

## Effect of Use of Educational Appearance Ape (APE) Media Image to Creativity Children Age 4-5 Years in National Country City Mataram Nusa West Tenggara

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### Abstract

Problems found in developing children's creativity in children age national country city Mataram West Nusa Tenggara. is the non-use of educational game tools provided by schools. Educational game tools that exist only to be stored in the warehouse and never applied in children's learning. Teachers are more monotonous to teach using magazines and children's books. The type of research used is experiment with Randomized Pretest-Posttest Control Group Design design that is the existence of the treatment group and control group. To obtain optimal development, the treatment group was given treatments 5 times while the control group did not get treatment. To obtain the appropriate data, the researchers collected data from the observation, documentation, and instruments of the creative development of children. The subjects were 2 classes of A1 as a treatment group with 10 children consisting of 4 males and 6 females, and A2 group as a control group with 8 children consisting of 4 males and 4 females. The results of this study at the pre-test stage that is for the group A1 57.37% and group A2 54.37%. In the post-test stage, after the treatment group received treatment, the result of the A1 group was 74.25% and the A2 group 56.40%. The final result of the comparison of pre-test and post-test that is treatment group (A1) has increased 16,88% while the control group (A2) only 2.03%. Through the utilization of educational game tool that is the image media in children's learning activities, teachers are able to increase the creativity of children aged 4-5 years. So that the utilization of educational media game tools will affect the creativity of children aged 4-5 years in children age national country city Mataram West Nusa Tenggara.

### Keywords:

Educational Game Tools (APE); Creativity



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### INTRODUCTION

Early childhood education is an education directed to develop the whole sphere of child development, both aspects of physical, motor, cognitive, language, emotional social, religious and moral values of religion. These six aspects of development must be developed and enhanced in a balanced and sustainable manner because basically these six aspects are interconnected with each other. In addition to these six aspects of development, there are also developments

developed through early childhood education are 9 plural intelligence. However, the developmental aspects between the two have the same focus to provide good stimulation of children's creativity. According to Muazar Habibi (2015) states that creativity is an individual mental process that produces effective, imaginative, aesthetic, flexible, integration, succession, discontinuity and effective differentiation ideas in various fields for the solution of a problem. According to Chaplin, 1989 (quoted from Yeni, et al., 2012) suggests that creativity is

the ability to produce new forms in art, or in machinery, or in solving problems with new methods. Further Supriadi, 1994 (quoted from Yeni, et al., 2012) suggests that creativity is the ability of a person to give birth to something new, both in the form of ideas and real work that is relatively different from what has been there. The conclusion is that creativity is one's attempt at solving a problem to produce something new that is different from the usual based on ideas, imagination, creations, and combinations. Creativity is used to create or work with ideas and imagination to create a different and produce work that has a higher value than the usual work. A person's creativity may increase as he begins to pour his idea into something he makes like an educational game and has a high imagination in producing work.

According to MaykeSugianto. T in Badru Zaman, et al., 2007 (quoted from Laila Khoiris, 2012). Lailakhoiris.wordpress.com) Educational Game Tools is a game deliberately designed specifically for educational purposes. Meanwhile, Badru Zaman, 2007 (quoted from Laila Khoiris, 2012. Lailakhoiris.wordpress.com) stated that APE for kindergarten children is an educational game tool designed for the purpose of improving aspects of child kindergarten development. Furthermore Adams, 1975 (quoted from Laila Khoiris, 2012). Lailakhoiris.wordpress.com) argues that educational games are all forms of games designed to provide an educational experience or learning experience to their players, including traditional and modern games given educational and teaching content .

According to the Association for Education and Communication Technology (AECT), as mentioned by Asnawir, it defines the media that is all forms used for a process of information distribution. If the media carries a message or information that is instructional or contains instructional purposes, then the media is called learning media.

According to Zainal Aqib (2015) states that the media is an intermediary or introduction. While the learning media is everything that can be used to channel the message and stimulate the learning process in the student (student).

I Made Suwasa Astawa, (2016 ) states "Media images are media that can be enjoyed by the senses of the eye and can cause stimuli to reflect, such as pictures/paintings, photos, slides, posters, and so on. Picture/painting is an example of visual media that can be used to cause stimuli to reflect ".

The relationship between educational game tools with the media images of children's creativity.

Child creativity, as discussed, can be developed in various ways. One of them is using educational game tools. Educational game tools have the purpose of making is to develop aspects of child development. Aspects in question are all the supporting components for the child's life that are cognitive, physical motor, language, moral religion, art, and social-emotional. All these aspects support for the readiness of children to face the next age. That's what is contained in one of the educative game tools that are the image media.

Through educational game tools that are utilized optimally, then the child's development will

be achieved well. Because of the use of educative game tools capable of supporting children and bringing fun learning. Educative game tools can also make children have more imagination during the learning process.

If the child is well-stimulated 6h, especially if through the example directly or the child can see it is using a tool or visual media such as media images then the child will experience improvement in accordance with his age.

### RESEARCH HYPOTHESES

Based on the above discussions, the researcher can take the hypothesis as follows:

Ha: there is an effect of the use of educational media game tool on the creativity of children aged 4-5 years

Ho: there is no effect of the use of educational media game tools on the creativity of children aged 4-5 years

### THEORETICAL PERSPECTIVES

#### Research Method

The type of research used by researchers here is research True Experimental Design (Sugiyono, 2016). Where researchers conducted experiments on the subject to find the significant effect of APE on the creativity of children. Researchers can control all external variables that influence the course of the experiment. Thus the internal validity (the quality of the implementation of the research design) can be high.

According to Nyoman Dantes (2012), experimental research generally demands strict control on the influence of other variables beyond the treatment variable. With this kind of implementation, experimental research is generally regarded as research that is able to provide the most stable information, both in terms of internal validity and external validity.

#### Research approach

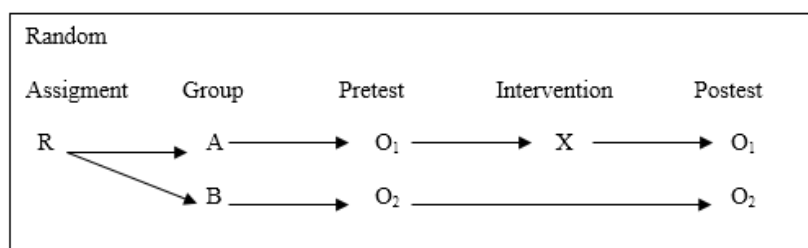
Approach here is done that is quantitative and qualitative research approach. According to Sugiyono (2016) In quantitative research, researchers have consequences that researchers have to deal with numbers as the embodiment of everything observed, thus allowing the use of statistical techniques. Furthermore, the qualitative approach according to Sugiyono (2016) is a research method based on postpositivism philosophy, used to examine the natural object condition where the researcher is as a key instrument, the sampling of data source is done by purposive and snowball, collecting technique with triangulation ) data analysis is inductive/qualitative, and the results of research more emphasis on the meaning of the generalization.

#### Experimental Design

In this study, researchers used the True Experimental Design design that has the characteristics of the control group and the sample was chosen randomly.

While the design form used is Randomized Pretest-Posttest Control Group Design is to enter the

second group as a control class and subject design can be described as follows: selection randomly in each group. The research



In this design, there are two groups selected at random, then given a pretest to know the initial state is there any difference between the experimental group and the control group. Good pretest results when the experimental values of the two groups are equal.

Observation will be done twice by holding pretest-posttest, with the existence of pretest, then the research design of the level of equality of the group participate in the calculation. Pretest is also useful as a statistical control and can be used to see the effect of treatment on the score achievement (gain score).

### Hypotheses Statistics

For the purpose of hypothesis testing, the hypothesis zero (H0) and the alternative hypothesis (H1) in the form of statistical hypothesis as follows:

Statistical Hypothesis

H0:  $\mu y A \leq \mu y B$

H1:  $\mu y A > \mu y B$

Information :

H0: There is no effect of APE utilization of image media on the creativity of children aged 4-5 years

H1: APE utilization of image media has a positive influence on the creativity of children aged 4-5 years.

### RESULTS DISCUSSION

In this study, subjects used as treatment / experimental class had the same characteristics as the control group. It is apparent from nearly the same age of learners and the initial ability of students who are almost the same. Early ability of learners is obtained through pre-test results performed before treatment is given.

Subjects used the researcher is class A where the average age of children is 4-5 years. Group A existing in there are two classes, namely group A1 and group A2. Group A1 serve as treatment group with the number of learners that is 10 children. While the A2 group used as a control group and not treated with the number of students that is 8 children. Data of each child can be seen from the table below:

Pre-Test Test Results Before Treatment Group A1

No	Name	Skor	Value (%)
1	KY	37	61,67%
2	NZ	36	60,00%
3	LL	32	53,33%
4	NI	35	58,33%
5	IN	32	53,33%
6	AQ	27	45,00%
7	AD	40	66,67%
8	RV	36	60,00%
9	RN	30	50,00%
10	ZN	40	66,67%
<b>Amount and average</b>		<b>345</b>	<b>57,50%</b>

From the results of pre-test data above, it can be seen group A1 which made the experimental group with the number of 10 students got a score below 70%. Where the highest value of the students ZN and AD got a value of 66.67%. The higher the value of respondents than other friends because the two respondents are more active during the learning either ask the teacher or do the task to finish. And the lowest score of AQ students with a value of 45%. Respondent AQ includes an inactive child, a

description of the teacher also said that he rarely completed the task during the learning with his teacher.

Obtaining a value below 70% is due to the development of children's creativity has not been too prominent through the use of media images. This is also because children are only accustomed to using magazines and notebooks during the learning process.

#### Pre-Test Trial Results Before Treatment Group A2 (Control Group)

No	Name	Skor	Value (%)
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1	EL	32	53,33%
2	ZK	36	60,00%
3	VN	34	56,67%
4	TN	39	65,00%
5	ZN	30	50,00%
6	FD	22	36,67%
7	RS	29	48,33%
8	AS	40	66,67%
<b>Amount and average</b>		<b>262</b>	<b>54,58%</b>

The results of a pre-test for the control group that is A2 with the number of students 8 students got a score below 70%. Learners with the highest score of 66.67% and the lowest score are 36.67%. The lowest score in the control group was lower than in the treatment group. This is because respondents can not focus during learning. Respondents more often out of class and play at school.

#### Post-Test Results After Treatment In Group A1 (Treatment Group)

No	Name	Skor	Value(%)
1	KY	48	80,00%
2	NZ	44	73,33%
3	LL	45	75,00%
4	NI	44	73,33%
5	IN	42	70,00%

#### Post-test results

After giving treatment to group A1 with habituation to use media of image to child during the week. While group A2 as control group was not treated. So do the post-test data collection by observation of student learning activities. Scores obtained from post-test results can be seen in the table below:

6	AQ	37	61,67%
7	AD	47	78,33%
8	RV	46	76,67%
9	RN	42	70,00%
10	ZN	50	83,33%
<b>Amount and average</b>		<b>445</b>	<b>74,16%</b>

Post-test results in group A1 increased after receiving treatment continuously through habituation using the image media in the learning process. Researchers also work with teachers during the learning process. It aims to prevent teachers from using magazines or notebooks when teaching.

The value obtained is 61.67% for the lowest value, and the highest value is 83.33%. Increasing the value of children is also because during the treatment more children are given the freedom by teachers to ask or do the task in its own way.

#### Post-Test Test Results Without Treatment In Group A2 (Control Group)

The results of pre-test obtained by group A2 as a control group did not increase too much, even there are students who experience impairment. This occurs because of the absence of treatment in group A2 and the absence of habituation using the image media in learning. The highest score obtained

is 68.33% where this value is not too much improved from the previous pre-test results, in the absence of treatments from researchers. And the lowest value is 33.33%, the respondent has decreased from pre-test resultaa. In addition to the absence of treatment, the influence of unquestioned discipline by teachers is also a factor, where children feel free in school. So the time of learning, children freely go to the classroom and do the job as he wishes. b. Pre-test data and post-test data A comparison between the pre-test results and the post-test results was given to see the comparisons in the A1 group treated with group A2 treated as a control group and not treated. The results of this comparison will determine the success or failure of treatments given by researchers in the learning process during the study took place. The results of the comparison of pre-test and post-test data can be seen in the table below:

Table Comparison of Pre-Test and Post-Test Value In Group A1

No	Name	Value pre-test	Value post-test
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1	KY	37	48
2	NZ	36	44
3	LL	32	45
4	NI	35	44
5	IN	32	42
6	AQ	27	37
7	AD	40	47
8	RV	36	46
9	RN	30	42
10	ZN	40	50
<b>A mount</b>		<b>345</b>	<b>445</b>
<b>Percentage (%)</b>		<b>57,50 %</b>	<b>74,16 %</b>

From the analysis of difference of pre-test result and post-test for treatment/experiment group that is group A1 obtained mean pre-test is 57,50%. As for the post-test data obtained an average of

74.16%. From the data can be seen the improvement of children's creativity through the use of image media increased as much as 16.66%.

Table Comparison of Pre-Test and Post-Test Results In Group A2

No	Name	Result pre-test	Result post-test
1	EL	32	35
2	ZK	36	36
3	VN	34	37
4	TN	39	40
5	ZN	30	32
6	FD	22	20
7	RS	29	31
8	AS	40	41



<b>Jumlah</b>	<b>262</b>	<b>272</b>
<b>Persentase (%)</b>	<b>54,58</b>	<b>56,67</b>

From the result of control group data taken that is group A2 obtained the average result for pre-test that is 54,58%. As for the value of post-test obtained an average of 56.67%. This result increased by 2.09%. Unlike treatment groups that experienced a significant increase, the control group experienced little improvement as treatments or treatments were never administered. This is because

the control group as a comparison of the results of the study on the group was given treatment.

From both result of pre-test and post-test data above can be seen that comparison of pre-test value for experiment group that is group A1 increase more that as much as 16,66%. While the control group only increased by 2.09%.

Table Test the data normality

Interval	Fo	Fh	Fo-Fh	(Fo-Fh) <sup>2</sup>	$\frac{(fo - fh)^2}{fh}$
60-63	1	0,270	0,730	0,5329	1,973
64-67	0	1,334	-1,334	1,7795	1,333
68-71	2	3,396	-1,396	1,9488	0,573
72-75	3	3,396	-0,396	0,1568	0,046
76-80	3	1,334	1,666	2,7755	2,080
81-84	1	0,270	0,730	0,5329	1,917
<b>Jumlah</b>	<b>10</b>				<b>7,922</b>

Price fh

$$2.7\% \times 10 = 0.270$$

$$13.34\% \times 10 = 1.334$$

$$33.96\% \times 10 = 3.396$$

$$33.96\% \times 10 = 3.396$$

$$13.34\% \times 10 = 1.334$$

$$2.7\% \times 10 = 0.270$$

Compare the results from Chi-Square calculate with Chi-Square table. Data can be said to be normal distribution if Chi Square count smaller than Chi Square table ( $X^2_{count} < X^2_{table}$ ). With the formula dk (degrees of success)  $6-1 = 5$  and 5%

significance level obtained Chi Square table is 11.070.

From the results of the above data, obtained Chi Square calculated 7,922 < 11,070 from Chi Square table. So the data is said to be normally distributed. This is because the data or respondents amounted to 10 people. The value earned by each child is also quite good and in testing this normality, all data get the final result in line with expectations.

### Hypothesis Testing

Hypothesis testing aims to determine whether there is influence of the use of media images on child creativity.

The result of tcount is then compared with ttable with ( $dk = n-2 = 10-2 = 8$ ) and if the error rate is 5% then  $t_{table} = 2,306$ .

The results of research can be said significant if the calculation is greater than the table ( $t_{hitung} > t_{tabel}$ ). From the results of the above data calculation obtained  $t_{count} 6.781 > 2.306$  of  $t_{table}$ . So  $H_a$  accepted and  $H_o$  rejected.

$H_a$  is said to be accepted because of the increased ability of children's creativity during the research that took place with the use of media images during the treatment given. This improvement is obtained from the result of continuous habituation during treatment when the child's learning process, so that children are accustomed and feel happy with learning.

Thus, there is a significant effect of media utilization of images on children's creativity for group A1 in child age national country city Mataram West Nusa Tenggara.

## CONCLUSION

Based on the results of data analysis, hypothetical testing of creativity ability of children obtained  $t_{count} = 6.781$  greater than  $t_{table} = 2.262$  which means ( $\mu y A > \mu y B$ ). So  $H_a$  accepted and  $H_o$  rejected. This means that the use of image media in learning has an effect on improving the creativity of children in group A age 4-5 years in child age national country city Mataram West Nusa

Tenggara. This can be proved by an increase of 16.66% from the pre-test and post-test results in the A1 group as the treatment group. This increase can be achieved because of the treatments given by researchers continuously. While for the control group increased by 2.09% because the control group did not receive treatments during the experiment.

If the conclusions obtained are the students' creativity of the treatment group can be increased through the habituation of the use of image media and the freedom given by the teacher to the students to be creative during the learning process as much as 16.66%, while in the control group found an increase of only 2.09% due to the absence of treatment and habituation given and still lack of opportunities given teachers. So to enhance students' creativity control group should also be given treatments or treatment and habituation of the use of media images. As educators must also participate in the provision of stimulation and habituation in the learning process.

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