

Development and Teaching Material: The Improvement of Learning Outcomes Through Social Study Teaching Material

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Key words: Teaching materials, development, practicality, effectiveness, average score

Abstract: This study has the objective of producing teaching materials used to improve student learning outcomes. This type of research is the development of 4D (Four D Model) Thiagarajan. The results showed that the average ability of teachers in implementing learning which includes three aspects of preliminary, core and closing at the implementation stage is 84%. Student learning outcomes at the implementation stage of development of teaching materials with the average score on pretest is 70 while the post-test is 88. This means that from the average score increases when pretest with post-test. From the average acquisition of student learning achievement that reached score 88 indicating that average have been able to be categorized very well because including interval data 80-100. Based on the results of research, it can be concluded that the product development of teaching materials on social learning is categorized very well and feasible used to improve student learning outcomes.

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INTRODUCTION

The curriculum determines the quality of graduate output. During this education in Indonesia more directed to the achievement of the material as much as possible rather than achieve a certain ability or competence.

This is what causes Indonesia's output to be less qualified than other countries. To improve the quality, the government is trying to implement a competency-based curriculum (PDK) that was pioneered, since, June, 26, 2002, then in 2006 the new curriculum is implemented which is the education unit level curriculum and now it comes into force the curriculum 2013 based on the same change and emphasis of certain aspects^[1].

Some things that have changed from the curriculum of educational unit level to the curriculum 2013

according to Roesminingsih^[2] are: change of graduate competency standards that have increased and balance between softskill and hardskill covering attitude competency aspect, knowledge and skills, content Standards relating to the position of the subject, initially the competencies originally derived from the lesson change into subjects developed from competence, the approach used is integrative thematic in all subjects, holistic science-based (natural, social and cultural), the number of subjects from 10-6 and the number of hours increased by 4 h lesson/week due to changes in the learning approach, in the original learning process focused on the cognitive domain, supplemented by affective and psychomotor domains, the learning process of the students was told to be the students to find out from the various sources of learning that existed and the teacher

is not the only source of learning and on the assessment standard there is a shift from assessment through tests (measuring knowledge competence on the basis of outcome only), toward authentic assessment (measuring all attitude, skills and knowledge competencies based on process and outcome).

Basically, the curriculum is always associated with four things: the competency standards of graduates to be achieved; standard of learning process to be delivered; standard assessment process to be performed and the standard content provided^[3]. The fundamental thing that needs to be given special attention is the learning process. In the learning process in accordance with the 2013 curriculum, students are expected to construct their own knowledge through the experience they build from pre-school experience. So that, learning activities should bridge the initial knowledge of students with knowledge that will be accepted by students related to learning materials.

It takes innovation more interesting teaching materials, to hone the creativity of thinking and easy to read by learners. With reference to teacher materials and educational materials published from national education ministries, teachers can develop teaching materials into a broader range of materials, further sharpening learner's activeness in the classroom and further enriching learners with up-to-date information on the development of insights. If teachers only rely on student books and teachers only, the experience and creativity of student's thinking can not be developed maximally and this will affect the learning outcomes of learners in doing the evaluation of learning, semester rehearsal and final repetition semester.

Social study learning students are expected to be able to understand factual knowledge and interrelationship with real life.

The formulation of the problem in this research is focused on the development of learning materials of social learning in terms of how the practicality of teaching materials to improve student learning outcomes on social learning?; how is the effectiveness of teaching materials to improve student learning outcomes in social learning?. The specific purpose of the research is to develop the development of social learning materials for primary school students. In general, the results of this study can contribute as an effort to develop teaching materials that are practical, economical and improve student learning motivation.

Conceptual framework

Teaching material: Teaching materials are all forms of materials used to assist teachers or instructors in implementing the learning process. The curriculum

materials or materials are the content or content of the curriculum that must be understood by the students in an effort to achieve the curriculum goals. Teaching materials are all forms of materials used to assist teachers in carrying out teaching and learning activities in the classroom^[4].

Teaching materials or learning materials consist of the knowledge, skills and attitudes that students must learn in order to achieve a defined standard of competence.

From the above opinion can be concluded that teaching materials or teaching materials, consisting of two words of teaching which means teaching and material means materials. So, the teaching materials are a set of material that contains the message and arranged systematically which is required by the teacher to do the planning and review implementation of learning, so that, learners can learn a basic competence of core competencies in a coherent and systematic and akumulatif, so as able to master all competencies In soft skills and hard skills, according to the learning objectives. The teaching materials can be printed, non-printed and display materials.

Handout: Majid^[4] an instructional material at least include: instruction on the use of teaching materials, learning objectives, arrangement of learning content, presentation of drawings, summaries, exercise questions and key answers.

Instructions of the teaching material: As revealed by Dick *et al.*^[5] that as a guide which contains instructions on the use of teaching materials, the instructions also provide outlines of learning activities that must be done in the learning process. This guide provides an overview of the learning experience to be undertaken. The language used is formulated in a simple and easy to understand, so that, the teaching materials can be utilized to the fullest.

Learning objectives: Learning objectives are specific statements about desired learning outcomes^[6]. Provision of learning objectives is to inform what students should achieve at the end of learning. The purpose of learning serves to direct the learning behavior as a preinstructional strategy, intended to build expectations in learners about the things that must be mastered after learning^[6].

Content of learning: Jerrold and Dayton^[7] argues that learning can improve results if the content or instructional procedures are organized into meaningful sequences, materials presented for learning in parts of magnitude depending on the complexity and logical difficulties. Meanwhile, according to Roesminingsih^[8] that learning

activities are designed to provide learning experiences that involve mental and physical processes through the interaction of learners, learners with teachers, the environment and other learning resources in the context of achieving competence.

Summary: Sherman states that giving a summary can help learners in organizing the content of the lesson and nourish the memories and arouse the interests of learners. It further explained that, there are six steps to be taken in developing the summary, namely: eliminating unnecessary information; eliminating information overload; combine information; selecting the topic of the sentence; make sentence topics and make a summary.

Exercise: The learning process is more successful when given exercises that are directly and relevant to the learning objectives^[5]. The main purpose of a test is to determine the extent to which learners have achieved the learning objectives that have been.

Learning outcomes: Implementation of this study is the result of student learning measured to know the percentage of students achieving the learning objectives of each unit of learning. Hasi learn this, obtained from the test answers from the exercise questions that exist in this research material. The test is a measuring tool to obtain information on student learning outcomes which require answers, either true or false.

According to Trianto^[9], the test result of learning is a test item that is used to know the student's learning outcomes after attending the teaching and learning activities. Learning result test is used to refer to the basic competence to be achieved, translated into indicators of achievement of learning outcomes and prepared by grid writing complete item with the answer key.

Learning is a process and activity that is always done and experienced by human since human in the womb, growing from children, adolescence, so that, adult, until die, in accordance with the principle of lifelong learning. According to Suyono and Hariyanto^[10]. Learning outcomes are the most important part of learning. Nana Sujana defines learning outcomes as essentially behavioral changes as learning outcomes in a broader sense encompassing cognitive, affective and psychomotor fields. Dimayati and Mudjiono^[11] also mentioned that learning outcomes are the result of an interaction of learning and teaching. From the teacher side, the teaching act ends with the evaluation process of learning outcomes. From the student side, the learning result is the end of the peak of the learning process.

Based on the understanding of the above learning results, it can be concluded that the learning outcomes are the ability-ability that students have after receiving the

learning experience. These capabilities include cognitive, affective and psychomotor abilities. Learning outcomes can be seen through formative test activities in teaching materials that aims to obtain evidence data that will indicate the level of ability of students in achieving learning objectives.

The learning outcomes in this study are in accordance with the research designs that fall within the cognitive and affective domains. Learning outcomes are measured by formative test questions in teaching materials developed and in terms of teacher's observation of the activity results and student response questionnaire instruments that have been compiled include the learning objectives in the learning unit.

MATERIALS AND METHODS

Research design: This type of research is a development research. Research and development method (Research and development) is a research method used to produce certain products and test the effectiveness of these products. Research and development or research and development is a strategy or research method that is considered good enough to improve the practice, especially in the field of education.

This development research is a study of the development of teaching materials of IPS subjects which aimed to improve the learning outcomes of the 5th graders of elementary school by using Four-D Model developed by Thiagarajan and Sammel, i.e., define (defining), design (design), develop (Development) and disseminate adapted to Model 4-P, defining, designing, development and spreading^[9].

In this research, the development of teaching materials is simplified only to the stage of development, without going through the disseminate stage. This is due to limited research.

Data collection: Data collection techniques is a method used by researchers to collect research data. Data collection in this study using the following techniques:

Observation technique: Observation technique aims to collect research data about student activities during learning. This observation was conducted using the format of student activity observation format and conducted by observer which has been determined by the researcher. Previous observers have been briefed by researchers on the procedures at the time of the observation process. This aims to equate perceptions between researchers with observers about the process of observation in the classroom at the time of research.

Technique of questionnaire: Questionnaire or questionnaire is a number of written questions that are

used to obtain information from the respondent in the sense of the sheet about his personality, or things that are known. In this case, the questionnaire is used to obtain data about responses and personal suggestions from teachers and students. Questionnaire is used to determine the quality level of teaching materials used.

Test technique: Test techniques include pre-test and post-test, in accordance with indicators and learning objectives that have been prepared by researchers. Pre-test is done before the learning begins with the aim to know the initial knowledge of the students while the post-test is done after the learning activities with the aim to determine the effect of learning that has been followed by students by using the test sheet.

RESULTS AND DISCUSSION

Preparation of teaching materials: Images used in teaching materials are images that support the theme. On the subtema “Kingdom of Islam in Indonesia” used the image of the mosque relics of the kingdom of Aceh. Selection of the image has the intention that students know one example of the form of the remains of Islamic empires that ever existed in Indonesia (Fig. 1).

The content of teaching materials consists of materials, exercises and the introduction of the names of characters (Fig. 2).

Practicality of teaching materials: The use of teaching materials developed is part of the development stage, i.e., trial II. The use of teaching materials itself is seen from two aspects, namely teachers and students. Here's an explanation of both aspects.

Teacher’s viewpoint: The use of teaching materials developed from the perspective of teachers consists of teacher activity when using the draft of three teaching materials and teacher response to draft III developed.

Assessment of teacher activity when using the draft III teaching materials based on observations made by two predetermined observers. The following is a recapitulation of observations on teacher activity.

Based on the results of Table 1, the components of pre-learning activities obtained an average score of two observers is 8 with a percentage of 80%, this indicates that the teacher perform well pre-learning activities. In the learning opening activity the average score is 8.5 with 85%. In the core activities of the material mastery criteria got an average score of 9 with percentage of 90%, on the criteria of learning activities average score of 8.5 with 85%. On the criteria of utilization of learning resources got an average score of 8.5 with 85%, on the learning criteria that trigger the involvement of students get a score of 9 with percentage

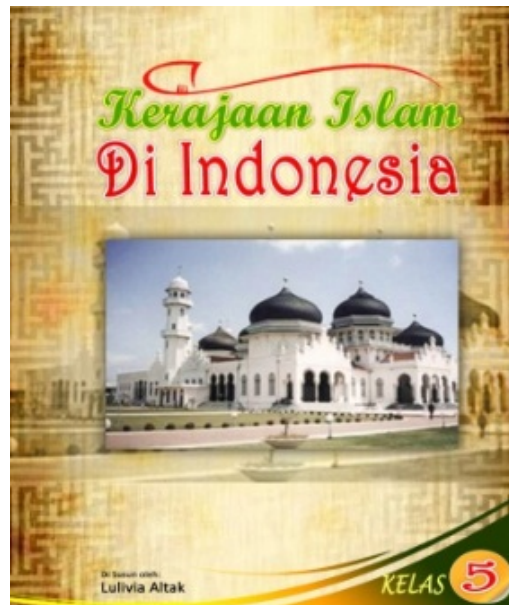


Fig. 1: The cover of the teaching material

Table 1: Recapitulation of teachers activity observation result

Components	P1	P2	Mean	Percentage
Set induction				
Pra-learning	8	8	8	80
Opening the teaching-learning process	8	9	8.5	85
Main activity				
Materials Mastery	9	9	9	90
Learning activity	9	8	8.5	85
Utilization of learning source	8	8	8	80
Lessons that trigger student involvement	9	9	9	90
Assessment of learning processes and outcomes	8	8	8	80
Student coaching	9	8	8.5	85
Closure	8	8	8	80
Total	76	75	75.5	755
Total (%)	85	83	84	84
Average (%)	84			

of 90%, the criteria of process assessment and learning outcomes get a score of 8 with 80% of student coaching activities get a score of 8.5 with 85% of everything in the category is very feasible in other words teachers carry out activities core very well. In the final activity the average score of two observers got a score of 8 with 80%.

The average assessment of all learning components earns 84%, this result is in accordance with the total percentage gain. The scores can be categorized well because they include the range 80-100%.

Student’s viewpoint: The use of teaching materials developed viewed from the perspective of students consists of student activities when using the draft III

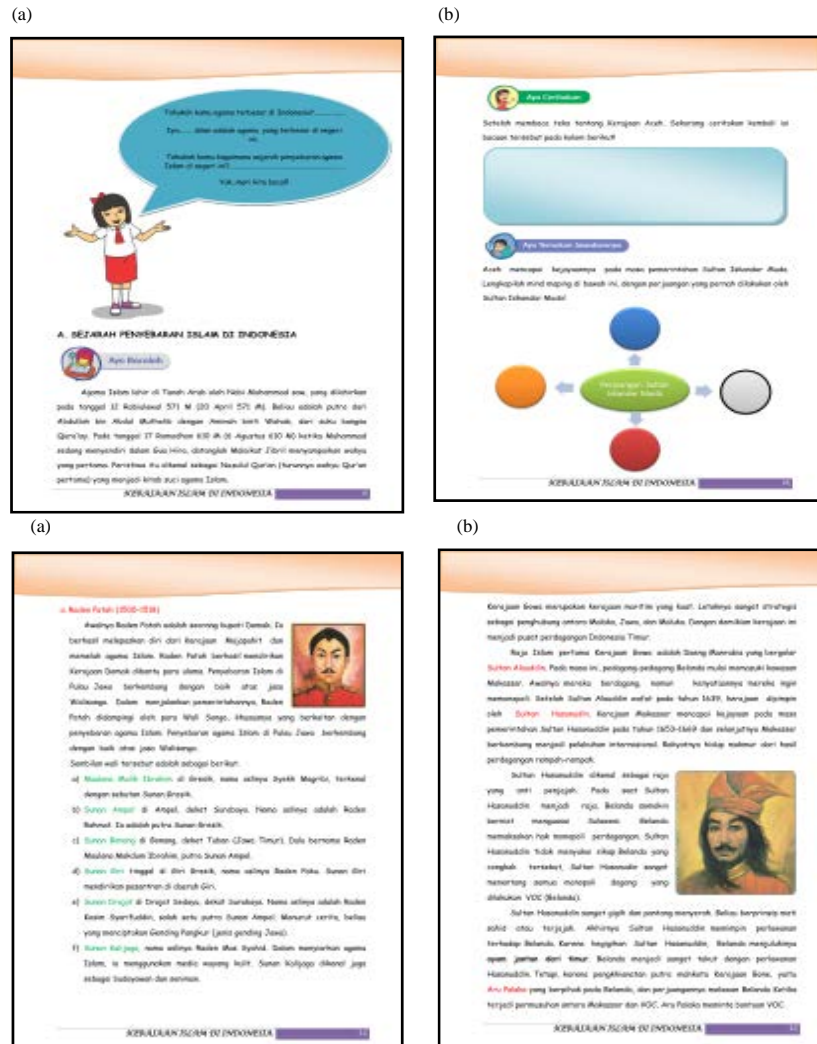


Fig. 2(a-d): The content of the teaching material

Table 2: Recapitulation of students activity observation result

Aspects	P1	P2	Mean	Percentage
Student response when material is delivered	4	4	4.0	100.0
Student response when the teacher checks student's understanding	4	4	4.0	100.0
Student responses when doing exercises of teaching materials	3	4	3.5	87.5
The time needed to understand the material and do the exercise questions	3	3	3.0	75.0
Total	14	15	14.5	362.5
Total (%)	88	94	91.0	91.0
Average (%)	91			

teaching materials, student learning outcomes and student responses to the draft of the III teaching materials developed.

Similar to teacher activity when using draft III teaching materials, student activity is also assessed based on the observation of two people who have been appointed. The following recapitulation of student activity results when using the draft III teaching materials.

Based on the results of Table 2 shows that student response when the material delivered very well because the average acquisition of both observers is 4 with 100% prosentase. When the teacher checks the student's understanding of the material submitted perlehan average score 4 with 100%. When working on the problem students do the problem well in accordance with the instructions of teachers and students do not do other activities although there are some students who do not sit

in place while working on the problem. This is in accordance with the third statement of student response while working on the problem and the average score of two observers is 3.5 with 87.5%.

In the fourth statement is the time required to deliver the material and do the practice of getting an average of 3 with 75%. The average result of all student activity is 91%, this result is in accordance with the result of the percentage of all student activity assessment when using draft III. It can be concluded that student activity when using draft III of teaching materials is very good.

The effectiveness of learning outcomes: Student learning result test is used to measure the effectiveness of developed teaching materials. The test is given in the form of an evaluation that is in the materials developed according to the material. Training of the matter is an individual test in the form of multiple choice, short field and the description is packaged interesting in the teaching materials. The test of learning outcomes implemented in learning activities, following the results of recapitulation of student learning outcomes.

Data result of learning from 28 students showed when pretest without using teaching materials there were nine students who got value under KKM (Criteria of completed minimum) which is determined that is ≥ 70 while the other students get value of learning result ≥ 70 . In the data, it can be seen that the result of the pretest of the students given without using the teaching materials has an average value of 70 with a minimum value of 60 and a maximum value of 86. While the post-test result has a value with an average of 88 with a minimum value of 75 and the maximum value is 100. The questions given at the time of trial II are also a matter related to the material of the Islamic Kingdom in Indonesia.

With the average acquisition of student learning outcomes is 88 indicating that the average is already categorized very well because it includes interval data 80-100.

From the value obtained is done descriptive analysis to know the existence of difference of N-gain between pretest and post-test value. The result of descriptive analysis shows that the N-gain for the test of student learning outcomes in trial II is in the medium category of 0.64. This indicates that there is an increase in the value of the pre-test and the value of post-test students is in the moderate category although there are seven students who have a rise in the high category.

Meanwhile, the student response also shows the high percentage with very good category. The following is the result of the recapitulation of student responses obtained from responses to the use of draft III teaching materials given at the end of the meeting.

Obtained data that as many as 21 students like to read the teaching materials that have been researcher develop,

This is shown with the acquisition of the percentage of the first question that got 75%. In the material that has been prepared and the response of students to the teaching materials is very good. Seen from the percentage gain in the second question was 89%, 25 students chose "yes" and only 3 students answered "no".

Presentation of practice questions in teaching materials gets excellent response from students. This can be seen from the percentage gain on the fifth question that get 89% that is 25 students choose "yes". Presentation of mind map in teaching materials can assist students in understanding the core content in the learning. A total of 17 students who chose "yes" with 61% acquisition.

In the 7th statement the students responded very well as evidenced by the student's answer that 100% of the students answered "yes". Furthermore, in the eighth description of the use of question cards a total of 23 students answered "yes" with 82% percentage stating that question cards were able to help for students with low interpersonal skills unable to argue publicly.

The students responded very well to the reflection zone contained in the teaching materials. This was based on the ninth question that got 86% of the 24 students answered "yes" the students also understood what was delivered in this teaching material, seen from the acquisition of the tenth percentage that got 96%. Curiosity of students about the material during learning, it is based on the eleventh question that gets 68% that is as much 19 students who choose "yes".

The overall average gain of student responses was 82%. Based on the results of the average and the description above can be concluded that the students give a good response to the draft III teaching materials.

The process of developing teaching material for grade 5 students in elementary school: The learning model developed in this research has gone through a process using the modified Thiagarajan 4-D development stage. Phase 4-D includes the stage of defining (define), the stage of planning (design) and the stage of development (develop).

In the defining stage the researcher obtains data on the requirements in the preparation of teaching materials. The data obtained from the observation in the school where researchers conducted a limited trial that is in SDN Jajartunggal 3 Surabaya. This observation is conducted to develop teaching materials that are adapted to the condition or the way of learning of grade 5 students of elementary school Jajartunggal 3 Surabaya at this time. Furthermore, in the development stage, after the draft of II teaching materials approved by the team of validators, then the teaching materials are tested to seven VA class students on a limited basis. The test results I, then revised up to draft III. The next draft III was re-tested, the draft III trial activity was the second trial.

The draft trials of III consisted of observation on the activities of students and teachers when using the draft of three teaching materials, evaluation of student learning outcomes and students and teacher's responses to the use of draft III materials. Student and teacher activity was observed by two observers. Each of the outcomes obtained a score of 84% for student activity and 91% for teacher activity. Both of these results indicate that the activities of students and teachers when using the draft of III teaching materials during the learning can be summed up very well. As for the student's learning outcomes during the second trial is ≥ 70 with the average overall grade V students get 85.

From the results of research that has been analyzed can be stated that the teaching materials developed by researchers able to improve the knowledge of students class V. Based on the observations in test I and II trials students are highly motivated in following the learning activities in contrast to learning activities before using the teaching materials developed.

The validity, practicality and effectiveness of the use of teaching materials: The result of the research for the quality of teaching materials is the validation result from the validator team to the draft of II teaching materials. The validation of draft II of teaching materials is part of the teaching material development stage. In line with the opinions of Geene and Pety, there are ten categories that must be filled with quality textbooks. These qualified categories of books include attracting students who use them; able to motivate students; the student's book should contain interesting illustrations; able to provide motivation to students; consider the language aspects so as to suit the student's ability; the contents of the book are closely related to other lessons and planned, so that as a unified whole; stimulate and stimulate the user's personal activities; avoiding vague and unbiased concepts to keep the user from being confused has a clear and firm viewpoint; able to give consolidation and emphasis on the character of children and adults and textbooks should be able to appreciate the differences of the wearer.

The criteria contained in the description are used as indicators for measurement. Result of recapitulation of measurement of quality of teaching materials consist of assessment; elements of material accuracy, presentation, language and kegrafikan.

Trianto^[9] stated that teaching materials are study manuals, both in the learning process in the classroom and self-study containing learning materials, learning activities based on material concepts, information, examples of material implementation in the daily life of self-training or group and problems in everyday life that need to be discussed, so that, the teaching materials can

make students can learn optimally and get a value that exceeds the average of the results of minimal criteria mastery.

The test of student learning outcomes aims to determine the effectiveness of teaching materials developed and measuring the learning of students. The test result of the study given to the students of grade V of the Jajartunggal III Surabaya state school was held at the end of the learning meeting. The test given is the exercise of the questions contained in the draft of III teaching materials. Exercise questions include issues that contain material of the Islamic kingdom in Indonesia. This is in accordance with the acquisition score of student learning outcomes is ≥ 70 . The average overall grade of V students gets 85.

CONCLUSION

The average ability of teachers in implementing learning which includes three aspects of preliminary, core and closing at the implementation stage is 84%. While on student activity during PBM indicate that in learning development of teaching materials, encourage positive activity for student. This is seen in the observation of student activity which shows average percentage of 91%. Student learning outcomes at the implementation stage of development of teaching materials, with the average score on pretest is 70 while the posttest is 88. This means that from the average score increases when pretest with posttest. From the average acquisition of student learning achievement that reached score 88, indicating that average have been able to be categorized very well because including interval data 80-100.

Based on student learning outcomes that have been achieved with the use of teaching materials of the Kingdom of Islam in Indonesia, the teaching materials can be used as an alternative source of learning for teachers and students. So that can be realized an active learning, effective and fun.

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