



Presenting Religious Topics: The Effectiveness of Microsoft Powerpoint

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Abstract

Assalamah Pre-school & Kindergarten as one of the early childhood institution seeks to develop an innovative learning model by using interactive learning CD developed by the teachers. The aim of this study was to determine the validity of the media developed by teachers and to know how big the effectiveness of instructional media used in the learning activities. The method used in this research is experimental method that is pretest-posttest control group design to compare the learning achievement of children before and after being treated by using Microsoft office powerpoint and compared between the experimental group and the control group. The results from this study showed that the media declared valid. It is based on the data obtained from experts validator and material validator. The media used in teaching with religious themes in Assalamah Pre-school & Kindergarten Ungaran are not only valid but also effective in the learning activities, it can be seen from the improvement in learning outcomes for students, especially in kindergarten level B.

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INTRODUCTION

Early childhood education is one form of organization of education that focuses on laying the foundation for growth and physical development of intelligence, social, emotional, language and communication, according to the uniqueness and the developmental stages through early childhood. The development of children's cognitive abilities can be seen from what they do, which is driven by great curiosity in children. Cognitive ability is a process of thinking, the ability of individuals to connect, assess and consider an event or events (Yuliani, 2006). According to experts in Yuliani, et al (2006: 29) the ability of cognitive development include classifying objects that have similar colors, shapes, and sizes, matching circles, triangles, and squares as well as to identify and count the numbers from 1 to 20.

The learning process in early childhood must be in harmony with the development of children, education programs must be tailored to the children, instead of the children who must adjust to the educational programs (Bradekamp in Rukiyah, 1999). Children learn gradually and regularly, therefore, thematic education or known as theme-based learning is implemented. Children, in general, are active learners who possess high curiosity, early childhood experts believe that playing is the best learning tool for early childhood learning because that way children get a firsthand experience (playing while learning).

Conditions in the field indicate that early childhood learning is still very limited. The available media are limited only flannel boards, beads for handicraft, puzzle, and lego. The medium used for the ability to a child's development is not yet complete, only a regular game. Jawati (2013) describes the existing problems in early childhood education is the medium used in the study were also less varied, every day children are only given a worksheet. Teachers also do not really use the environment as a medium for learning, while early childhood teachers are actually demanded to develop creative media by using what is available around. The current existing learning media are often not interesting enough for children to learn.

Media for early childhood learning is increasingly important considering that the development of children at this age is the time when they start thinking concretely. This suggests the use of media as a channel to send message or information to the children. Zaman (2010) revealed that a teacher when delivering information to early childhood should use the media so that the information can be received or absorbed well and

ultimately expecting behavioral changes in the form of abilities in terms of knowledge, attitudes, and skills.

Assalamah Pre-school and Kindergarten as one of early childhood institution seeks to develop an innovative learning model by using interactive learning CD developed by the teachers. Powerpoint-based learning media development has been carried out for some time but so far its use is still limited and only developed in a limited scope, the quality of the media developed have not been validated by media experts and materials experts, the level of practicality, as well as the response of its users, are not known with certainty. Based on these problems the researchers aimed to solve the problems by conducting a research to measure how much the success of the media use in the form of learning material CD that has been implemented in Assalamah Pre-school and Kindergarten.

RESEARCH METHOD

The approach used in this research is the experimental method by using a pretest-posttest control group design that compares learning achievement before and after the treatment being given and compared between the experimental group and the control group. The study design is described as follows Figure 1.

Group	<i>Pre-test</i>	<i>Treatment</i>	<i>Post-test</i>
Experiment	O ₁	X	O ₂
Control	O ₁		O ₂

Figure 1. Research Design

Based on these images, this study can be explained as follows: the analysis is done by testing the initial achievement differences between the experimental group and the control group (O₁) using t-test. O₁ is the pre-test while O₂ is the post-test. X marks indicate the existence of treatment that is learning by using interactive powerpoint learning media. This media can be said to be effective if the value of O₂ > O₁.

RESULTS AND DISCUSSION

Research Results

a) The Validity of Powerpoint-based Learning Media

The validity of powerpoint-based learning media with the religious theme was validated by experts. The experts involved as media validator was Diana, M.Pd. and as material validator was

Drs. Khamidun, M.Pd. both of them are from Early Childhood Education Department. Based on the validation results of the two experts on assessment component, it showed that the aspect of media displays obtained a score of 4.18 out of maximum score of 5 with a percentage of 83,64%, the institution's identity aspect obtained a score of 3,67 out of a maximum score of 5 with a percentage of 73,33%, the instructional media quality aspect obtained a score of 4.8 out of a maximum score of 5 with a percentage of 96%. While looking at the components of the material, assessment aspect obtained a score of 4,08 out of a maximum score of 5 with a percentage of 81,67% and learning aspect obtained a score of 4,31 out of a maximum score of 5 with a percentage of 86,15%.

Learning media with religious theme implemented by Assalamah Pre-school & Kindergarten was developed by using Microsoft Offi-

ce Powerpoint. Some of the facilities are used to support the slide master, hyperlinks, shape, action, on mouse clicks and to set up the slide show. The instructional media products were consulted to media and material experts. Here is shown the advice and input of the validators.

b) The effectiveness of Powerpoint-based Learning Media

(1) Learning Outcome Improvement

The average result of learning before teaching in the experimental group was 69,96. After following the study, the average score improved to 82,46. The average result of learning before teaching in the control group was 69,65. After following the study, the average score improved to 80,55. The results are presented in the following Table 3.

The significance of learning outcomes improvement can be seen from the learning out-

Table 1. The Validation of Powerpoint-based Learning Media

No	Validator	Component	ScoreValidation	%	Feedback/ suggestion
1.	Media Expert	Appearance	4.18	83.64	Can be used with small revision
		Institution identity	3.67	73.33	Can be used with small revision
		Quality	4.8	96	Can be used with small revision
2.	M a t e r i a l Expert	Material	4.08	81.67	Can be used with small revision
		Learning	4.31	86.15	Can be used with small revision

Table 2. The Revision Results of Powerpoint-based Learning Media

No	Validators	Feedback/ Suggestions
1.	Media Experts	The background needs to be softened and consistent Add more interesting animation. Game rules have to be clear.
2.	Material Experts	Hyperlink in the media should be precise and clear.
		The order of material should be clear. Pictures should be adjusted with the children's characteristics. The language usage must be clear

Table 3. Learning outcomes in the experimental class and control class

No	Score	Experiment		Control	
		Pre test	Post test	Pre test	Post test
1	Average	69.96	82.46	69.65	80.55
2	Maximum	73.86	86.36	73.86	82.95
3	Minimum	65.91	79.55	61.36	77.27

Table 4. Learning Outcome Difference Test

		Sig.	T	Sig (2-tailed)
PostTest	Equal variances assumed	.180	3.489	.001
	Equal variances not assumed		3.449	.002

come test using a paired sample t-test. The analysis results of learning outcome testing in the experimental group obtained $t = 19,128$, $p = 0,000 < 0.05$, which means that there is an increase in student learning outcomes significantly in the experimental group, as well as in the control group obtained $t = 13,033$, $p = 0.000 < 0,05$, which means that there is an increase in the study of students in the control group.

(2) Learning Outcome Difference

Differences in learning outcomes between the experimental class and control class are tested its significance using independent sample t test, as listed in Table 4. This test is used to determine the significance of differences between the experimental class and control class.

Results of t-test analysis obtained by value t count = 3,489 with p -value = $0.001 < 0.05$, which means that there is a significant difference in learning outcomes between the experimental class with the control class. Judging from the average shows that the experimental class learning outcomes were better than the control class

Discussion

In the expert validation phase, instructional media by using Microsoft Office PowerPoint application was declared valid by the validator. The media are valid according to Niven in Rochmad (2012) can be seen from the resulting product (powerpoint learning media) and related products are consistent among one another (matter). Based on the validation of the expert team, PowerPoint instructional media used for religious themes included in the category of can be used with slight revisions. Expert validation results contained in

the annex. Thus, the theme of religious learning media can be used for field testing and can then be further refined based on the advice and input of all the learning components.

Related to the validity of the media, more learners are active learning activities compared to the classical learning. This is consistent with the results of research suggested by Adhywarta (2011) states that learning by using computer-based learning media increases the child's motivation to learn. Accordingly, the study of Mahanani (2013) states that learning by using powerpoint is effective in improving students' skills in problem-solving.

In addition to measuring the validity of Microsoft Office PowerPoint instructional media with religious themes, its level of effectiveness needs to be measured. Effective according to Akker in Rizka (2014) refers to the extent that experience and the results of interventions are consistent with the objectives to be achieved, the effectiveness indicator can be seen from the results of learning after attending learning by using learning media.

Learning process is said to be effective if the learning process of each component can function properly, learners feel happy, satisfied with the results of learning, memorable learning model is used, adequate infrastructure and facilities, as well as professional educators. The effectiveness can be achieved if all the elements and components contained in the learning system can function in accordance with the goals and objectives that have been set. The effectiveness of learning can be achieved when planning the preparation, implementation and evaluation can be imple-

mented according to appropriate procedures and in accordance with their respective functions. Learning outcomes can be said to be effective if there is an improvement in the learning achievement of learners.

Mulyatun (2012) states that the learning media can help students remember and understand the material concept. Compared to conventional learning that uses traditional instructional media, interactive learning using the media has several advantages, namely improving the student's ability, the speed of students in mastering the concepts being learned, and longer retention (memory).

Muharoma research results (2014) states that learning by using powerpoint media can improve the quality of learning. Research from Listantia (2015) showed that the development of instructional media can improve the students' learning outcomes. In this study, after the learners were taught by using powerpoint-based instructional media with a religious theme in the experimental class showed that the improvement of learning outcomes was significantly associated with children's knowledge of religion, it can be proven from the results of paired samples t-test. The average achievement of learners after participating in the learning experience was significantly increased.

Based on these results and the easiness contained in instructional media, educators and learners can use it in order to achieve success in learning according to their respective fields. In other words, media that are used optimally will generate positive effects for students to study harder and can increase their learning motivation (Mahsun, 2012).

Ariyanti (2014) in her research explains that by using instructional media, it can improve children's cognitive abilities. Another study presented by Suwardi (2011) stated that the productivity and creativity of early childhood educators give major influence on the development of learners, especially in terms of the delivery and presentation of learning materials. It is strongly supported by the results of this study that the learning media need to be developed by teachers, especially in early childhood to improve the quality of learning.

CONCLUSION

Based on the research results, it can be concluded that (1) Microsoft office powerpoint as a media is valid to be used in the learning process in Assalamah Pre-school and Kindergarten, Un-

garan. This is obtained from the validators (media expert and material expert). (2) the use of Microsoft office powerpoint is effective to be used in the learning process. This can be seen from the indicator which showed that there was an improvement in the students' learning outcome.

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