

## Research Article

# The effect of creative drama on the creative self-efficacy of pre-service teachers

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The present study aims to examine the effect of creative drama practices on the creative self-efficacy of pre-service Turkish language teachers and their opinions on the practices. The study was designed based on the mixed explanatory sequential design. The study group consisted of 22 (13 female, 9 male) pre-service Turkish language teachers attending the Department of Turkish Language Teaching at the faculty of education in a state university. In the quantitative section of the study, a one-group pretest-posttest experimental design was employed. Phenomenology was utilized in the qualitative section. The Creative Self-Efficacy Scale was used to collect quantitative data and a semi-structured focus group interview form was used to collect qualitative data. The activities were carried out in 90-minute sessions once a week for a total of 21 hours. The pretest and posttest results showed that the creative drama activities carried out in the study group were effective in increasing the creative self-efficacy of the pre-service Turkish teachers. According to the results obtained from the focus group interviews, it was determined that the pre-service teachers expressed positive views regarding creative drama practices in terms of their creative self-efficacy. As a result of the study, it was concluded that creative drama practices contributed positively to the creative self-efficacy of the pre-service Turkish teachers.

**Keywords:** Creativity; Creative self-efficacy; Creative drama; Pre-service Turkish language teachers; Focus group interview

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## 1. Introduction

As a 21st-century competency, creativity is one of the most significant key concepts of the transformation taking place in today's world (Mróz & Ocetkiewicz, 2021). Creativity, which is often characterized by the concepts of creative thinking, talent, problem-solving, imagination and innovation (El-Murad & West, 2004), is generally defined as the process of designing and implementing useful and unique outputs without any limitation of field or subject (Kim, 2019). Creativity is at the center of economy and trade, scientific production and development, and students' learning processes in schools (Puente-Díaz, 2016; Reiter-Palmon et al., 2014). Today, many developed and developing countries have started to introduce regulations to emphasize students' creativity in their education programs (Gültekin, 2014; National Curriculum, 2013). This is because education plays a central role in developing the creative skills of individuals. Higher

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education in particular train future employees to fulfill their professional duties and produce innovations in their profession (Keinänen et al., 2018).

The present study focuses on pre-service teachers studying in higher education institutions. Today's pre-service teachers are the teachers of the future who will educate children in schools and inspire a sense of creativity and innovation. Thus, creativity and innovation play an increasingly important role in teacher education and training (Özmuş, 2012). Numerous studies examine pre-service teachers' creativity from various perspectives (Emir et al., 2004; Kimhi & Geronik, 2020; Tuna & Temizkalp, 2013; Ulukök et al., 2012; Yasa & Şahin, 2012), but few explore their development. In today's world, however, educators are expected to emphasize creativity more than ever before.

This study focused on creative self-efficacy rather than creativity, which has received more attention (Puente-Díaz, 2016) and is one of the most critical predictors of creativity (Park et al., 2021; Tierney & Farmer, 2004). When individuals have high levels of creative self-efficacy, they are more likely to succeed in creative processes, such as generating new ideas, and less likely to fail (Li et al., 2021). The development of creative self-efficacy in pre-service teachers will further support them in developing and implementing new ideas in their profession in the future. It illustrates the importance of pre-service teacher education offered by faculties of education. In this context, creative drama as an effective method to develop the creativity and creative self-efficacy of pre-service teachers as a means of providing opportunities to express themselves comfortably, develop their imagination, display their creativity, deal with diverse situations and problems and come up with creative solutions, develop and present new products/ideas, and adapt new ideas and products to existing conditions, devise unique methods of problem-solving (Çetin, 2020; Tezer et al., 2019).

### 1.1. Creative Self-Efficacy

Self-efficacy refers to individuals' belief that they can cope with various situations, challenges, and new tasks (Bandura, 1997) and their level of confidence in realizing a behavior (Schack, 1989). An individual's perception of self-efficacy affects their effort and continuity in the task to be carried out (Cervone et al., 2011). For this reason, self-efficacy is recognized as one of the precursors of performance (Liviñi et al., 2021).

General self-efficacy expresses to an individual's belief in their ability in all areas (Chen et al., 2001). However, while individuals may feel competent in one domain, they may not in others. This highlights the domain-specific aspect of self-efficacy (Dea-Moore & Cook, 2011). The concept of creative self-efficacy was broadened by Tierney and Farmer (2002) as a concept that expresses individuals' beliefs regarding their ability to produce creative results based on the general concept of self-efficacy. Creative self-efficacy, which emphasizes creative skills, is a significant type of self-efficacy (Tang et al., 2022). Creative self-efficacy refers to the individual's ability and confidence to cope with difficulties and obstacles in the process of generating, implementing, organizing, and regulating new ideas (Bandura, 1997; Beghetto et al., 2011; Beghetto & Karwowski, 2017; Tierney & Farmer, 2002). Moreover, creative self-efficacy also refers to the individual's judgment regarding their own creative abilities and potential, and its reflection on their choices of activities, efforts in the process, and achievement of innovative outcomes (Shaw et al., 2021). Thus, individuals with high self-efficacy are motivated much more easily than individuals with low self-efficacy when they are required to spend effort on creative endeavors (Cervone et al., 2011). Creative self-efficacy plays an important role in the emergence of creative behaviors (Newman et al., 2018) and the facilitation of development (Christensen-Salem et al., 2021). However, a low sense of self-efficacy negatively affects the motivation of the individual and may occasionally cause them to abandon the process of producing a creative product (Cervone et al., 2011; Demiralay & Karadeniz, 2010).

Creative self-efficacy can be developed over time (Tierney & Farmer, 2011). Although experimental studies in the literature examining the effect of creativity training practices on individuals' creative self-efficacy report negative results (Meinel et al., 2018; Starkey et al., 2017),

there are also studies that reached positive conclusions (Byrge & Tang, 2015; Mathisen & Bronnack, 2009; Park et al., 2021; Tang & Werner, 2017). These results show that practices carried out to improve individuals' creative self-efficacy can be effective. In this respect, creative drama activities emphasizing creativity can provide the opportunity to improve the creative self-efficacy of pre-service teachers in terms of enabling them to learn through experience and actively engage in the process in a deep and effective manner (Adıgüzel, 2022) in teacher education as well as creativity education.

## 1.2. Creative Drama and Creative Self-Efficacy

Creative drama is defined as "performing a subject using techniques such as improvisation and role-playing with a group or performing enactments based on the experiences and lives of group members" (Adıgüzel, 2006, p. 21). According to San (1990; 1996), creative drama is the internalization of a subject or subjects by individuals and groups through interaction with the guidance of a drama instructor, creating an internal experience, and expressing it by repeatedly reflecting on it. Creative drama is based on a theoretical basis and involves activities carried out in three stages: warm-up/preparation, performance, and evaluation (Kasapoğlu, 2019). With the activities carried out at these stages, various opportunities are provided for the individual to express themselves by offering effective experiences and learning environments such as improvisation, examination, and trial and error (Batdı, 2020). In creative drama, which focuses on the process rather than the outcome, most of the experiences are realized spontaneously during the performance, and it is not known in advance what kind of outcome will emerge (Adıgüzel, 2006; Guli, 2004; Üstündağ, 1998).

Creative drama offers individuals the opportunity to utilize their experiences and creativity simultaneously (Bulut & Sonkaya, 2019) and thus reveal their inherent talents and creativity (Aytaş, 2013). It develops the individual's world of imagery, senses and the ability to find unique solutions to problems, self-recognition and multidimensional perception skills, and allows them to become more creative by using their imagination. In fact, creative drama argues that individuals are born with some innate creative skills and that these skills can be developed when appropriate environments are established (Karaosmanoğlu & Adıgüzel, 2017; Koçak-Tümer & Tanju-Aslışen, 2022; Tuğrul, 2006).

Studies reveal that the environment offered by drama and the methods and techniques used in the process are effective in terms of creativity (Karaosmanoğlu & Adıgüzel, 2017). The fact that the creativity of individuals is actively involved in the process and the creativity and imagination initiated with games come to the fore in the form of both individual and group creativity, particularly with improvisations (Üstündağ, 1998), is effective in increasing creativity. Participants in creative drama processes stated that they pushed and revealed their creativity through the activities performed, that it gave them the courage to go beyond the usual, and that it improved their creative thinking skills (Kaf-Hasırcı et al., 2008).

In the present study, the effect of creative drama practices on the creative self-efficacy of pre-service Turkish teachers was focused on. This is because previous studies in the literature produced evidence that creative drama improves creativity and creative thinking skills (Başçı & Gündoğdu, 2011; Karakelle, 2009; Lin, 2010; Momeni et al., 2017; Özdemir & Çakmak, 2008; Şahin, 2022; Ulaş et al., 2014), which suggests that it can also be effective on creative self-efficacy (Du et al., 2020), an important precursory variable of creativity. In this respect, this study is important in terms of determining the effect of creative drama activities on the creative self-efficacy of pre-service Turkish teachers through an experimental study and analyzing the views of the participants on creative drama activities in the context of creative self-efficacy. Despite extensive research on creative drama (Özbey & Sarıkaya, 2019), experimental studies on creative self-efficacy as well as studies examining creative drama activities from this perspective are lacking in the literature. It is expected that the findings from the present study will provide researchers and educators with insights into this subject.

### 1.3. The Aim

The aim of the study is to determine the effect of creative drama practices on the creative self-efficacy of pre-service Turkish teachers and to examine their views on creative drama practices. To this aim, answers to the following research questions were sought.

RQ 1) Is there a significant difference between the pre-service teachers' creative self-efficacy pretest and posttest mean scores?

RQ 2) What are the views of pre-service Turkish language teachers regarding the effect of creative drama practices on their creative self-efficacy?

RQ 3) What are the suggestions of pre-service Turkish language teachers for developing creative self-efficacy in creative drama practices?

## 2. Method

The present study employed an explanatory sequential design, one of the mixed research designs. The explanatory sequential design begins with the collection and analysis of quantitative data on the research question. Qualitative data are collected and analyzed following these analyses. The purpose of collecting qualitative data in this design is to provide a deeper understanding of correlations and orientations in quantitative data (Creswell & Plano-Clark, 2018). In this study, the quantitative process was carried out first and data were collected, and then qualitative data were collected to interpret the quantitative results in more depth.

The experimental one-group pretest-posttest model was used for the quantitative dimension of this study. In this model, an independent variable is applied to the participants and measurements are made before and after the application. The difference between the pretest and posttest scores of the participants indicates how effective the application is (Christensen et al., 2020).

The qualitative dimension of the study was designed based on the phenomenology design. In this design, it is aimed to reveal the meaning of the experiences about a concept, an event or a phenomenon for the participants. For this reason, individual experiences and subjective inner world experiences of individuals are very important in phenomenological design. Therefore, in order to understand how individuals experience phenomena, it aims to obtain 'what is inside their heads' (Christensen et al., 2020; Kiral, 2021).

### 2.1. Study Group

The study group consisted of 22 (13 female, 9 male) pre-service Turkish language teachers studying in the Department of Turkish Language Teaching at the faculty of education of a state university in Turkey. The participants were senior students and were selected based on the convenience sampling method. The applications were carried out within the scope of the Theater and Drama Applications course. 18.2% (f=4) of the pre-service teachers lived in the village, 36.4% (f=8) in the district and 45.5% (f=10) in the city center for the longest time. 4.5% (f=1) of the pre-service teachers perceived their socio-economic status as low, 77.3% (f=17) as medium and 18.2% (f=4) as high. The mother of 9.1% (f=1) of the pre-service teachers was illiterate, 40.9% (f=9) graduated from primary school, 18.2% (f=9) from secondary school, and 13.6% (f=3) from high school. The educational status of their fathers are as follows: 5% (f=2) graduated from primary school, 40.9% (f=9) from secondary school, 13.6% (f=3) from high school, and 22.7% (f=5) from university.

### 2.3. Data Collection Tools and Data Analysis

In the study, the *Creative Self-Efficacy Scale (CSES)* developed by Tierney and Farmer (2002) and adapted into Turkish by Atabek (2020) was used to determine the creative self-efficacy of pre-service Turkish teachers. The scale, a 5-point Likert-type questionnaire, consists of three items and a single factor. This single factor explains 76.88% of the variance. 489 pre-service teachers participated in the validity and reliability studies of the scale. Since the scale consisted of only three items and a single factor, it was stated that the degrees of freedom for  $\chi^2$  analysis was zero

and therefore confirmatory factor analysis (CFA) could not be employed with zero degrees of freedom [ $\chi^2(0) = 0$ ,  $p =$  could not be calculated]. Moreover, in terms of internal validity, the correlation between Creative Self-Efficacy and Design Self-Efficacy was found to be significant ( $r = 0.58$ ,  $n = 25$ ,  $p = .000$ ). The Cronbach's Alpha coefficient was calculated as 0.847 (Atabek, 2020). The data obtained show that the Creativity Self-Efficacy scale adapted into Turkish is valid and reliable. This scale was applied to the study group as a pretest before the application and as a posttest after the application. In the analysis of the data obtained, it was first checked whether the data were normally distributed. Since the study group consisted of less than 50 participants, Shapiro-Wilks test results were analyzed for the normality of distribution (Büyüköztürk, 2011). Table 1 shows the findings obtained as a result of the analyses.

Table 1

*Normality of distribution of the pre-service teachers' scores from the creativity self-efficacy scale*

Test	N	Shapiro-Wilks	Mean	df	SD	Skewness	Kurtosis
Pretest	22	.42	11.54	22	1.56	-.05	.79
Posttest	22	.03	12.09	22	1.44	.55	-.42

When Table 1 is examined, it is seen that the pre-service teachers' creativity self-efficacy scale pretest scores are not normally distributed (SW = .424; SD = 22;  $p > .05$ ), but the posttest scores are normally distributed (SW = .428; SD = 12;  $p > .05$ ) based on the results of the Shapiro-Wilks test. For this reason, the Wilcoxon signed-rank test was used to analyze the pretest and posttest creativity self-efficacy scores of the pre-service Turkish language teachers (Büyüköztürk, 2011).

In the study, a semi-structured interview form was used to collect the experiences, views and suggestions of the pre-service Turkish teachers regarding the process. While preparing the form, expert opinion was sought, and the form was organized in line with the feedback received and applied in a pilot study. In line with the points specified as a result of the pilot focus group interviews (Breen, 2006), the form was finalized by re-interviewing the experts. Two questions were included in the final version of the form. The interview form was used during the focus group interviews after the quantitative data were collected and analyzed.

All the pre-service teachers participated in the focus group interviews. The groups, which were formed by lot with the approval of the participants, consisted of 7, 7 and 8 participants, respectively. Some studies in the literature indicate that if the sample is small, saturation can be reached with 2 to 3 focus groups; if the sample is larger, saturation can be reached with 3/4 to 5/6 focus groups (Guest et al., 2016; Hennink et al., 2019). Due to the small size of the study group in the present study, it can be said that three focus interviews were sufficient to ensure the saturation of the data. Attention was paid to ensure equal representation of male and female pre-service teachers in the groups. The interviews were conducted one day apart and lasted approximately 80 to 100 minutes. The interviews were conducted in the interview rooms of the psychological counseling and guidance unit in the faculty of education so that the pre-service teachers felt comfortable and could see each other easily. The researcher and an observer participated in the interviews. While the researcher was conducting the interviews, the observer noted their observations regarding the process and the points they considered important. In the interviews, before the main research question, the pre-service teachers were asked warm-up and explanatory questions such as the definition of creativity, whether they considered themselves creative, how they found solutions when experiencing difficulties with creativity, and the definition of creative self-efficacy, and at the end of the interviews, they were asked final questions such as whether they wished to add further comments on the subject and whether there was a situation they realized or remembered later (Krueger, 1997). Audio recordings of all the interviews were taken.

The data obtained from the focus group interviews were first transferred to a computer, organized and made suitable for analysis. The content analysis technique was used to analyze the data. Content analysis in qualitative studies aims to reveal the concepts and relations among the data obtained and to interpret them in a comprehensible manner for the reader (Yıldırım &

Şimşek, 2008). The two researchers (one of them is the researcher conducting the study and the other is an expert working in the field of creative drama and Turkish language education) teamed up and attempted to interpret the data through repeated reading before coding the data. After the coding was completed, themes, sub-themes and codes were created by evaluating both questions asked in the interviews within themselves. While determining the themes, the literature on creative drama (Adıgüzel, 2022; Baldwin, 2020; Üstündağ, 1998), creativity (Amabile, 1983; Beghetto & Kaufman, 2014; Sternberg, 2006) and creativity self-efficacy (Bandura, 1997; Schack, 1989; Tierney & Farmer, 2002) was taken into consideration. The themes were named by taking appropriate or close concepts from the literature, but some themes were named by the researchers. Then, the experts were consulted and asked to evaluate the themes and the analysis process before the findings were organized in line with the feedback received (Strauss & Corbin, 1998). After the analyses, the findings of the interviews were organized using the application named Miro. In the findings, the participants' opinions were also included directly.

All procedures applied in studies involving human participants in the collection of research data were carried out in accordance with the Declaration of Helsinki. In this direction, consent was obtained from all participants to participate in the process at the beginning of the applications. While collecting and analyzing the data, special attention was paid to keeping the personal information of the participants confidential, audio recordings were taken in the interviews in line with their consent, but video recordings of the drama practices were not taken due to the lack of their consent. The participants were assured that the collected data would not be used anywhere outside the research (World Medical Association, 2013).

#### **2.4. Validity and Reliability**

To ensure validity and reliability in the study, first, a measurement tool with established validity and reliability for quantitative data was chosen while selecting data collection tools. Furthermore, in the semi-structured interview form prepared for the collection of qualitative data, it was aimed to ensure content validity by seeking expert opinion (Çepni, 2018; Merriam, 2018). Additionally, a pilot study was conducted before the main application and the interview form was finalized with the feedback received from the interviews conducted in this pilot study (Lincoln & Guba, 1985).

For the consistency of the findings obtained in the study, both the quantitative and qualitative data were collected and analyzed, and their findings were presented jointly. The reliability of the quantitative data was examined through statistical analysis. For the reliability of the qualitative data, the analyses were jointly conducted by the two researchers and expert opinion was consulted (Strauss & Corbin, 1998). In addition, audio recordings were taken during the interviews to secure the data (Creswell, 2017). Consent was obtained from the participants for the applications. To prevent any potential issues in the findings, the names of the participants were not disclosed; instead, they were coded as P1, P2....

#### **2.5. Application Process**

The applications were carried out with senior students in the fall semester within the scope of the Theater and Drama Applications course. Before the main applications, pilot studies were carried out with one of the two classes of seniors, and after the pilot studies, necessary corrections and arrangements were made regarding the process and the main applications were carried out. For the drama plans prepared in line with the purpose of the study, expert opinions were consulted, and the plans were finalized. The applications lasted a total of 14 weeks, 90 minutes per week. In the study, the applications were carried out by the instructor in charge of the course. The creative drama trainer, who is also the researcher of the study, holds a drama trainer certificate from the Ministry of National Education and has been providing drama education for many years. The creative drama trainer is the one who designs, shapes, and directs the process, and is one of the basic components of creative drama (Adıgüzel, 2006). For this reason, it is important that the

person who will carry out the process has competence in the field of drama. The applications were carried out in the drama hall located in the faculty.

In the present study, a 14-week program was prepared to determine the effect of creative drama on the creative self-efficacy of pre-service Turkish language teachers. In the sessions, activities aimed at helping pre-service teachers to express themselves comfortably and in different ways, to increase their awareness towards creativity, to realize their perceptions about themselves, to come up with new or different ideas/products/roles, to develop their imagination and to find original solutions to the problems they face were included. Creative drama processes were taken into account in the preparation of the plans and activities were created for the warm-up, animation and evaluation stages (Adıgüzel, 2022). Various games and drama methods and techniques were utilized in the sessions, and particular care was taken to avoid repetition in the games and topics. In addition, the activities were planned by considering the characteristics, interests and needs of the pre-service teachers. Since the nature of drama involves creativity, attention was paid to ensure that the games and dramatizations selected for the sessions emphasized individual and group creativity. In the warm-up phase, games and activities in which the pre-service teachers could use their imagination and creativity skills were included. For example, adaptations and activities such as clay-sculpting, redesigning childhood games, directive walking in a space, and frozen images were included. In the animation stage, different drama methods and techniques were used to enable the pre-service teachers to use their creativity and take on new and different roles. Methods and techniques such as improvisation, role-playing, hot chair, pantomime, fragment, frozen image, the walls have a voice, if I were you, circle of life, and forum theater were used. In the evaluation phase, while sharing ideas about the process, activities such as writing letters, shooting clips, and preparing newspapers and banners were included. During the process, various tools such as colored pencils, ropes, stones, balloons, and fabrics were used. The topics covered for 14 weeks are summarized in Table 2. Two examples of creative drama practices are presented below.

**Sample Application 1.** In the 4th week of the study, since the participants were the pre-service Turkish language teacher, creative drama applications were carried out about fairy tales from literary genres. In the warm-up stage, first, the participants form a circle and are given a ball. They throw the ball to each other accompanied by music. When the music stops, whoever has the ball says the name of a fairy tale. Those who cannot name a fairy tale leave the game. Thus, fairy tales are remembered. As the second activity, the participants move freely around the hall accompanied by music. Afterwards, the trainer gives various instructions, and the participants continue to walk by acting out the situations in these instructions. In these instructions, there are various statements that the participants are walking in an incredibly beautiful forest, where they encounter various fairy tale heroes, and eventually turn into one of these fairy tale heroes. In the animation stage, students are divided into four groups. Participants in the groups participate in this activity as the fairy tale hero they choose in the free walking activity. There may be participants in the groups who choose the same hero. Group members come together to fictionalize and write a fairy tale involving themselves. The groups then act out their tales. As a second activity, each group fictionalize their fairy tale as if they were living in a world 100 years in the future and then they act out that. In the evaluation stage, creative drama trainer and participants talk about the fairy tales, the reenactments, and the process of writing a fairy tale. Opinions about tradition and going beyond tradition are expressed. This week, it is aimed for the pre-service teachers to fictionalize the traditional tales they know with different perspectives. It was aimed for the pre-service teachers to think about how these tales could be written differently, what the world of 100 years later would be like and how these fairy tale heroes would take place in a fairy tale at that time. In these applications, it was aimed for the per-service teachers to use their imagination, creativity, and creative thinking skills effectively by going beyond traditional fairy tales.

Table 2  
Topics and related explanations

Week	Topics	Explanations
Week 1	Introductions	Introducing the group members to each other.
Week 2	Communication-Interaction	To communicate effectively and creatively with individuals in different conditions in society.
Week 3	Children's games	Re-adaptation of children's games.
Week 4	Types of literature (fairy tale)	Writing/creating an original fairy tale again by bringing together different or the same fairy tale characters.
Week 5	On the path of science	Generating and renaming ideas for using objects in the environment for different purposes.
Week 6	Solutions to difficulties	Empathizing with people during the war years, finding different solutions to their problems and writing letters by assuming different identities of the period.
Week 7	Plastic Arts	Preparing sculptures in different concepts and creating a metaphor and then a story about these sculptures.
Week 8	Social sensitivity	Being sensitive to different individuals in society and finding effective/creative solutions to the problems they face.
Week 9	Life cycle	Creating characters and designing the lives of these characters in childhood, youth, and old age as different from today.
Week 10	From poetry to theatre	Re-presenting a poem in different types of theatre (comedy, drama, tragedy).
Week 11	Mona Lisa's story	Reconstructing the story of the theft of the Mona Lisa.
Week 12	Freedom/ Free thinking	The individual's struggle for freedom and the search for ideas to remove the obstacles to thinking freely.
Week 13	Social issues with forum theatre	Finding creative and multiple solutions to social issues.
Week 14	Creative people	The life and art of a painter, re-expressing his/her paintings in different literary genres.



**Sample Application 2.** In the 13th week of this study, social issues were discussed using forum theatre technique. Forum theatre is a theatre technique frequently used in creative drama studies (Tuzcuoğlu & Adıgüzel, 2021). Firstly, in the warm-up stage, group members become pairs. One of the partners is in the role of oppressor and one is in the role of oppressed. In line with the instructions given by the instructor, the oppressor inflicts violence on the oppressed and after each instruction they freeze in their roles (frozen image work). The violence increases with each instruction. After a certain point, the oppressed starts to react to the oppressor. This reaction increases with instructions and finally they come to a decision: The first oppressed partner will choose to oppress or not to oppress. As the second activity in the warm-up stage, the participants form groups of three. One of the group members is very popular, one is not popular at all, and one is a person who smells extremely badly of sweat. These three people come together in a meeting. The participants first act out this moment, then they act out the same moment without words. In the animation stage, the participants form four groups, and each group chooses a social problem and enacts it. After this, each group performs the same role-play again, but this time the other participants from outside participate in the role-play in a scene they want to change about the solution of the problem and continue the role-play as they fictionalize it. The aim here is to contribute to the solution by developing different, original ideas for the solution of the problem. All participants are involved in the re-enactment in a scene they want to change. In this case, the re-enactment is also constantly and rapidly re-constructed, because even if the participants are involved, the re-enactments continue without interruption. In the evaluation stage, the opinions of the participants are taken about the forum theatre and the issues discussed. Finally, groups are formed again, and they are told to choose one of the topics covered in the reenactments and to prepare a poster to draw people's attention to that topic. The prepared posters are shared with other groups. In creative drama practices this week, it was aimed to draw the attention of pre-service teachers to social issues by using forum theatre technique. It was aimed for them to think about the solution of social problems and to contribute to the solution of an existing problem by producing different and original ideas. In this way, it was aimed for the pre-service teachers to think creatively in solving the problems and to use their creativity in a solution by being directly involved in the re-enactments.

The planning for the implementation process is summarized in Figure 1.

Figure 1

*The implementation process*



### 3. Findings

The pre-test and post-test results applied to the prospective Turkish language teachers to determine their creativity self-efficacy are summarized in Table 3. Figure 2 and Figure 3 present the opinions of the prospective teachers.

#### 3.1. The Effect of Creative Drama Training on Creative Self-Efficacy

Table 3 shows that there is a significant difference between the pre-test and post-test scores of the pre-service teachers before and after the creative drama training according to the Wilcoxon Signed Rank test ( $Z = -1,976$ ;  $p < .05$ ). Based on these results, it was determined that creative drama education was effective on the creative self-efficacy of the pre-service Turkish language teachers. When the effect size of this difference was calculated, it was determined that creative drama education had a moderate effect on creative self-efficacy ( $r = -.42$ ).

Table 3

Findings regarding the effect of creative drama on the creative self-efficacy of the pre-service teachers

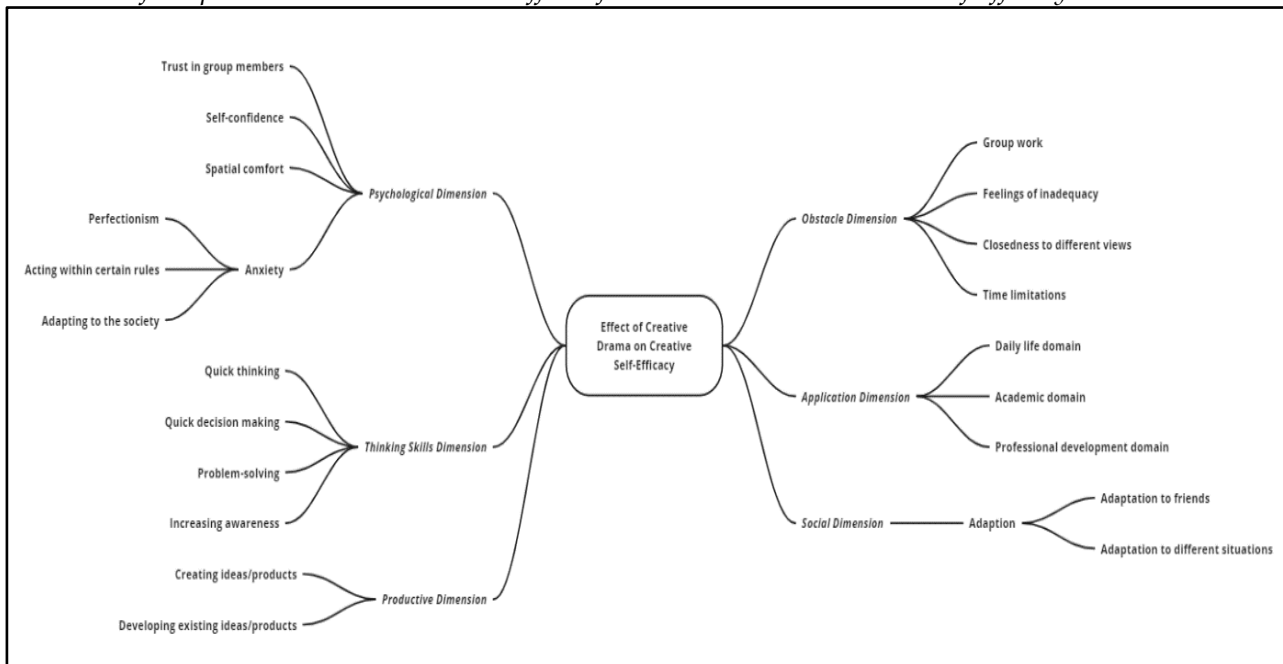
Pretest-Posttest	N	Mean Rank	Rank Total	Z	p	r
Negative Rank	4	4.50	18.00	-1.976	.048	-.421
Positive Rank	9	8.11	73.00			
Equal	9					

### 3.2. Views on the Effect of Creative Drama on Creative Self-Efficacy

The views of pre-service Turkish language teachers about the effect of creative drama on creativity self-efficacy are presented in Figure 2.

Figure 2

The views of the pre-service teachers on the effect of creative drama on creative self-efficacy



According to Figure 2, answers to the question "Did creative drama affect your creativity self-efficacy? If so, what kind of effects did it have?" were grouped under six themes: Psychological dimension, thinking skills dimension, productive dimension, obstacle dimension, application dimension, and social dimension. Each theme is presented separately.

#### 3.2.1. Psychological dimension

Under the theme of psychological dimension, the opinions of pre-service Turkish language teachers are divided into four categories: *trust in group members*, *self-confidence*, *spatial comfort*, and *anxiety*. The majority of pre-service teachers agreed that creative drama contributed to their greater sense of competence in creativity. The participants emphasized that the communication they established with their group mates in creative drama activities made them feel more comfortable, and that exchanging ideas in the activities enriched their world of thought and so enabled them to produce more creative products. A number of pre-service teachers also stated that they felt more free in creative drama's classroom environment, they could be themselves there, and therefore their creativity could be more apparent. For instance, P17 asserted that, "Individually, we have ideas, but I see that they are shared within the group, I add something to what my friend says, or my friend adds something to what I say. In the end, more original ideas emerge". In another response, P1 stated that, "Practically speaking, it was not a lesson that I would recommend to

others. The influence of my friends helped me overcome it a little more. By becoming more practical, I gained the ability to think creatively". P3 explained that:

In such a free environment, I feel more relaxed. I was new to the class. With the games, I became more comfortable in class. In the beginning, I had some stereotypes, and I was hesitant within myself, but then they disappeared.

As a result of analyzing the opinions of pre-service teachers, it was discovered that they developed themselves more in group work, that their creativity developed as they saw different perspectives, and that the comfortable environment played a crucial role in the emergence of their creativity. Moreover, it was understood that the atmosphere created in the classroom thanks to drama improved their feelings of self-confidence and thus they could take action more easily when they thought of a new product or idea. P7, for instance, said that fears prevented creativity, but that their self-confidence improved through drama activities, and they then took the initiative to come up with different ideas.

The pre-service teachers also stated that peer bullying was prevented and thus their creativity was able to flourish. The following is a sample sentence from P5, one of the participants who expressed opinions on this issue: "You realize that there are conscious people in the classroom. You won't be made fun of or laughed at sarcastically. Upon realizing this, I was able to reflect my creativity more easily." Creative drama offers an environment where everyone is in the same situation, in which each participant is valuable, and therefore everyone deserves respect. This is reflected in the views of the pre-service teachers.

According to pre-service teachers, they were concerned about adapting to the society and not going beyond stereotypes, which prevented them from being creative. They stressed, however, that they became more creative with creative drama, especially with enactments, as they were able to go beyond social pressures and stereotypes, and now they are able to think outside the stereotypes. These statements are explained by P1, one of the pre-service teachers:

In addition, I used to grumble, I hated movements that could be considered absurd in society, I hated to talk nonsense, I didn't care for it at all. This course taught me the comfort of being ridiculous in public. My creativity was greatly influenced by that comfort.

Based on the statement of P1, it has been concluded that creative drama allowed the pre-service teachers to think differently from the stereotypes of society and, therefore, they felt more competent. Another concern pre-service teachers had about creativity was perfectionism anxiety. They stated that the perceptions of the pre-service teachers that the thoughts they put forward about a subject or the products they put forward were not good enough prevented their creativity and for this reason, they did not consider themselves very competent, but with creative drama activities, these thoughts decreased a little. One of the pre-service teachers, P6, stated that he was very anxious at the beginning and thought that he could not do it very well, but that he got rid of this feeling with the process and focused only on what he did, while another pre-service teacher, P7, stated that they did more successful works when they reduced the anxiety of being perfect with the expression "More beautiful things came out by not being able to do it."

### 3.2.2. Thinking skills dimension

Figure 2 shows the views of pre-service Turkish language teachers expressed under the theme of thinking skills dimension grouped under four headings: *quick thinking*, *quick decision making*, *problem solving*, and *increasing awareness*. It was agreed by most pre-service teachers that creative drama practices helped them think and decide faster, solve a problem from a different perspective, and be more creative. Since they did not have much time, the pre-service teachers tried to think quickly, to make quick decisions, and to produce an original product during improvisations. Over time, doing this every week helped them become more creative. Further, they noted that while they used to take a long time to develop an original product, they now do so more quickly. In this regard, P15 noted, "It is not something you plan before it happens. Therefore, you must think very quickly". Another participant, P3, stated that, "Since there is no time, you should voice your

opinion directly in the animation stages, since it is fast and creative. At first, we were unable to do this, but I think we improved a lot with time." Based on these comments, it is understood that students' quick thinking and decision-making skills are improved by setting shorter time periods in creative drama activities that require them to be constantly active, and that creating a product within a limited timeframe motivates them to be more creative and motivated.

Pre-service teachers addressed various problems and sought solutions to them during creative drama lessons to improve their creativity self-efficacy. At the beginning of the process, they were partially creative as they sought solutions, but they became more creative as they continued to seek solutions, resulting in more creative ideas in a shorter amount of time. For instance, P12 stated that, "In the drama lesson, I enjoyed the crisis moments, where we had to find solutions immediately. For me, my creativity has developed because I enjoy finding different solutions with others". In another response, P19 explained that, "As I solved problems, my problem-solving skills improved. It now takes me a short time to find an original solution to a problem in my daily life or internship". P17, another pre-service teacher asserted that:

I can say that my existing problem-solving skills and the drama lesson feed off of each other. My problem-solving skills were good, but I was always thinking about how to come up with original solutions for the problems we encountered during drama class. I sometimes felt like my brain was on fire. I used to be creative in problem-solving, but now I see myself as more creative.

Based on the pre-service teachers' views, it appears that trying to find original solutions beyond the conventional ones in problem-based activities enhances their creativity in problem solving outside the classroom. According to pre-service teachers, creative drama influenced them to view life, objects, and situations differently. They noted that after the practices, they were more aware of how to handle objects, music, films, or subjects differently. For example, P17 stated that:

After the class ended, I began to consider what I could use from the topic or the things I encountered in different areas. Initially, it was limited, but now I can find a wide range of uses for it. My awareness was also raised as a result of this. I can think beyond what I see and hear.

As a last example, P18 explained that:

I usually watch and read with a straight gaze. However, after this course, I wonder whether anything can be done, whether it can be adapted somewhere? With this perspective, I began to see an object, a visual, music differently. Creative thinking definitely involves seeing things from a different perspective.

### 3.2.3. Productive dimension

In Figure 2, it is seen that pre-service teachers' views on the 'Productive Dimension' are grouped under two headings: 'creating ideas/products' and 'developing existing ideas/products'. The participants emphasized that creative drama practices contributed to their self-development in terms of sometimes reproducing an existing idea in many different ways or developing it in different dimensions and sometimes providing them with the opportunity to create new ideas about the subjects given to them. P14 and P20 stated that such studies were like brain gymnastics for them at the same time, that their need to constantly come up with something new and their concentration on the process were effective in their creativity. For instance, P19 stated that, "Many things fuse with each other in the drama lesson and at the end of the process, something original that we never thought of at the beginning emerges". In another response, P4 explained that, "When an idea emerged from each of my group mates, I started to produce new ideas based on their ideas." From the statements of the participants, it is understood that the practices in creative drama constantly lead the pre-service teachers to think new and differently and also the frequent group work is effective in this.

### 3.2.4. Application dimension

The pre-service Turkish language teachers' views on the effect of creative drama on their creativity self-efficacy in the application dimension were classified as *daily life domain*, *academic domain* and

*professional development domain*. Pre-service teachers emphasized that creative drama practices led them to believe in themselves about creativity, both in their daily and academic lives, and in their professional development. The participants determined that the practices in drama opened horizons for them and they tried to adapt them to different areas of life. They stated that drama was very useful in terms of creativity in their daily lives and especially in their professional development. For instance, P14 asserted that:

Our internship will include teaching, and we will do an internship as Turkish language teachers. There is a need for us to be more creative and playful than the children there. That's why I found the drama lesson to be very beneficial in this regard, I think it was very positive.

In another response, P19 stated that "I saw an effect of drama even in an activity I will do in my internship". P13, another pre-service teacher, explained that "I became more creative in my daily life as a result of the activities, and sometimes I even helped those around me with this". It is evident from the statements of the pre-service teachers that the activities in creative drama give them a different perspective in preparing the pre-service teachers for life and especially for their professions. In teaching professions where creativity is important, creative drama played a significant role in preparing pre-service teachers. P16 stated that he developed different and original games and techniques for the memory techniques course by using creative drama techniques, thereby increasing his confidence to prepare various original activities for other skills in the future. This shows that pre-service teachers can extract creative original ideas from creative drama practices for their own academic lives.

### 3.2.5. Social dimension

According to Figure 2, the social dimension theme, which was derived from the views of pre-service teachers about the impact of creative drama on their creative self-efficacy, is divided into two categories: adaptation to friends and adaptation to different situations. During drama practice, pre-service teachers encountered a variety of situations and were able to adapt to them over time, which improved their creativity. In addition, they emphasized that they improved themselves because of the harmony they established with their friends while experiencing these differences. Harmonizing their thoughts would enable them to see different situations creatively. Since experiencing this frequently during the process, it is understood they have improved themselves in this area and see themselves at a higher level than before. In this sense, P22 stated that:

There were a lot of unfamiliar situations I encountered, and I had prejudices. It was difficult for me to come up with ideas in such situations. Now that I view it differently, I am able to come up with new solutions. I found that I was more flexible when I adapted. Drama helped us think more creatively in this regard.

Another pre-service teacher, P2, highlighted that:

As we participated in drama activities, we began to look at each other and understand what we could do together. It was easy to see that my friends would do something original and different from what I knew when we quickly planned a situation given to us and started acting it out. As a result of what my friend did, we were able to understand why he did it and take our reenactments to a completely different level. We were saying how we got here at the end, but the answer lies in how we adapted.

In analyzing the views of the pre-service teachers, it becomes clear that they felt more creative after they were able to adapt to different situations and achieve harmony with their friends.

### 3.2.6. Obstacle dimension

The views of the pre-service Turkish language teacher about this dimension were categorized under four headings: *group work*, *sense of inadequacy*, *closedness to different views* and *time limitation*. For some participants, situations that are positive for a significant portion of the participants are perceived as negative. Among some pre-service teachers, group work is perceived as one of the most negative situations. It was reported by four pre-service teachers that group work negatively

affected their creativity and self-esteem. In group work, it was observed that different personalities sometimes struggled to come together and produce original ideas, and that some negativity emerged in that dominant ideas disallowed other ideas to shine through. For instance, P2 stated that "My creativity was limited because I was unable to express myself in group work. My belief in myself about creativity was negatively affected by group work since I was more creative in individual work". Another participant, P5 stated that:

In the group, I was unable to come up with many original ideas. The reason for this is my friends in the group and their ideas. I was saying my ideas in line with this, but of course, I don't think I created a completely original idea.

In another response, P10 asserted that "In groups where there was someone more knowledgeable than me, I did not express my ideas; he was already more knowledgeable and made the plans immediately". P19 explained that "There were times when people in the group insisted on their ideas. Due to them, we were unable to share our own thoughts, which hindered our ability to be creative".

The pre-service teachers reported experiencing problems, especially from the other group members, which inhibited or limited their creativity, and as a result, they were not able to see their own worth.

Several pre-service teachers reported no effect of creative drama on their creativity self-efficacy. One participant believed the practices did not increase their creativity self-efficacy because they felt inadequate, and another was closed to different viewpoints. For instance, P2 stated that "I used to think that I was creative, but after the activities you did, I realized that I was not creative enough." and continued:

In group work, I don't listen to the ideas of others very much, I want to have my own way and I try to impose my own way of thinking. I think this situation affected my other friends negatively, but I was already saying the right thing.

It is understood that these statements of the participant did not stem from creative drama practices. It is possible, however, that such a behavior may negatively affect others in the group. There was evidence to support this opinion among the pre-service teachers who mentioned a negative aspect of group works.

The majority of pre-service teachers reported that the limited time improved their creativity more, but very few reported that it had a negative effect. P9 emphasized that limited time negatively affected his creativity, that when he was panicked, he couldn't think or reveal anything, and for this reason, longer time periods should be given.

### 3.3. Suggestions for Improving Creative Self-Efficacy

The suggestions of pre-service Turkish language teachers for developing creative self-efficacy in creative drama applications are presented in Figure 3.

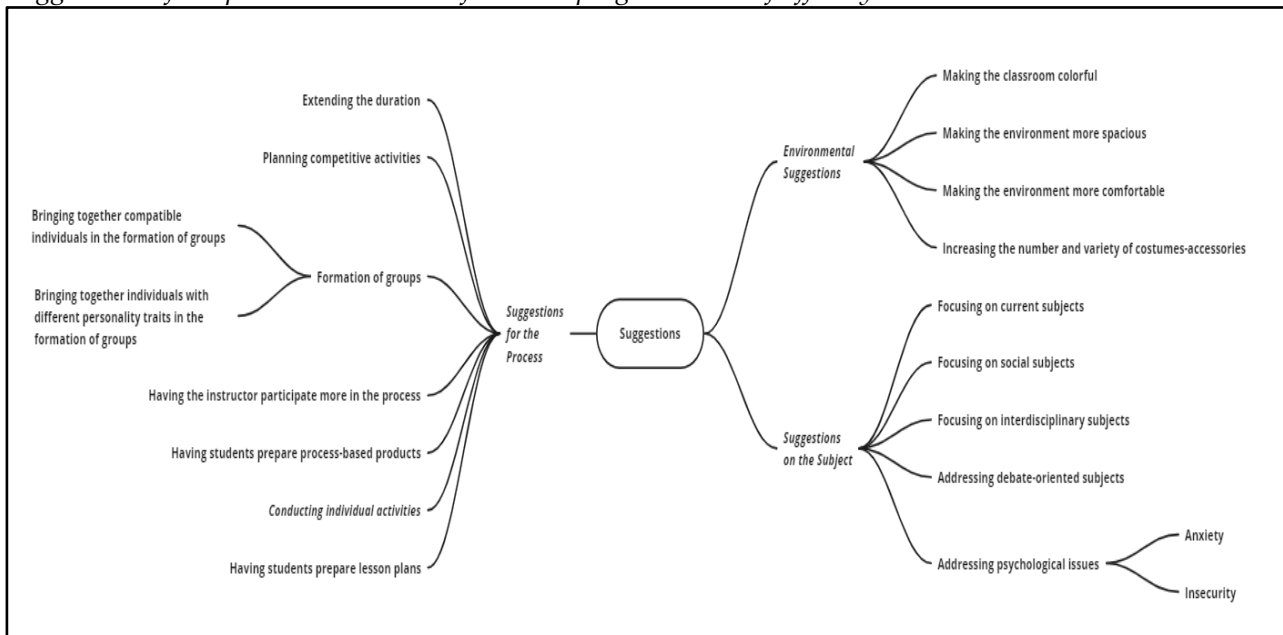
Figure 3 shows the summary of answers given by pre-service Turkish language teachers in response to the question "What are your suggestions for creative drama practices to develop creative self-efficacy?". The themes generated from the responses were *suggestions for process*, *suggestions for environment*, and *suggestions for subject*. Each theme was discussed separately.

#### 3.3.1. Suggestions for the process

Based on the results of the analyses, a total of seven titles were assigned to a theme related to process, which was determined in accordance with the opinions of pre-service Turkish language teachers regarding creative drama practices for the development of creative self-efficacy. The suggestions of the pre-service teachers in this respect were *conducting individual activities*, *extending the duration*, *bringing together compatible individuals and individuals with different personality traits in the formation of groups*, *planning competition activities*, *having the instructor participation more in the process*, *having students prepare process-based products* and *having students prepare lesson plans*. To

Figure 3

*Suggestions of the pre-service teachers for developing creative self-efficacy in creative drama course*



develop creative self-efficacy, some of the participants suggested bringing individual activities to the forefront of creative drama practices. Their claims are that individual activities allow individuals to think more creatively and produce more original products. For instance, P14 stated that "Since I focus on that thing alone, I develop my creativity more when I am alone, but when there is a crowd, I remain passive. Therefore, I believe the number of individual activities should be increased". In another response, P8 asserted that "Upon becoming a teacher, I will come up with my own ideas. I prefer to be alone. The individual work in drama should be conducted". As a final example, P10 expressed that "There should be group work, but individual work should also be increased. Seeing one's own creativity makes one more self-confident".

As it can be understood from these statements, the pre-service teachers think that the lack of individual activities in drama prevents them from developing their creativity, and if it is increased, they will focus better and develop their creativity and thus they will be more confident in themselves. Although group work is more prominent due to the nature of creative drama studies, when it comes to creative self-efficacy, it was revealed that some of the pre-service teachers thought that too much group work was an obstacle to their creativity.

While some of the pre-service teachers stated that individuality should be increased, some of them stated that group work is important, but group-related problems prevent them from developing their creativity. For this reason, they think that having some criteria while forming groups in creative drama lessons will contribute more to the development of creative self-efficacy of individuals in the group. According to the statements of pre-service teachers, it is understood that these criteria are more related to the personality traits of individuals. In particular, since individuals with excessive self-confidence or individuals who insist on their own opinion negatively affect the interaction in the groups, some of the pre-service teachers emphasized that sometimes they could not share their own thoughts, and this reduced the quality of the product. For this reason, P18 and P19 emphasized that it would be better to bring together compatible individuals when forming groups, while P8 and P12 argued that it would be more beneficial to bring together individuals with different personality traits. P18 and P8 stated that, respectively:

Sometimes there are people in the groups whose character is more dominant, or you have something original in your mind that is suitable for this course, you say it and he does not accept it, the moment he puts his weight, he also pulls you into the background. For this reason, compatible individuals should be brought together when forming groups.

You could have determined the groups by taking personal characteristics into consideration every week without us realizing. Maybe you can collect personality traits with a scale and distribute one person representing a characteristic to each group. They are not all the same people. When different personalities come together, more creative things emerge, and everyone becomes more confident when they are different.

From the above statements, it is understood that sometimes the desired efficiency cannot be obtained from the group activities in drama because of the individuals in the group, individuals cannot express themselves correctly, and it is seen that they made suggestions in this direction. In addition, P19 suggested that the drama instructor should participate more in the activities and games in order for the participants to focus more on the activities and to see different perspectives.

In the interviews, another suggestion of the pre-service teachers about the process was related to the extension of the implementation periods. In this study, lessons were conducted for 90 minutes per week. However, in the interviews, it was observed that some of the pre-service teachers stated that it would be more beneficial if the duration was longer. For example, P11, who thought that extending the duration would increase their creativity, said: "If we had more time while composing, different, original things could come out. When the time was short, sometimes we were looking to produce a product quickly without thinking enough", while P20 said, "The lesson time could be longer. I think it is less, I think it will improve more. We do not understand how it passes." These opinions of the pre-service teachers show that they think that if the applications are a little longer, the participants can concentrate better, think longer and more comfortably, and come up with more creative products, and when they achieve this, their creativity self-efficacy will increase. The pre-service teachers also stated that more competitive activities in the process would motivate the participants more and that more original, different and new thoughts and products would emerge in a competitive environment. For example, P8 stated that the activities should be carried out in a competition style, and if this is done, everyone will spend more effort and much more creative works will emerge at the end of the process. Some of the pre-service teachers emphasized that having them prepare process-based products in drama practices would produce more productive results in terms of creativity self-efficacy. For example, P19 asserted that:

Two or more people collaborating on a product. For example, let them write a fairy tale in drama class for 3 weeks. Let them have a book of fairy tales. For example, I will write a theatre play. In the first week we will write the introduction and act it out, in the second week we will write the development and act it out, and in the last week we will write the conclusion, act it out and evaluate it. It will be a process-based product. That student will have a report card, a certificate of achievement. While developing his creativity, he also realizes what kind of progress he has made.

According to the statement above, the pre-service teachers believe that if process-based product studies are made in drama lessons, they will be able to see their own development and evaluate themselves more accurately in terms of creativity. In addition to process-based products, some pre-service teachers also stated that it would be more useful in terms of their belief in themselves if the participants were allowed to prepare a lesson plan in the process and apply it in the classroom. In this matter, P1 stated that:

Divide the classes into two or three groups and ask each group to create a drama plan for 3 weeks, then teach the lesson according to that plan the following week. This will allow pre-service teachers to think about how to make the lesson more creative, and they will feel more competent because they will apply it.

This showed that the pre-service teachers believed that they could be more creative by not only participating in drama activities but also allowing them to do so.

### 3.3.2. Suggestions for environment

As can be seen in Figure 3, the suggestions of the pre-service Turkish language teachers under the theme of suggestions for the Environment were grouped under four headings: *making the classroom*



colorful, making the space more spacious, making the environment more comfortable and increasing the number, and variety of costume-accessories. There were very few participants who had suggestions about the environment during the interviews. Despite the fact that some of these suggestions are not compatible with the nature and practice of creative drama, they reveal the pre-service teachers' creative expectations. It was emphasized by the candidates that drama lessons should take place in environments where individuals are able to move freely instead of small spaces (P18) and that more comfortable environments should be chosen rather than doing them in every setting (P20) according to their belief that creativity arises when an environment is large and free. Additionally, they stated that designing the space with colors that would increase creativity would be more efficient. For instance, P18 stated that: "Even the classroom curtains were black, there should be no colors that encourage pessimism rather than creativity". Here, P18 emphasized the importance of making more appropriate color choices for creativity in drama classes.

Three pre-service teachers emphasized the lack of costumes and accessories in drama class, suggesting that the number be increased and diversified. Several pre-service teachers stated that if costumes and accessories were present in the classroom, participants would be inspired and their work would be more impressive. Although creative drama activities should be carried out in simple environments as much as possible, it was revealed that the pre-service teachers thought that classrooms with more accessories and costumes would be inspiring instead. It was stated by P16 and P19 that even they could produce costumes in the lessons, which could then be displayed and influenced other students. In addition, they said that preparing costumes would contribute to the development of their own creativity. According to these results, the pre-service teachers believe that more colorful, active, accessible, and costumed classes will lead to greater creativity development.

### 3.3.3. Suggestions for subject

The suggestions of the pre-service teachers under the theme of *subject* were categorized under five headings: *psychological issues such as anxiety and lack of self-confidence, current, social, interdisciplinary, and discussion*. In order to reveal their creativity better, pre-service teachers suggested that drama activities should be carried out on subjects that they have knowledge about or that they are interested in. In addition, pre-service teachers emphasized that they found themselves much more creative and their self-confidence was higher in drama lessons where these issues were discussed, especially since they frequently talked about current, social, and controversial issues in their own lives. For this reason, they suggested that such issues should be included more in the lessons. As a matter of fact, P6 stated that the performance of the class increased when current problems were addressed, and P16 stated that more creative ideas could emerge if the class progressed on life-based problems and current problems. Similar comments were received regarding social issues. For instance, P5 stated that "I have seen that I can produce more ideas on social issues, I am more creative, and I think these issues are more necessary". In another response, P6 asserted that:

I can say that the activities related to social issues are much more impressive and the performance of the class increases a lot when social issues are addressed. We normally think about these issues a lot, so when you ask us to do a role-play, we immerse ourselves in the subject so much that creativity is at its peak.

In the same way, it was observed that similar answers were given for the discussion topics. For instance, P2 asserted that, "You have a more intense reaction to those emotions. The news is filled with violence against women, violence against children, violence against animals, and I became more effective as a result". In another response, P4 stated that:

Everyone wants to share their thoughts and opinions. We have this opportunity when animating, and we can freely express what's on our minds. Solutions to these controversial issues can bring about incredible ideas, especially at the point of finding a solution. Therefore, I believe that discussion enhances cognitive development.

According to these opinions, pre-service teachers have found greater success in the subjects and in their daily lives that they are familiar with.

Pre-service teachers stated that there should be studies dealing with psychological issues. P4 and P5 especially stressed the importance of drama lessons for pre-service teachers who lack self-confidence, do not find themselves sufficient, or are anxious. This is due to the fact that individuals who believe in themselves will reveal their creativity better if they trust and believe in themselves. Pre-service teachers also stated that drama activities should be conducted not only on certain subjects, but also on various subjects. In terms of creativity, two pre-service teachers suggested that drama lessons should include interdisciplinary subjects. The authors emphasized that interdisciplinary subjects have a richer background and that they can produce more original and useful products since they are viewed from different angles. For example, P3 stated that:

A subject from another course or something I'm experiencing at the moment can help me be more holistic. The interrelationships enrich my perspective, which is reflected in all our studies. Students will benefit more from interdisciplinary subjects if interdisciplinary subjects are emphasized.

Hence, it can be claimed that pre-service teachers' studies are also impacted by the richness of interdisciplinary courses.

It is generally understood that pre-service teachers believe they can be more creative in subjects related to their lives or fed by different disciplines and that this will influence their performance in the classroom. There were three participants (P9, P13, P15) who were unable to make any suggestions, and one participant (P17) made suggestions that weren't creative.

#### 4. Discussion and Conclusion

The present study examined the effect of creative drama activities on the creative self-efficacy of pre-service Turkish language teachers. A significant difference was found between the pretest and posttest scores of the pre-service teachers. Therefore, pre-service teachers' creative self-efficacy is positively affected by creative drama activities. The findings of the study are in agreement with those of previous studies, which suggest that creative drama improves creative thinking skills (Ersoy, 2016; Nicholas & Ng, 2008; Şahin, 2022), creative behavior (Sevgen, 2016), and certain creative qualities and abilities (Lin, 2010). The relationship between drama and creativity was also discussed by Lambert et al. (2016). According to Abbott (2010), creative self-efficacy is "a motivational state that is an individual's self-efficacy to express creativity" (p.12). During creative drama activities, the individual strives to create and reveal what they have created (Adıgüzel, 2022). Hence, participants who discover the opportunity to reveal their creativity in drama activities perceive their self-efficacy towards this creativity as higher. The higher the self-efficacy perception of the individual, the higher their performance (Arseven, 2016). Therefore, drama participants with high perceptions of creative self-efficacy can perform better in generating creative ideas and products.

Pre-service teachers provided their views on the effects of creative drama on creative self-efficacy according to psychological, productive, social, obstacle, application, and thinking skills dimensions. In the productive dimension, it was stated that creative drama contributed to creative self-efficacy in terms of generating ideas/products and developing existing ideas/products. Gallagher (2007) emphasizes that creativity in drama is experienced in the moment and is related to the participants' interest in the conditions for producing creative ideas, expressing their thoughts freely, and taking risks. As a group activity, drama can also enhance creativity through its ability to receive and develop ideas from others. According to Toivanen et al. (2013), drama activities enable participants to express and reflect jointly on their creative ideas. The social dimension of drama was stated to contribute to creative self-efficacy in adapting to different situations and groupmates. As defined by Cengiz et al. (2020), adaptation is "keeping up with society, being able to integrate with a group, and achieving balance and understanding within a group" (p. 296). Drama activities also provide the opportunity to explore different perspectives on various issues (Costa et al., 2014; Üstündağ, 1997). Since participants have the opportunity to

experience different scenarios and situations in drama (Kalidas, 2014), they can also develop the ability to adapt to these situations. As for the dimension of application, the pre-service teachers indicated that drama improved their creative self-efficacy in their personal, academic, and professional lives. This finding is in line with meta-analysis studies that reveal the positive effect of drama on academic achievement (Akdemir & Karakuş, 2016; Batdı & Batdı, 2015; Ulubey & Toraman, 2015). Similarly, there are studies in the literature revealing that drama has a positive effect on the education of various professional fields such as teaching (Akdemir, 2020; Gülakan, 2019), nursing (Arveklev et al., 2015; Jefferies et al., 2021) and child development (Arslan et al., 2010). In drama activities, participants also have the opportunity to practice situations they'll encounter in everyday life. It can be said that this situation improves creative self-efficacy toward daily events.

In the dimension of thinking skills, the pre-service teachers stated that drama improved their creative self-efficacy in terms of quick thinking, quick decision making, problem-solving and increasing awareness. In creative drama studies, animations are designed and acted out in a limited time. For this reason, this limited time may be effective in improving the participants' quick thinking and quick decision-making skills. On the other hand, Moore (2004) states that drama is an excellent method that can be used to develop problem-solving skills. Furthermore, Graves et al. (2007) found that an interactive drama program in schools improved conflict resolution skills. Creative drama courses in the current study provided pre-service teachers with the opportunity to view their environment from a different perspective and utilize their observations creatively. Creative drama, therefore, improves participants' abilities to consider situations from different perspectives. San (1990) asserts that the information obtained during creative drama activities is repeatedly addressed and used.

The pre-service teachers reported that group work, feelings of inadequacy, and closedness to different views hampered their creativity in the creative drama process and negatively affected their creative self-efficacy. While having people in one's group who are more knowledgeable or insistent on their ideas may hinder creativity, group work should not be excluded from the creative drama process. Baldwin (2020) stated that classroom drama can be done by individuals or groups, but that these studies should also include a certain amount of interaction. Individual and group activities can be included in drama activities in this context. The feeling of inadequacy can also be viewed as an obstacle to creative self-efficacy. Pajares (1996) states that people avoid performing actions in which they lack self-confidence. As a result, participants who feel inadequate in drama activities will not be able to design and implement creative activities. Another obstacle to creative self-efficacy is insisting on one's own opinion and not listening to group members. Moreover, the pre-service teachers reported that the time allotted for drama activities was insufficient for revealing their creativity. The study conducted by Tran et al. (2017) reached a similar conclusion. However, Erat and Gneezy (2016) found that there was no significant difference between creativity scores when the study group was given limited and unlimited time. Accordingly, there is no consensus in the literature regarding the relationship between limited time and creativity. In terms of psychological dimension, pre-service teachers stated that creative drama activities increased confidence towards group members and self-confidence. Adıgüzel (2022) says that creative drama activities include specific elements that help learners gain self-confidence and confidence in themselves. Also, pre-service teachers stated that creative drama activities reduced their anxiety of perfectionism, acting within certain rules, and adjusting to society. Similarly, San (1985) argues that creativity requires the ability to break certain rules and patterns at certain times. Spatial comfort was also emphasized by the pre-service teachers. The design of the drama class as more comfortable than other classes may affect students' creative self-efficacy in a positive way.

In the creative drama course, pre-service teachers provided suggestions for the environment, process, and subject related to the development of creative self-efficacy. Among the suggestions for the process, conducting individual activities was emphasized by pre-service teachers. Creative

drama activities are conducted in groups (Üstündağ, 1998). Adıgüzel (2022) also stated that a drama study without interaction cannot be thought of. However, when some members of a group are dominant, other members may struggle to express their thoughts, which may suppress their creativity and negatively affect their creative self-efficacy. Drama, in fact, enables individuals to express themselves (Köksal-Akyol, 2003). To improve students' creative self-efficacy, it may be important to include both individual and group work. It was also suggested that the duration be extended by the pre-service teachers. As part of their undergraduate education, pre-service teachers attended a two-hour drama class each week. They suggested extending the animation and evaluation stages due to the short duration of the course. In the same vein, Metinnam (2019) claims that insufficient application sections make drama courses ineffective. Another suggestion is to bring together individuals with compatible or different personality traits in the groups formed during the stages of the course. When individuals are compatible and get along well with one another, they may be able to perform creative drama activities more easily, but in terms of creativity, bringing together individuals with different personality traits may be more effective than bringing together individuals who know each other or are close. During the animation stage, an individual who is always in a group with friends may not feel the need to use their creativity and leave the whole process to them. Through drama education, individuals communicate both with their own group and with other groups (Selvi, 1999). During drama class, a group with different individuals can be formed each time to interact with the whole class. In addition, the pre-service teachers recommended including competitive activities in drama activities and involving the instructor more. In line with the participants, Okvuran (2003) also recommended that drama instructors be capable of taking part in drama and role-play. Lastly, pre-service teachers suggested that students prepare process-based products and lesson plans. Through the preparation of drama sessions based on the information they have gained from the drama process, students can increase their creative self-efficacy and their ability to utilize this method in the classroom. A recent study by Kuşdemir-Kayıran (2018) found that pre-service teachers' self-confidence in preparing and implementing drama plans was increased following participation in creative education activities. Preparing a process-based product as an evaluation criterion can also reveal the pre-service teachers' progress towards learning the course outcomes as well as enable them to demonstrate creativity.

Pre-service teachers suggested that the drama classroom be colorful and spacious as a suggestion for the environment. Tuzcuoğlu and Adıgüzel (2021) emphasized the importance of providing participants with a comfortable space where they can move around comfortably and not have difficulty animating during creative drama activities. Pre-service teachers pointed out that even the classroom curtains were black. Thus, colors can be taken into account when deciding where drama activities will take place. Other recommendations for improving the environment are to make the environment more comfortable and increase the number and variety of costumes and accessories. In the study conducted by Oğuz-Namdar and Beldağ (2015), some pre-service teachers stated that costumes were lacking. However, Way (1967) states that simple clothing equipment can be used in drama activities, and that no more is necessary in order to use one's individual resources, and that drama activities can be carried out without them. Therefore, even if costumes and accessories are few and varied, the participants can still perform drama activities by using their own creativity.

During an examination of the suggestions provided by pre-service teachers on the topic, it was revealed that drama activities can be implemented to deal with psychological issues such as anxiety and insecurity. In various studies conducted in the literature, it has been determined that the creative drama method has a positive effect on situations such as anxiety (Davis, 1985), native or foreign language speaking anxiety (Shand, 2008; Şahin & Şen, 2023), writing anxiety (Erdoğan, 2018), and social anxiety (Sarıkaya et al., 2019). Similarly, it has been stated in the literature that creative drama increases the self-confidence of participants (Jindal-Snape et al., 2011; Yassa, 1999). As a result, these topics will reduce pre-service teachers' anxiety and increase their self-confidence

when they are covered in the drama class. Other suggestions on the subject are to emphasize current and social issues. Drama activities can help participants gain awareness of these issues. As a matter of fact, Adıgüzel (2022) states that the participants can experience the social problems they may encounter in daily life through dramatizations and learn the outcomes without experiencing them in real life. The last suggestion is to emphasize interdisciplinary topics and discuss topics for discussion. Interdisciplinarity refers to utilizing more than one discipline when addressing a topic, concept, theme, experience or problem (Jacobs, 1989). It is for this reason that the participation in drama lessons can allow the students to internalize what they have learned in other lessons. Addressing controversial issues is also important in terms of enabling participants to use their creativity while trying to refute each other's theses and thus increasing their creative self-efficacy.

The results of the study revealed that creative drama is a crucial method among activities aimed at developing the creativity and creative self-efficacy of pre-service Turkish language teachers during their undergraduate education. Therefore, creative drama practices should be included in teacher training institutions and in-service courses. The present study utilized a limited number of data collection tools. Observations, video recordings, and diaries can all be used as data collection tools in future studies. Based on the results of the interviews, it can be said that creative self-efficacy plays a mediating role in the development of different skills, including thinking skills. In this regard, studies examining the mediating role of creativity self-efficacy can also be conducted. Finally, the very limited number of studies on developing pre-service teachers' creativity and creative self-efficacy in the literature is considered to be an important deficiency when it comes to acquiring 21st-century competencies. Thus, further studies are needed to develop the creative self-efficacy of pre-service teachers as well as teachers themselves.

## 5. Limitations

Although this study contributes to teacher education and the existing literature, it has some limitations. This study analyzed data collected through scales and interviews to determine how pre-service teachers perceive their creative self-efficacy. Supporting the study with observations and diaries to obtain more in-depth information will contribute more to the reliability and validity of the study. However, it was thought that keeping a diary would not be efficient since this study was carried out with senior students and students would be busy due to both exam preparation and internships. Moreover, video recordings were planned for observation purposes, but some students refused to allow them in the classroom. Data tools have been limited as a result of these situations. Last but not least, it is believed that the data that will emerge will be more valuable if activities or product presentations for creativity are included in the teacher pre-service teachers' opinions that creative drama practices increase creativity self-efficacy. Due to time constraints in the study, this process could not be performed.

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