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Effectiveness of Edutainment Module Based on Local Excellence of Pantai Utara Indonesia Reviewed from Students' Concept Understanding

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Abstract

The purpose of this study was to analyze edutainment modules based on local excellence in Pantai Utara of Indonesia in terms of students' conceptual comprehension abilities. The edutainment module based on local excellence on Pantai Utara of Indonesia was developed with the Borg and Gall models developed. The development phase of the ethno-edutain module adds preliminary studios, product development and validation, and product trial trials. In testing the product, a large-scale trial was conducted. The effectiveness test was carried out on a large-scale trial with research subjects of fourth grade students at SD IT Umar Bin Khattab. The effectiveness of the ethno-edutainment module was accepted using test techniques. Based on N-gain trials Increased pretest and posttest scores of students produced 8 students increased in the high category, 21 students increased in the moderate category, and 3 students increased in the low category.

Keywords: effectiveness; module; ethno-edutainment; Concept Understanding; lokal excellence; pantai utara

Introduction

One of learning device that can improve students' understanding of material is a book. A book is a student's grip on a certain level as a learning media in a particular field.[1] Some studies show that student learning achievements are influenced by the books used. The World Bank states that in Indonesia the number of books owned correlates with student achievement[2] sedang menyelesaikan Program Doktor di Universitas Negeri Malang. Abstract: Text book is books that function as student reference as learning media (instructional. The ratio of student books to students will have a significant effect on student learning outcomes.[3] The reason Indonesia invests heavily in books is because several studies show a correlation between ownership of books and their students [2]sedang menyelesaikan Program Doktor di Universitas Negeri Malang. Abstract: Text book is books that function as student reference as learning media (instructional. Between 1969 and 1988 Indonesia had printed 500 million copies for student textbooks.[4] However, the International Association for the Evaluation of Education Achievement and the World Bank, the reading ability of elementary school students in Indonesia is still low, which is ranked 26th out of 27 countries studied.[2] sedang menyelesaikan Program Doktor di Universitas Negeri Malang. Abstract: Text book is books that function as student reference as learning media (instructional. One of the causes of the ability to read books is still low because the books that are read are less attractive. Elementary students tend to like content with pictures, colors, stories and fun activities. This shows that the book developed must be adjusted to the development of students' psychology. The book that was developed must also be packaged attractively so that it inspires students' reading interest in the book itself.

At present, the book used is still not accompanied by interesting activities and has not utilized the environment around the students. Based on the results of a preliminary study, the books that had been used so far were less attractive, causing students to be lazy to learn them as a result of their ability to understand concepts was still low.[5,6] The weaknesses of books from the government, that is, they do not involve students in finding experience, presentation is not arranged so students can find out for themselves, processing materials is not adjusted to the development of student psychology so it is less interesting, readability is still low because it uses words the difficult and the sentence is too long, the level of difficulty is less adjusted to the level of education, the term is less well described and students are asked to do it immediately, the choice of discourse is too heavy and less varied, many images are not in accordance with the contents of the discourse, do not provide evaluation questions, and the picture is a little.[2] Therefore, through the choice of the right material will arouse students' interest in reading.

Even though today, the existing learning material has not been able to describe the real conditions in the surrounding environment. The use of the surrounding environment will be able to help students in understanding the material.[7-9] Making the environment as a learning resource will give students an idea of the actual concrete form so that students will gather their own knowledge and form an understanding of the material provided.[10, 11] Based on the results of student questionnaires show that students want books with lots of pictures, there are comic stories, there are fun activities and the material is close to the lives of students.[12] Even though nowadays the books used by students are still oriented to the material and questions, causing the students' reading skills to be still low. Students 'low reading ability will have an impact on the students' low ability to understand concepts.

Based on the results of the pretest that has been done at SD IT Umar Bin Khattab shows the ability to understand the concept of students is still lacking. Lack of understanding of students' concepts because the books that students have are too many words, there are no pictures, there are no fun activities, nothing related to the surrounding environment and no color. This is one of the causes of students 'low interest in reading so that it influences students' ability to understand concepts.

In order for this problem to be overcome, a teacher must be creative in managing learning activities. Teacher creativity can be done by developing teaching materials that are tailored to students' abilities. Teaching materials used in learning determine the quality of learning .[13] Managing the information around students can be done by enriching the sources and media of learning.[14] Managing information for learning activities can be done by enriching material intake related to the local excellence of students.

One of Indonesia's local excellence that is close to students at SD IT Umar Bin Khattab is local excellence around the Pantai Utara Indonesia. Local culture makes it easier for students to understand the material because it is very close to the environment around students.[8] Education must include local excellence in the community.[15] Learning resources originating from the student environment would make learning more maximal because learning is more meaningful.[12]

In addition to using material that is close to students, the teacher can also create with exciting activities. This exciting activity is often referred to as edutainment. Edutainment itself means a learning process that is designed by combining harmonious elements of education and entertainment so that fun activities are created.[16] Edutainment can be done by incorporating some entertainment elements such as comics or in the form of exciting activities. It will encourage students' potential through pleasant stimuli.[17] Based on the nature of elementary school students fun can be done by playing or other activities that are able to arouse student interest. When doing fun activities, students not only get certain knowledge

but get an understanding of the knowledge gained. At SD IT Umar Bin Khattab the school uses a full day system which sometimes makes students feel bored to study all day at school. One of the disadvantages of a full day school system is that the time to play with the surrounding environment is reduced [18]. This is what requires teachers to be more creative in managing learning activities. Therefore the teacher can develop an edutainment module based on the local excellence of Pantai Utara Indonesia in order to improve students' conceptual understanding skills.

The module itself has several advantages, one of which can help students to learn independently so that they can help students better understand the material. Modules are teaching materials that are arranged systematically and intact which will help students to achieve learning goals either independently or in groups.[14] The integration of material in the module must be clear so that students can understand the interrelationships between content.[19] The use of modules in learning can help students gain an understanding of concepts or learning material.[20] In line with The students can learn independently through modules because of the knowledge they have so students can understand the material well.[8]

Based on the description above, the purpose of this study was to analyze the effectiveness of edutainment modules based on local excellence in the Pantai Utara Indonesia in terms of students' conceptual comprehension abilities. The benefits obtained in this study are (1) adding references in the field of education, especially in terms of the diversity of teaching materials available to elementary school students, (2) increasing student motivation in learning with edutainment modules based on local excellence in the Pantai Utara Indonesia, (3) provide input for teachers in learning activities, especially in preparing and developing teaching materials that are appropriate to the needs and level of development of the participants in the study, and (4) as a reference material in developing teaching materials in the form of modules.

METHODOLOGY

This research is a type of Research and Development research using the modified research stages of Borg and Gall. The designs of Borg and Gall include several stages. The research phase includes the preliminary study phase, the product development and validation stage, and the product trial stage.

The preliminary study phase is used to determine the extent of the needs of students and teachers in developing edutainment modules based on local excellence in the Pantai Utara Indonesia. After that the results of the preliminary study phase are used for the module development stage so that the module validation stage can be carried out. Then after going through the module validation stage, proceed with a limited trial phase. This limited trial is used to gather suggestions from students and also assess the modules developed.

After limited trials continued with product revisions, which then continued with a large-scale trial.

At the large-scale product testing phase, researchers carry out trials of products with broader objectives. A large-scale product trial was carried out on fourth grade students at SD IT Umar Bin Khattab . At this stage, the researcher carried out a test of effectiveness in the use of local excellence based edutainment modules in the Pantai Utara Indonesia. The module effectiveness test was conducted with the aim of analyzing the improvement in students' ability to understand concepts through an edutainment module based on the local excellence of Pantai Utara Indonesia. Edutainment modules based on the local excellence of Pantai Utara Indonesia are said to be effective if there is an increase through the edutainment module based on the local excellence of Pantai Utara Indonesia. The subjects in the study were students of class VI at SD IT Umar Bin Khattab. The data collection technique used in this study is a test technique. The instrument of this study uses test questions. After carrying out data collection, the next step is to carry out data analysis. The analysis technique used to determine the increase in students' ability to understand concepts using the N-gain test. The normalized gain formula is as follows: The subjects in the study were students of class VI at SD IT Umar Bin Khattab. The data collection technique used in this study is a test technique. The instrument of this study uses test questions. After carrying out data collection, the next step is to carry out data analysis. The analysis technique used to determine the increase in students' ability to understand concepts using the N-gain test. The normalized gain formula is as follows.[21]

$$\langle g \rangle = \frac{skorpost - skorpre}{skormaks - skorpre} \times 100\%$$

After obtaining the score , then determine the criteria for increasing the ability to understand students' concepts. The criteria for obtaining normalized gain are presented in Table 1.[21]

RESULTS AND DISCUSSION

The research was carried out at SD IT Umar Bin Khattab for fourth grade students. This research is a type of development research from Borg and Gall that has been modified by researchers. The stages in this study include the preliminary study phase, the product development and validation stage, and the product trial stage. Currently researchers are at a large-scale trial stage.

At the large-scale trial stage, researchers conducted a test of effectiveness in the use of local excellence based edutainment modules in the Pantai Utara Indonesia. The module was tested both of the effectiveness and the practicality which can be obtained by student and teacher responses [22], [23], [24]. The practicality test was conducted with the aim of obtaining advice and input from students and teachers on the use of edutainment modules based on local excellence in the Pantai Utara Indonesia.[22-25] (Sekar Dwi Ardianti et al., 2019a).[21,22] Finding out how good and attractive module as teaching material, it is necessary to test its practicality for determining the quality of module's criteria that can be used as learning resource.[25,26]

The module effectiveness test was conducted with the aim of analyzing the improvement in students' ability to understand concepts through an edutainment module based on local excellence in the Pantai Utara Indonesia. Effectiveness refers to the stages of activities which obtained the results from certain treatments.[27] The effectiveness of the local superiority-based edutainment module in the Pantai Utara Indonesia was analyzed through the results of the students' conceptual understanding ability test.

The test results can show the students' possibility in growing conceptual understanding, its through learning activities and linking the ideas on what is already known.[28] If students have understood the concept, it can be interpreted that students are able to establish certain pattern of thinking, provide example of concepts, as well as distinguish between example and non-example.[29]

The trial design used was the pretest posttest design. Students are given a pretest before learning using an edutainment module based on local excellence in the Pantai Utara Indonesia in Theme 8 of "My Place of Rest". Furthermore learning is carried out using an edutainment module based on the local excellence of Indonesia's north coast as teaching material. Modules which presented attractively, innovatively, and integratable that the teaching materials were not boring and could be used by students or readers as independent learning materials.[8] Edutainment module as learning material, performing the task of teacher, students require stimulation so that their enthusiasm and activeness are not diminished.[30] The use of local excellence-oriented edutainment module is needed in learning. In this line, the module as the development of teaching materials oriented to local culture is important in learning activities.[12] The presence or absence of teachers and schoolmates in face-to-face learning, students can develop their abilities, involved in learning actively, and increase the capability of understanding concepts through the use of modules.[27, 31]

Students looked enthusiastic in using edutainment modules based on the local excellence of Indonesia's

Table 1. Criteria for Obtaining Normalized Gain .

Normalized gain	Criteria
$\langle g \rangle < 0.3 \rangle$	Low
$0,3 \leq \langle g \rangle < 0.7 \rangle$	Medium
$\langle g \rangle \geq 0.7 \rangle$	High

north coast in learning as teaching material. The module makes it easier for understanding the material and observing the relevance of what is seen and applied on daily life.[32] Using media or teaching materials will make it easier for student to gain understanding, experience, and interact.[33]

In addition, an edutainment module with cultural content has the advantage of being able to create enthusiasm for students in learning process.[5] The edutainment-based learning activities through the edutainment module have a positive impact that students participate in learning with fun, can play while learning, and engage in group activities actively and collaboratively.[34] The use of edutainment module based on local advantages of the northern coast of Indonesia is used as a stimulus for students' conceptual understanding. Stimulus in the learnig environment is intended so the students are able to conceptualize understanding and problems, build new ideas, being critical, and argumentative.[35]

At the end of learning students were given posttest to measure improvement in student learning outcomes in thematic material Theme 8 "My Place of Rest". The posttest related to material aims to assess students' conceptual understanding.[36] The score of students' concept comprehension ability in the form of pretest and posttest in Theme 8 of "My Residential Area" is presented in Table 2.

The results of the pretest and posttest scores showed that students' conceptual comprehension ability improved after learning using edutainment modules based on local excellence in the Pantai Utara Indonesia. Students through integrating the edutainment approach create a pleasant atmosphere in the learning process [37]. Through the activities in the edutainment module, students would be helped in understanding the material and increasing conceptual understanding [38]. The increase in scores in the pretest and posttest was then tested for N-gain to determine the category of improvement. The calculation using the N-gain test from

the results of the pretest and posttest will show the category of effectiveness obtained.[21, 32]

The increase in scores on the pretest and posttest was then tested for N-gain to find out the increase category. The results of the N-gain test are presented in Table 3.

Based on the N-gain test the increase in the pretest and posttest scores of students showed that as many as 8 students experienced an increase in the high category, 21 students experienced an increase in the medium category, and 3 students experienced an increase in the low category. The learning module was able to improve students' conceptual test results.[39] videos, and simulations, to question banks. Our study set out to develop, implement, and evaluate research-based online learning resources in the form of pre-lecture online learning modules (OLMs.

The students' conceptual understanding is considered to be evolving and needs to be tested continuously [40]. Improving the ability of students to understand concepts due to the use of edutainment modules based on the superiority of the Indonesian north coast in learning. The use of the module has positive influences on ability and ease of students in understanding the material, actively learning through observation activities which are packaged in a fun way.[37] Learning by using modules as teaching materials will require students to be able to learn independently so students will be more active in learning.[41] This is in accordance with the characteristics of the module which allows one to learn independently and not depend on others. The integration of material in the module must be clear so that students can understand the interrelationships between content.[19] The use of modules in learning can provide feedback to students so students can know the level of understanding.[42] This is because one of the distinctive features of the module is the presence of feedback at the end of each learning activity that aims to enable students to know their abilities and their level of success.

The north coast Indonesia-based local excellence edutainment module is able to present learning material that is linked to local excellence that surrounds students so learning becomes more meaningful. The presentation of material through the edutainment module should consider the quality of the attractiveness of the content of the material.[43] Planning, preparation, and the stages of making teaching materials are very necessary.[44] The learning containing culture or local wisdom can build and construct student understanding.[43, 45]

The use of learning resources from the surrounding environment can support learning activities optimally so that students better understand the material because learning is real.[20] In addition, the excellence-based local edutainment module in the Pantai Utara Indonesia is equipped with interesting and fun activities that can increase students 'interest in learning which will have an impact on students' conceptual comprehension abilities. Edutainment can be used

Table 2. Recapitulation of the results of the student's pretest and posttest

Component	Pre-test	Post-test
Average	58,0	81,3
highest score	86,7	93,3
lowest score	66,7	73,3

Table 3. Recapitulation of the N-gain test for students' pretest-posttest scores

Criteria	The number of students
Low	8 students
Medium	21 students
High	3 student

as one step to make learning more interesting and students can play while learning.[43] The integration of edutainment into learning process presents interest and happiness of educational process, as well as challenges for teachers.[46] Edutainment will encourage students' potential through pleasant stimulus.[17]

Interested learning can make students learn in pleasant conditions and a non-boring atmosphere that can add to students 'interest in learning so that it will have an impact on students' ability to understand concepts. Increasing students 'interest in learning through non-boring activities will encourage an increase in students' conceptual understanding.[47] The students are given explicit opportunities to strengthen participation and interaction to realize successful conceptual understanding.[48] The learning activities that design with fun can provide an atmosphere of learning without pressure so that it can have a positive impact on improving students' understanding of concepts.[12]

CONCLUSION

Based on the results of the research and discussion it can be concluded that the use of the local superiority-based edutainment module on the Pantai Utara Indonesia can improve students' conceptual comprehension ability as indicated by the N-gain test where 8 students experienced an increase in the high category, 21 students in the middle category, and 3 students low category.

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