DEVELOPMENT OF EDUCATIONAL COMIC MEDIA BASED ON POWERPOINT CLASS III INDONESIAN LANGUAGE CONTENT

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Abstract

This study was motivated by the results of Indonesian language lesson in some students who did not reach the Minimum Score Criteria because of limited teaching materials and learning media. This study was research and development (R&D). This study aimed to develop comic media on powerpoint, to assess the feasibility, and the effectiveness of the media on the theme earth and universe of Indonesian language. the data was collected by observasion, interviews, questionsnaires, tests, and documentation. The subject of this research was the three grade students of Karangayu 03 elementary school. The result showed that: (1) comic media on powerpoint successfully developed according to the needs of teachers and students; (2) comic media on powerpoint was very feasible to be used with the percentage of assessment from material experts amounting to 94% and from media experts at 88% .; (3) comic media on powerpoint was effective used Indonesian language learning as evidenced by an increase in the average student learning outcomes through the t test of 16,733 and the average incrase of 0.6 with medium criteria. In conclusion, the comic media on powerpoint was very feasible and effective for helping the students to learn about Indonesian language.

Keywords: Comics, Powerpoint, Education

1. INTRODUCTION

Based on Permendikbud Number 21 of 2016 concerning Content Standards for Primary and Secondary Education Units, the 2013 Curriculum contains several subject matters that must be taught to elementary school level students. Of some of the content, there is Indonesian language content, so the Indonesian language content must be implemented at the primary and secondary education levels. The content of Indonesian is important to be taught to students because the content of the Indonesian language has a very important role in the lives of students, because language is an important asset in intellectual, social, and emotional development to support the success of other learning content.

In pre-research activities carried out by researchers at SDN Karangayu 03 Semarang on November 27, 2018 through observations and interviews with resource persons, teachers and students. There were several problems in learning caused by several factors, both from students, teachers, and the media used. One of the problems encountered by researchers is that there are still many students who get grades or learning outcomes of Indonesian language content under the KKM.Of the 37 students, 19 (51%) students scored below the KKM on the daily test theme 1 sub-theme 4 content of Indonesian language learning in reading comprehension skills with the predetermined KKM, namely 75. The school already has LCD and projector facilities in each class, however has not been optimized their use in supporting the Indonesian language learning process. The use of LCDs and projectors is only used to display videos, images and text sourced from student books.

Based on these problems, in order for student learning outcomes to increase, an improvement is needed in accordance with the causative factors. One of the factors that led to the low learning outcomes of class III SDN Karangayu 03, namely the use of media used by teachers in learning Indonesian is less varied, only sources from textbooks and not utilizing existing infrastructure in schools, in other words, there is no development of interesting and interactive media.

Responding to these problems, researchers want to develop innovative and interactive learning media by utilizing existing infrastructure in schools, namely powerpoint-based educational comic media. Comics can be defined as an art form that uses immovable images arranged in such a way as to form a storyline and provide a pleasant learning experience (Nugraha, et al., 2013: 61). In order for comic learning media to be more attractive and interactive, it is packaged and presented in PowerPoint. Powerpoint media is equipped with a controller that can be operated by the user, so that the user can select the menu contained in the media according to what he wants (Andriani & Wahyudi, 2016: 145)

Previous research showing the success of improving student learning outcomes with comic media was a research by Khoerunnisa Nursholihat1, Atep Sujana2, Dety Amelia Karlina3 (2017) with the title "The Role of Comic Media on Science Literacy of Class V Elementary School Students on Water Cycle Materials (Pre-Experimental

Classroom Research) V SD, Paseh District, Sumedang Regency) ". The results showed that the science learning with comic media "Hari Ini Hujan" succeeded in increasing the scientific literacy skills of fifth grade elementary school students in the water cycle material.

The formulations of the problems in this study are: (1) What is the best powerpoint-based educational comic media product in improving the learning outcomes of the Earth and Universe Themes in Class III Indonesian Language Content SDN Karangayu 03?; (2) Is the powerpoint-based educational comic media appropriate to use to improve learning outcomes of the Earth and Universe Themes in Class III Indonesian Language Content at SDN Karangayu 03 according to expert validators ?; (3) Is a comic based eduaction media power point effectively used to improve learning outcomes the theme of the Earth and the Universe in Indonesian Class III SDN Karangayu 03?

Based on the formulation of the problem, the purpose of this study is to produce the best powerpoint-based educational comic learning media to improve learning outcomes of the Earth and Universe Themes in Class III Indonesian Language Content SDN Karangayu 03; testing the feasibility of learning media for educational comics based on the theme of the Earth and the Universe on the Class III Indonesian Language Content of SDN Karangayu 03; To test the effectiveness of educational comic learning media based on powerpoint to improve learning outcomes on the theme of the Earth and the Universe in Class III Indonesian Language Content of SDN Karangayu 03.

2. METHOD OF INVESTIGATION

This study uses a development research design that refers to the Research and Development (R&D) method with the Borg and Gall development model. According to Sugiyono (2012): 407) the Research and Development (R&D) method is a research method that produces a particular product based on a needs analysis, then the product is tested for its effectiveness so that it can be used. In this study, the researchers developed a powerpoint-based educational comic media on the theme of the earth and the universe of Indonesian content to improve learning outcomes for grade III elementary school students with intensive reading material.

The development model in this study is based on the Borg and Gall model. Sugiyono (2015: 409-426) states that there are 10 steps in the borg and gall model, namely: (1) potential and problems; (2) data collection; (3) product design; (4) design validation; (5) design revision; (6) product testing; (7) product revision; (8) trial use; (9) product revision; (10) the final product. In this study the researchers limited it to the trial use stage

because it is adjusted to the needs of the researcher, namely knowing the effectiveness of the powerpoint-based educational comic media.

Procedure in research The development begins with potential activities and problems to determine the needs of students and teachers as well as the type of media developed until the final product is a powerpoint-based educational comic media. The research sample was all students of class III SDN Karangayu 03 Semarang. The variables measured in this study included educational comic media based on powerpoint as the independent variable and the learning outcomes of Indonesian students in grade III on intensive reading material as the dependent variable.

The data collection techniques used by researchers were test and non-test techniques. The test technique is in the form of pretest and posttest questions to determine the increase in learning outcomes of the material taught in learning using powerpoint-based educational comic media in Indonesian language learning, while non-test techniques use instruments in the form of observation sheets, student and teacher needs questionnaires, student response questionnaires and teacher, expert assessment questionnaire, and documentation. The data analysis technique includes product data analysis, namely testing the validity, reliability, level of difficulty, difference power, analysis of teacher and student responses, preliminary data analysis with normality test, and final data analysis with t test and N-gain test.

3. FINDINGS AND DISCUSSION

1. Development of Media Komics
    Education Powerpoint based
    In this study, the researcher developed comic media which is a modification of comics which was originally only used for entertainment purposes, but here the researcher creates comics by including learning material. Learning media is packaged in powerpoint form. Comics are known as immovable images arranged in such a way as to form a story line. Usually, comics are printed on paper, it is less interactive and less effectively used on students who have an audio or audiovisual learning type. In order for the media to be more interactive, the researchers presented comics in the form of powerpoints, in which comics could be given interesting backsounds, videos and animations. The educational comic media is applied to the theme of the Earth and the Universe. Earth's sub-theme is part of the Learning Universe 1.

    The specifications contained in the powerpoint-based educational comic media consist of various components, namely as follows:

a. The material in the comic contains KD 3.1. Digging information from the text of the informative report on observations about changes in the shape of objects, energy sources, energy changes, alternative energy, climate change and weather, the appearance of the earth and its changes, and the universe with the help of teachers and friends in spoken and written Indonesian which can be filled in with local language vocabulary to help understanding.

b. The characters in the comics, namely teachers, students, planetarium officers.

c. The powerpoint-based educational comic media consists of several menus, namely the KD menu, indicators, learning objectives, comic menu, instructions menu, quiz menu, media maker profile menu, and reference menu.

The results of media development are presented as follows.

Picture 1. Opening Page

Figure 2. Main course

Figure 3. Hint menu

Figure 4. Menu KI and KD

Figure 5. Comic Menu

Figure 6. Comic Contents

2. Media Communication Based Education

Power point

The feasibility of educational comic media based on powerpoint is obtained from validation by material experts and media experts. Validation is carried out to obtain an assessment of the validity of the media developed before it is used in the learning process. In addition, validation is carried out to obtain comments and suggestions, which are used to improve the powerpoint-based educational comic media.

The feasibility assessment of the powerpoint-based educational comic media by media experts includes 14 indicators covering aspects of material suitability, material suitability aspects with media, and language aspects. While the media assessment aspect consists of 14 indicators covering aspects of media suitability,

technical quality, ease of use. The percentage results of the feasibility assessment by experts can be seen in the following table.

Validator	Device Validation	Percentage	Criteria
Nugraheti Sismulyasih Sb, S.Pd., M.P.	Theory	94%	Very worthy
Sony Zulfikasari M.Pd	Media	88%	Very worthy

Based on the results of the feasibility test of the powerpoint-based educational comic media according to

Purwanto (2013: 104) is included in the very feasible criteria for use as a learning medium. The results of the feasibility test for the powerpoint-based educational comic material obtained a value of 94%, while the results of the feasibility of the media got a value of 88%. The results of the media feasibility assessment received very good criteria. This shows that the powerpoint-based educational comic media is feasible and can be applied as a learning medium in Indonesian language learning.

3.   The Effectiveness of Educational Comic Media based on Powerpoint

The effectiveness of the powerpoint-based educational comic media on the theme of the earth and the universe of Indonesian content is obtained from cognitive learning outcomes through formative tests in the form of pretest and posttest before and after using powerpoint-based educational comic media. Researchers tested the effectiveness of 36 students of class III SDN Karangayu 03. The pretest learning outcomes had an average value of 51 and an average posttest score of 81.2. The results of the pretest and posttest in this study were then calculated using the Shapiro Wilk test formula with the help of SPSS Version 22. The calculation hypothesis includes Ho is accepted if the sig value> 0.05 then the data is said to be normally distributed. Ha is accepted if the value is sig

<0.05, the data is said to be not normally distributed.

Based on the calculation of SPSS Version 22, it can be seen that the sig value in the Shapiro Wilk column shows sig> 0.05, both pretest and posttest values. The pretest value has a sig value of 0.094 and the posttest value has a sig value of 0.110. Based on these data, it can be concluded that the pretest and posttest scores are normally distributed, thus the statistics used are parametric statistics.

Furthermore, the researchers tested the hypothesis using the Paired Sample t-test. The hypothesis is accepted if the significance value <α is α

= 0.05. This means that the 2-tailed significance value <α is 0.00 <0.05. If -tcount <-ttable then Ho is accepted and if -tcount > -ttable then Ho rejected. Based on the results of the calculations that have been done, the tcount is -16.733 and the t-table obtained from the dk calculation is then confirmed in the t distribution value table, namely -2.030 with a 2-tailed significance value of 0.00. It is known that tcount> ttable, then Ho is rejected. So it can be concluded that the powerpoint-based educational comic media on the theme of the earth and the universe of Indonesian language content, intensive reading material is effectively used because there are differences in the average pretest and posttest scores. This is in accordance with the research conducted by Fajar Triyanto, et al in 2018 (volume 4 number 2) with the title "The Effectiveness of Mogabil Learning Media on Mathematics Learning Outcomes of Class IV Students of SDN 02 Baleraksa Purbalingga".

Furthermore, the researcher conducted an average increase test. The assessment between the pretest and posttest scores was calculated using gain index analysis. The gain referred to in this study is the normalized gain (N-gain). N-Gain is the normalization of the gain obtained from comparing the difference between the pretest and posttest scores with the difference between the SMI (Ideal Maximum Score) and the pretest on the material respecting collective decisions after using powerpoint-based educational comic media. The criteria for interpretation of the gain index according to Lestari and Yudhanegara (2017: 235) are as follows:

No.	Coefficient Interval	Criteria
1	N-gain <0.3	Low
2	$0.3 \leq$ N-gain <0.7	Moderate
3	N-gain ≥ 0.7	High

From research show an increase in learning outcomes in the pretest and posttest with an average difference of 30.2 and N-gain of 0.6 with moderate criteria. With this increase in average, it shows that the powerpoint-based educational comic media is very effective in using Indonesian language learning materials for intensive reading of the theme of the earth and the universe in grade III SDN Karangayu 03. Supporting research was carried out by Sariyatul Ilyana, et al. in 2015 (volume XIII number 2) with the title "Development of Educational Comics as a

Literacy Learning Media for Elementary School Students". The results showed an increase in the average pretest and posttest amounted to 2.23. The pretest and posttest score gain value is 0.37.

4. CONCLUSION

The researcher succeeded in developing a powerpoint-based educational comic learning media that was best in improving student learning outcomes on the theme of Earth and the Universe with Indonesian content. PowerPoint based educational comics are made based on the needs of teachers and students using the Adobe Photosop application which is packaged and presented using PowerPoint. The components in the preparation of educational comic learning media based on powerpoint consist of an opening page, an instruction menu, a KI&KD menu, a comic menu, a quiz menu, a profile menu, and a reference menu. The feasibility level of educational comic media based on powerpoint is known based on the percentage of assessment from material experts of 94% with the criteria of "very feasible" and from media experts of 88% with the criteria of "very feasible". , 2 Meanwhile, the hypothesis test shows that the value of t sig (2-tailed) 0.000 <0.05 and N-Gain. equal to 0.6 with moderate criteria. Based on these calculations, it is concluded that the power point-based educational comic media is effective on the theme of the earth and the universe of Indonesian language content intensive reading material..

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