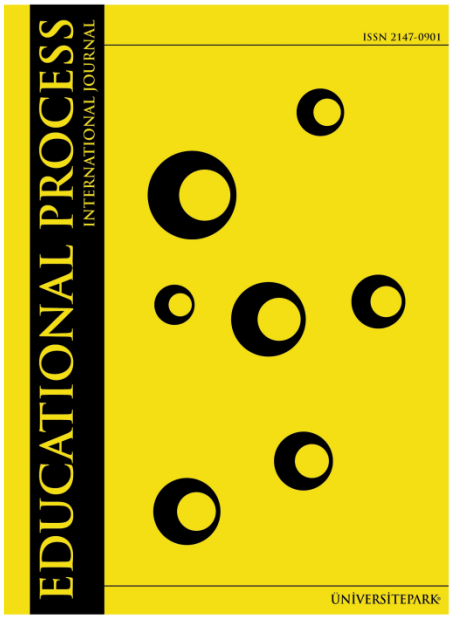

Educational Process: International Journal

ISSN 2147– 0901 (Print) Journal homepage: www.edupij.com

EDUCATIONAL PROCESS: INTERNATIONAL JOURNAL
EDUPIJ / VOLUME 6 / ISSUE 1 / SPRING / 2017

The Effects of Creative Drama-Based Instruction on Primary School Teachers' Self-Efficacy and Conceptions of Teaching and Learning

Necdet Aykac

To cite this article: Aykac, N. (2017). The Effects of Creative Drama-Based Instruction on Primary School Teachers' Self-Efficacy and Conceptions of Teaching and Learning. *Educational Process: International Journal, 6*(1), 24-36.

To link to this article: http://dx.doi.org/10.22521/edupij.2017.61.2

Necdet Aykac, Mula Sitki Kocman University, Turkey. (e-mail: necdetaykac@mu.edu.tr)

EDUPIJ / VOLUME 6 / ISSUE 1 / 2017 / pp. 24–36.

The Effects of Creative Drama-Based Instruction on Primary School Teachers' Self-Efficacy and Conceptions of Teaching and Learning

NECDET AYKAC

Abstract

The purpose of this study was to examine the influence of creative drama-based instruction on in-service primary teachers' self-efficacy and teaching and learning conceptions. In this study, sequential explanatory mixed model was used. Questionnaires determining in-service teachers' self-efficacy and teaching and learning conceptions were administrated as pre-test and post-test. In addition to this, as qualitative data at the beginning of the program, participants were asked to answer open-ended questions to map their readiness for the program, including their expectations. At the end of the program they were asked to what degree their expectations were met, and what they learned from the program. A total of 20 female and 20 male in-service primary teachers participated in creative drama-based instruction that consisted of a total of 48 hours over six days. Results showed that the creative drama-based instruction increased primary teachers' self-efficacy. Teachers reported that creative drama-based instruction had teachers develop more constructivist approach in teaching and learning. Implications and future research direction were also discussed.

Keywords: conception of teaching and learning, creative drama, primary teacher education, self-efficacy.

DOI: 10.22521/edupij.2017.61.2

EDUPIJ / ISSN 2147– 0901 © 2017

Introduction

The concepts of understanding teaching and learning mostly refer to beliefs about the teaching and learning approaches preferred by teachers (Chan & Elliott, 2004). In traditional classrooms, teachers mostly prefer and practice a teacher-centered approach. In such classrooms, teachers aim at transferring information to students and managing all learning process by themselves. However, after recent evidence that such a learning environment is ineffective for learning, there has been a switch from this traditional approach to a constructivist approach, which where the learner is required to take an active role in building new information and experiences. This switch has influenced the curriculum and the way teachers approach teaching in the classroom. Research reported that teachers seem to espouse constructivist approach as a more effective way of teaching (Aypay, 2011; Bas, 2014; Sacıcı, 2013; Sahin & Yılmaz, 2011). However, because of their role models and the way they were trained, teachers do not seem to completely avoid practicing the traditional approach in the classroom; rather, they shape their classroom practices by using both approaches. Some studies have even reported that it was unclear which approach teachers distinctly adopted in their classrooms (Bas & Beyhan, 2013; Chan & Elliot, 2004). However, this switch in the educational system shows that it is inevitable that classroom learning practices should be based on the constructivist approach.

Constructivist approach involves an active process in which the learner combines new knowledge with pre-existing knowledge (Jones & Brader-Araje, 2002). Constructivist approach mostly appears as creating meaning and this process should be fulfilled by the learner (Biggs, 1996). In the constructivist approach, it is believed that specific activities and a richer experience activate the learning process and positively contribute to all learning (Brooks & Brooks, 1999). In this view, the constructivist approach should be designed to foster a learner's problem solving, critical thinking, and creative skills (Fer & Cirik, 2007). With this perspective, constructivism is a fundamental approach to create active learners in the classroom (Simons, 1997).

Along with the worldwide switch towards the constructivist approach in learning and teaching, the construct approach became part of the national curriculum of Turkey during the 2004-2005 academic year. The constructivist approach has paved the way for a transition from teacher-centered to student-centered education. However, around half of the teachers in Turkey reported a need for professional help to design teaching methods, assessments, and to create learning environments to implement the constructivist approach in their classrooms (Akcadag, 2010). This highlights that it is important to give practical opportunities for both pre-service and in-service teachers on how they could design proper assessments, activities, and environment in order to successfully implement the constructivist approach.

To increase the quality of education, teachers should be trained after having started working in schools. Due to the increasing amount of new knowledge that is required of new teachers, as well as teaching methods and assessments, teachers' pre-service training may be inadequate. Therefore, teachers are required to renew and improve their teaching qualifications by attending professional development programs. According to Abazoglu (2014), professional teacher development programs result in an increase in student achievement. Therefore, providing professional development opportunities to teachers can

increase the success of both students and teachers, and therefore the quality of teaching and learning in schools. According to Darling-Hammond and McLaughlin (2011), teacher professional development programs should be designed on the use of a collaborative learning approach that teachers can then apply in their classrooms with their students in order that teachers learn how to apply student-centered classroom activities. Also, these sort of activities allows teachers to interact with each other and becomes a part of social learning. According to Philips (1991), teachers' professional development is a process that should be designed to foster teachers' teaching, assessment, and the use of material skills. Studies reported that professional development programs that involve active learning activities, adequate learning time and resources, and collaborative learning among teachers are the more effective ones (Dogan, Cakıroglu, Cavus, Bilican, & Arslan, 2011; İlgan, 2013). Therefore, there is a need for professional development activities that involve active and collaborative learning that teachers can then use in their classrooms.

One of the most effective applications of active learning methods is creative drama. In recent years creative drama has been used as an effective method in terms of contributing to students' active learning in the educational system. According to Polisini (1994), creative drama is the recreation of dramatic moments in life situations through teacher interaction and group processes. All participants are active in the process of creative drama and can experience the physical and emotional feeling together. Because all participants are active in the process, creative drama has gained significant importance in our educational system as a constructivist approach. Because it is combinable with other teaching methods, creative drama allows teachers to create a rich learning environment with the ability for students to build upon their knowledge (Aykac & Ulubey, 2008). The applications of creative drama in education place students right at the center of the learning process, allowing them to learn through experience, with teachers taking on a guidance role throughout the learning process (Ødegard, 2002). Consistent with the constructivist approach, creative drama allows students to construct new knowledge by integrating their pre-existing knowledge with that of their own experiences. Moreover, creative drama allows the teachers to integrate contents and methods from other discipline to create for better student learning opportunities. With such learning activities, it is possible to advance students' teaching techniques including station, collaboration, group study, trips and observation, demonstration, experiment, argumentation, brainstorming, inquiry-based learning and educational games through creative drama to foster students' scientific process skills with an emphasis on fun, critical, scientific thinking, and social skills (Danielson, 1992). Furthermore, because it includes activities from daily life as well as providing an active learning environment, creative drama-based instruction can bring life and learning together (Arieli, 2007). By the creation of such energy in the classroom, creative drama can be used as an effective method for the development of students' creativity to fulfill the educational aims. Creative drama students have opportunities for a student-centered instruction, rather than the more traditional teacher-centered approach. In creative drama instruction, students take responsibility for their own learning and teachers' responsibilities change to that of a guiding role in students' learning and personal development. In addition, because of this natural energy in creative drama classrooms, students are encouraged to participate in the learning process. Creative drama asks questions of students in order for them to be active in the learning process and therefore to investigate and discover learning (Annarella, 1992). The

use of creative drama in the classroom allows students to foster their thinking, creativity, verbal and written communication skills.

In addition, students in creative drama are provided opportunities to demonstrate not only what they already know, but also to show their creativity and talents (Adıguzel, 2006). One of the goals of creative drama develops students' cognitive, affective and psychomotor skills (Dupont, 1992). In this perspective, creative drama is a powerful tool to foster children's feelings, thoughts and behaviors. Also, because it allows students to express themselves by interacting with others, it sharpens their self-perception in a social environment and contributes to their intellectual and emotional development (Somers, 1994). From this point, it has the potential to play an important role in educating inquiring individuals who express themselves physically and verbally. Creative drama has the potential to make learning fun for students (Adıguzel, 2012).

Creative drama has the potential to develop teachers' self-efficacy by providing an effective tool for learning. Teachers' self-efficacy perception is related to beliefs about their competency level, rather than their actual competency level (Pajares & Schunk, 2001). Teachers' self-efficacy refers to their perceptions about their own competence in order to fulfill the educational aims in the classroom. The level of teachers' self-efficacy about their teaching ability, high or low, may be an effect on the success of the teaching process. Research has reported that teachers tend to do things in which they feel adequate and to run away from things they consider themselves inadequate for (Bandura, 1997; Pajares & Schunk, 2001). The high levels of teacher self-efficacy positively contribute to student achievement on language and social studies courses (Gibson & Dembo, 1984). Also teachers with high self-efficacy tend to behave in a less intrusive manner in their teaching and class management (Henson, 2001). According to Ross (1998), teachers with high self-efficacy are inclined to spend more effort to use new techniques and approaches in their classroom and to raise student achievement. On the other hand, teachers with low self-efficacy tend to be less motivated to perform their teaching duties, and give up putting in the necessary effort for teaching, and thereby create a negative learning environment for students in the classroom (Brouwers & Tomic, 2000). Therefore, teachers' self-efficacy emerges as an important element in the educational setting.

In addition to self-efficacy, conceptions of teaching and learning that teachers hold are important factors affecting the quality of teaching in schools. Teachers' conceptions of teaching and learning are defined as how teaching and learning should be done and what methods and techniques should be used in the classroom (Chan & Elliott, 2004). In the literature, two different conceptions, constructivist and traditional approaches, have been discussed (Aypay, 2011; Oguz, 2011). The traditional approach refers more to teacher-centered approach including lecturing, whereas the constructivist approach gives students more active roles. Teachers' ideas about teaching and learning also influence the instruction as either teacher-centered or student-centered. Teachers' conceptions on teaching and learning may influence how they teach and use materials and techniques in classrooms. Teachers seem to use both approaches in their practices. Therefore, there is a need to foster teachers' conceptions toward the constructivist approach.

The purpose of this current study is to develop creative drama activities for in-service teachers and to test whether or not these activities are effective to develop in-service teachers' self-efficacy and teaching and learning conceptions. With this aim, the current study has the following research questions:

- Is creative drama-based instruction effective to increase teachers' self-efficacy?
- How do creative drama teaching activities influence the teachers' teaching and learning conceptions (traditional and constructivist)?

Methodology

In this study, sequential explanatory mixed model was used. In sequential explanatory mixed methods design, researchers collect and analyze quantitative data first, and then collect qualitative data to better describe and analyze the quantitative data. The research priorities are generally quantitative data, whereas qualitative data are obtained to explain the quantitative data (Creswell, 2003). By utilizing one-way experimental design, questionnaires determining in-service teachers' self-efficacy and teaching and learning conceptions were administrated as the pre-test and post-test. In the quasi-experimental phase of the current research, one group pretest-posttest design was used. In this design, the researcher assigns one group to obtain data. For this aim, pretest scores are gathered at first. Then, any treatment is implemented and the posttest scores are gathered at the end of the intervention. In addition to this, as qualitative data at the beginning of the program, participants were asked to answer open-ended questions to map their readiness for the program including their expectations. At the end of the program they were asked to what degree their expectations were met, and what they learned from the program.

In this study third and fourth grade primary teachers in Turkey were selected as the focus group interviews. The researchers specifically focused on the primary teachers of third and fourth grades because they teach across all subject areas. A flyer about the program was advertised to all schools in Turkey through the Ministry of National Education and the website via creativedrama.com (pseudonym name). After the announcement, a total of 684 primary teachers from seven regions of Turkey applied to participate in the program. Of these respondents, 20 female and 20 male in-service teachers were randomly selected considering applicants' regions in Turkey. Because primary teachers are responsible for the teaching of a variety of subjects (science, mathematics etc.), activities were planned and implemented in order to increase the effectiveness of teachers in these subject areas to enhance their knowledge and skills.

The creative drama program consisted of a total of 48 hours of sessions over six days. The program research is located in Mugla, Turkey. The participants attended creative drama sessions in a variety of sites including the classroom, a museum, science laboratory and open-area (astronomy observation). The creative drama sessions were conducted by ten recognized experts in their area, together with seven assistants. The sessions included activities from a variety of subject areas including Turkish language, science, mathematics, social sciences, and music. The programs involved creative drama activities such as "meeting-communication", "introduction to creative drama", "from scientific knowledge to innovation", "sun observation with a telescope", "colors in nature", "innovative science experiments in science teaching", "I'm moving", "my story tree", "building my musical

instrument", and "different learning sides". Activities combined creative drama with other teaching techniques including station, buzz, jigsaw, experiment, question-answer, argumentation, brainstorming, demonstration, and gossip ring.

Established self-report questionnaires were used to map the participants' self-efficacy and teaching and learning concepts. The following questionnaires were selected, having already been adapted and validated for Turkey.

Teacher Self-Efficacy Scale

To determine teachers' self-efficacy, the Teacher Self-Efficacy Scale (TSES) was used. TSES was developed by Tschannen-Moran and Woolfolk-Hoy (1998) and adapted to the Turkish context by Capa, Cakıroglu, and Sarıkaya (2005). As a nine-point, Likert-type scale (graded from 1 = 'Nothing' to 9 = 'A great deal'), TSES consists of 24 items in three dimensions and measures participants' sense of self efficacy in student engagement, instructional strategies, and classroom management. The total score range of TSES is from 24 (lowest possible score) to 216 (highest possible score). A high mean score in any dimension refers to a high sense of self-efficacy in the corresponding dimension. In their study with 628 pre-service teachers in Turkey, Capa et al. (2005) reported fit value of TSES as RMSEA = .065 and CFI = .99, and Cronbach alpha values as .82 for student engagement, .86 for instructional strategies, and .84 for classroom management. In this study, the Cronbach alpha values for the whole TSES and the three dimensions were computed as .93, .82, .86, and .84, respectively.

Teaching-Learning Concept Questionnaire

To determine teachers' teaching-learning concepts, the Teaching-Learning Concept Questionnaire (TLCQ) was used. TLCQ was developed by Chan and Elliot (2004) and adapted to the Turkish context by Aypay (2011). As a five-point, Likert-type scale (graded from 1 = 'Strongly Disagree' to 5 = 'Strongly Agree'), TLCQ consists of 30 items in two dimensions as traditional and constructivist conceptions. Traditional conception refers to views that teaching is a non-problematic transfer of knowledge, whereas constructivist conception refers to the idea that that learning is the creation and acquisition of knowledge by the learner. A sample item of traditional conception is "Good students keep quiet and follow teacher's instruction in class" (Chan & Elliott, 2004, p.825). A sample item of constructivist conception is "Good teachers always encourage students to think for answers themselves" (Chan & Elliott, 2004, p.825. In their study with 385 pre-service teachers in Hong Kong, Chan and Elliot (2004) reported fit value of TLCQ as RMSEA = .054, and Cronbach alpha values as .84 for both dimensions. In this study, the Cronbach alpha values for the whole TLCQ and the two dimensions were good, at .82, .74, and .84, respectively.

Open-Ended Questionnaire Form

A written opinion form was developed by the researchers. The written opinion form consists of open-ended questions asking primary teachers about their expectations from the program, the influence of the program on their self-efficacy and conceptions of teaching and learning, how their expectations are met by the program, what changes they would expect to see in their classroom practice after the program, and what other changes they might want to add. The language of the opinion form was examined by three experts from the

Department of Turkish Language. The opinion form was handed out at the end of the program, and participants given 30 minutes to complete it.

Several qualitative and quantitative data analysis methods were used in this study. To analyze the quantitative data, a total pre- and post-score was calculated for each teachers' self-efficacy, traditional, and constructivist conceptions. To address the research questions, analysis of variance (ANOVA) test was employed. The teachers' pre- and post-test scores were also compared on variables including gender and teaching experience. Content analysis method was used to analyze the qualitative data. For supporting the trustworthiness of the qualitative data in the current research, member checking technique was employed. In addition, the some quotations were provided from the participants to support the findings obtained from the qualitative part of this research.

Results

Quantitative Findings

A total score of pre- and post-test from self-efficacy, traditional, and constructivist conceptions were computed for each teacher. The total mean score of teachers' self-efficacy is shown in Table 1. At the pre-test, the teachers' self-efficacy mean-score was 6.63, whereas at the post-test, the mean score of teacher self-efficacy was 7.33. ANOVA results showed that there was a statistically significant difference between the pre- and post-tests, $F(1, 39) = 1757.81$, $p < 0.001$. The effects size of the analysis was .67. This would be deemed by Cohen's guidelines as a very large effect size; 67% of the variance was caused by the IV (treatment, creative drama-based instruction). This result indicated that the creative drama-based instruction had a positively influence on teachers' self-efficacy level.

Table 1. Descriptive statistics for the TSES

		N	Pre-test		Post-test	
			M	sd	M	sd
Gender	Female	20	6.63	1.37	7.19	1.22
	Male	20	6.63	1.32	7.54	0.98
Experience (years)	1-5	1	7.28	-	7.80	-
	6-10	9	7.00	1.54	7.36	1.28
	11-15	8	6.26	1.19	7.36	0.97
	16-20	12	6.34	1.97	7.19	1.73
	21-25	8	6.72	1.19	7.39	0.91
	25+	2	7.80	0.82	8.06	0.93
Total		40	6.63	1.34	7.33	1.02

At the pre-test, female and male participants' self-efficacy level were the same, $M = 6.63$. At the post-test, while the females' mean score for self-efficacy was 7.19, the males' self-efficacy score was 7.54. ANOVA results showed that there was a statistically significant difference between the pre- and post-test for female and male teachers, $F(1, 19) = 1502.42$, $p < 0.001$ and $F(1, 19) = 1945.91$, $p < 0.001$, respectively. Although the post-test teachers' self-efficacy level increased for both groups, the increase on self-efficacy level was higher for males over the females. The mean scores of self-efficacy for participants' teaching years are also given in Table 1. At the pre-test, there was no statistically significant

difference amongst groups (F (5, 34) = 0.58, p> 0.05). However, there was an increase to the mean scores of self-efficacy for participants who had various levels of teaching experience at the post-test. The increase was seen for those who had taught for 1-5 years (up from 7.28 to 7.80), for 6-10 years (from 7.00 to 7.36), for 11-15 years (from 6.26 to 7.36), for 16-20 years (from 6.34 to 7.19), for 21-25 years (from 6.72 to 7.39), and for more than 25 years (up from 7.80 to 8.06).

The total mean score of teachers' teaching and learning for traditional and constructivist conceptions is shown in Table 2. At the pre-test, the teachers' traditional and constructivist conceptions were almost at the same level, M= 2.96 and M= 3.00, respectively. ANOVA results showed that there was a statistically significant difference between the pre- and post-test for both types of teacher conceptions, F (1, 39) = 2767.11 p< 0.001, and F (1, 39) = 1923.10 p< 0.001, respectively. While at the post-test, the mean score of the teachers' traditional conceptions decreased to 2.30, and their mean score of constructivist conceptions increased up to 3.77. The effects size of the analysis was .67. This would be deemed by Cohen's guidelines as a very large effect size; 69% of the variance was caused by the IV (treatment, creative drama-based instruction). These results indicated that the creative drama-based program helped the teachers move from the traditional teaching orientation to a more constructivist teaching orientation.

Table 2. Descriptive statistics for the TLCQ

		N	Traditional		Constructivist	
			Pre-test	Post-test	Pre-test	Post-test
			M (sd)	M (sd)	M (sd)	M (sd)
Gender	Female	20	2.97 (1.22)	2.41 (1.27)	3.00 (0.81)	3.77 (0.65)
	Male	20	2.95 (1.46)	2.18 (1.79)	3.01 (1.20)	3.76 (0.82)
Total		40	2.96 (1.46)	2.30 (1.59)	3.00 (1.00)	3.77 (0.73)

Qualitative Findings

Qualitative analysis showed that the primary teachers reported that from the creative drama program they learned new teaching techniques and activities which they would use in their classrooms. Addition to this, the participants said that they had experienced lifelong learning in the program. For instance, music and visual arts teachers, who reported a lack of teaching approaches, said that the creative drama activities focused on teaching playing musical instruments and were quite instructive. They also said that they had benefitted from the program in the area of classroom management skills. The program also gave the teachers an awareness over any perceived lack of professional skills and a feeling for developing their skills. Rather than direct lecturing, they reported using active teaching approaches like creative drama in which their students could learn with fun. They said they had improved their teaching abilities to use creative drama in their classrooms. Lastly they concluded that the materials for activities and approaches experienced on the program were accessible in their schools. Some of the statements given by the participants are as follows:

Teacher 5: I think the program will affect my job in a very positive way.

Teacher 9: I am looking forward to school to start to apply what I have learned from this program. In particular, in music and arts classes I had thought it not possible to motive students; now I see, thanks to this program, that it can be carried out in effective ways. At the same time, I learned inquiry-based approach and I want to teach it to my students.

Teacher 17: Instead lecturing and cluster method with creative drama as completely student-centered and teacher-directed, it seems that classes will be more fun and instructive for students. Classes should no longer be monotonous.

Teacher 21: I learned some very creative and different activities. I also came up with many ideas that I think would be more practical and fun activities.

Teacher 29: I learned everything I want to apply with my students. I even had so much fun while learning, and I think the children would have fun too.

Participants noted that the effectiveness of the methods and techniques in the programs were appropriate to the school curriculum. They stated that the methods and techniques were especially effective for people with learning difficulties. They described their feelings about the program as mostly happiness, excitement, curiosity, fun, and desire to learn. Some statements from the participants are as follows:

Teacher 4: While we were learning, we had fun. I had thought it would be too tiring before. But then I realized I could use these in my lessons to make it fun. I really enjoyed attending the events.

Teacher 7: I had not known that I could use drama effectively. At recognition and the implementation of drama, I now see myself as being more effective.

Teacher 18: I have the opportunity to learn new methods and techniques to practice. I think that has made me better equipped in this way.

In summation, the teachers stated that the practice of drama helped them to develop active teaching skills. Professionally, the program contributed to their music and rhythm skills and the development of an awareness in applying different activities in teaching. In addition, the participants stated that the program contributed to their time management, communication, experimentation, and different perspectives skills. They concluded that the program contributed in them moving from a traditional approach to a more constructivist approach in teaching and classroom practices.

Conclusion and Discussion

The results of this study indicate that creative drama-based instruction helped the participant teachers to significantly improve their teaching self-efficacy. At the pre- and post-test, teaching self-efficacy did not vary by gender or the number of years teaching experience; but in the post-test, teaching self-efficacy increased in both groups of variables. This result is important because teacher self-efficacy relates directly to the outcome of education in schools (Gibson & Dembo, 1984; Ross, 1998.

In another study, teacher self-efficacy is correlated to teacher motivation (Tschannen-Moran & Woolfolk-Hoy, 1998). Studies also reported that primary school teachers had more teacher self-efficacy than those in middle and high schools. This showed that primary school teachers had more confidence in class management, communication, and implementing teaching practices than other school level teachers. Studies also reported that teachers who had more than five years teaching experience had more self-efficacy than those with less teaching experience (Tschannen-Moran & Woolfolk-Hoy, 1998). These results may be because of the fact that teachers feel more responsibility in child development and have a better recognition of their students. Altıntas and Kaya (2012) found that teachers who

participated in creative drama activities had higher self-efficacy than those who did not. Also Cetingoz (2012) reported that pre-service teachers who attended creative drama courses had higher self-efficacy than those who not take any drama course. Consistent with these studies, the results of this current study also indicate that creative drama is an effective way to increase teachers' self-efficacy.

In teachers' teaching and learning conceptions, the teachers scored higher in the constructivist approach at the post-test. This indicated that drama-based instruction had teachers develop a more constructivist approach in their teaching and learning. Consistent with this, teachers had scored lower in the traditional approach at the post-test. This indicated that drama-based instruction led teachers to draw away from a traditional approach in their teaching and learning. In their study with pre-service science teachers, Aydin, Tunca, & Alkın-Sahin (2015) reported that pre-service teachers seemed to have a more constructivist approach in their teaching and learning conceptions. This may be due to the curriculum reform in Turkey towards the constructivist approach in 2005, with teachers reported to have more constructivist approach in teaching and learning. In terms of teaching practices in Turkey, the number of teachers that would adopt the constructivist approach which requests active participation in the learning process and student-centered methods would increase.

The results of this current study indicated that the teachers drew away from a traditional approach and developed a constructivist approach after participating in the drama-based instruction. This indicates that when teachers are provided with professional development opportunities that include active learning, careful design, and their needs, they can improve their self-efficacy and develop a more constructivist approach in their teaching. Such opportunities eventually would be applied in the classrooms by the teachers.

In this current study, qualitative findings support quantitative ones by indicating that teachers were happy to participate in the program and willing to implement what they had learned from the program in their classrooms. For instance, in music and arts classes, in which they felt their teaching methods were lacking, they stated that they gained new methods which they could now apply in their classrooms. This indicated that such programs are helpful for teachers' awareness of their needs and how to overcome the issue. This also shows that teachers developed knowledge in how to use drama in their classrooms and self-efficacy for doing it. Consistent with the results of this study, Selcuk, Calıskan, Sendur, and Yurumezoglu (2015) found that science teachers who participated in an active-teaching program stated that they learned how to use student-centered activities in the classroom and the importance of collaboration in teaching. Also, Freeman, Sullivan, and Fulton (2003) and also Snape and Vettraino (2007) found that drama-based instruction contributed to students' development of identity and social skills. Consequently, drama-based instruction is an effective way to develop learners' social skills, self-efficacy, teaching and learning conceptions, and personal developments. The educational implications from this study are the following:

- Teachers from all levels should be encouraged to participate in seminars including active teaching methods and drama.
- Drama-based instruction should be taught at teacher training courses.

- Because some in-service teachers are reluctant to participate in professional development programs, teachers should be rewarded for their participation.
- Teachers from all levels should be promoted to use drama-based instructions in their classrooms.

Notes

Acknowledgement: We gratefully thank the Turkish Scientific Research Council for financial support (Project No: 115B405)

References

Abazoglu, I. (2014). Professional development practices and teacher education programs in the world. *International Periodical for the Languages, Literature and History of Turkish or Turkic, 9*(5), 1-46.

Abazoglu, I., & Tasar, M. F. (2016). Relations of characteristics of science teachers and students with the student achievement in science: A case analysis according to TIMSS 2011 data. *Elementary Education Online, 15*(3), 922-945.

Adıguzel, O. (2006). *Creative drama.* Ankara. Naturel Press.

Adıguzel, O. (2012). *Creative drama in education*. Ankara: Naturel Press.

Akcadag, T. (2010). The training needs of teachers concerning methods and techniques and assessment and evaluation in the primary school curriculum. *Bilig, 53,* 29-50.

Altıntas, E. & Kaya, H. (2012). Self-qualification and attitudes towards processing of science and technology course by drama method of the prospective science teachers. *Erciyes University Journal of the Institution of Science and Technology, 28*(4), 287-295.

Annarella, L. A. (1992). *Creative drama in classroom*. ERIC database. Retrieved from http://eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_&ERICExtSearch_SearchValue_0=ED391206&ERICExtSearch_SearchType_0=no&accno=ED391206

Arieli, B. (2007). *The integration of creative drama into science teaching* (Unpublished Doctoral Dissertation). Manhattan: Kansas State University,

Aydın, O., Tunca, N., & Alkın-Sahin, S. (2015). Investigation of pre-service science teachers' conceptions of teaching and learning in relation to some variables. *Kastamonu Education Journal, 23*(3), 1331-1346.

Aykac, N., & Ulubey, O. (2008). Evaluation of the relation between creative drama and constructivism in the 2005 MEB primary school curriculum. *Journal of Creative Drama, 3(*6), 30-46.

Aypay, A. (2011). The adaptation of the teaching-learning conceptions questionnaire and its relationships with epistemological beliefs. *Educational Sciences: Theory & Practice, 11*(1), 7-29.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York: W. H. Freeman & Company.

Bas, G. (2014). Evaluation of elementary teachers' teaching-learning conceptions from some variables. *Dicle University Journal of Ziya Gokalp Education Faculty*, 22, 18-30.

Bas, G., & Beyhan, O. (2013). Correlation between pre-service teachers' teaching-learning conceptions and their student control ideologies. *Hacettepe University Journal of Education Special Issue* (1), 14-26.

Biggs, J. (1996). Enhancing teaching through constructive alignment. *Higher Education, 32*(3)*,* 347-364.

Brooks, J. G., & Brooks, M. G. (1999). I*n search of understanding: The case for constructivist classrooms* (Revised ed.). Alexandria, VA: Association for Supervision and Curriculum Development.

Brouwers, A., & Tomic, W. (2000). A longitudinal study of teacher burnout and perceived self-efficacy in classroom management. *Teaching and Teacher Education, 16,* 239-253.

Capa, Y., Cakıroglu, J., & Sarıkaya, H. (2005). The development and validation of a Turkish version of teachers' sense of efficacy scale. *Education and Science, 30*(137), 74-81.

Cetingoz, D. (2012). Pre-school prospective teachers' self-efficacy levels on using the creative drama methods. *Hacettepe University Journal of Education, 42,* 131-142.

Chan, K. W., & Elliott, R. G. (2004). Relational analysis of personal epistemology and conceptions about teaching and learning. *Teaching and Teacher Education, 20*(8)*,* 817-831.

Creswell, J. W. (2003). *Research design qualitative quantitative and mixed methods approaches.* London New Delhi: SAGE Publication.

Danielson, T. R. (1992). *Evaluating the ability of drama based instruction to influence the socialization of tenth grade English*. New York: National Arts Education Research Center. (ERIC Documentation Reproduction Service No. ED 367000).

Darling-Hammond, L. & McLaughlin, M. W. (2011). Policies that support professional development in an era of reform. *Kappan, 92*(6), 81-92.

Dogan, N., Cakıroglu, J., Cavus, S., Bilican, K., & Arslan, O. (2011). Developing science teachers' nature of science views: Effects of in-service teacher education program *Hacettepe University Journal of Education, 40,* 127-139.

Dupont, S. (1992). The effectiveness of creative drama as an instructional strategy to enhance the reading comprehension skills of fifth grade remedial readers. *Reading Research and Instruction, 31*(3), 41-52.

Fer, S., & Cırık, I. (2007). *Constructivist leaning: From theory to practice.* Istanbul: Morpa Press.

Freeman, G. D., Sullivan, K., & Fulton, C. R. (2003). Effects of creative drama on self-concept, social skills, and problem behavior. *Journal of Educational Research, 96*(3)*,* 131-139.

Gibson, S., & Dembo, M. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology, 76*(4), 569-582.

Henson, R. K. (2001, January). *Teacher self-efficacy: Substantive implications and measurement dilemmas.* Paper presented at the Annual Meeting of the Educational Research Exchange, Texas.

İlgan, A. (2013). Effective professional development for teachers, *Usak University Journal of Social Science, Special Issue,* 41-56.

Jones, M. G., & Brader-Araje, L. (2002). The impact of constructivism on education: Language, discourse and meaning. *American Communication Journal, 5*(3), 1-10.

Ødegaard, M. (2002). Dramatic science. A critical review of drama in science education, *Studies in Science Education, 39*(1)*,* 75-101.

Oguz, A. (2011). Preservice teachers' conceptions of teaching and learning and democracy values [Ogretmen adaylarının demokratik degerleri ile ogretme ve ogrenme anlayısları]. *Degerler Egitimi Dergisi, 9*(22), 139-160.

Pajares, F., & Schunk, D. H. (2001). Self-beliefs and school success: Self-efficacy, self-concept, and school achievement. In R. Riding & S. Rayner (Eds.), *Self-perception* (pp. 239-266). London: Ablex Publishing.

Philips, H. (1991). *Teachers' professional development:* Australia: Australian Group.

Polisini, J. K. (1994). *The creative drama book: Three approaches*. Anchorage Pers. New Orleans. USA.

Ross, J. A. (1998): The antecedents and consequences of teacher efficacy. In J. Bropy (Ed.), *Advances in research on teaching* (pp.49-73). Greenwich, CT: JAI Press.

Sacıcı, S. (2013). *The interrelation between pre-service science teachers' conceptions of teaching and learning, learning approaches and self-efficacy beliefs* (Unpublished Master's Thesis). Middle East Technical University, Ankara.

Sahin, S., & Yılmaz, H. (2011). A confirmatory factor analysis of the teaching and learning conceptions questionnaire (TLCQ). Journal of Instructional Psychology, 38(3), 194-200.

Selcuk, S. G., Calıskan, S., Sendur, G., & Yurumezoglu, K. (2015). The opinions and self-evaluations of science teachers from different regions of Turkey about active learning activities instruction. *Necatibey Faculty of Education Electronic Journal of Science and Mathematics Education 9*(2), 125-157.

Simons, P. R. J. (1997). Definitions and theories active learning. In D. Stern, & G. L. Huber (Eds.), *Active learning for students and teachers: Report from eight countries* (pp. 19-39). Paris: OECD.

Snape, D. J., & Vettraino, E. (2007). Drama techniques for the enhancement of social-emotional development in people with special needs: *Review of Research, International Journal of Special Education, 22*(1), 107-117.

Somers, J. (1994). *Drama in the curriculum.* London: Cassel Educational Limited.

Tschannen-Moran, M., Woolfolk-Hoy, A., & Hoy, W. K. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research, 68*(2)*,* 202-248.