Developing the Social Science-History Teaching Materials for the Sixth Grade Middle School Students

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Abstract—The textbook is one of the critical issues in history teaching and learning process for the middle school students seeing that it purely consists of sequences of sentences descriptively explaining the chronological events of that history without (taking account of) being accompanied by interesting pictures and illustrations. Researchers, hence, did research and develop the teaching materials-based comics. R&D was the type of research. The research finding indicated that the developed Social Science-History teaching materials based comics are valid, practical and effective. The critical learning themes of the History are prehistoric age; Hindu-Buddhist and Islamic epoch. These comics were developed based on empirical data on IPS-History learning as outlined according to student experience; (c). conflict, packaged in such a way that it can arouse students' emotions; and D). humor, displaying funny impressions [3], and one of the teaching materials that meet these criteria is teaching material in the form of comics [7]. The basic considerations for choosing comics are: a) comics are very popular with students; b) comics can present abstract material to be concrete; c) the use of comics especially coupled with color, the concentration of the brain on more detailed things will increase; and d) the use of comics in learning in accordance with the level of thinking of students, especially at the level of basic education. The comics developed in this study are not just to overcome students’ dislike of IPS-History textbooks. However, how this comic can improve the cognitive aspects of students; long term memory (LTM) abilities and students' critical thinking skills. These three aspects are very relevant to the purpose of history learning, namely students are able to know events, are able to remember and understand. This study provides recommendations for developing more varied teaching materials apart from the textbooks that have been used so far. [1]

I. INTRODUCTION

The scientific explanations of teaching the History subject from elementary to high school levels are within unclear shadows. The students are, consequently, unable to see its relevance to the present and future life. Therefore, it is not strange if the subject becomes unattractive, and flops onto providing widest opportunities for students to learn to explore the meaning of the historical events. Notosusanto states that the History cannot be separated from the cultural roots of Indonesian rooting in the life of the Indonesian people. Today, the teacher has long been used as the main source of knowledge and this becomes very difficult to change. Consequently, the role of students in the learning process becomes passive [9].

The problem in learning history is textbooks. Larissa's research result shows that textbooks that are currently used in schools are still based on aspects of the benefits provided by publishers without considering the quality of the books. Besides that, the use of textbooks as the only source of learning will cause students to be lazy to think [7]. In this context, most textbooks lack transformational illustrations, interpretations and organizations. This is considered the weakness of the textbooks which causes abstract concepts to be more memorable and to facilitate student understanding. This study provides recommendations for developing more varied teaching materials apart from the textbooks that have been used so far.
understand them and are able to construct them based on their thinking abilities as well.

II. SPECIFICATION OF PRODUCT

The product produced in this research was in the form of teaching materials in the form of comics which contained IPS material on the history of VII grade of the junior high school consisting of three themes, namely the Pre-Literacy period; Hindu-Buddhist era and Islamic era. The comic teaching material produced in this study is different from the general presentation of comics which tends to be adapted from folklore as a means of entertainment. This learning comic is made as much as possible to disguise the material presented so that students do not feel they are learning but are reading comics. However, the disguised message from this learning comic does not mean that it is not important, but what is important is how this comic teaching material is able to improve cognitive aspects, long term memory and critical thinking skills of Grade VII Middle School students.

This comic teaching material consists of three parts, namely the introduction, content and end. The introduction includes the title page, preface, introduction to characters, concept maps, how to read comics, table of contents, KS / KD and learning objectives. In the content section, it consists of: teaching materials in the form of comics, group / individual activities, summaries, glossaries and competency tests. At the end, there is a bibliography. The front page contains pictures of the characters with the title "The Adventure Reedho & Neeno (Looking for the Lost Dynasty Traces)" which tells about the adventures of Reedho & Neeno to prehistoric times; Hindu-Buddhist and Islam. The presentation is also adjusted to the tastes of junior high school students who prefer a slightly simpler colour contrast. Besides that, this comic is arranged in the communicative language according to the age of seventh-grade students of junior high school.

Figure 2. Teaching material part 1

Figure 3. Teaching material part 2

III. METHOD

The method used in this study is the research and development method, with the development design chosen using the Dick & Carey Model. The products developed are student books along with integrated social studies teacher guidebooks that are oriented towards integrated social science with geography as the basic foundation for class VII SMP. In accordance with the design of the development of the Dick and Carey Model the development stages are carried out as follows:

1) Identity Instructional Goals. The initial stage of this model is to determine what is desired so students can do it when they have completed the learning program. At this stage analyzed the problems that exist in social studies learning. Analysis of learning resources was also conducted using a learning resource questionnaire. The definition of learning objectives refers to the curriculum and comes from a list of goals as a result of assessment needs or from practical experience with student learning difficulties in the classroom. At this stage a syllabus will be produced.

2) Conducting Instructional Analysis (Conducting a Goal Analysis). After identifying learning objectives, it will be determined what type of learning students need in learning social studies. Objectives are analyzed to identify more specific skills that must be learned. This analysis will produce a chart or diagram of skills/concepts and show the interrelationship between the concept skills, such as critical thinking skills. At this stage basic competency mapping will be produced.

3) Identifying Initial Behavior / Student Characteristics (Identity Entry Behavior, Characteristic). When analyzing the skills that need to be trained and the stages of the procedure that need to be passed, also what skills students must have when starting teaching. Also important to identify are specific characteristics of students that might have something to do with the design of learning activities. Characteristics of students obtained using questionnaires.

4) Formulate Performance Objectives (Write Performance Objectives). Based on instructional analysis and statements about students' initial behavior, a special statement will be formulated about what students should do after completing learning. At this stage a description of the performance objectives that students will work on will be obtained.

5) Development of benchmarking tests (Developing critical-referenced test items). The development of benchmark reference tests is based on the objectives that have been formulated, the development of assessment points to measure students' abilities as predicted in the objectives. The resulting test is an integrated social studies learning achievement, which will be given to students before and after learning using the results of development.
6) Development of Learning Strategies (Develop Instructional Strategy). Information from the previous five stages, then the next stage will identify the learning strategies that will be used to achieve the final goal. The learning strategies in question include strategies for delivering learning content, managing learning, pre-instructional activities, delivering information, practice and feedback, testing, carried out through learning activities. The learning strategies produced can be seen through lesson plans.

7) Development and Selecting Learning and Developing Instructional Materials. This stage will use the results of the development of learning strategies to produce teaching materials that include student books, and teacher guides. At this stage a draft teaching material will be produced.

8) Designing and Implementing Formative Evaluation. Evaluation is carried out to collect data that will be used to identify how to improve learning. At this stage a product development validation instrument will be obtained.

9) Designing and Implementing Summative Evaluation (Design and Conduct Summative Evaluation). The results at the above stage serve as the basis for developing the required teaching materials. The development results are then validated and tested in class. Validation will be carried out by content experts, media experts and design experts. Testing product learning content experts as teaching materials, carried out in accordance with the procedure of testing a teaching material based on competency standards prepared. Product testing as a learning media, through expert review by media experts and field tests will be conducted on small groups of teachers and seventh grade students according to the evaluation standards of the Dick and Carey Model development design.

10) Teaching Revisions (Instructional Revisions). Data from summative evaluations that have been carried out in the previous stages are summarized and analyzed and interpreted to identify difficulties.

Furthermore, the final product is implemented in a limited manner in the classroom and an analysis of the effectiveness of product development to see the comparison of the results of the pretest and posttest through a limited trial in a single group. Testing the product in the field to see the comparison of pretest and posttest results was carried out through limited trials to class VII students of State Junior High School 2 Pekanbaru on social studies subjects. Furthermore, to find out the effectiveness of the product developed towards the mastery level of students' IPS material, a single group pretest-posttest study design was used. In this design (the one group, pretest-posttest design), the effectiveness of a treatment is decided based on the difference between the pretest and the posttest. Teaching materials that have been produced and tested through the development stages above, followed by testing in classroom learning to see the effect on the level mastery of the Integrated Social Sciences concept and student responses to product use.

This study uses data analysis techniques, namely: 1) Qualitative descriptive analysis techniques are used to process data from reviews of content experts, media experts and learning design, students, and teachers of social studies subjects. This analysis technique is done by gathering information from qualitative data in the form of inputs, responses, criticisms, and suggestions for improvements contained in the questionnaire and the results of interviews. The results of this data analysis are then used to revise the product development; and 2) Student data are analyzed using descriptive statistics, and the conclusion is based on Mean Ideal (Mi) and ideal standard deviation (Si). Validation results, teacher responses, students were excavated using a questionnaire with a 5 Likert scale (grades 1 to 5) which were analyzed descriptively.

Inferential statistical analysis techniques for processing data in the form of pretest and posttest results so that the level of effectiveness of the development products produced is known. Results of the pretest and posttest are processed using the mean difference test (t-test for correlated samples).

IV. RESULTS AND DISCUSSION

The development of teaching materials in the form of comics is made based on the steps of composing comics as explained by McCloud. In developing this comic teaching material, the first step taken is to determine the moment of the story with the genre of adventure [6]. The next step is to choose a story frame. The selected story frame is an adventure story in the cave. This is in accordance with one of the materials developed in this comic, namely the material of Pre-History. The selection of story frames in the cave is also based on the principle of the relevance of a teaching material that is must be relevant to the topic being discussed and in accordance with the age of the student. Besides that, the pictures of the characters in this comic are designed by paying attention to what images most junior high school students like so that the comic's teaching material becomes interesting and can invite the reader to follow every adventure related to phenomena in the comics.

The involvement of readers' emotions will greatly affect the students' memory and recall of the learning material they learn. With the social science comic teaching materials on the theme of History, students' interest in reading books increases. Not only at school, but students will also feel happy reading this comic book at home. This will cause the conditions of learning in the classroom to be more effective, enjoyable and not boring for both teachers and students. Development of teaching materials in the form of comics is done by means of manual drawings. This is in accordance with the advice of teaching material design experts who suggest that in making drawings in comics add more hand scratches and reduce the use of computer media. It is also recommended to increase the level of originality of the images in this teaching material so that the level of student interest in this teaching material increases.

Teaching material in the form of comics developed in this study has been declared valid by a team of validators/experts consisting of 3 material experts, 1 design person and 1 linguist. The results of the validation of the five experts on comic teaching materials obtained an average value of 4.43 with a very valid category. With regard to the teacher's book, the five validators have also been declared valid, while the total average value obtained is 4.27 in the very valid category.

Based on the results of trials that have been carried out, both one-on-one trials and small group trials, it is known that student responses to comic-shaped teaching materials are very positive. The response of one-on-one trial students obtained an average value of 4.29 student responses in the very practical category with a level of readability of 4.4 (88%) in the high category. While the small group trials obtained an average value of student responses of 4.29 (very practical), with a level of
readability of 4.7 (94%) in the high category. At the time of the field test also obtained a student response of 4.99 with a high category. Thus it can be stated that the social science teaching material in the form of comic history is in the category of very practical with a high level of readability and can be continued at the implementation stage.

The implementation phase is the stage where teaching materials in the form of comics are applied to the actual conditions in class VII.2 SMP Negeri 11 Pekanbaru with a total of 30 students. At this stage, an assessment was conducted in the form of pretest scores, teacher/student activities, student/teacher responses and student learning outcomes after completing using comic teaching materials in the history of social studies learning the process. Before the learning process is carried out, a pretest is done first to find out the student's initial ability, while the results obtained an average value of 7.57.

Teacher and student activities are also measured during the learning process, the average value of a teacher's activity is 17.9 (89.5%), while the average student activity's value is 75.2 (88.5%). During the learning process, three competency tests were also carried out, while the result was the competency test of sub-theme I obtained a classical average score of 79.3. Sub-theme II is 80.6 and sub-theme III is 82.8.

The increased activity of teachers and students during the learning process takes place and the positive responses were given by teachers and students to comics as teaching material also affect the learning outcomes of students themselves. This can be seen from the results of the posttest evaluation that researchers conducted at the end of the learning process (after the tenth meeting ended). The results obtained indicate that an increase in student learning outcomes when compared with the value obtained by students at the time of the pretest. The average posttest score was 14.67, this value was higher than the average pretest score which was only 7.57, while in the control class that uses textbooks it has an average value of 6.7 (pretest) and 9.90 (posttest). That is, the effectiveness of using comic teaching materials in the experimental class is more effective than in the control group using textbooks.

Effectiveness is also seen based on its implementation in the learning process, this comic-shaped teaching material is very helpful for students in increasing their enthusiasm for learning. This can be proven by the enthusiasm of students participating in learning by using teaching materials in the form of comics. Many students who ask and answer questions actively, they do activities independently with little guidance and interact with fellow students.

Based on the description above, it can be concluded that the application of comic-shaped teaching materials in social science learning on the theme of history is more effective when compared to the application of teaching materials in the form of existing textbooks and used by teachers so far. This is consistent with the opinion put forward by Marazzi that the use of comics in learning is very effectively used as teaching material in the process of language learning and social science [5]. Huda also stated the same thing that the use of comics in learning was able to attract students who were reluctant to read, gradually became fond of reading and were finally able to read ordinary books full of writing. [10].

V. CONCLUSION

The use of comics is one of the new ways to motivate and help students develop their own potential [9]. Even children who have limited reading skills can be helped by using comic teaching materials. Besides that, comics can also be used to assess students 'understanding of the concept of social studies and to get students' attention, introduce new topics, stimulate critical thinking and practice ethics or courtesy during class discussions [2].

Comics are parts of natural reading activity where students do not need to be persuaded to read because by looking at the pictures students become interested in reading them. In addition, teaching materials in the form of comics can improve students' visual intelligence. This is consistent with the results of Tatolovic's study which states that children enjoy reading comics because of the visual appeal of graphic representations and the tendency towards interesting narratives (funny when reading them) making comics a good means to convey scientific concepts in interesting ways [11].

In general, this comic teaching material can make learning the IPS-History's themes easier, more effective and can be used as indicators to improve the development of activities, motivations, and student learning outcomes. This research can also provide an overview and input, especially to teachers and education providers in general in improving the quality of learning.

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