Development of social studies teaching materials based on local wisdom of the Samin Society Class V Elementary School

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Abstract. This study aims to describe the needs of teachers and students for samin society-based learning materials social study class V elementary school, and to analyzing the effectiveness. This research is a development research that uses ten steps, namely analysis of potentials and problems, gathering information, product design, design validation, design revision, product testing, product revision, and use trial, final product revision and dissemination. The practicality test and effectiveness test were conducted on 74 grade 5 students as the experimental class. Data collection used teaching material assessment sheets, practicality questionnaires, and tests of students' cognitive learning outcomes. Data analysis techniques used validation sheet analysis, practicality questionnaire analysis, teacher and student response questionnaires, and t-test acquisition analysis to determine the effectiveness of samin society-based teaching materials social study. Teaching materials developed with effectiveness data which were then analyzed by normality test, test homogeneity, t test. The results of the t test obtained the value of $t = 3.796$. The t table value for $df = 80$ with a significant level of 5% is known to be 1.988. The conclusion is that social studies teaching materials assisted by local wisdom of the samin society are effective in improving social learning outcomes in elementary schools.

1. Introduction

Based on the observations of teachers and students of 5 elementary schools in Blora Regency, social studies learning in class V in the subject of History is considered difficult to understand [1]. It is found that in some elementary schools in Blora Regency that in teaching history in class, teachers still use the lecture method, students only listen to the material presented by the teacher. More or less the teacher has provided two-way learning by providing a stimulus in the form of several questions asked on material that is deemed unclear [2]. However, the lack of student interest in learning has made learning not carried out properly. With the emergence of various kinds of obstacles in learning, there is a need for renewal in the history learning process [3].

The Samin is one of the indigenous groups living in the interior of Blora, Central Java. As a community that still adheres to customs and traditions, Samin has its own teachings. One of his teachings is to uphold honesty and not be arrogant. The Samin people who are also known as Sedulur Sikep must obey this teaching. Because of this teaching, the Samin people are considered stupid, stupid, and even crazy. Even so, the Samin indigenous people still maintain their traditional values.

History of the Samin people. is still the center of attention by the people and government of Blora. The current Blora government has also made the founder of the Samin movement an identity of the
City of Blora. In fact, every 4th week of each month the civil servants in Blora are required to wear office uniforms similar to those worn by the Samin people. For example, male employees wear clothes that are predominantly black and wear sandals with the same color, while for female employees they wear kebaya, a new flea style, but with a dark color.

So the role of education in changing this paradigm is very important [4]. Therefore the Samin movement can be used as a local history learning material for teachers and students in history learning in schools. In this case Samin can be used in learning according to Competency Standards in schools, namely explaining the development process of colonialism and Western Imperlisame in accordance with the movement of the Samin community. So that students can understand and understand the importance of their local cultural wisdom in learning. Especially the local wisdom of the Samin Community [5][6].

In social studies learning, history that is in accordance with local wisdom, of course, does not have much material or resources like national history in general. Although there is a lack of teaching materials that can use technology via the internet and reading books about Samin's history, this information is not designed for history learning in schools. So that in the application of learning.

2. Research Methods
This study uses a research and development design with implementation that refers to the theory of Borg and Gall.

2.1. Data Source
Sources of data used in the research on the development of teaching material for samin society-based learning for grade V elementary school students include the data subjects in this development research are class V SDN Klopoduwur 1, SDN Gedongsari 1 and SDN 1 Sumberagung 1 with a total number of students of 74 students, namely as the experimental class and class V SDN Sendangwungu 1 and SDN Sendangwungu 2 with a total of 42 students as the control class. The type of data collected from this study comes from needs analysis data and student learning outcomes data.

2.2. Data collection technique
This data collection technique aims to determine the ability of students to understand and know the origin of local history of samin. Data collection techniques in this development research are in the form of a questionnaire sheet for the needs of teachers and students, instruments of attitudes, understanding, and skills [7].

Testing of learning outcomes is carried out using the N-gain test. The results of the N-gain test are interpreted by the gain (g) classification interpretation table. Hypothesis testing involves two population groups, then hypothesis testing uses the t-test (t-test).

2.3. Test Analysis Technique
The test analysis technique used in this development research includes testing the validity of the questions, the reliability of the questions, the difficulty level of the questions, and the distinguishing power of the questions. Test is said to have validity if the results are in accordance with the criteria, in the sense that it has parallels [8].

3. Results and Discussion
3.1. Needs Analysis
In understanding teaching materials, according to the Ministry of National Education (2006: 4), it is explained that teaching materials are a set of materials arranged systematically that allow students to learn and be adapted to the existing curriculum. Another opinion was expressed by Sungkono et al. (2003: 1) that teaching materials are a set of materials that contain learning material or content to
achieve learning objectives. A teaching material contains material or lesson content in the form of ideas, facts, concepts, principles, rules, or theories that cover subjects according to the discipline of knowledge and other information in learning.

According to [9] teaching materials are a set of subject matter that refers to the curriculum used in order to achieve predetermined competency standards and basic competencies. According to the Ministry of National Education, a teaching material is prepared with the following objectives: 1) Providing teaching materials that are in accordance with the demands of the curriculum by considering the needs of students, namely teaching materials that are in accordance with the characteristics and settings or the social environment of students. 2) Helping students in obtaining alternative teaching materials in addition to textbooks which are sometimes difficult to obtain. 3) Make it easier for teachers to carry out learning. In this case, it can be concluded that teaching materials are a set of materials prepared with reference to the curriculum in order to achieve the expected learning objectives, namely achieving competence or sub-competence with all its complexity.

Understanding culture according to [10] is a complex that includes knowledge of beliefs, arts, morals, laws, customs and other abilities that humans acquire as members of society. Culture as all the work, taste and creation of society [11]. Another understanding was expressed by [12] that culture is a translation of "culture" which is defined as all human power and activities to cultivate and change nature. In this study, culture is defined as all the creations of the Samin community, both concrete and abstract, in order to meet their life needs in the field of learning.

At this stage, a preliminary study is carried out in the form of observation to collect preliminary information [13]. This is done to identify and explore the need for additional learning media for students. Data on social learning used by teachers in the learning process in grade V elementary schools were collected through needs analysis sheets. The data collected relates to the social learning process including methods, media, and processes that have been carried out by the teacher [14][15].

The description of the social learning method for five grade elementary school students is based on the results of interviews with the principal of SDN Klopoduwur 1 Kec. Banjarejo of Blora Regency on march 10, 2020. Based on these interviews, some information can be obtained, including in learning social subjects in grade V, the learning model used in the learning process is only lectures, question and answer, and giving practice questions. In the use of learning media and learning models less creative, innovative and less fun, resulting in the response of students to thematic learning, there are still many difficulties and passivity to the ongoing learning.

The use of instructional media by teachers of SDN Klopoduwur 1 is only limited to those at school, comes from government assistance and the teacher learning model does not use it too often. The teaching materials used are deemed not fulfilling the needs of elementary school students. The amount of teaching materials from the government is still very minimal. Students need more creative media with various problems according to student needs.

The learning process in grade V SDN 1 Klopoduwur is generally quite conducive, but if you don't pay attention to it a little, sometimes some are busy and not understand local history. This can be due to the use of a more teacher-centered learning model, so that students are less involved. Students tend to be passive, only accepting what the teacher says without being able to express opinions, ask questions, and answer questions.

This teaching material is expected to help teachers and students in learning social, especially in the material of motion and style. The survey on the needs of the development of teaching material for samin society-based learning for grade V elementary school to improve student learning outcomes was conducted school students include the data subjects in this development research are class V SDN Klopoduwur 1, SDN Gedongsari 1 and SDN 1 Sumberagung 1 with a total number of students of 74 students, namely as the experimental class and class V SDN Sendangwungu 1 and SDN Sendangwungu 2 with a total of 42 students as the control class. The results of the survey on teaching material needs can be presented in Table 1. below.
Table 1. Recapitulation of the results of the survey on the development of teaching materials for samin society-based learning

| Aspect                      | Student Percentage | Information | Teacher Percentage | Information |
|-----------------------------|--------------------|-------------|--------------------|-------------|
| The desired teaching material | 83%                | Really need | 94%                | Really need |
| Language                    | 91%                | Really need | 100%               | Really need |
| Presentation                | 94%                | Really need | 94%                | Really need |
| View                        | 88%                | Really need | 88%                | Really need |
| Average                     | 89%                | Really need | 93%                | Really need |

Testing the effectiveness of teaching materials was carried out by looking at differences in student learning outcomes in the control and experimental groups. Before the completeness test, the prerequisite test was carried out, namely the normality test and the homogeneity test. The data used are the pretest value data for the control and experimental classes.

Normality Test. The normality test is used to determine whether the sample from the population is normally distributed after the study was held. This normality test takes the pre-test result value between the experimental class and the control class. The test hypothesis can be written as follows:

\[ H_0: \text{Initial data come from populations with normal distribution} \]
\[ H_1: \text{Initial data come from populations with abnormal distribution} \]

The test criterion is if the significance value in the Kolmogorov-Smirnov test is more than 5% (p > 0.05), then Ho is accepted, meaning that the sample comes from a normally distributed population. The results of the calculation of the initial data normality test for the experimental class and control class can be seen in Table 2.

| Data          | Kolmogorov-Smirnov Statistic | Sig. | Conclusion | Information |
|---------------|------------------------------|------|------------|-------------|
| Pretest Experiment | 1.226                        | 0.099| Accept Ho  | Normal data |
| Pretest Control     | 0.943                        | 0.336| Accept Ho  | Normal data |

Based on the results of the normality test above, it is known that the significance value for the experimental class is 0.099 (p > 0.05), while for the control class it is 0.336 (p > 0.05), so that Ho is accepted. Thus it can be ignored that the initial data for the experimental class and control class have a normal distribution.

Homogeneity Test. The homogeneity test is used to determine whether the sample taken comes from a population with a homogeneous variant. To test the homogeneity of the variants of the two classes, the homogeneity test was used by taking pretest data from the experimental group and the control class. The test hypothesis can be written as follows:

\[ H_0: \text{the data variant of the experimental class pretest students is the same as the control class} \]
\[ H_1: \text{The variant of the experimental class students' pretest data is not the same as the control class} \]
The test criterion is if the significance value on the Levene test is more than 5% (p > 0.05), then Ho is accepted, meaning that the experimental class student scores are the same as the control class having the same variants. The results of the homogeneity test calculation can be seen in Table 3.

**Table 3. Data Homogeneity Test Results Pretest Experiment Group and Control Class**

| Levene Statistic | df1 | df2 | Sig. | Conclusion | Information |
|------------------|-----|-----|------|------------|-------------|
| 2.878            | 1   | 80  | 0.094| Accept Ho  | Homogen     |

Based on the results of the homogeneity test in Table 4.8, it is known that the significance value of the Levene test is 0.094 (p > 0.05), so that Ho is accepted. Thus it can be concluded that the initial data for the experimental class and control class are homogeneous or have the same variants.

**The t test.** The next test is the t test with the help of the SPSS 26 program which aims to prove that there is no significant difference in the pre-test results of the control group and the experimental group. The proposed test hypothesis is:

Ho: the average score of the experimental class is the same as the average score of the control class

H1: the average score of the experimental class is higher than the average score of the control class

The test criterion is if the significance value on the t test is more than 5% (p > 0.05), then Ho is accepted, meaning that the pretest value of the experimental class students is the same as the control class shows the same value. The results of the calculation of the difference test with the t test can be seen in Table 4.

**Table 4. Pre-test results for the control and experimental groups**

| t-test for Equality of Means | Equal variances assumed | 0.247 | 80 | 0.805 |
|-----------------------------|-------------------------|-------|----|-------|

The results of the pre-test t test for the control and experimental groups obtained a significance value of 0.247 > α = 0.05 so that Ho was accepted. This means that there is no significant difference between the mean pretest scores in the control and experimental groups. Thus the two samples met the requirements for further trials.

The improvement of student learning outcomes was analyzed using the average normalized Gain. To find out the outline of the increase in student learning outcomes in the following, a recapitulation of the results of the pre-test and post-test of the experimental class and control class is in Table 5 below.

**Table 5. Results of the pre-test and post-test of the experimental class and control**

| Variable | Statistic | Experimental Class | Control Class |
|----------|-----------|--------------------|---------------|
| Pretest  | Min       | 40                 | 30            |
|          | Max       | 90                 | 90            |
|          | Mean      | 64.50              | 63.81         |
| Postest  | Min       | 70                 | 60            |
|          | Max       | 90                 | 90            |
The improvement in student learning outcomes is displayed on the normalized gain line. The improvement of learning outcomes in the experimental class and the control class are both in the medium category. However, the increment value was higher in the experimental class. The increase in student learning outcomes in the control class was 0.30 and in the experimental class the increase was 0.50. Thus it can be concluded that the learning materials oriented Problem Based Learning assisted by android is effective for improving student learning outcomes in aspects of cognitive development.

Hypothesis testing of the average difference test was carried out using the t test. The results of the t test calculation can be seen in the following table:

| Table 6. Results of Different Test Results of Student Learning in the Experiment and Control Group |
|---------------------------------------------------------------|
| n           | Average | T   | df | Sig. (2-tailed) | Conclusion | Inf         |
| Experimental| 40      | 83.25 | 3.796 | 80 | 0.000 | Refuse Ho | Significant |
| Control     | 42      | 76.19 |          |     |       |            |             |

4. Conclusion

Based on this test, it can be seen that the t value obtained is 3.796. The t table value for df = 80 with a significance level of 5% is known to be 1.988. Because the value of t count = 3.796> t table = 1.988, it was decided to reject Ho and accept H1. This means that student learning outcomes using samin society learning materials are better than student learning outcomes using only lecture learning and group discussions. Based on these results, it can be concluded that samin society learning materials is quite effective in improving student skills in the learning process.

5. References

[1] Ardiman, Andi. 2019. Development of Teaching Materials for Thematic Companions Based on Problem Based Learning Models in Theme 3 Figure and Discovery in Grade 6th Elementary School. International Journal of Science and Research (IJSR), Volume 8 Issue 2.
[2] Arends, Richard. 2008. Learning to Teach. Jogjakarta: Learning Library.
[3] Arikunto, S. 2010. Research Procedure "A Practical Approach". Jakarta: Rineka Cipta.
[4] Arikunto, Suharsimi. 2012. Classroom Action Research. Jakarta: Earth Literacy.
[5] Arsyad, Azhar. 2017. Learning Media. Jakarta: Raja Grafindo Persada.
[6] Abidin, Yunus. 2014. Learning System Design in the Context of the 2013 Curriculum. Bandung: Refika Aditama.
[7] Amir, M. Taufiq. 2010. Educational Innovation through Problem Based Learning. Jakarta: Kencana Prenada Media Group.
[8] Amiroh. 2016. Building E-Learning with System Management. Sidoarjo: Genta Group.
[9] Ahmar, Ansari S. & Abdul Rahman. 2017. Development of teaching material using an Android. Global Journal of Engineering Education, 19 (1): 72-76.
[10] Aleksandrov, Evgeny & Anastasia Levitskaya. 2018. Technology of Integrated Media Education. Media Education (Mediaobrazovanie), 2018, 58 (4): 3-10.
[11] Almarabe, Hilal, Ehab F. Amer & Amjad Sulieman. 2015. The Effectiveness of Multimedia Learning Tools in Education. International Journal of Advanced Research in Computer Science and Software Engineering 5 (12): 761-764.
[12] Aritonang, Idrus. 2014. Interactive Learning Media. Bandung: Yrama Widya.
[13] Astuti, Indah Puji, Dwiyono Ariyadi & Lilis Sumaryanti. 2020. Android-Based Learning Media Prototype for Beginning Reading. SIMETRIS Journal, 11 (1): 151-156.
[14] Aqib, Zainal. 2014. Models, Media, and Contextual Learning Strategies (Innovative). Bandung: Yrama Widya.
[15] Aydin, Abdullah & Cahit Aytekin 2. 2018. Teaching Materials Development and Meeting the Needs of the Subject: A Sample Application. International Education Studies 11 (8): 27-38.