9) Studies on Turkish teaching to foreigners,
- 10) Studies using qualitative research methods,
- 11) Studies in which post-test data for the experimental and control groups were not presented,
- 12) Studies that train experimental groups with other methods in addition to creative drama,
- 13) Experimental studies with single groups,
- 14) Studies with university students.

Moreover, the article was included in the meta-analysis if there are sufficient results in the articles produced from master's and doctoral dissertations. However, the thesis was included in the meta-analysis when sufficient findings could not be obtained from the article. In addition, the data of the thesis were included in the analysis, not the articles published separately in the thesis in which two different skills were investigated.

The meta-analysis was conducted with 24 studies, 4 of which were doctoral dissertations, ten master's thesis, and ten articles at the end of eliminations. A total of 37 effect sizes were calculated for the studies in the meta-analysis. Because statistical test results for the effect of creative drama in more than one skill area were presented in some studies. Under the circumstances, the result of each skill area was evaluated as a separate study to compute the effect size.

### **Coding Data and Ensuring Validity-Reliability in Coding**

We, within the scope of the research, established a form to code the studies to be included in the meta-analysis. The variables to be coded were determined by reviewing the moderator variables in similar studies (Batdı & Batdı, 2015; Batdı & Elaldı, 2020; Biçer, 2017; Cantürk-Günhan, 2016; Er-Türküresin, 2020; Özbey & Sarıkaya, 2019; Toraman & Ulubey, 2016; Ulubey, 2018; Ulubey & Toraman, 2015) and considering the purpose of the research. Moreover, statistical test results required for effect size calculations were clarified. An expert opinion which makes meta-analysis studies were taken for the variables and statistical test results. In this way, content validity was tried to be provided. The author(s) of the research, publication year information was recorded. The variables of publication type, grade level, skill area, application time and the values of sample size, arithmetic mean and standard deviation were coded.

Inter-rater reliability was controlled to ensure reliability in coding. The coding of the two authors was compared by separately coding relevant studies by the authors of the study. Miles and Huberman's (1994) Reliability = Consensus / (Consensus + Disagreement) formula was utilized to calculate the reliability coefficient. The

reliability rate was found as .81 percent. This ratio shows that the encodings are reliable. Table 1 shows descriptive statistics for the studies whose effect size was calculated:

Table 1  
*Descriptive Statistics for Studies with Calculated Effect Sizes*

Variables	<i>f</i>	%	
Publication Type	Master's Thesis	12	32.43
	Doctoral Dissertations	11	29.73
	Article	14	37.84
Grade Level	3rd grade	3	8.11
	4th grade	7	18.92
	5th grade	9	24.32
	6th grade	10	27.03
	7th grade	7	18.92
	8th grade	1	2.7
Skill Area	Reading skill	7	18.92
	Listening skill	5	13.51
	Speaking skill	8	21.62
	Writing skill	10	27.03
	Vocabulary teaching	4	10.81
	Grammar	3	8.11
Application Time	1-4 weeks	2	5.41
	5-8 weeks	17	45.95
	9-12 weeks	13	35.14
	13 weeks and above	5	13.51

As is seen in Table 1, studies in meta-analysis consisted of master's thesis by 32.43% ( $f=12$ ), doctoral dissertations by 29.73% ( $f=11$ ) and articles by 37.84% ( $f=14$ ). Most of the research on the subject was done in the type of articles. 8.11% ( $f=3$ ) of studies was conducted at 3rd class level while 18.92% ( $f=7$ ), 24.32% ( $f=9$ ), 27.03% ( $f=10$ ), 18.92% ( $f=7$ ) and 2.7% ( $f=1$ ) of them were respectively done at 4th, 5th, 6th, 7th and 8th class levels. Most of the research is done at 6th grade and at least 8th-grade level. Distribution by skill areas are as follows: 18.92% ( $f=7$ ) of them was about reading skill while 13.51% ( $f=5$ ), 21.62% ( $f=8$ ), 27.03% ( $f=10$ ), 10.81% ( $f=4$ ) and 8.11% ( $f=3$ ) of them were respectively about listening, speaking, writing skill, vocabulary teaching,

and grammar. It is seen that there are more studies on speaking and writing skills regarding productive language skills, while there is a limited number of studies regarding vocabulary teaching and grammar. We can see when the studies are scrutinized in terms of application time that 5.41% ( $f=2$ ) of them took 1-4 weeks, while 45.95% ( $f=17$ ), 35.14% ( $f=13$ ), and 13.51% ( $f=5$ ) of them respectively took 5-8 weeks, 9-12 weeks and 13 weeks and above.

### Effect Size

Effect size is the basic unit of a meta-analysis study and also a value reflecting the size of the application effect or the relation between two variables (Borenstein et al., 2019, p. 3). The Comprehensive Meta-Analysis 2 (CMA 2) program was utilized to analyze the studies in this research. The general run of meta-analyses was conducted by fixed effect model or random-effects model (Borenstein et al., 2019, p. 63). Heterogeneity should be considered to decide which model to be used (Dinçer, 2014). Heterogeneity test reviews whether the observed variance in effect sizes significantly differs from the expected variance due to sampling error (Cooper, 2010, as cited in Kanadlı, 2019, p. 23). The effect sizes of the studies are heterogeneous, and the random-effects model is chosen if the heterogeneity test is significant at the 95% confidence level ( $p<.05$ ). The studies are homogeneous, and the fixed effect model is preferred if the test result is not significant at the 95% confidence level ( $p>.05$ ) (Kanadlı, 2019, p. 23). The effect sizes of the studies included in the meta-analysis as a result of the heterogeneity test are statistically significant ( $p<.05$ ). In addition to all these,  $I^2$  value was calculated as 89.039%. According to Higgins et al., (2003), the  $I^2$  value is interpreted as low heterogeneity up to 25%, moderate up to 50%, and high up to 75% (as cited in Kanadlı, 2019, p. 24). The result in the study shows a high level of heterogeneity. Therefore, the random-effects model was used to compute the effect size.

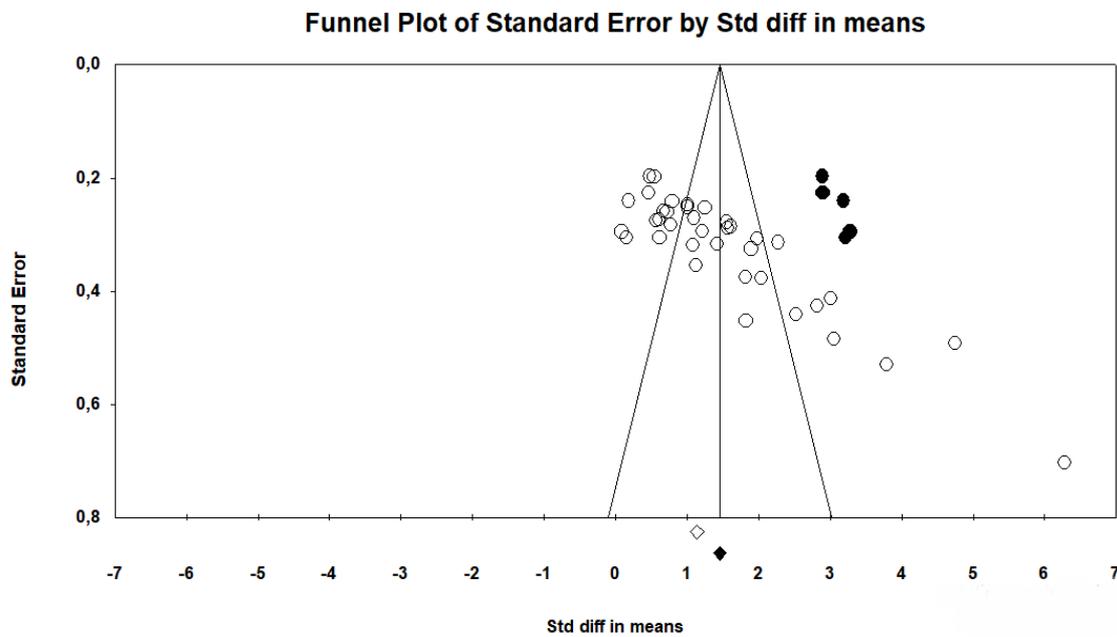
The post-test point averages, sample sizes, and standard deviation values of the experimental and control groups were considered in the calculation of the effect size. However, the pre-test mean scores were also considered in case of a significant difference between the pre-test mean scores of the experimental and control groups (see. Dinçer, 2014, p. 25). In this regard, since the pre-tests are not equalized in the studies belonging to Uysal (2014) and Erkan and Aykaç (2014), there was performed an analysis based on correlation values. However, in the study of Uysal (2014), the correlation value was calculated only for the data in speaking skills. Cohen  $d$  (Std diff in means) index was preferred to compute the effect size. Classification of Cohen et al. (2007) was considered to interpret the effect sizes.

### Publication Bias

Publication bias can be seen if studies in meta-analysis do not represent the relevant studies sufficiently or the studies that gave negative results are not published (Duval & Tweedie, 2000; Jin et al., 2015). Moreover, we can say that publication bias has some reasons, such as language bias, availability bias, cost bias, familiarity bias, and repetition bias (Borenstein et al., 2019). If the studies in a meta-analysis are biased, the validity of the results of the meta-analysis are under threat (Rothstein et al. 2005, as cited in Üstün & Eryılmaz, 2014, p. 14). There are several methods to detect publication bias. This study used Funnel Plot, Rosenthal's fail-safe  $N$ , and Duval and Tweedie's

trim and fill to detect the publication bias. In addition, two studies (Çer, 2017; Çöklü-Özkan, 2018) that were found as extreme value at the end of the analysis were excluded from the analysis because of their effect on publication bias and the effect size. Funnel plot is as follows:

Figure 1

*Funnel Plot of Studies within Meta-Analysis*

According to Funnel Plot, studies within a meta-analysis are distributed around the vertical line and display a nearly symmetrical appearance. This situation is proof that there is no publication bias in studies. Table 2 shows the results of Rosenthal's fail-safe N test:

Table 2

*Results of Rosenthal's fail-safe N test*

Bias Status	Value
Z-value	26.46
p-value	.00
Alpha	.05
Direction	2
Z value for Alpha	1.959
N	37
Fail safe number	6707

According to the analysis, 6707 studies with a zero effect size should be added to the meta-analysis to statistically invalidate the result of the study. "Although there is no strict rule about how large the FSN should be to avoid publication bias far enough,

Mullen et al. (2001) concluded based on Rosenthal's suggestion that if the  $N/(5k+10)$  ( $k$  is the number of studies included in the meta-analysis) value exceeds 1, the results of the meta-analysis appear to be sufficiently robust for future studies" (Mullen et al., 2001, as cited in Üstün & Eryılmaz, 2014, p. 18). For the formula, the value obtained from the study is 34.39. In this case, it can be said that there is no publication bias, and the results of the study are reliable. Moreover, Duval and Tweedie's confidence test results can be seen in the Table below:

Table 3

*Results of Duval and Tweedie's Confidence Test*

Confidence Test	Data	
Duval and Tweedie's trim and fill	Number of Trimmed studies	5
	Observed effect size value	1.49
	Reviewed effect size number	1.71
	Direction of trimmed studies	Right

According to Table 3, the number of trimmed studies is 5, while the direction of trimmed studies is on the right side. This situation shows that the publication bias will be eliminated if five studies are added to the relevant study. Due to the small number of studies to be added, it can be said that the publication bias in the study is quite low. In addition, the fact that the observed effect size and the adjusted effect size are relatively close to each other may indicate that the publication bias is low.

**Ethical Procedures**

Since this research is a meta-analysis study, ethical committee approval is not required.

**Results**

Effect sizes in the study were determined based on the random-effects model. Findings were interpreted in line with the research questions. Findings regarding the effect sizes of studies reviewed are as follows:

Table 4

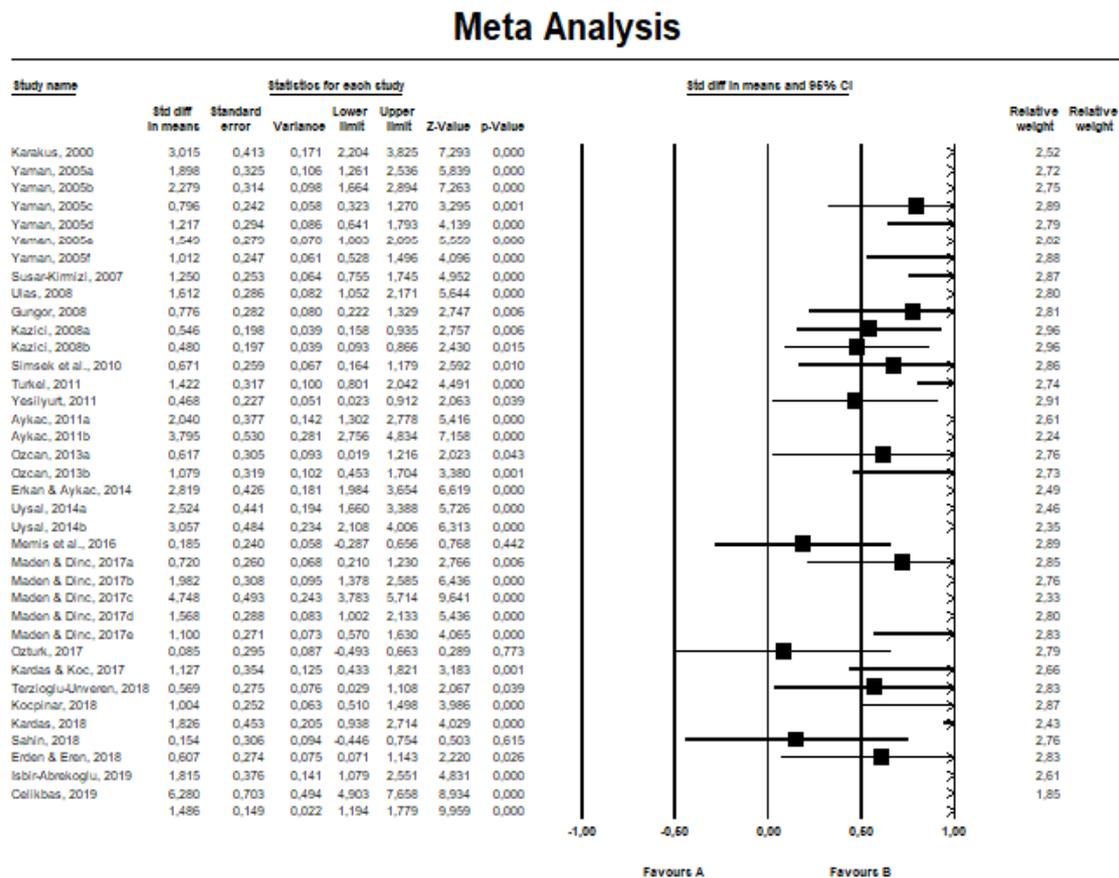
*Findings regarding Effects Sizes of Studies Based on Random Effects Model*

Average Effect Size	N	Standard Error	Variance	Z	p	95% Confidence Interval for Effect Size	
						Lower Limit	Upper Limit
1.486	37	.149	.022	9.959	.000	1.194	1.779

As is seen in Table 4, the general effect size value of studies was found as 1.486 by .149 error based on the random-effects model. This value, according to the classification belonging to Cohen et al. (2007), is an effect at a strong level. For the random-effects model, the lower limit of effect size within 95% confidence interval is 1.194, while the upper limit is 1.779. Values of effect sizes are statistically significant ( $z=9.959$ ;  $p=.000$ ). These findings show that the creative drama method has a positive impact on basic language skills, grammar, and vocabulary teaching in Turkish lesson.

Figure 2

The Forest Plot of Effect Sizes Based on the Random-Effects Model



Meta Analysis

The black squares in Figure 2 show the effect size of the study, and the lines next to the squares show the lower and upper limits of the effect size at the 95% confidence interval. The weight percentage given in the right part of the forest plot also numerically shows the effect share of each research on the meta-analysis result. It is seen when the effect sizes of the studies included in the research are examined that the smallest effect size value belongs to Öztürk (2017) with .085 and the highest effect size value belongs to Çelikbaş (2019) with 6.280. All the studies have a positive impact. Regarding the analysis of weights of studies, the research conducted by Çelikbaş (2019) had the smallest (1.85%), and the research conducted by Kazıcı (2008) had the largest (2.96) weight percentage.

### Moderator Analyses

Findings regarding effect sizes of studies reviewed by the variable of publication type are as follows:

Table 5

#### *Findings Regarding the Effect Size of the Publication Type of the Research*

Publication Type	Frequency ( <i>n</i> )	Effect Size	Standard Error	95% Confidence Interval for Effect Size		<i>Q</i> value	<i>p</i> value
				Lower Limit	Upper Limit		
Doctoral dissertation	11	1.876	.235	1.416	2.336		
Master's thesis	12	1.318	.274	.782	1.855		
Article	14	1.322	.238	.856	1.788	3.536	.171

As is seen in Table 5, the effect size value of doctoral dissertations is 1.876, master's thesis are 1.318 and articles is 1.322. The type of publication with the highest impact value is doctoral dissertations, and the type of publication with the lowest impact value is master's thesis. According to the findings, the effect of creative drama on student achievement does not show a significant difference based on the type of publication in which the study is reported ( $Q_b=3.536$ ;  $p>.05$ ).

The findings regarding the effect sizes of the studies examined according to the grade level variable can be seen in the Table below:

Table 6

#### *Findings Related to the Effect Size of the Class Level in which the Research was Conducted*

Grade Level	Frequency ( <i>n</i> )	Effect Size	Standard Error	95% Confidence Interval for Effect Size		<i>Q</i> value	<i>p</i> value
				Lower Limit	Upper Limit		
3rd grade	3	1.123	.715	.278	2.524		
4th grade	7	2.059	.545	.992	3.127		
5th grade	9	1.421	.234	.963	1.879		
6th grade	10	1.254	.270	.724	1.783		
7th grade	7	1.649	.306	1.049	2.249		
8th grade	1	1.422	.317	.801	2.042	2.435	.786

As is seen in Table 6, the highest effect size is 2.059 at the 4th class level while the lowest effect size is 1.123 at the 3rd class level. When the findings are examined, the effect of creative drama on students' academic success does not significantly vary by grade level ( $Q_b=2.435$ ;  $p>.05$ ).

The findings regarding the effect sizes of the studies examined according to the skill area variable are presented in the Table below:

Table 7

*Findings Related to the Effect Size of the Skill Area in Which the Research was Conducted*

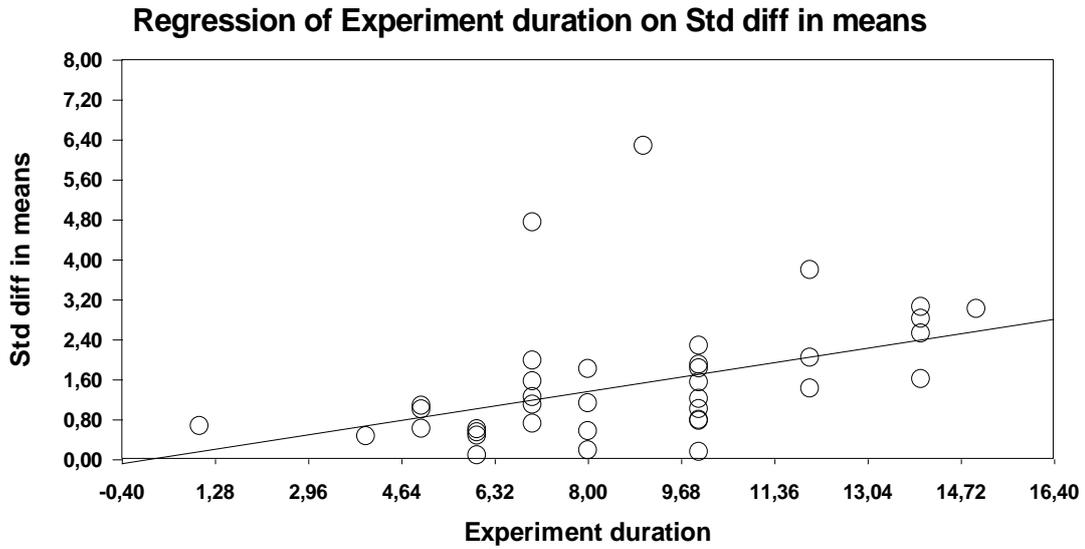
Skill Area	Frequency (n)	Effect Size	Standard Error	95% Confidence Interval for Effect Size		Q value	p value
				Lower Limit	Upper Limit		
Grammar	3	.725	.185	.363	1.087		
Listening	5	1.678	.290	1.111	2.246		
Vocabulary Teaching	4	.562	.150	.267	.857		
Speaking	8	1.996	.499	1.017	2.974		
Reading	7	1.169	.228	.721	1.617		
Writing	10	1.969	.385	1.213	2.724	26.771	.000

As is seen in Table 7, the highest effect size value is 1.996 for speaking skills. The lowest effect size is .562 in vocabulary teaching. When the findings are examined, the effect of creative drama on students' academic success significantly varies by the skill areas ( $Q_b=26.771$ ;  $p<.05$ ).

### Regression Analysis

The graphic and Table below show the findings regarding the effect sizes of studies that were reviewed by the variable of application time.

Figure 3

*Meta-Regression Analysis of the Effect Sizes of the Application Time*

It is seen in Figure 3 that there is a linear relation between application time and effect sizes. Table 8 shows findings to understand whether this relationship is significant.

Table 8

*Findings Regarding Effect Size of Application Time*

	Point Estimate	Standard Error	95% Confidence Interval for Effect Size		Z	p
			Lower Limit	Upper Limit		
Experiment Duration	.17202	.04174	.09021	.25383	4.12111	.00004
Intercept	-.01721	.38249	-.76688	.73247	-.04499	.96412

$$T^2_{\text{unexplained}} = .52851$$

As is seen in Table 8, the model that we tried to explain the effect sizes with the application time is significant ( $p < .05$ ). Unexplained variance is .52851. The total variance between studies is .713. The variance explained as a result of the calculation made to determine how much of the variance in the effect sizes of the application duration variable explains is .258. Under the circumstances, application time explained 26% of the variance between studies.

**Discussion and Conclusion**

In this study, the effect of the creative drama method on the success in basic language skills (listening, reading, speaking, writing), grammar, and vocabulary teaching in Turkish lessons through 37 effect sizes in 24 different studies. For research

results, the general effect size of studies was found as 1.486 by .149 error based on the random-effects model. Values of effect sizes are statistically significant ( $z=9.959$ ;  $p=.000$ ). Therefore, the creative drama method has a positive impact on basic language skills (reading, listening, speaking, writing skills), grammar, and vocabulary teaching. Concerning this result, we can say that the creative drama method contributes positively to academic success levels in different skill areas in Turkish lessons. Similar results have been obtained in different studies in the literature. It can be expressed when the meta-analysis studies regarding creative drama in literature are reviewed that studies show the positive impact of creative drama on academic success (Akdemir & Karakuş, 2016; Batdı & Batdı, 2015, Kardash & Wright, 1986; Lee et al., 2020; Ulubey & Toraman, 2015). Moreover, there are different meta-analysis studies (Alacapınar & Uysal, 2020; Biçer, 2017; Cantürk-Günhan, 2016; Lee et al., 2015; Özbey & Sarıkaya, 2019) showing the high-level effect of creative drama on academic success. It is an important finding that the creative drama method affects academic success in different fields.

It is found that the effect of creative drama on student success does not significantly vary by the publication type in which the study is reported ( $Q_b=3.536$ ;  $p>.05$ ). The publication type with the highest effect value is doctoral dissertations while the publication type with the lowest effect value is the master's thesis. In contrast to this result, Ulubey (2018) and Cantürk-Günhan (2016) emphasized that the effect of creative drama on students' success significantly varies by publication type. On the other hand, for the results of the same study, the effect value of doctoral dissertations and master's thesis are at a higher level compared to other studies. It can be thought that the relevant result is in association with features such as lesson, sample difference, and research duration.

It is also found that the effect of creative drama on students' success does not significantly vary by class level ( $Q_b=2.435$ ;  $p>.05$ ). The highest effect size is 2.059 at a fourth class level, while the lowest effect size is 1.123 at the third class level. This result shows that using creative drama method in Turkish lessons does not change the academic success by class level. There are studies in literature expressing that class-school level does not significantly vary in terms of the effect of creative drama on students' success (Batdı & Batdı, 2015; Cantürk-Günhan, 2016; Kardash & Wright, 1986; Podlozny, 2000; Ulubey & Toraman, 2015). The results of these studies jibe with the results of this paper. However, there also are different studies (Akdemir & Karakuş, 2016; Conard, 1992; Toraman & Ulubey, 2016; Ulubey, 2018) expressing that class-school level establishes a significant difference in terms of the effect of creative drama on students' success. Since the effect of creative drama in Turkish lessons was reviewed in a relevant study, studies at the 3rd-8th class level were analyzed. This result may be due to the fact that studies at different education levels (preschool, primary, secondary, high school, and university) were not considered in the research. The creative drama method is effective in all the fields of language teaching (Kütükçü, 2010; Morgül, 1999). This is because developed knowledge and skills related to language are possible in classrooms where creative drama practices are performed. The reason no significant difference was found in terms of grade level in the study may be that the creative drama practices conducted in Turkish lessons are an effective method at all grade levels.

According to research results, effect of creative drama on students' success significantly varies by skill areas ( $Q_b=26.771$ ;  $p<.05$ ). The highest effect size value is 1.996 in speaking skills while the lowest effect size is .562 in vocabulary teaching. In terms of language skills, Batdı and Elaldı (2020) determined as a result of the meta-analysis research that creative drama positively affects social communication skills. There are studies in the literature about creative drama express that creative drama positively affects reading (Booth, 1985; DuPont, 1992; McMaster, 1998; Rose et al., 2000), speaking (San, 2010; Stabler, 1980; Uşaklı, 2011), writing (Bal-İncebacak, 2017; Schneider & Jackson, 2000) and listening skills (Brouillette, 2012; Prendiville & Toye, 2007; Yavuz, 2017). The findings of the mentioned studies support the results of the research. However, Ulubey (2018) explains in his meta-analysis study that even though creative drama positively affects basic language skills, there is no significant difference according to skill type. It is seen when we analyze in terms of grammar and vocabulary teaching that creative drama is effective in grammar teaching (Boudreault, 2010; Bush, 1985; Even, 2011) and vocabulary teaching (Abdinazarov, 2021; Demircioğlu, 2010; Stabler, 1980; Yumurtacı & Mede, 2021). The findings of the mentioned studies support the results of the research. In the communication process, not only speaking skills but also gestures and, facial expressions, body language come into play in conveying messages. It is important to be used body language, gestures, and mimics in the creative drama method. Since these skills are also taken into consideration in the practices, the awareness of the students on this issue develops (Öztürk-Pat & Yılmaz, 2021).

Moreover, creative drama practices are group work. Students in the group use their speaking and listening skills more actively as they communicate with each other (Saraç, 2007). The fact that the highest effect size was calculated in speaking skills may be due to this situation. According to Kütükçü (2010), creative drama applications are effective in vocabulary teaching. However, Yumurtacı and Mede (2021) explained that since vocabulary teaching is more effective for early ages, creative drama is more effective for junior students to improve their vocabulary skills. Similarly, Brown (1994) explains that applications for teaching vocabulary at an early age yield more effective result. 3rd-8th class-level studies were discussed because the effect of creative drama in Turkish lessons was examined in the study. The fact that the lowest effect size was calculated in vocabulary teaching may be due to the fact that the applications in the younger age group were not included in the research. Moreover, it is also possible that the effect of creative drama on vocabulary teaching is less than in other skill areas. Much as vocabulary teaching is a field that does not differ from other language skills, it is discussed in a process in which different teaching methods and techniques peculiar to the subject are studies in the lessons. The fact that creative drama studies prepared and applied based on vocabulary teaching are not suitable for teaching vocabulary and are not prepared under the subject may affect the efficiency of creative drama applications.

Research results show a linear relationship between application time and effect sizes. The model that explains effect sizes by the application time is significant ( $p<.05$ ). Application time explains 26% of the variance among studies. As the application time increases, the effect of the application increases at the same time. Toraman and Ulubey (2016) and Ulubey (2018) express that application time affects effect size, while Conard (1992) states that applications that take more than 12 weeks are more effective. Moreover, for Lee et al. (2015), the effect level of creative drama applications in meta-

analysis studies for more than 6 hours is more positive than the applications for 5 hours or less. However, with reference to different studies (Cantürk-Günhan, 2016; Kardash & Wright, 1986), application time has no effect. Nearly half of studies ( $f=10$ ) in research have application time as 10 weeks and over. The reason for this result may be different application times of the studies included in the research.

### Limitations

37 effect size values from 24 different studies were included in the study. Studies conducted according to the experimental and quasi-experimental model were included in the research. Twenty-two studies were conducted in a quasi-experimental design, while two studies were performed in a real-experimental design. Groups were formed by randomly assigning students to the experimental and control groups in studies conducted in experimental design. Three studies did not clearly state how they formed the experimental and control groups; two studies formed groups with criterion sampling; finally, 1 study formed groups with purposive sampling in the studies with the quasi-experimental design. Regarding other studies, the experimental and control groups were randomly assigned from the existing classes as the experimental and control groups. Moreover, the number of students in the experimental and control groups is different from each other in all of the studies included in the research. This situation may have affected the research results. In-depth qualitative research results may also need to be considered to evaluate the use of creative drama in language skills and its effect on success from a wider perspective, but these cannot be included in meta-analysis studies.

Twelve of the examined studies were master's thesis, 11 were doctoral thesis and 14 were articles. Thesis studies are studies that spread over a more comprehensive process. It can be thought that the majority of thesis studies in the present study will affect the result. However, there is no significant difference based on the type of publication in which the study was reported in the moderator variable analysis. In addition, we can think that the quality of the studies conducted, albeit in different types, and the characteristics of the participants affect the results of the study.

Since the Turkish lesson was discussed within the scope of the research, the grade levels in which the research was conducted are the 3rd and 8th grades. The highest number of research was conducted at the 6th-grade level, the least at the 8th-grade level. Since the number of studies is not evenly distributed according to grade levels, this may affect the results of the study. However, there is no significant difference in the moderator variable analysis based on the grade level. In addition, the absence of stages such as preschool, high school and university may also affect the results.

The application times in the studies vary. Much as the application period is determined based on the subject of the study, it is likely that the results of the analysis based on the application period in meta-analysis studies will be affected by this situation. It is determined in the study that there is a linear relationship between the application time and the effect sizes. This means that the results differ significantly according to the application time.

It can be seen when the distribution for analyzes based on learning areas is examined that creative drama-based studies were found mostly in writing skills and

least in grammar. This may have affected the results based on learning domains in the moderator analysis section. As a matter of fact, there is a significant difference in the moderator variable analysis according to skill areas.

Since this study reviewed the effect on success in Turkish lesson skills, the results of the development of skills, learning processes and the effects of affective factors related to skills on success were not discussed. These variables may also change the results and interpretations regarding the effect of the method.

The results obtained from the study are generally valid for primary and secondary school students. The results of students with different achievement levels, learning difficulties in different fields, or gifted students in different fields were not included. Student characteristics may change the study results.

### **Implications**

The following recommendations can be made based on the results of the research:

- Meta-analysis studies can be conducted to examine the effect of the creative drama method on Turkish learning areas at different education levels.
- There can be made analyses to see the effect of the creative drama method on affective/emotional skill areas related to Turkish lessons.
- Meta-analysis studies should be performed in which the effect of creative drama on Turkish learning areas is examined with different moderator variables.
- Mixed studies can also be made that support meta-analysis studies examining the effect of creative drama on Turkish learning areas with qualitative findings.

### **Statement of Responsibility**

Fidan Geçici; data collection and analysis, writing method and findings section, reviewing. Nahide İrem Azizoğlu; writing abstract, introduction, conclusion parts, and reviewing.

### **Conflicts of Interest**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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## References

(Studies marked with \*are the studies included in the meta-analysis.)

- Abdinazarov, K. S. (2021). Vocabulary acquisition via drama. *Theoretical & Applied Science*, 2(94), 61-63. <https://dx.doi.org/10.15863/TAS.2021.02.94.17>
- Adıgüzel, Ö. (2021). *Eğitimde yaratıcı drama [Creative drama in education]*. Yapı Kredi Yayınları.
- Akdemir, H., & Karakuş, M. (2016). Yaratıcı drama yönteminin akademik başarı üzerine etkisi: Bir meta-analiz çalışması [The effect of creative drama method on academic achievement: A meta-analysis study]. *International Journal of Active Learning*, 1(2), 55-67.
- Alacapınar, F. G., & Uysal, H. (2020). Effect of station technique in classroom teaching: A meta-analysis study. *Research on Education and Psychology*, 4(Special Issue), 88-106.
- Atasoy, A. (2021). The relationship between writing self-efficacy and writing skill: A meta-analysis study. *Education and Science*, 46(208), 213-236. <http://dx.doi.org/10.15390/EB.2021.10024>
- \*Aykaç, M. (2011). *Türkçe öğretiminde çocuk edebiyatı metinleriyle kurgulanan yaratıcı drama etkinliklerinin anlatma becerilerine etkisi [The effect of creative drama activities on children's narration skills set up with child literature texts in Turkish teaching]* [Unpublished doctoral dissertation]. Ankara University.
- Bal-İncebacak, B. (2017). Drama ile gösteri yöntemleri kullanılarak yazdırılan öykülerin karşılaştırılması [Comparison of stories written using drama and demonstration methods]. *Journal of International Social Research*, 10(49), 408-415.
- Batdı, V., & Batdı, H. (2015). Effect of creative drama on academic achievement: A meta-analytic and thematic analysis. *Educational Sciences: Theory & Practice*, 15(6), 1459-1470. <https://doi.org/10.12738/estp.2015.6.0156>
- Batdı, V., & Elaldı, S. (2020). Effects of drama method on social communication skills: A comparative analysis. *International Journal of Research in Education and Science*, 6(3), 435-457.
- Biçer, N. (2017). The influence of student-centered methods in Turkish language instruction on academic success: A meta-analysis study. *Universal Journal of Educational Research*, 5(4), 687-697. <https://doi.org/10.13189/ujer.2017.050419>
- Booth, D. (1985). Imaginary gardens with real toads: Reading and drama in education. *Theory into Practice*, 24, 193-198.
- Borenstein, M., Hedges, L. V., Higgins, J. P. T., & Rothstein, H. R. (2019). *Meta-analize giriş [Introduction to meta-analysis]* (Çev. S. Dinçer). Anı Yayıncılık.
- Boudreault, C. (2010). The benefits of using drama in the ESL/EFL classroom. *The Internet TESL Journal*, 16(1), 1-5.
- Brouillette, L. (2012). Advancing the speaking and listening skills of K-2 English language learners through creative drama. *TESOL Journal*, 3(1), 138-145. <https://doi.org/10.1002/tesj.8>
- Brown, H. D. (1994). *Principles of language learning and teaching*. Pearson Education.

- Burns, A., & Siegel, J. (2017). International perspectives on teaching the four skills: Themes and issues. A. Burns, J. Siegel (Eds.). In *International perspectives on teaching the four skills in ELT: Listening, speaking, reading, writing* (pp. 1-21). Palgrave Macmillan.
- Bush, B. J. (1985). *Effects of creative drama instruction on the story grammar knowledge of field-dependent and field-independent primary grade students* [Unpublished doctoral dissertation]. University of Missouri.
- Calp, Ş., Şahin Kalyon, D., Bulut, P., & Kuşdemir, Y. (2016). *İlkokulda drama uygulamaları [Drama practices in primary school]*. Vizetek Yayınları.
- Cantürk-Günhan, B. (2016). The effect of drama based learning applied in Turkey on success of mathematics: A meta-analysis study. *International Online Journal of Educational Sciences*, 8(2), 145-162. <http://dx.doi.org/10.15345/iojes.2016.02.013>
- Çelebi-Yıldız, N. (2002). *Verilerin değerlendirilmesinde meta analizi [Meta analysis method in data evaluation]* [Unpublished master's thesis]. Marmara University.
- \*Çelikbaş, L. A. (2019). *Cristine Nöstlinger'in seçilmiş kitaplarıyla kurgulanan yaratıcı drama etkinliklerinin yazma becerisine etkisi [The effect of creative drama activities based on Cristine Nöstlinger's choosen books]* [Unpublished master's thesis]. Anadolu University.
- Çer, E. (2017). The effects of creative drama on developing primary school pupils' writing skills. *Education & Science*, 42(190), 379-400. <http://dx.doi.org/10.15390/EB.2017.7015>
- Cohen, L., Manion, L., & Morrison, K. (2007). Experiments, quasi-experiments, single-case research and meta-analysis. L. Cohen, L. Manion, & K. Morrison (Eds.), In *Research methods in education* (6th ed.) (pp. 272-296). Routledge.
- Çöklü-Özkan, E. (2018). Okuduğunu anlamada yaratıcı dramanın etkisi ve önemi [The effect and importance of creative drama in reading comprehension]. *Ana Dili Eğitimi Dergisi*, 6(2), 343-368. <https://doi.org/10.16916/aded.399213>
- Conard, F. (1992). *The arts in education and a metaanalysis [Doctoral dissertation]*. Purdue University.
- Conard, F., & Asher, J. W. (2000). Self-concept and self-esteem through drama: A meta-analysis. *Youth Theatre Journal*, 14(1), 78-84. <https://doi.org/10.1080/08929092.2000.10012519>
- Cornelius-White, J. (2007). Learner-centered teacher-student relationships are effective: A meta-analysis. *Review of educational research*, 77(1), 113-143. <http://dx.doi.org/10.3102/003465430298563>
- Courtney, R. (1989). Culture and the creative drama teacher. *Youth Theatre Journal*, 3(4), 18-23.
- De la Cruz, R. E., Lian, M. G. J., & Morreau, L. E. (1998). The effects of creative drama on social and oral language skills of children with learning disabilities. *Youth Theatre Journal*, 12(1), 89-95. <https://doi.org/10.1080/08929092.1998.10012498>
- Demircioğlu, Ş. (2010). Teaching English vocabulary to young learners via drama. *Procedia-Social and Behavioral Sciences*, 2(2), 439-443. <https://doi.org/10.1016/j.sbspro.2010.03.039>

- Dinçer, S. (2014). *Eğitim bilimlerinde uygulamalı meta-analiz [Applied meta-analysis in educational sciences]*. Pegem Akademi.
- Doğan, Y. (2017). *Okuduğunu anlamayı geliştirmede kullanılan stratejilerin etkililiği: Bir meta analiz çalışması [The effectiveness of the strategies used in the development of reading comprehension: A meta analysis study]* [Unpublished master's thesis]. Ömer Halisdemir University.
- DuPont, S. (1992). The effectiveness of creative drama as an instructional strategy to enhance the reading comprehension skills of fifth-grade remedial readers. *Literacy Research and Instruction*, 31(3), 41-52.
- Duval, S., & Tweedie, R. (2000). A nonparametric "trim and fill" method of accounting for publication bias in meta-analysis. *Journal of the American Statistical Association*, 95(449), 89-98. <https://doi.org/10.1080/01621459.2000.10473905>
- \*Erkan, G., & Aykaç, M. (2014). Samet Behrengi'nin kitaplarıyla kurgulanan yaratıcı drama etkinliklerinin öğrencilerin yazma becerisi ve tutumlarına etkisi [The effect of creative drama activities fictionalized with Samet Behrengi's books on students' writing skills and attitudes]. *Uluslararası Sosyal Araştırmalar Dergisi*, 7(31), 600-610.
- \*Erden, G., & Eren, A. (2018). Drama ve işbirlikli öğrenme yöntemlerinin beşinci sınıf öğrencilerinin okuduğunu anlama becerilerine, tutumlarına ve bunların kalıcılığına etkileri [The effects of drama and cooperative learning methods on fifth grade students' reading comprehension skills, attitudes and permanence]. *Anadolu Üniversitesi Eğitim Fakültesi Dergisi (AUJEF)*, 2(2), 10-36.
- Er-Türküresin, H. (2020). The effect of using creative drama method on student achievement in the social studies course: A meta-analysis study. *International Online Journal of Education and Teaching*, 7(4), 1881-1896.
- Eski, B. (2019). Türkiye'de dramayla dil eğitimi alanında yapılan lisansüstü araştırmaların eğilimleri [Trends of postgraduate studies in the field of language education with drama in Turkey]. *Kuram ve Uygulamada Sosyal Bilimler Dergisi*, 3(2), 53-64.
- Even, S. (2011). Drama grammar: Towards a performative postmethod pedagogy. *The Language Learning Journal*, 39(3), 299-312. <https://doi.org/10.1080/09571736.2010.543287>
- Glass, G. V. (1976). Primary, secondary, and meta-analysis of research. *Educational researcher*, 5(10), 3-8.
- Graham, S., Tavşanlı, Ö. F., & Kaldırım, A. (2021). Improving writing skills of students in Turkey: A meta-analysis of writing interventions. *Educational Psychology Review*, 34, 889-934. <https://doi.org/10.1007/s10648-021-09639-0>
- \*Güngör, A. (2008). Effects of drama on the use of reading comprehension strategies and on attitudes toward reading. *Journal for Learning through the Arts*, 4(1), 5.
- Harrison, L. (1999). *Drama curriculum bank key stage one Scottish levels C-E*. Scoalistic.
- Haruyama, J. (2010). Effective practice of role play and dramatization in foreign language education. *Komaba Journal of English Education*, 1, 31-58.
- Heathcote, D. (1984). *Collected writings*. Hutchinson.

- \*İsbir-Abrekoğlu, B. (2019). *Yaratıcı dramanın yaratıcı yazma becerisine ve yazmaya yönelik tutuma etkisi [The effect of creative drama to on creative writing and attitude of writing]* [Unpublished master's thesis]. Düzce University.
- Jin, Z. C., Zhou, X. H., & He, J. (2015). Statistical methods for dealing with publication bias in meta-analysis. *Statistics in Medicine*, 34(2), 343-360.
- Kanadlı, S. (2019). *Sosyal bilimlerde teoriden uygulamaya araştırma sentezi: Nicel, nitel ve karma yöntemler [Research synthesis from theory to practice in social sciences: Quantitative, qualitative and mixed methods]*. Pegem Akademi.
- Kansızoğlu, H. B. (2017a). The effect of graphic organizers on language teaching and learning areas: A meta-analysis study. *Education and Science*, 42(191), 139-164. <https://doi.org/10.15390/EB.2017.6777>
- Kansızoğlu, H. B. (2017b). The comparison of vocabulary teaching methods in terms of their effect on vocabulary development: A meta-analytic review. *International Online Journal of Educational Sciences (IOJES)*, 9(3), 821-841. <https://doi.org/10.15345/iojes.2017.03.017>
- Kansızoğlu, H. B., & Bayrak-Cömert, Ö. (2017). The effect of the process approach on students' writing success: A meta-analysis. *Çukurova Üniversitesi Eğitim Fakültesi Dergisi*, 46(2), 541-586. <http://dx.doi.org/10.14812/cuefd.292046>
- Kansızoğlu, H. B., & Sulak, S. E. (2019). The effect of student-centered grammar teaching practices on success of students: A meta analysis study. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 34(4), 958-980.
- Karadağ, E., & Çalışkan, N. (2005). *Kuramdan uygulamaya ilköğretimde drama [Drama in primary education from theory to practice]*. Anı Yayıncılık.
- \*Karakuş, F. (2000). Drama yönteminin ilköğretim beşinci sınıf öğrencilerinin öykü yazma becerilerine etkisi *[The effects of the drama method on the skills of narrative writing in the fifth grade students]* [Unpublished master's thesis]. Çukurova University.
- \*Kardaş, M. N., & Koç, R. (2017). Effect of drama instruction method on students' Turkish verbal skills and speech anxiety. *International Journal of Progressive Education*, 13(1), 64-78.
- \*Kardaş, N. (2018). *Drama etkinliklerinin 7. sınıf öğrencilerin Türkçe dersi konuşma becerisi ve kaygısına etkisi: Karma yöntem araştırması [The effect of 7th grade students in Turkish course events on speaking skills and speech: A mixture method research]* [Unpublished master's thesis]. Siirt University.
- Kardash, C. A. M., & Wright, L. (1986). Does creative drama benefit elementary school students: A meta-analysis. *Youth Theatre Journal*, 1, 11-18.
- Kavcar, C., Oğuzkan, F., & Sever, S. (1995). *Türkçe öğretimi - Türkçe ve sınıf öğretmenleri için [Teaching Turkish - for Turkish and classroom teachers]*. Engin Yayınevi.
- \*Kazıcı, E. (2008). *İlköğretim ikinci kademe Türkçe derslerinde deyim ve atasözlerinin öğretiminde dramatizasyon yönteminin etkililik düzeyi [In Turkish lessons at the second part of the elementary education, effectiveness level of dramatization method at the teaching of the idioms and proverbs]* [Unpublished master's thesis]. Selçuk University.

- \*Koçpınar, M. Y. (2018). *Yaratıcı drama yönteminin kelime öğrenimine etkisi [Effect of creative drama to learning word]* [Unpublished master's thesis]. Gazi University.
- Küçük-Avcı, Ş., Çoklar, A. N., & İstanbullu, A. (2019). The effect of three dimensional virtual environments and augmented reality applications on the learning achievement: A meta-analysis study. *Educational Sciences: Theory & Practice*, 44(198), 149-182.
- Kütükçü, H. (2010). *Arapça öğretiminde drama yöntemi ve Arapça dersini yürüten öğretmenlerin bu yöntemi kullanma düzeyleri [Drama in teaching Arabic and its level of use by teachers of Arabic]* [Unpublished master's thesis]. Gazi University.
- Lee, B. K., Enciso, P., & Brown, M. R. (2020). The effect of drama-based pedagogies on K-12 literacy-related outcomes: A meta-analysis of 30 years of research. *International Journal of Education & the Arts*, 21(30), 1-30. <http://doi.org/10.26209/ijea21n30>
- Lee, B. K., Patall, E. A., Cawthon, S. W., & Steingut, R. R. (2015). The effect of drama-based pedagogy on PreK–16 outcomes: A meta-analysis of research from 1985 to 2012. *Review of Educational Research*, 85(1), 3-49. <https://doi.org/10.3102/0034654314540477>
- Maden, S. (2010). Türkçe öğretiminde drama yönteminin gerekliliği [The necessity of drama method in Turkish teaching]. *Türklük Bilimi Araştırmaları*, 27, 503-519.
- \*Maden, S., & Dinç, A. (2017). Drama yönteminin Türkçe öğretiminde kullanımının başarı ve kalıcılık üzerine etkisi [The effect of the use of drama method in Turkish teaching on success and permanence]. *Amasya Üniversitesi Eğitim Fakültesi Dergisi*, 6(2), 454-500.
- Maley, A., & Duff, A. (1984). *Drama techniques in language learning: A resource book of communication activities for language teachers*. Cambridge University Press.
- McCombs, B. (2012). *Developing responsible and autonomous learners: A key to motivating students*. <https://www.apa.org/education-career/k12/learners>
- McMaster, J. C. (1998). "Doing" literature: Using drama to build literacy. *The Reading Teacher*, 51(7), 574-84.
- \*Memiş, A., Sever, E., & Bozkurt, M. (2016). Yaratıcı yazma ve yaratıcı drama yaklaşımının ilkokul öğrencilerinin yaratıcı yazma becerilerine ve yardımseverlik tutumlarına etkisi [The effect of creative writing and creative drama approach on primary school students' creative writing skills and helpfulness attitudes]. *Turkish Studies*, 11(3), 1685-1702. <http://dx.doi.org/10.7827/TurkishStudies.9263>
- Miles, M. B., & Huberman, A. M. (1994). *An expanded source book: Qualitative data analysis* (2nd ed.). SAGE Publications.
- Ministry of National Education. (2019). *Türkçe dersi öğretim programı [Turkish lesson curriculum]*. Ministry of National Education.
- Morgül, M. (1999). *Eğitimde yaratıcı dramaya merhaba [Hello to creative drama in education]*. Kök Yayıncılık.
- Nutku, Ö. (1990). *Dram sanatı (tiyatroya giriş) [Drama art (introduction to theatre)]*. Kabalcı Yayınları.

- Oruç, K. (2013). *Drama ve okul tiyatrosu [Drama and school theatre]*. Mitos-Boyut Yayınları.
- Özbey, Ö. F., & Sarıkaya, R. (2019). Türkiye’de drama yöntemi ile yapılan çalışmaların etkililiğinin incelenmesi: Bir meta analiz çalışması [Examining the effectiveness of the drama method studies in Turkey: A meta-analysis study]. *Gazi Eğitim Bilimleri Dergisi*, 5, 231-253. <https://dx.doi.org/10.30855/gjes.2019.os.01.013>
- \*Özcan, Ş. (2013). *Yaratıcı dramanın anlayarak anlatma becerilerinin geliştirilmesine etkisi [Effect of the creative drama on the development of conceptual narrative skills]* [Unpublished master’s thesis]. Gazi University.
- Özdemir-Şimşek, P., & Karataş, F. Z. (2020). Fen eğitiminde yaratıcı drama yönteminin başarıya etkisi: Meta-analiz çalışması [The effect of creative drama method on success in science education: Meta-analysis study]. *Yaratıcı Drama Dergisi*, 15(1), 63-84. <https://dx.doi.org/10.21612/yader.2020.004>
- Özkaya, P. G. (2020). Dijital öykülerin Türkçe dil becerilerinin gelişimine etkisi: Bir meta analiz çalışması [The effect of digital stories on the development of Turkish language skills: A meta-analysis study]. *Ana Dili Eğitimi Dergisi*, 8(4), 1386-1405.
- \*Öztürk, Ö. (2017). *İlkokul 3. sınıf Türkçe dersinde yaratıcı drama yönteminin konuşma becerilerini geliştirmeye etkisi [The effect of the creative drama method in the development of speaking skills in the primary school class 3 Turkish lesson]* [Unpublished master’s thesis]. Bartın University.
- Öztürk-Pat, Ö., & Yılmaz, M. (2021). Impact of creative drama method on students’ speaking skills. *Journal of Theoretical Educational Science*, 14(2), 223-245. <http://doi.org/10.30831/akukeg.740277>
- Podlozny, A. (2000). Strengthening verbal skills through the use of classroom drama: A clear link. *Journal of Aesthetic Education*, 34, 239-275. <https://doi.org/10.2307/3333644>
- Prendiville, F., & Toye, N. (2007). *Speaking and listening through drama*. Paul Chapman Publishing.
- Rose, D., Parks, M., Androes, K., & McMahon, S. (2000). Imagery based learning: Elementary students reading comprehension with drama techniques. *Journal of Educational Research*, 94(1), 55-63. <https://doi.org/10.1080/00220670009598742>
- \*Şahin, A. (2018). Learning creative drama with proverbs. *Turkish Studies*, 13(19), 1659-1668. <http://dx.doi.org/10.7827/TurkishStudies.13909>
- Şahin, N. (2019). Türkçe dersi kapsamında gerçekleştirilen yaratıcı yazma uygulamalarının öğrencilerin tutumları üzerindeki etkisinin meta-analiz ile incelenmesi [Investigation of the effect of creative writing practices carried out within the scope of Turkish course on students' attitudes with meta-analysis]. *Ana Dili Eğitimi Dergisi*, 7(1), 115-129.
- San, İ. (1990). Eğitimde yaratıcı drama [Creative drama in education]. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi*, 23(2), 573-582.
- San, İ. (2010). Türkiye’de eğitimde yaratıcı drama çalışmalarının gelişimi [Türkiye’de eğitimde yaratıcı drama çalışmalarının gelişimi]. Ö. Adıgüzel (Ed.). In *Yaratıcı drama 1999-2002 yazılar-Tamer Levent’e Armağan [Creative drama 1999-2002 articles - Gift to Tamer Levent]* (pp. 113-123). Naturel.

- Saraç, G. (2007). *The use of creative drama in developing the speaking skills of young learners* [Unpublished master thesis]. Gazi University.
- Schneider, J. J., & Jackson, S. A. W. (2000). Process drama: A special space and place for writing. *The Reading Teacher*, 54(1), 38-51.
- Sidekli, S., & Çetin, E. (2017). The effect of reading comprehension strategies on reading comprehension: A meta-analysis study. *Trakya University Journal of Education Faculty*, 8(2), 285-303. <http://dx.doi.org/10.24315/trkefd.321757>
- Sidekli, S., & Uysal, H. (2017). Yazma eğitimine yönelik yapılan lisansüstü tezlerin incelenmesi: Bir meta analiz çalışması [Examination of postgraduate theses on writing education: A meta-analysis study]. *Electronic Turkish Studies*, 12(25), 705 - 720. <http://dx.doi.org/10.7827/TurkishStudies.12217>
- \*Şimşek, T., Topal, Y., Maden, S., & Şahin, A. (2010). İlköğretim II. kademe Türkçe dersinde zarf (belirteç) konusunun drama yöntemi kullanılarak öğretimi [Teaching the subject of adverb in Turkish lesson of secondary school students by using drama method]. *Millî Eğitim Dergisi*, 39(186), 106-120.
- Stabler, T. (1980). *Drama in the primary schools*. Macmillan.
- Sur, E. (2022). The effect of repeated reading on reading success: A meta-analysis study. *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi*, 55, 226-251. <http://dx.doi.org/10.9779.pauefd.991882>
- \*Susar-Kırmızı, F. (2007). Yaratıcı drama yönteminin okuduğunu anlama başarısına etkisi ve yönteme ilişkin öğrenci görüşleri [The effect of creative drama method on reading comprehension achievement and students' opinions about the method]. *Eurasian Journal of Educational Research*, 29, 59-71.
- Polisini, J. K. (1994). *The creative drama book three approaches*. Anch Orage Pers.
- \*Terzioğlu-Ünveren, I. (2018). *Dramanın yazma becerisi üzerindeki etkisi (Temel eğitim I. kademe 3. sınıf örneği)* [The effect of drama on writing skills (Basic education, 3rd grade sample)] [Unpublished master's thesis]. Gazi University.
- Toraman, Ç., & Ulubey, Ö. (2016). The effect of creative drama method on the attitude towards course: A meta-analysis Study. *Journal of Educational Sciences Research*, 6(1), 87-115. <http://dx.doi.org/10.12973/jesr.2016.61.5>
- \*Türkel, A. (2011). *Yaratıcı dramanın yaratıcı yazma başarısına ve yazmaya karşı tutuma etkisi (İlköğretim 8. sınıf)* [The effect of creative drama on creative writing and attitude towards writing: 8. Graders] [Unpublished doctoral dissertation]. Dokuz Eylül University.
- \*Ulaş, A. H. (2008). Effects of creative, educational drama activities on developing oral skills in primary school children. *American Journal of Applied Sciences*, 5(7), 876-880.
- Ulubey, Ö. (2018). The effect of creative drama as a method on skills: A meta-analysis study. *Journal of Education and Training Studies*, 6(4), 63-78. <https://doi.org/10.11114/jets.v6i3.2968>
- Ulubey, Ö., & Toraman, Ç. (2015). Yaratıcı drama yönteminin akademik başarıya etkisi: Bir meta-analiz çalışması [The effect of creative drama method on academic achievement: A meta-analysis study]. *Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 12(32), 195-220.

- Uşaklı, H. (2011). *Drama ve iletişim becerileri [Drama and communication skills]*. Nobel Akademik Yayıncılık.
- Üstün, U., & Eryılmaz, A. (2014). A research methodology to conduct effective research syntheses: Meta-analysis. *Education and Science*, 39(174), 1-32. <http://dx.doi.org/10.15390/EB.2014.3379>
- Üstündağ, T. (1996). Yaratıcı dramanın üç boyutu [Three dimensions of creative drama]. *Yaşadıkça Eğitim Dergisi*, 19(95), 19-23.
- \*Uysal, B. (2014). *Dinleme ve konuşma becerilerinin kazandırılmasında yaratıcı drama temelli bir model önerisi [A creative-drama based model suggestion in enhancing listening and speaking skills]* [Unpublished doctoral dissertation]. Gazi University.
- Wagner, B. J. (1976). *Dorothy Heathcote: Drama as a learning medium*. National Education Association.
- Wessels, C. (1987). *Drama*. Oxford University Press.
- Williams, M., & Burden, R. L. (1997). *Psychology for language teachers*. Cambridge University Press.
- Wiyanti, S., Asib, A., & Ngadiso, N. (2018). The effectiveness of drama to teach speaking viewed from students' self-actualization. *Jurnal Pendidikan Bahasa*, 7(2), 406-417. <http://dx.doi.org/10.31571/bahasa.v7i2.1020>
- Yalçın, A., & Aytaş, G. (2006). *Tiyatro ve canlandırma: Sahneleme bilgileri [Theater and animation: staging information]*. Akçağ Yayınları.
- \*Yaman, B. (2005). *Eğitimde drama yöntemi ile Türkçe öğretiminin iki dilli olan ve olmayan ilköğretim 5. sınıf öğrencilerinin akademik başarı ve tutumlarına etkisi [The effect of drama method in education on bilingual and non bilingual 5th grade elementary school students' academic achievement and attitude]* [Unpublished doctoral dissertation]. Çukurova University.
- Yavuz, F. (2017). The effect of drama in the teaching of listening skills. *Global Journal of Foreign Language Teaching*, 7(4), 132-136.
- \*Yeşilyurt, E. (2011). *6. sınıflarda yapım eklerinin öğretime yaratıcı drama yönteminin etkisi [The effect of creative drama method on teaching derivational affix at sixth classes students]* [Unpublished master's thesis]. Abant İzzet Baysal University.
- Yücer, S. (2011). Turkish teaching and problems via the internet. *Gazi University Turkish Studies Academic Student Journal*, 1(1), 108-116.
- Yumurtacı, N., & Mede, E. (2021). Using creative drama in teaching English to young learners: Effectiveness on vocabulary development and creative thinking. *Ilkogretim Online*, 20(1), 115-128. <https://doi.org/10.17051/ilkonline.2021.01.017>
- Zafeiriades, N. (2009). Drama in language teaching: a challenge for creative development. *Issue*, 23, 4-9.



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