The Improvement of the Student Learning Outcomes: Development of Teaching Materials Based on Strengthening Character Education to Improve Student's Social Learning Outcomes

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Abstract: This study aims to determine: the effectiveness of teaching materials developed through constructivist approach based on the strengthening of character education to grade 4 students of elementary school and to know the student's response to the developed teaching materials. Subjects in this study are 4th graders consisting of two classes with many students each class is 34 people. This research is a development research by using modification of 4-D development model (Define, Design, Develop, Disseminate) which is limited only Until the third stage, namely (Define, Design and Develop). Data collection is done through validation sheet, observation sheet and ability test of learning result. Data analysis technique use descriptive analysis and qualitative statistic. Before the experimental material is first tested validated to two validators with the percentage of validity level given by each validator is 90.5 and 93.18%. The effectiveness analysis based on trial I and II are as follows: the achievement of student's learning completeness is 32% in trial I and 88% in trial II; student activity on trial I was not effective while in trial II was effective. Student's ability between trial I and II increased for each aspect with a total average of 1.85 for trial I and 2.87 for trial II, so that, the average percentage increase was 25.5%. Thus, the teaching materials meet all the criteria of effectiveness and the pilot activities stop at trial II. Based on the experiments I and II known that the student's response to the teaching materials positive for almost all aspects. Based on the results of data analysis can be concluded that the learning device constructivist approach by incorporating the strengthening of character education effectively to improve the learning outcomes of students of grade 4 elementary school.

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INTRODUCTION

The new paradigm in viewing the learning process is that students can construct their own knowledge and more actively explore learning resources rather than simply transfer information from teachers. Quality learning activities in the classroom requires the activity of learners. The more creative and fun learning process in turn will further strengthen the learning outcomes become more meaningful.

In the process of active learning, students are expected to be able to construct their own knowledge by choosing appropriate strategies and learning resources based on their learning or control of meta-cognition. However, in the process of managing the learning process as an inexperienced person, learners need support or assistance from others who are more mature or more experienced for the learning process learners more focused. All efforts and ways to help learners improve their meta-cognition skills are referred to as scaffolding.

One of the important and fundamental strategies for teachers to do in solving the problematic of social learning in primary school is by applying constructivism learning in the classroom. The constructivist view holds that, essentially learning is done through the construct of learners towards the learning experience. In the constructivist view of man is not the recorder of information but they build their own structure of knowledge. People are not recorders of information but builders of knowledge structures (Lunenburg, 2012).

Constructivists believe that students construct knowledge for themselves-each learner individually (and socially) constructs meaning through the learning process (Lunenburg, 2012). Learning is about how to construct knowledge. The learning process should be fun and creative and contextualized with the lives of everyday learners (Joyce *et al*., 2002). In constructivist based learning according to Palmer (2005), learning can be done by providing learning experiences to learners in the form of physical experience, mental experience and experience social. Physical experience can be a direct interaction with objects in the field, mental experience can be thinking of the things they are observing and social experiences can be interactions with adults or peers. The teacher acts as a facilitator in charge of guiding learners to actively gain knowledge, rather than as a knowledge-taker. Learning is very likely that students make use of the knowledge they have previously learned, even though it has not previously been expressed in constructing their schemes in the pranata of 2004). The constructed knowledge depends on the information it knows, the type of learning experience being traversed and how it is organized into the knowledge structure. One of the most important principles

of educational psychology is that teachers are not only providing knowledge to learners but learners must build knowledge in their own minds (Slavin, 1995). Constructivist is more feasible in engaging the student's in innovative and creative activities.

Textbooks are designed for use in the classroom, carefully prepared and prepared by experts or experts in the field and complemented by appropriate and harmonized learning suggestions (Tarigan, 2009). The textbooks are organized systematically and attractively cover material content, methods and evaluation that can be used independently (Ministry of Education and Culture, 2012).

The problem to be solved through this development is the procurement of books relevant to the subject and in accordance with the characteristics and needs of the students. These textbooks must be packaged in such a way that they are in the form of textbooks that fulfill the good textbook kar3 and can be used by learners in the instructional process in learning based on the strengthening of character education.

The formulation of the problem in this study focused on the development of textbooks. The formulation of the problem is detailed as follows: how is the feasibility of textbook using constructivist approach based on character education for Grade 4 elementary school students? How is the effectiveness of textbooks using constructivist approach based on character education to improve learner's learning outcomes in grade 4 primary school? The specific purpose of the research is to know the quality and effectiveness of textbooks developed through constructivist approach based on character education. In general, the results of this study is expected to be a developer of science repertoire.

Literature review
Constructivist learning: Constructivism is an approach to learning that believes that people actively build or create their own knowledge and reality is determined by the person's own experience. The purpose of the implementation of constructivism learning is to provide opportunities for students to interact directly to concrete objects or artificial models, to pay attention to the early conceptions of students in order to instill the right concepts and as a process of changing the conceptions of existing and possibly wrong students.

Knowledge cannot be moved simply from the master's brain to learners. Learners themselves should interpret what has been learned or taught by adjusting to their experiences. Knowledge is basically a mere explanation and assumption and not a final answer to all questions (Jia, 2010). Humans construct their knowledge through their interactions with objects, phenomena, experiences and their environment (Suparno, 1996). In the

view of individual constructivism theories interpret and act according to the conceptual categories of the mind. Reality does not describe the individual self but must be filtered through people's perspective on the reality. The lesson that refers to constructivism learning theory focuses more on the success of learners in reflection on what the teacher has instructed and done with other words learners are more encouraged to construct their own knowledge through assimilation and accommodation activities.

Principles of constructivist approach: Knowledge is built by the students themselves, both personally and socially. Knowledge gained by a person is constructed by the individual himself through his or her senses. Knowledge is the result of the construction of reality through one's activities. So that, one's knowledge is gained by the experience of the learners. And learners will build on the experience as a knowledge which is then thought through with reason (Sutiah, 2003).

Knowledge cannot be transferred from teacher to learner, except only with the learner's own learning to reason. As students enter the classroom, they have brought their own rich experiences. They hold their own opinions on issues in everyday life as well as on the world. But there are still some issues they do not know and have no experience on the issue. Students can form specific explanations and specific assumptions based on their own experiences and their own cognitive skills on emerging issues (Jia, 2010).

Active learners construct constantly, so that, there is always a change of concept towards a more detailed concept, complete and in accordance with scientific concepts. Someone shapes knowledge through one experience to the next, so that, knowledge becomes perfect. In one's mind there is already knowledge first and that knowledge will develop into more detailed knowledge. For example, a learner has a scheme of women praying using white mukena. In his mind woke up the scheme that a woman if the prayer should use white mukena. One time he had the opportunity to see women who pray using mukena yellow, orange, black and flower motifs. On the next occasion he witnessed a woman praying wearing a full-dress woman. In the minds of these learners concluded that a woman who prayers should not use mukena the most important white color must cover the aurat. In this process it appears that the old scheme is maintained but developed into more detail, so that, it can be used to answer some of the different experiences (Sutiah, 2003).

The nature and function of the textbook: The textbook is a learning resource in the form of instructional materials used by students to help the achievement of competency standards, basic competencies and educational objectives that have been set. While the

teaching materials itself is a set of materials organized systematically so as to create an environment or atmosphere that allows students to learn. The items can be written or unwritten by the teacher in conducting the teaching and learning activities.

According to Trianto, the textbook is a student book that is a guidebook for students in learning activities that contain the subject matter, concept-based inquiry activities, science activities, information and examples of the application of science in everyday life. Teaching material contains a description that contains elements of learning objectives to be achieved.

According to Prastowo, textbooks are a set of systematically compiled materials in writing that show the whole figure of the competence that will be mastered by students and used in the learning process so as to achieve learning objectives. The textbook serves as a tool for the development of materials and programs in the curriculum of education, the means of facilitating the academic task of the teacher, the means of facilitating the achievement of learning objectives and the means of facilitating the efficiency and effectiveness of learning activities (Muslich, 2010).

MATERIALS AND METHODS

Research design: This type of research is a development research. Research and development methods are used to produce the product and test the effectiveness of the product (Sugiyono, 2006). 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.

The book development research oriented constructivist approach which aims to improve the learning outcomes of grade 4 elementary school students by using Four-D Model developed by Thiagarajan (1974) that is define, design, develop and disseminate.

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

Documentation technique: In this research, documentation is used to collect data of textbook development process of IPS subjects oriented constructivist approach to improve the competence of Grade 4 elementary school students. The data are processed in the form of core competence and basic competence derived from the standard contents of the 2013 curriculum.

Observation technique: Observation technique aims to collect research data about student activities during

learning. This observation was conducted using a format of student activity observation format and performed by two observers who had been established 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 and observers about the process of observation in the classroom at the time of the study.

Technique 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 the validator team (content, presentation, language and graph), teachers and students. Questionnaire is used to determine the level of textbook quality 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 posttest is done after the learning activities with the aim to determine the influence of learning that has been followed by students by using the test sheet.

RESULTS AND DISCUSSION

Result of the feasibility of the pop up book development based on Montessori: The procedure of the research activity undertaken following the Four-D Model research phase with the following steps.

Description of the defining stage result: In this study, the defining stage serves to define and define learning needs by analyzing the objectives and limitations of the material. The defining stage consists of five steps: front end analysis, learner analysis, concept analysis, task analysis and objectives specification of learning.

Front end analysis: After observing and discussing with classroom teachers it is known that students are accustomed to individualistic learning. This is because during the learning took place after explaining the material more teachers assigned individual tasks while there are still many students who do the task by cheating a friend who is smarter. This causes learners to be passive in learning activities because they lack the opportunity to develop their thinking skills and find their own concepts and are highly dependent on teachers and other friends. Based on that information, the development of textbook is oriented to add character values through cooperative

learning strategy as a way to make learners actively and morally involved in social learning process. The development of this lesson focused on the development of learning tools that include the implementation plan of teaching learning materials, student worksheets and assessment.

Student analysis: Student analysis is a study of the characteristics of learners that includes background knowledge and cognitive development of learners.

Analyst concept: This analysis aims to identify, detail and systematically arrange relevant concepts to be taught based on front-end analysis.

Task analysis: Based on the student's analysis and analysis of the concept of the nation's cultural heritage, the tasks assigned to the students during the learning process.

Specification learning objectives: This analysis is conducted to formulate the results of the task analysis and analysis of the above concept becomes the goal of achieving learning outcomes.

Description of the results of design stage: The initial draft referred to in this study is the design of all activities to be undertaken prior to the pilot. The results of this stage is the initial design of learning tools which is a draft 1 along with research instruments. The following is a brief description of the initial design of instructional tools that include plans for the implementation of learning, materials, student worksheets and appraisals. In detail the things that are done are: the selection of the format, the initial design of the learning implementation plan, the initial design of textbooks and the initial design of the learner worksheet.

Description of development stage outcome: The purpose of the development stage is to produce a revised draft learning tool based on expert input and data obtained from the test results. Activities at this stage are expert judgments (validation) and limited trials.

Description and analysis of student activities: Observation of the activity of these learners is done by 2 observers. Observations made during 3X meetings and each time meeting 2×35 min. Observation of the activities of these learners is done on groups and certain learners for all activities. The average percentage of active activity of learners is 60.60% while the average passive activity percentage of learners is 45.37%. Because the activity percentage of active learner activity is greater than the

percentage of passive learner's activity, the learner activity in IPS learning by entering character values is said "active".

Results description and analysis of the students learning outcomes: Research subjects who followed the pretest and posttest as many as 34 students as the object of research has increased in the unfinished pretest of 12 learners and completed as many as 21 students whereas in the posttest of 32 students and 2 complete students unfinished. If it is presented on pretest result as much as 61.74% learners complete and 35.29% not complete while at posttest result counted 94.11% learners complete.

Based on the description and data analysis of the research results seen that the student activity for three meetings and included in the category of active activities students with an average of 63.33%. From the results of the research can be seen that the activity students who got the average at least is drawing conclusions a procedure/concept that is equal to 10.42%. This is because students are still unfamiliar with this learning, so, they find it quite difficult to conclude a concept of Islamic values that have been given as an example. While in the category of passive student activity, listening/paying attention to teacher/friend's explanation gets the average at most that is equal to 14.17%. This is because students are accustomed to the learning process that dominant attention and listen to teacher explanation. In carrying out activities, student's activities cannot be controlled by teachers. It is shown that students tend to move places (walking) to see other group tasks. The solution to this problem in order to keep it going well in the tasks of each group, the teacher needs to pay attention to the whole student by going around, so that, all students feel cared for. In this case either in individual or group activities, the teacher sometimes takes too long to be in one person or group, so that, the other students feel unnoticed. Teacher's directions and warnings to their students need to remain in their group.

Based on the table of student learning outcomes in IPS learning by incorporating character values, a one-time posttest learning test is conducted. In this study as many as 8 students is not complete and as many as 28 students complete. This is because in social science lessons by incorporating character values not only learn how to work out the problem with the formula or concept that is already available but students feel the basic subject matter of tribal and cultural diversity is more easily done with examples and concepts of character values that have been implanted in themselves in everyday life. So, that learning is more meaningful for students.

CONCLUSION

The teaching materials developed with the modified 4-D Model through constructivist approach based on strengthening the education of the effective character of the student's learning ability in the second trial in grade 4 of the primary school. Student learning abilities between trial I and II increased for each aspect with an average total of 1.85 for trial I and 2.87 for trial II, so that, the average percentage increase was 25.5%. The student's response to the positive teaching materials for almost all aspects with the lowest percentage in trial I was 32% for the self-service category and the given project while the highest percentage was 88% for the category of writing, illustration, drawing and color selection of teaching materials. Furthermore, the lowest percentage in trial II is 52% still for self-employment category and given project as well as the highest percentage is 100% still for writing category, illustration, drawing and color selection of teaching materials. Teachers need to develop teaching materials and organize learning activities with a cost-effective approach because it can provide encouragement to students to be more excited and enthusiastic in learning that ultimately can improve student's IPS learning ability. This teaching materials through two test stages without going through the simulation phase and developed only until the third stage of the stage of development without going through the stage disseminate. Therefore, teaching materials produced in this study still requires testing in schools others with a variety of conditions in order to obtain materials that really qualified and can be used as an alternative teaching materials by teachers in grade 4 primary schools to teach cultural diversity.

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