The Effecttiviness of using Android-Based Social Science Learning Media to Increase Student Knowladge Competence

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ABSTRACT

This study aims to increase students' knowledge competence in social studies material, especially in Indonesian Cultural Diversity material after using social studies learning media based on Android for class IV at SD UMP. the research method used is classroom action research with four main stages of classroom action research models namely: planning, implementing, observing, and reflecting. The results of the study show that the existence of social studies learning media based on Android has succeeded in increasing students' knowledge competence related to Indonesian Cultural Diversity material. Based on the competence of students' knowledge by using social studies learning media based on Android, it was found that the pretest target was 25% of students complete while the posttest was 100% of students complete.

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1. INTRODUCTION

Lessons taught to study and analyze social life that are studied based on studies of geography, economics, sociology, history, anthropology, political science, and so on by displaying the daily problems of the people around us are called social studies learning. In the Merdeka curriculum, science subjects with social studies are combined into natural sciences. It will be difficult to teach social studies because social science is rich in abstract concepts that make it difficult for students to imagine. If abstract concepts can be made real, it will make it easier for students to understand, then the problem will be very different. the low ability of interaction between teachers and students caused by a lack of understanding of the teacher in carrying out the learning process causes students not to have too many opportunities to express what is on their minds so that learning is only teacher center. social studies learning subjects must have a basis in the reality experienced by students so that they are able to understand social studies learning well. This is very influential on the decreased knowledge competence of students in social studies subjects.

Actors in leading to successful learning, namely teachers and students. The purpose of this learning is to achieve maximum results if learning takes place effectively. learning that facilitates students by utilizing facts, value skills, concepts and learning outcomes is called effective learning [1]. From the explanation above, the learning process begins not only in the transfer of knowledge from the teacher to students, but also in the activity process, namely choosing something and developing something to achieve the desired learning. For this reason, in learning activities, students not only interact with the teacher as a learning resource, but also communicate with all possible learning resources used to achieve their learning goals.

Learning media is important to present in learning because learning media provides many benefits besides facilitating the delivery of material as well as attracting students' attention so they are motivated to learn. learning media can stimulate student learning activities and affect student psychology because learning media can attract interest, attention, motivate students [2]. The conclusion from this opinion can be said that the influence of learning media on the effectiveness and increase in student understanding is very large

The rapid development of science and technology allows the formation of effective learning media. Learning media is developing so rapidly and variously such as power points, videos, games, animations and flash applications [3]. Media development facilitates students in learning in the classroom. the use of technology as a learning medium can provide several benefits including: 1) higher quality teaching and learning activities; 2) train students in improving technology skills as a provision to enter the world of work; 3) carry out the rules of "the technologicalimperative" namely the obligation to participate in technology and information: 4) reduce the education budget.

Technology-based learning media provides a more interesting, interactive and innovative way of learning, so that it can make students enthusiastic in learning the material. This condition is in accordance with learning in the Merdeka curriculum, namely the media can be used as a tool to bring up new things so that students have great curiosity about the material to be studied. Students do not just sit quietly listening but are also active and feel directly the material being studied by using the media. teachers are required to be able to use and develop learning media that utilize technology, so as to produce teaching and learning activities that are more effective and efficient [4]

The problems of current technological developments include 1) the lack of innovation in learning media; 2) the large number of cultural diversity in Indonesia and the lack of introduction to culture among today's children are the factors that underlie researchers to conduct research usinglearning media in which there is a map of Indonesia complete with 34 provinces, regional songs, regional dances, traditional clothing and ethnic and cultural diversity. Not only material, the media also has quizzes to hone students' memory. Researchers use learning media in the form of android applications according to technological developments so that students can easily obtain material. in media development, researchers also adjust the current conditions according to the circumstances of students to support the relevance and effectiveness of learning media.

Android-based IPS media has new things compared to previous media, namely attractive designs, various colors and there are traditional house backgrounds, traditional songs that match the traditional clothes displayed. Besides that, there is also a picture book which is designed as attractively as possible to be a sensor so that the images available on Android-based IPS media can move into three dimensions that can be seen from any direction. Besides that, what really distinguishes it from the previous media is that in this media there are traditional songs that automatically sound according to the traditional clothes displayed. Then there is a sound explanation regarding the material of the variety of traditional clothing. so that it can make students interested, enthusiastic in the learning process and of course it will make learning more meaningful because students understand and understand the material presented.

The results of some of these explanations strongly indicate that the use of this Android-based learning media in social studies learning in particular is considered very useful. Especially in the current era that requires media according to the times. the use of this media in Android-based social studies learning can improve students' knowledge competency learning outcomes and make students not easily feel bored, sleepy, lazy so that it can be said to be very effective for use during the learning activity process. it is hoped that schools can facilitate students in learning to support effective learning goals.

According to observations made by researchers, students do not know the province, folk songs, regional dances, traditional clothes and the diversity of ethnic cultures in Indonesia, even in their own area. Students also do not know where the provinces in Indonesia are located on the map of Indonesia. The observations made by the researcher were in the form of interviews with several samples of fourth grade elementary school students. The media used by classroom teachers is also less innovative, such as only showing pictures of Indonesian culture. Teacher-centered learning that makes students only depend on the material provided by the teacher and students easily get bored in receiving this learning. Based on data from students' daily test results on ethnic and cultural diversity material in Indonesia, there are 85% of students who score below the KKM so it is necessary to do research that can improve students' knowledge competencies, one of which is by using Android-based learning. The use of Android-based learning media is indeed very necessary to support learning activities so that they are in accordance with the times. Especially if the material being carried is material that is almost forgotten by today's children, such as ethnic and cultural diversity in Indonesia.

There are several relevant studies that can be used as reference material to support this research including:

1. Research by Yulia Khusnul Hamidiyah (2020) entitled "Development of Android-Based Augmented Reality Learning Media Material for Class IV Elementary School Traditional House Diversity" obtained the results: (1) Material validation test with a value of 80% and media validation test of 93.68% with an average average questionnaire resultsresponse of 94.67%.(2) Based on the results obtained, it can be concluded that the

Augmented Reality Traditional House learning media "RAAR" is very appropriate to be used as an alternative to ICT-based learning media [5].

2. The second study by Verina Meydia Indriani (2020) entitled "Development of Student Worksheets (LKPD) Based on Microsoft Power Point in the Cultural Diversity Sub-Theme of My Nation Grade IV Elementary School" with the results: (1) Microsoft Power Point LKPD media obtains very valid criteria withpercentage value of 89%.(2) The student response questionnaire has an average percentage of results of 92% which proves that the Microsoft Power Point-based LKPD meets very practical criteria [6].

3. The third research, namely research conducted by Niken Diyah Wardani (2020) with the title "Media Soya Adventure Nusantara Based on Android on Socio-Cultural Diversity Material in Class V Elementary School Students" has the results: (1) 80% material validation test and media validation test 88.5%which is very valid with an average response questionnaire of 85.5% which is very practical. .(2) The results of student learning tests are very high with an N-Gain of 0.75. It can be concluded that the media "Soya Adventure Nusantara" is suitable for use as a learning media for class V in elementary schools [7].

4. The fourth study by Shafira Ega Alya Namira (2022) entitled "Development of Android-Based Ethnic Culture Information Map Learning Media (PETINSUBA) for Grade V Elementary School Students" The validity results show that the "PETINSUBA" media gets 92.7% with valid criteria or is feasible for testing validationmaterial that has been carried out by material experts and 87.5% with valid or appropriate criteria for media validation tests assessed by media experts. the practicality level was taken from the student response questionnaire with a result of 100% which included very practical criteria. Meanwhile, to measure the level of effectiveness is done by pretest and posttest. Judging from the completeness of student learning, the "PETINSUBA" media obtained a score of 100% which is very effective with an N-Gain of 0.81 which indicates an increase in learning outcomes on cultural diversity material after using "PETINSUBA" media [8].

5. Penelitian kelima oleh Maya Nuraini Faiza (2022) berjudul "Efektivitas Penggunaan Media Pembelajaran IPS Berbasis Augmented Reality untuk Meningkatkan Kompetensi Pengetahuan Siswa". Hasil penelitian menunjukkan bahwa dengan adanya media pembelajaran IPS berbasis Augmented Reality ini telah berhasil meningkatkan kompetensi pengetahuan siswa terkait ragam pakaian adat Indonesia. Berdasarkan kompetensi pengetahuan siswa dengan menggunakan media pembelajaran IPS berbasis Augmented Reality diperoleh hasil bahwa uji coba sasaran pretestnya 33% siswa tuntas sedangkan posttestnya 100% siswa tuntas. [9].

Based on the explanation above, the researcher wants to use learning application media that contains the cultural diversity of 34 provinces including regional songs, regional dances, traditional clothing and cultural ethnic diversity. android-based with the title "Effectiveness of Using Android-Based IPS Learning MediaTo Increase Student Knowledge Competence".

2. METHOD

This type of research is classroom action research. The classroom action research model has four main stages: planning, implementing, observing, and reflecting [10]. In this study, the subjects of the research were fourth graders of Khalid Bin Walid SD UMP, with a total of 32 students in the 2022/2023 academic year, consisting of 16 male students and 14 female students.
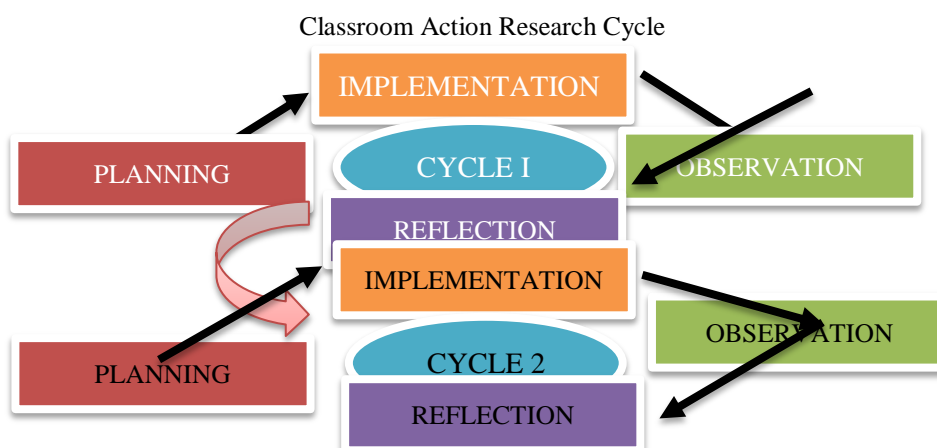
Picture 1. Of Classroom Action Research Cycle (Sugiyono, 2016)

The data collection techniques used in this study are
   1. Observation, carried out to obtain information through direct observation of the research object.

2. Interviews, a data collection tool through verbal questioning and answering to data sources.
3. Test results of students' knowledge abilities, used to determine the level of achievement and understanding of a person after learning something.
4. Documentation, collection technique activities in the form of pictures in the process of research activities.

The type of data in this study is descriptive quantitative which is obtained from data on the learning outcomes of students' knowledge abilities before using Android-based social studies learning media, as well as data from student learning outcomes after using Android-based social studies learning media. The analysis of these results was carried out to find out whether there was an increase in learning outcomes for students' knowledge skills through Android-based social studies learning media for fourth grade students at SD UMP. There are two criteria for learning proficiency: individual proficiency and classical integrity. based on data received from the school, students are considered complete when the KKM achieves 75 learning objectives for all objectives. A class is said to be complete if it achieves a classical score of 75% of the number of students in the class. can be displayed as a percentage using the formula to interpret/find an increase in student learning outcomes:

$$P = \frac{F}{N} \times 100\%$$

Information:
P = Number percentage sought
F = Frequency of students who complete
N = Total number of students
100% = Fixed number

While the classical completeness of student learning outcomes is calculated using the following formula:
$$S = \frac{\sum \text{Students complete their study}}{\sum \text{many students}} \times 100$$

3. RESULTS AND DISCUSSION
Cycle 1

In the planning stage, in the first cycle two meetings were held offline in class IV SD UMP. The first meeting was held on Monday, 16 January 2023. The second meeting was held on Monday, 23 January 2023. the teacher or researcher prepares learning tools which include lesson plans, worksheets, assessment sheets and student books as well as social studies learning media based on Android.

the implementation stage of the action, at this stage, the teacher carries out learning activities in accordance with the lesson plans that have been prepared previously, which consist of opening activities, core activities, and closing activities. the level of effectiveness in research and learning is seen from the results of tests that have been done by students at the end of learning. Students are said to be complete if they can get a score above the Minimum Learning Completeness (KBM), which is 75. At the time of research, the results were obtained, namely.

Learning in cycle 1
$$S = \frac{\sum \text{Students complete learning}}{\sum \text{many students}} \times 10$$
$$= \frac{8 \times 100\%}{32}$$
$$= 25\%$$

The completeness of learning outcomes in a classical manner before using Android-based social studies learning media obtained a score of 75% in the incomplete category. the observation stage, observations were made when the action was carried out, namely by observing students' understanding related to learning Indonesian Cultural Diversity before using Android-based social studies learning media.

The reflection stage, based on the analysis of the first action shows that the mastery of social studies learning material on Indonesian Cultural Diversity material before using Android-based social studies learning media has not met expectations.

Cycle 2

The sequence in the second cycle is still the same as the first cycle, namely the planning stage, in this first cycle two meetings were held in class IV SD UMP. This second cycle was carried out on Monday, 6 February 2023. the teacher or researcher prepares learning tools which include lesson plans, worksheets, assessment sheets and student books as well as social studies learning media based on Android.

the implementation stage of the action, at this stage, the teacher carries out learning activities in accordance with the lesson plans that have been prepared previously, which consist of opening activities, core activities, and closing activities. the level of effectiveness in research and learning is seen from the results of students' knowledge ability tests that have been done by students at the end of learning. Students are said to be complete if they can get a score above the Minimum Mastery Learning (KBM), which is 75. at the time of research, the overall percentage can be calculated using the following formula:

Learning in cycle 2

$$S = \frac{\sum \text{Students complete their studies x 10}}{\sum \text{many students}}$$

$$= \frac{21 \times 100\%}{21}$$

$$= 100\%$$

The completeness of learning outcomes of students' knowledge abilities classically after using Android-based social studies learning media obtained a score of 100% in the complete category. The observation stage, observations were made when the action was carried out, namely by observing students' understanding related to learning Cultural Diversity after using social studies learning media based on Android.

The reflection stage, based on the analysis of the second action, shows that the mastery of Social Studies learning material on Indonesian Cultural Diversity material after using Android-based IPS learning media has met expectations. Based on the learning outcomes in the first cycle and the second cycle can be seen in the following percentage chart.
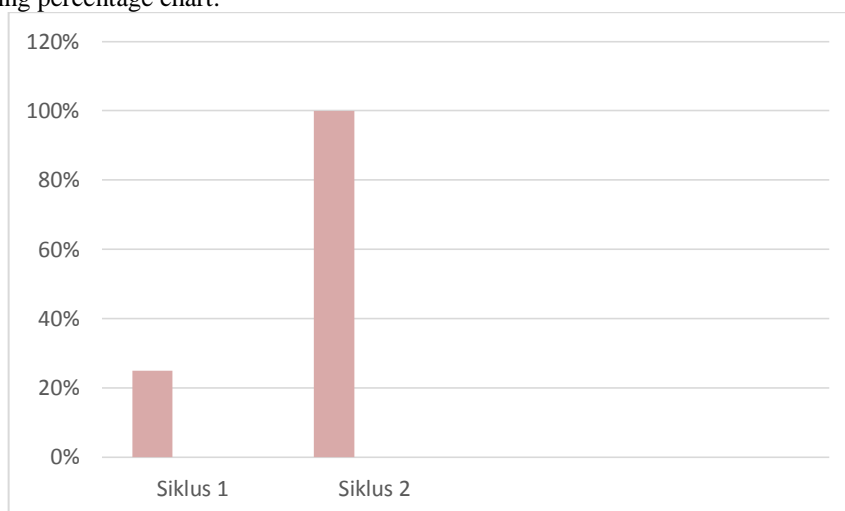
Picture 2. 1 Presentation of cycle 1 and cycle 2

From the graph of the percentage of learning outcomes of students' knowledge abilities on the Indonesian Cultural Diversity material before using Android-based IPS learning media and after using Android-based IPS learning media, it can be concluded that IPS-based learning mediaAndroid can improve students' knowledge competence learning outcomes and make students not easily feel bored, sleepy, lazy so that it can be said to be very effective for use during the process of learning activities.

This opinion was also reinforced by Maya Nuraini Faiza (2022) entitled "Effectiveness of Using Augmented Reality-Based IPS Learning Media to Increase Student Knowledge Competence" concluding that the results of the study showed that the existence of Augmented Reality-based IPS learning media had succeeded in increasing students' knowledge competencies related to a variety of clothing. Indonesian custom. Based on the competence of students' knowledge by using social studies learning media based on Augmented Reality, the result is that the pretest target trial is 33% of students complete while the posttest is 100% of students complete. This Augmented Reality application only requires a Smartphone in its implementation so that users can access it anywhere and anytime.

Furthermore, research conducted by Shafira Ega Alya Namira (2022) entitled "Development of

Android-Based Ethnic Culture Information Map Learning Media (PETINSUBA) for Grade V Elementary School Students" The validity results show that the "PETINSUBA" media gets 92.7% with valid criteria or appropriate for the material validation test that has been carried out by material experts and 87.5% with valid or appropriate criteria for the media validation test assessed by media experts. The level of practicality is taken from the student response questionnaire with a result of 100% which includes very practical criteria. Meanwhile, to measure the level of effectiveness is done by pretest and posttest. Judging from the completeness of student learning, the "PETINSUBA" media obtained a score of 100% which is very effective with an N-Gain of 0.81 which indicates an increase in learning outcomes on cultural diversity material after using "PETINSUBA" media.

From some of the results of these explanations it strongly indicates that the use of this Android-based learning media in social studies learning in particular is considered very useful. Especially in the current era that requires media according to the times. The use of this media in Android-based social studies learning can improve students' knowledge competency learning outcomes and make students not easily feel bored, sleepy, lazy so that it can be said to be very effective for use during the learning process. It is hoped that schools can facilitate their students in learning to support effective learning goals.

4. CONCLUSION

The conclusion obtained from this study is that student learning outcomes in the knowledge competency of fourth grade students at SD UMP before using Android-based social studies learning media are included in the incomplete criteria with an overall percentage obtaining a score of 25%. while the knowledge competence of grade IV SD UMP students after using Android-based social studies learning media is included in the completion criteria. This is in accordance with the overall percentage of obtaining a score of 100%. from these results it can be concluded that the use of android-based learning media in the process of teaching and learning activities in social studies subjects can increase students' knowledge competencies, make students more active and interested in learning because they use medialearning fun.thus, social studies learning on Indonesian Cultural Diversity material at the elementary level can be said to be more effective and meaningful.

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ATTACHMENT
Cycle 1
Table 1. 1 Many Students Get IPS Scores on Indonesian Cultural Diversity Materials

35	40	45	50	60	65	70	75	80	85
2	4	6	3	2	5	2	4	3	1

Information:
Average = 25% of students complete learning
Description = The percentage of students who complete according to KKM is only 25%
The percentage of students who have not completed according to KKM is only 75%
The target criteria for success can be said to be complete if 95% of students complete the KKM the number of students.

Cycle 2
Table 2.1 Many Students Get IPS Scores on Indonesian Cultural Diversity Materials

55	60	65	70	75	80	85	90	95	100
-	-	-	-	3	8	6	4	6	5

Information:
Average = 100% of students complete learning
Description = Percentage of students who complete according to KKM 100%
Percentage of students who have not completed according to KKM 0%