

Available online at www.sciencedirect.com

Procedia Social and Behavioral Sciences 2 (2010) 5836–5840

Procedia
Social and Behavioral Sciences

WCES-2010

Teacher opinions in the implementation of the drama method in mathematics teaching

Murat Tezer^a*, Emine Aktunç^b^a *Near East University, Department of Primary Mathematics Education, 98010, North Cyprus.*^b *Near East University, Curriculum and Instruction Master of Science Program, 98010, North, Cyprus.*

Received November 15, 2009; revised December 3, 2009; accepted January 25, 2010

Abstract

This study was administered to classroom teachers working in North Cyprus state schools where the use of drama activities have been stated and different variables towards including the drama method in their classroom such as how many years they have worked, gender, and the study groups they work with have been analyzed. On the contrary of this study, a questionnaire developed by Taş (2008) was used. The questionnaire was used in 2009-2010 academic year in 28 primary schools joint to the Ministry of Education and Culture (MEC) to 376 teachers in North Cyprus. Looking at the findings of this study, only 39.6% of teachers implement the drama method in their teaching and 60.4% do not implement the drama method in their teaching. According to the results of the study, as teachers years of teaching increases the percentage of the drama method usage decreases. As the age group increases of the study group teachers teach, the usage of drama method decreases.

© 2010 Elsevier Ltd. Open access under [CC BY-NC-ND license](http://creativecommons.org/licenses/by-nc-nd/3.0/).

Keywords: Drama; mathematics teaching; primary school; classroom teacher.

1. Introduction

The general principle in learning for the child is to create situations for them to do and live what they learn and for them to be as active as possible in using mostly their senses. Children learn more effectively and learning is more permanent through fun and games (Akman, 2002). As the main thing for a child through learning is fun, then at the start mathematics should be like a game to them. The most effective way for this is to implement as necessary as possible mathematics learning through games and artistic activities (Tuğrul and Kavici, 2002).

There are two main objectives that are aimed by teachers which are for primary school students to gain the main abilities that are compulsory in life and prepare them to becoming a secondary school student (Baykul, 2005). Mathematic lesson teaching programs target is basic skills, problem solving, communication, reasoning and establishing relations. The program shows interest in an individuals effective contributions in life, making correct decisions and problem solving through support and development by being constructive. Suitable methods and techniques chosen are connected to reaching mathematic targets. Mathematic lessons involve firstly developing and having problem solving skills, measuring and showing with figures the perception of life, similarities of existence,

* Murat Tezer. Tel.: +0-392-223-6464; fax: +0-392-680-2023.

E-mail address: mtezer@neu.edu.tr

and differences in the understanding of superiority and miniature situations, to own awareness in research, to be democratic, keep away from criticism, being able to make suitable decisions and being open-minded, etc are aimed for different purposes (Üstündağ, 2002). From this point of view, the most effective route in drawing childrens' attention and for them liking mathematics is drama.

Drama in education is many diversions of development in humans putting themselves in others shoes, an individual to play an important role in both education and teaching, to be able to express themselves, be creative, have different perspectives in life, research development needs and emotions, education and teaching is welcoming, it isn't narrowed or consuming for an individual, instead it is and education method which increases education and teaching (Güneysu, 1991). Method, discipline and education of art are the tools of creative drama in mathematics teaching if this can be used they still have not passed game playing period, children of primary level should have developed their creativity and also learnt mathematics through game playing therefore, it would put a smile on the face of mathematics (Özsoy, Güneş ve Yüksel, 2002).

Today, almost all around the world it is the drama method that has been seen accepted and put into practice, it has been used in all areas of education and has received successful results (Karadağ, 2003).

Drama, in the past years and modern education systems are frequently used method that has always stood in front of us. In the 20th Century drama has stood an important status in our country and the world, in the 21st Century it is a matter of fact that it will still protect its importance (Okvuran, 2003). Drama is known and important in most countries, and it's used in education systems. In our country, with drama being a newly developed use, in education drama isn't sufficiently known or used as a method, there are many lessons and subjects that still do not use this method. Many researchers and educators through creative drama contributes development and education programs it is important to make use of every field and step in education, in our country the situation on this topic isn't at the level that is required therefore, this study has been aimed to express this current situation.

With this study it has been aimed to contribute to the views of classroom teachers teaching in state schools in North Cyprus to express the use of drama activities from different angles. On the contrary of this aim, answers have been searched for the sub-aims below:

1. Are teachers including the drama method in their lessons?
2. In the situation of teachers including the drama method in their lessons, are there any differences from the point of view of the variables; gender, years of teaching and the study group they work with?
3. According to teachers, where should teachers who will include drama in the class be trained?

2. Method

2.1. Research Participants

This study used the descriptive research method in 2009-2010 academic year towards primary school classroom teachers in North Cyprus of primary state schools joint to the MEC.

In this study, classroom teachers working in primary schools states the use of drama method in mathematics teaching from different aspects of variables the deviation including drama activities in the teachers education programs and their views on the problems they face while practicing. Stratified random sampling method was selected in 2009-2010 academic year from 376 classroom teachers from 28 primary schools joint to the primary teaching departments. When observing the sampling group of teachers according to the distribution of gender there were 65.4% female participants and 34.6% male participants.

Table-1 Sampling distribution according to gender

Gender	Frequency (f)	Percent (%)
Female	246	65.4
Male	130	34.6
Total	376	100.0

2.2. Data Collection

The study is made up of demographic information and classroom teachers teaching mathematics in primary schools use of the drama method according to variety point of view of variables.

2.3. Data Analysis

The questionnaire was formed and statistical package program SPSS 17 for Windows was used to analyse the percentage, frequency, mean, standard deviation and chi-square test.

2.4. Assumptions

In this study the students were expected to answer the distributed questionnaire honestly.

2.5. Limitations

The study was administered in North Cyprus between 2009-2010 academic year at 28 primary schools linked to the MEC Primary school department to 376 teachers which were kept restricted to the questionnaire.

3. Results (Findings)

In conjunction to the sub-problems mentioned at the beginning of the study, the findings and the suggestions for the findings will take part in this section. The results are as follows:

For student development the importance of teaching methods and techniques has gained more and more significance, the necessity of teaching to take place healthier and the thought of not even teaching poor teaching is becoming more dangerous and has increased all over the world. Taking all these into consideration the drama method should to applied which will be good, correct and for the student to be active in class. According to Demirel (2002), drama is a teaching technique that teaches students how to behave in situations whilst living it, although this can not be said about our schools in our country. When observing the findings for this research, it has been reached that only 39.6% has implemented this method in their teaching and 60.4% has not implemented the drama method in their teaching.

Table 2: The chi-square (X^2) test according to teachers gender distributions for implementing drama method in their teaching

Implementing drama	Gender			Chi-square (X^2)	Asymp. Sig (p)
	Female	Male	TOTAL		
Yes	n	137	12	76.739 ^a	,000
	%	91.9%	8.1%		
No	n	109	118	74.810	,000
	%	48.0%	52.0%		
Total	n	246	130		p < ,05
	%	65.4%	34.6%		

When observing the teachers distribution according to gender towards the implementation of the drama method in their teaching with the chi-square (X^2) test it has obtained a meaningful significance. In Table 2, the implementation by classroom teachers of the drama method in their teaching has also been included where 91.9% consists of female teachers and only 8.1% consisted of male teachers that's only a small group that implements the drama method in their teaching.

As a result of the Chi-square (X^2) test result in Table 3, the p value obtained smaller than .05, statistically it has put forward that there is a meaningful significance. 20.7% of teachers has taught between 0-7 years, 21.3% between 8-15 years and 58% of teachers have taught for 16 years and above. The results obtained can also be studied and observed in the table according to the teachers years of teaching period and implementation of the drama method in

their class where the most teachers who have taught between 0-7 years with the average of 47.7% has implemented the drama method in their teaching. In our countries schools, the least implementation of the drama is of teachers who have been teaching for 16 years and above. It can also be observed on the table that in the scope of this study 185 participants out of 227 does not implement the drama method in their teaching which are conformed of teachers teaching for 16 years and above. Viewing the table, it can be observed that as the years of teaching increases the implementation of the drama decreases.

Table 3: The chi-square (X^2) test according to teachers years of teaching distribution for the implementation of drama method in their teaching

Implementing drama	How many years of teaching				Chi-square (X^2)	Asymp. Sig (p)	
	0-7 yrs	8-15 yrs	16 yrs and above	TOTAL			
Yes	n	71	45	33	149	150.020 ^a	,000
	%	47.7%	30.2%	22.1%	100.0%		
No	n	7	35	185	227	162.855	,000
	%	3.1%	15.4%	81.5%	100.0%		
Total	n	78	80	218	376	p < ,05	
	%	20.7%	21.3%	58.0%	100.0%		

Table 4: The chi-square (X^2) test according to the age group teachers' work with distribution for the implementation of drama method in their teaching

Implementing drama	Age group teachers work with						Chi-square (X^2)	Asymp. Sig (p)	
	1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year	TOTAL			
Yes	n	63	32	25	23	6	149	91.366 ^a	,000
	%	42,3%	21,5%	16,8%	15,4%	4,0%	100,0%		
No	n	16	43	47	44	77	227	100.730	,000
	%	7,0%	18,9%	20,7%	19,4%	33,9%	100,0%		
Total	n	79	75	72	67	83	376	p < ,05	
	%	21,0%	19,9%	19,1%	17,8%	22,1%	100,0%		

As a result of the Chi-square (X^2) test result, the p value obtained smaller than .05, statistically it has put forward that there is a meaningful significance according to the age group teachers work with and the implementation of the drama method (Table 4). When studying the answers teachers have given in the questionnaire it can be reached to the result that teachers teaching 1st years mostly use the drama method in their teaching. Whilst 42.3% of teachers teaching 1st years prefer using the drama method, 21.5% was obtained by 2nd year classes, 16.8% of 3rd year classes, 15.4% of 4th year classes and with an average of 4.0% were 5th year classes. The study group where teachers do not prefer to use the drama method are the 5th years which obtained 33.9% have been put forward. As the age of the study groups which teachers teach increases, the implementation of the drama method decreases.

4. Discussion

- In a study of Akkaş (2003), it has been indicated that 84% question-73% answer, 26% dramatization and problem-solving, 10% show-do, brain storming, group work, discovery learning and debates, and 5% of role playing and studying researches. This shows support to the maintained results. Another way of effective learning is the active participation of the learner.
- With the study it has been stated that, classroom teachers years of teaching in accordance to implementing the drama method in their teaching, there is a meaningful significant difference ($p < .05$). Teachers who have less years of teaching have mostly implemented the drama method, as the year's increase the number of teachers who use the drama method reflects the fall of the usage. According to a study administered by Gürol (2002), facing this situation

in our country, it has been resulted that there is no meaningful significance in the teachers years of teaching to know the limitations of drama education, practice and the need. It can be said that in the situation of our country there will be question marks about after university our teachers learning new information and the ministry in charge putting forward necessary in-service training for this situation. A study made by Şahin (2006) investigates the variables implementation of the drama method during the teachers' years of teaching. It has been reached to a result that teachers who mostly use the drama method are between the ages of 20-25 (100%) and 41-45 (87.5%) , those who least use it are between the ages of 31-35 (62.5%).

- Our teachers have stated that in-service training courses are of importance.

Though the drama method should be placed in the university education, faculty of education programs and it is of importance that it's learnt in the university years. When viewing a study administered by Gürol (2002), variables in teachers taking the drama lesson has shown a meaningful significance in the relationship qualifications of drama.

5. Conclusion and Recommendation

- The importance of drama education should be liked by teachers, students' and society with meetings, seminars, panels and data in press.
- The MEC should increase the qualifications in in-service training courses. For this, courses should be organized and planned and time and duration should be prepared for the need of teachers.
- The place of specification and physical environment for educational drama should be prepared. For this, school administration, teachers and others involved should be informed.
- Extended drama education should be conveyed to students in the faculties that are training teachers and teachers should learn the drama method through in-service training courses and put it into practice.

References

- Akman, B. (2002). Okulöncesi dönemde matematik. Hacettepe Üniversitesi Eğitim Fakültesi Dergisi. Sayı: 23, ss: 244-248.
- Akkaş, E. (2003) İlköğretim 1. 2. Ve 3. Sınıf öğretmenlerinin matematik öğretiminde öğretmen davranışlarını gerçekleştirme düzeylerinin incelenmesi. Yayınlanmamış Yüksek Lisans Tezi. Abant İzzet Baysal Üniversitesi Sosyal Bilimler Enstitüsü.
- Baykul, Y. (2005). İlköğretimde matematik öğretimi. Ankara: Pegem A Yayınları, 8. Baskı, s.38-41, Ankara.
- Dede, Y. ve Yaman, S. (2005). İlköğretim 6., 7. ve 8. Sınıf Matematik ve Fen Bilgisi Ders Kitaplarının İncelenmesi: Problem Çözme ve Problem Kurma Etkinlikleri Bakımından. XIV. Ulusal Eğitim Bilimleri Kongresi. Denizli: Pamukkale Üniversitesi Eğitim Fakültesi.
- Demirel, Özcan. Kuramdan Uygulamaya Eğitimde Program Gelistirme. Ankara: Pegem yayıncılık, 2002.
- Güneysu, S. (1991). Eğitimde Drama. Eskişehir: Okul Öncesi Eğitimi ve Yaygınlaştırılması Semineri. ss:84-88.
- Gürol, A. (Eylül, 2002). Okul öncesi eğitim öğretmenleri ile okul öncesi öğretmen adaylarının eğitimde dramaya ilişkin kendilerini yeterli bulma düzeylerinin belirlenmesi. Yayınlanmamış Doktora Tezi. Elazığ: Fırat üniversitesi.
- Karadağ, A., (2003), Okulöncesinde Dramatik Etkinlikler, Ankara, Kök Yayıncılık.
- Okvuran, A. (2003). Drama öğretmeninin yeterlilikleri. Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi, Sayı:(36)1-2, ss:81-87.
- Özsoy, N., Güneş, Ö., Yüksel D. E. (Mayıs, 2002). Drama in math. Education, IEC 2002, "Changing Times, Changing Needs" First International Education Conference, Famagusta, North Cyprus.
- Soylu, Y. ve Soylu, C. (2006). Matematik derslerinde başarıya giden yolda prolem çözmenin rolü. Eğitim Fakültesi Dergisi, Sayı:7(11). ss:97-111.
- Şahin, B. (2006). Mersin il merkezindeki devlet ve özel ilköğretim okullarındaki ingilizce öğretmenlerinin öğretim etkinliği içerisinde dramayı kullanma düzeylerinin incelenmesi. Yayınlanmamış Yüksek Lisans Tezi. Adana: Çukurova Üniversitesi Sosyal Bilimler Enstitüsü
- Tanrıseven, I. (2000). Matematik öğretiminde problem çözme stratejisi olarak dramatisasyonun kullanılması. İstanbul: Marmara Üniversitesi Eğitim Bilimleri Enstitüsü (Yayınlanmamış Yüksek Lisans Tezi).
- Taş, F. (2008). İlköğretim 1.- 5. sınıflar matematik dersi temel becerilerine drama tekniğinin katkısına ilişkin öğretmen görüşleri. Yayınlanmamış Yüksek Lisans Tezi. Bolu: Abant İzzet Baysal Üniversitesi Sosyal Bilimler Enstitüsü.
- Tuğrul, B., Kavici, M. (2002). Kağıt katlama sanatı origami ve öğrenme. Pamukkale Üniversitesi Eğitim Fakültesi, Sayı:(1)11, ss:1-17.
- Üstündağ, T. (2002). Yaratıcılığa yolculuk. Ankara: Pegem A Yayınevi Tic. Ltd.Şti.