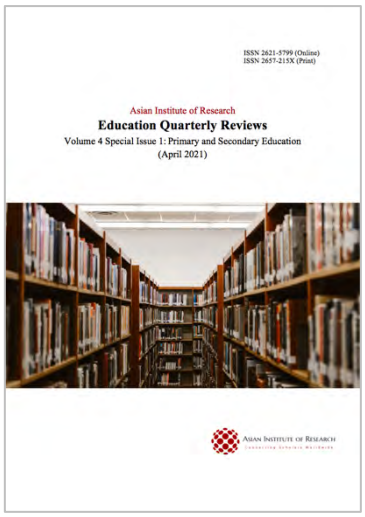

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Effects of Drama Method on the Decision-Making Skills of Primary School Students

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Abstract
The purpose of this study is to determine the effects of courses that integrate drama method in primary schools on the decision-making skills of students. In line with this purpose in present study pretest-posttest control grouped experimental research pattern has been employed. The study was conducted in Cahit Sıtkı Tarancı Primary School located within Ergani district in the city of Diyarbakır. Population of the research consisted of classes 4/C (control group) and 4/D (experimental group) in the particular school. Experimental group received drama activities for a period of 8 weeks whilst control group received no drama activities. To the end of measuring students' decision-making skills, "Decision-making Skills Assessment Scale (DMSAS)" developed by Karakaş (1999) was employed. For the aim of analyzing the difference between pretest scores of the groups, dependent groups t-test and lastly in order to detect the difference between posttest scores of groups "Covariance Analysis" was implemented. At the end of conducted study, no significant difference could be identified between scores of experimental and control groups. It has thus been concluded that implemented drama activities triggered no statistically significant difference in the decision-making skills of the participants.

Keywords: Drama Activities, Decision Making, Skills

1. Introduction

An individual who constantly interacts with his/her surrounding is engaged in a decision-making behavior while correspondingly maintaining his/her attempts to fulfill personal needs. Decision making is far from being a simple skill for any individual. When the issue is related to solving a problem in particular, decision-making process can much easily lead people to even a further complex and unmanageable state. Decision-making skills involve a range of concepts such as socialization of the person, interpersonal communication and sense of self, which collectively play vital role in decision-making skills. By the same token drama activities demonstrate the kind of features that support and develop the identical concepts. It has thus been suggested that implementation of drama in the acquisition of decision-making and problem-solving skills can prove to be substantially effective on individuals.

In our daily life it is feasible to frequently come across ambiguous cases in which respondents are expected to make sound decisions. The cases that necessitate a decision-making behavior introduce alongside making future predictions, opting for the best between two or more alternatives or reasoning based on limited knowledge (Kökdemir, 2003).

Taking into account the recent developments in the field of education it can be posited that "drama in education" is indeed one of the vital and rising components in both national and international educational system. Driven from this argument it is reasonable to claim that "drama in education" that can provide students certain experiences which can be reflected in their daily lives can be implemented as an effective method to acquire decision-making skills as one of daily life skills. That is due to the fact based on group processes that drama inherently is a teaching technique that deals with the features and behaviors aiding the child to socialize while simultaneously analyzing interpersonal experiences via role play (Çakmakçı, 2009).

Educational experiences of human beings are directly influential on their decision-making and problem-solving skills. Only effective educational environments can aptly provide such educational experiences. The changes conducted in educational environments will play effective role in either positive or negative development of individuals' problem-solving and decision-making skills. One the changes to foster in educational environments is effective implementation of drama and drama activities in such environments.

Drama in education method, on the basis of kids' games and replicate activities, makes use of theatre or drama techniques viz. monitoring, improvisation, role play and dramatization within a group work and via acting out various events from real life, reacting and reanalyzing real life events and attempting to gain insights and learning through such life events. Drama is a life philosophy. It is furthermore an educational method that fosters multidimensional development by teaching how to empathize, how to be an active learner in educational life, how to express oneself better, how to be creative, how to perceive life from several dimensions, how to be more motivated and willing to research and gain further insights in educational life (Güneysu, 1991).

A long list of studies indicate that an average person is capable of learning and reminiscing 20% of what is heard; learning and reminiscing 30% of what is seen; learning and reminiscing 50% of what is heard and seen; learning and reminiscing 90% of what is heard, seen, analyzed and experimentally acquired. This finding translates to the fact that an effective learning environment requires to be the kind of environment in which appropriate stimulants are transmitted to the eyes, ears and all accompanying sensory organs (Barutçugil, 2002). The kind of environment in which drama in education method is applied can be seen as the major environment summing the preconditions above. In brief, implementation of such environments can, via motivating individuals to employ multiple sensory organs, enable a further effective learning experience.

Drama, based on all the features listed hereinabove, can be defined as an effective and appropriate educational method in the light of all the arguments in favor of modern education. In all educational activities related to children and adults alike this particular method is an influential and applicable technique in the transfer, process and assessment of all contexts. Drama method in which all participants are equally valued and cared; in which personal experiences are utilized in educational process and in which there is a learner-centered approach involves in itself a humanitarian character. One essential feature of drama is that regardless of the nature of the topic, it naturally creates a democratic and participatory environment while treating the topic. In such an environment participants socialize and their self-confidence and confidence towards others escalate. With all due benefits drama should decisively be integrated into all educational curriculums (Karadağ, 2012).

Decision-making is a mental process and one of the pivotal life skills. Decision-making is unique to human beings endowed with a mind, reason, awareness and self-will. All human actions and decisions pertain to a decision-making process, be it consciously or unconsciously. Throughout daily life one has to experience a number of situations in which there emerges a necessity to make decisions. Once these decisions have negligible significance on human life, people most of the times are likely to make random decisions without any in-depth contemplation. Nevertheless, there are certain decisions such as deciding about the school and profession or life partner that could potentially have substantial effects on human life; thus such decisions necessitate an extensive

contemplation. As a reflection of the latest technological, economic and political changes social experiences have also been diversified and one's options in social surrounding are getting multiplied and complicated. This in effect makes it hard for an individual to process decision-making and enforces people to spend greater lengths of time on the available options before reaching a final decision (Hamamcı and Çoban, 2007).

Decision-making process commences with the emergence of a problem, presence of multiple solutions for the emergent problem and an ambiguous condition related to selecting one appropriate solution way. Making an effort to identify or solve the emergent problem is both the hardest and foremost stage within problem-solving process (Goloğlu, 2009). Decision-making skills, however, equal to one's ability to effectively employ his/her inherent talents, experiences and manners in an attempt to solve the problems (Arın, 2006).

The decisions one takes throughout life play highly effective role in ensuring that the person rises as a successful, sound and fully-qualified and responsible citizen. The more appropriate and effective decisions are, the easier it becomes to attain the desired objectives since there exists an intricate connection between decision-making competency and personal success. On that account it is a must to gain effective decision-making skills to human beings starting from the very first years of life. Schools and families play critical role in the acquisition of such skills (Goloğlu, 2009).

As stated by Yüksel (2003) decision-making skills should be developed at early ages in all children and should be put into practice during school years. Consequently, when at school students should, via courses and miscellaneous activities, experience and refine their decision-making practices.

Baysal (2009) argues that decision making relates to identifying the existing alternatives by applying certain criteria and selecting one among the multiple alternatives. Effective decision-making skills are inextricably intertwined with creative and critical thinking skills. Creative thinking is required in generating the alternatives needed for making a selection in decision-making process whilst critical thinking is required in the assessment of existing alternatives. Improving decision-making skills should be the preliminary objective while teaching social topics. In line with that objective, implementing decision-making models in any given classroom setting can develop decision-making skills of students since it is of great importance to foster problem solving, decision making, critical and creative thinking skills that might potentially be utilized in daily life.

1.1. Purpose

The purpose of present study is to determine the effects of drama activities implemented among primary school 4th graders on their decision-making skills.

2. Method

2.1. Research Model

In this research, experimental research models were utilized. Experimental research models are the models in which, to the end of identifying cause-effect relations, the data that are aimed to be observed are generated under the direct supervision of researcher (Karasar, 2013, p.87).

The research was conducted according to pretest-posttest control grouped experimental pattern. In pretest-posttest control grouped experimental pattern there are two groups formed via unbiased selection. One group is identified as experimental group while the other one is identified as control group. In both groups measurements are computed before and after the test.

Symbolic image and signifiers of these symbols in any pretest- posttest control grouped model are as seen in the figure below (Karasar, 2013, p.97).

G_1	**R**	**$O_{1,1}$**	**X**	**$O_{1,2}$**
G_2	**R**	**$O_{2,1}$**		**$O_{2,2}$**

G_1: Experimental group **G_2**: Control group **O**: Measurement Tools (test scores, dependent variable)
X: Independent Variable (Drama Activities) **R**: Unbiased formation of groups

Figure 2.1: Pretest-posttest control grouped experimental pattern

In this pattern employed for this research a comparison is made between experimental group and control group. First subject groups were identified. Next the groups were randomly assigned as experimental and control groups. Before the experimental "Decision-making skills Assessment Scale" (DMSAS) was applied as a pretest to both groups. Drama activities were implemented among experimental group 2 class hours average in a week for a period of 8 weeks. At the end of this implementation the scale was applied as the posttest to both groups.

2.2. Population

For the purposes of this study Cahit Sıtkı Tarancı Primary School located in Ergani district within Diyarbakır city was selected. Population of the research consisted of a total of 54 students in class 4/C (27 students) and class 4/D (27 students). Class 4/C was assigned as the control group and class 4/D as the experimental group (classroom in which drama activities were implemented). Of all the participating students 21 were female and 33 were male pupils. Distribution of participant students is as displayed in Table 2.1.

Table 2.1: Distribution of Participant Students with respect to Gender and Experimental & Control Groups

	Female		Male		Total	
	N	%	N	%	N	%
Experimental group	10	37	17	63	27	100
Control group	11	41	16	59	27	100

2.3. Data, Data Collection Tool and Analysis

To collect data in the research "Decision-making Skills Assessment Scale" (DMSAS) developed by Karakaş (1999) was utilized. The scale was, upon consulting to experts' views, implemented as pretest and posttest. Pretest was conducted in the second week of February with a total of 54 students 27 of whom belonged to experimental and 27 of whom belonged to control group. In the aftermath of an eight-week long implementation process the same scale was implemented among the same student groups as the posttest.

Originally developed by Karakaş (1999), "Decision-making Skills Assessment Scale" (DMSAS) was also utilized by Çakmakçı (2009). In this scale there are collectively 17 items distributed amongst 4 subdimensions. In "dependent decision making" subdimension there are 6 items; in "decision making based on personal wishes" subdimension there are 5 items; in "independent decision making" subdimension there are 4 items and in "decision making based on personal talents" subdimension, there are 2 items.

The scale consists of 17 statements distributed as positive and negative in order to measure decision-making skills. In the scale there are 10 positive statements and 7 negative statements. The scale is 4 Likert type formatted. Responses of students are categorized as; Never (1), Rarely (2), Mostly (3) and Always (4). In scoring stage, negative statements were measured via reverse coding. The highest score to receive from the test is 68, and the lowest score is 17. The reliability of scale was tested via Cronbach Alpha Analysis and Alpha coefficient was measured as ".70".

Data collected from this study was analyzed by utilizing SPSS 21 (Statistical Package for the Social Science) software. In order to determine which tests to employ in the analyses, normality hypotheses were tested. To identify whether collected data exhibited normal distribution, Shapiro-Wilk Test was implemented for each single scale according to pretest and posttest results of the control and experimental groups.

The results related to the normality of distribution obtained from the pretest of Decision-making Skills Assessment Scale (DMSAS) are as demonstrated in Table 2.2.

Table 2.2: Results of Shapiro-Wilk Test related to the Normality of DMSAS Pretest Distribution

Dimensions	**Group**	**Shapiro-Wilk**		
		Statistics	**sd**	**p**
Dependent Decision making	Control	.966	27	.509
	Experimental	.980	27	.857
Decision making based on personal wishes	Control	.963	27	.440
	Experimental	.908	27	.210
Independent Decision making	Control	.949	27	.204
	Experimental	.905	27	.180
Decision making based on personal talents	Control	.896	27	.110
	Experimental	.920	27	.400
Total	Control	.964	27	.459
	Experimental	.987	27	.978

Sd: degress of freedom p. Liliefors significance correction

As seen in Table 2.2, significance values demonstrate that for each dimension of the scale, pretest distribution meets normality hypothesis (p>0,05). Results related to the normality of distribution obtained from the posttest of Decision-making Skills Assessment Scale are as displayed in Table 2.3.

Table 2.3: Results of Shapiro-Wilk Test Related to the Normality of DMSAS Posttest Distribution

Dimensions	**Group**	**Shapiro-Wilk**		
		Statistics	**sd**	**p**
Dependent Decision making	Control	.950	27	.217
	Experimental	.931	27	.073
Decision making based on personal wishes	Control	.936	27	.098
	Experimental	.919	27	.360
Independent Decision making	Control	.955	27	.288
	Experimental	.887	27	.070
Decision making based on personal talents	Control	.939	27	.116
	Experimental	.901	27	.140
Total	Control	.971	27	.621
	Experimental	.975	27	.737

As the significance values displayed in Table 2.3 are examined it becomes feasible to argue that posttest distribution's normality hypothesis was met for each single dimension of the scale (p>0,05).

For the aim of examining the difference in the pretest scores between control and experimental groups, t-test for independent groups was employed. t-test for independent groups is used to contrast the values that both groups receive from a continuous variable (Pallant, 2005).

So as to analyze the difference between pretest and posttest scores of control and experimental groups, dependent groups t-test was used. t test for dependent groups is utilized to compare the scores received by the group in two different measurements (Pallant, 2005).

In order to analyze whether a significant difference existed between posttest scores of control and experimental groups, Covariance Analysis (ANCOVA) was utilized. In pretest- posttest control grouped patterns the variance triggered by external variables on dependent variable can strengthen the power of test via being statistically controlled by ANCOVA (Büyüköztürk, 2011).

Likewise, in this study pretest scores were kept under control while the difference between posttest scores of control and experimental groups were being examined. The significance of statistical results was analyzed on p< 0,05 level.

3. Findings and Remarks

In order to identify whether a significant difference existed with respect to subdimensions of Decision-making Skills Assessment Scale and total scores between experimental group in which drama activities were implemented and control group in which current curriculum was implemented, independent groups t-test was conducted prior to the implementation and obtained findings are as displayed in the tables below.

Table 3.1: Pretest Mean Scores relevant of "DMSAS" Subdimensions between Experimental and Control Groups and Results of Independent Groups t-test

Subdimension	Group	n	X	Ss	sd	t	p
Dependent Decision making	Control	27	2.77	.55	52	1.421	.161
	Experimental	27	2.56	.57			
Decision making based on personal wishes	Control	27	2.82	.72	52	-1.985	.052
	Experimental	27	3.17	.59			
Independent Decision making	Control	27	3.14	.48	52	-1.141	.259
	Experimental	27	3.31	.59			
Decision making based on personal talents	Control	27	2.11	.93	52	-.163	.871
	Experimental	27	2.15	.72			
DMSAS Pretest Total	Control	27	2.80	.35	52	-.805	.424
	Experimental	27	2.87	.31			

Table 3.1 manifests that in all the subdimensions of DMSAS no statistically significant difference could be detected between control and experimental group students(p>0,05). Accordingly, it is feasible to claim that prior to experimental procedures, perceptions related to DMSAS subdimensions were in identical levels among control and experimental group students.

In order to test the significance of the difference between pretest and posttest "total scores" of the DMSAS pertaining to control group, dependent groups t test was implemented and obtained findings are as displayed in Table 3,2.

Table 3.2: Dependent groups t-Test Results related to DMSAS Pretest and Posttest Total Scores of the Control group

Control group	N	X	Ss	sd	t	p
Pretest	27	2.79	.34	26	-.361	.721
Son Test	27	2.82	.28			

As manifested in Table 3.2 no statistically significant difference could be identified between DMSAS pretest and posttest total scores of control group students ($t_{(26)}$=-,361; p>0,05). It can thus be claimed that the education provided for control group students did not significantly affect "decision-making skills" of the students.

In order to test the significance of the difference between pretest and posttest "total scores" of the DMSAS pertaining to experimental group, dependent groups t test was implemented and obtained findings are as displayed in Table 3.3.

Table 3.3: Dependent groups t-Test Results related to DMSAS Pretest and Posttest Total Scores of the experimental group

Experimental group	N	X	Ss	sd	t	p
Pretest	27	2.87	.31	26	-.981	.336
Posttest	27	2.92	.38			

As manifested in Table 3.3, no statistically significant difference could be identified between DMSAS pretest and posttest total scores of experimental group students ($t_{(26)}$=-,981; p>0,05). It can thus be claimed that drama activities provided for experimental group students did not significantly affect "decision-making skills" of the students.

In order to identify whether a significant difference existed with respect to subdimensions of Decision-making Skills Assessment Scale and total scores between experimental group in which drama activities were implemented and control group in which current curriculum was implemented, Covariance Analysis (ANCOVA) was conducted after the implementation.

Table 3.4: Covariance Analysis Results related to "Dependent Decision making" Dimension between Posttests of Experimental and Control Groups

Origin of variance	Sum of squares	Sd	Mean of squares	F	p
Pretest	5.425	1	5.425	16.766	.000
Group	.483	1	.483	1.493	.227
Error	16.503	51	.324		
Total	421.250	54			

Table 3.5: Covariance Analysis Results related to "Decision making based on personal wishes" Dimension between Posttests of Experimental and Control Groups

Origin of variance	Sum of squares	Sd	Mean of squares	F	p
Pretest	11.988	1	11.988	45,792	.000
Group	.223	1	.223	,853	.360
Error	13.351	51	.262		
Total	529.720	54			

Table 3.6: Covariance Analysis Results related to "Independent Decision making" Dimension between Posttests of Experimental and Control Groups

Origin of variance	Sum of squares	Sd	Mean of squares	F	p
Pretest	6.154	1	6.154	23.195	.000
Group	.570	1	.570	2.148	.149
Error	13.531	51	.265		
Total	568.875	54			

Table 3.7: Covariance Analysis Results related to "Decision making based on personal talents" Dimension between Posttests of Experimental and Control Groups

Origin of variance	Sum of squares	Sd	Mean of squares	F	p
Pretest	2.122	1	2.122	3.011	.089
Group	.841	1	.841	1.194	.280
Error	35.952	51	.705		
Total	307.750	54			

Table 3.8: Covariance Analysis Results related to DMSAS Posttest Total Scores of Experimental and Control Groups

Origin of variance	Sum of squares	Sd	Mean of squares	F	p
Pretest	2.710	1	2.710	44.339	.000
Group	.043	1	.043	.701	.406
Error	3.118	51	.061		
Total	450.889	54			

As pretests were checked according to the tables no significant difference could be measured between all subdimensions and total scores of the DMSAS pertaining to control and experimental group students. (F=,701; p>0,05). Therefore, it is safe to argue that drama activities implemented among experimental group students, compared to control group students, did not create a significant effect on their decision-making skills.

4. Conclusion, Discussion and Suggestions

Scores that experimental and control groups received from DMSAS pretest and post tests were analyzed with respect to 4 dimensions termed as dependent decision making, decision making based on personal wishes, independent decision making, decision making based on personal talents and below listed findings were obtained.

As regards experimental group students' pretest-posttest scores related to "dependent decision making" dimension no significant difference could be identified (p>,05). By the same token control group students' pretest-posttest scores related to the same dimension also revealed no significant difference (p>,05).

As regards experimental group students' pretest-posttest scores related to "decision making based on personal wishes" dimension no significant difference could be identified (p>,05). By the same token control group students' pretest-posttest scores related to the same dimension also revealed no significant difference (p>,05).

As regards experimental group students' pretest-posttest scores related to "independent decision making" dimension no significant difference could be identified (p>,05). By the same token control group students' pretest-posttest scores related to the same dimension also revealed no significant difference (p>,05).

As regards experimental group students' pretest-posttest scores related to "decision making based on personal talents" dimension no significant difference could be identified (p>,05). By the same token control group students' pretest-posttest scores related to the same dimension also revealed no significant difference (p>,05).

As regards experimental group students' pretest-posttest scores related to DMSAS total scores no significant difference could be identified (p>,05). By the same token control group students' pretest-posttest scores related to the same dimension also revealed no significant difference (p>,05). While experimental group's pretest mean score was initially 2,87, posttest mean score increased to 2,92. While control group's pretest mean score was initially 2,79, posttest mean score increased to 2,82.

Conclusive findings obtained at the end of this research can be outlined as below:

Implemented drama activities failed to be significantly effective in developing students' decision-making skills in these four subdimensions (dependent decision making, decision making based on personal wishes, independent decision making, decision making based on personal talents). Nonetheless in the posttest scores a climb in favor of experimental group was measured.

As the results obtained from the scales implemented to assess decision-making skills were examined, no significant difference could be measured within pretest and posttest scores. All these conclusions suggest that this implementation triggered not any significant change in the perceptions of decision-making skills among both groups.

Nevertheless, in Çakmakçı's (2009) study titled as "Analyzing the Effects of Drama Course in Gaining Decision-making Skills to Primary Education 4th Graders" it was identified that the courses involving drama method positively affected students' decision-making skills.

Çakmakçı (2009), in this study, analyzed the effects of drama activities on decision-making skills of students with respect to variables such as gender, education level of parents, number of siblings, date of birth among siblings. As repeated measures were reassessed with the groups it was detected that scores experimental group students received from posttest were, compared to the scores experimental group students received from pretest, not significantly different between groups. Çakmakçı's research thus concluded that participating in any structured and unstructured drama program triggered a positive effect in developing students' decision-making skills. In addition, a significant difference was identified with respect to variables such as gender, education level of parents, number of siblings and date of birth among siblings.

Based on the findings obtained from our study, below listed suggestions can be shared.

1. In this study, Decision-making Skill Assessment Scale (DMSAS) was employed to analyze the effects of drama activities on decision-making skills. For the prospective studies related to the same topic, it is suggested to implement different scales or develop new scales to measure particular skills.
2. In this study 16 drama activities identified at the end of literature review conducted by the researcher were implemented during a period of 8 weeks. In the prospective studies the quantity and implementation period of drama activities are suggested to be increased.
3. Population is limited with 54 students from primary school 4th graders. In the prospective studies a variety of class levels could be integrated and the number of students within the population could be climbed.
4. It is also suggested to use a variety of data collection tools (interview, survey etc.) alongside with the scales implemented in the study.
5. In this study effects of drama activities on decision-making skills were analyzed with respect to the subdimensions within the utilized scale. For the prospective studies related to the same topic, it is suggested to use a range of variables (age, gender, education level of parents, socio-economic state etc.).
6. The research was conducted among primary school 4th graders. Effects of implemented drama activities on decision-making skills were attempted to be identified only via the scales applied on students. The truth is that in order to more accurately designate the change observed among students it is suggested to develop teacher-oriented surveys alongside with the scales oriented to students since teachers themselves are the individuals who can most accurately observe the changes witnessed among their students. This is also another suggestion for prospective studies.
7. To the end of disseminating the use of drama in school courses it is suggested to organize seminars for teachers and increase the quantity of in-service teacher training courses by MEB (Ministry of National Education). Another suggestion is to conduct attempts to change drama course, which is an elective course in Primary Education Curriculum, into a required course.

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