Development of Learning Equipments Orientation by Cooperative Model Think Pair Share Aided by Power Point to Improve Students Social Studies Learning Outcome in 4th Grade Elementary School

Ahmad Amran
Elementary Education Study Program
Postgraduate State University of Surabaya, Surabaya, Indonesia

Corresponding e-mail: ahmadamran478@gmail.com

Abstract: The purpose of this research is developed learning equipments orientation by cooperative model think pair share which suitably to improve student socialstudies learning outcomes in 4th Grade Elementary School. This study was conducted in two stages. The first stage is development of learning equipment by used 3 stages from 4-D model. The second stage is implementation of learning equipment to 4th Grade SDN Tanggul Patompo II Makassar City with control group pretest-posttest design. Technique of data analysis using descriptive analysis of quantitative and qualitative. The results showed: 1) Learning Equipment was developed in valid categorized with average percentage 87.28%; 2) The developed of Lesson Plan was well executed and the student activity improved from the previous meeting; And 3) there is a significant difference of the students' learning outcomes in the experimental class and control class with a significance value of 0.001.

Keywords: Learning equipment, Cooperative Model Think Pair Share, Power Point, Learning Outcomes.

1 Introduction

Education is an important element in one nation. School as an educational institution is expected to be a better place for learners to develop their potential. Therefore, Teaching and learning activities in schools should be designed as well as possible to create an atmosphere of learning which can support students to develop their potential.

Teacher as curriculum implementers in schools should be able to understand the characteristics of their students, how students learn, how to manage class to be a good classroom which can support learning process and develop skills of their students. In addition, teachers have to master the nature and basic concepts of learning to apply it in learning activities, because the main function of learning is facilitating students to develop their potential. (Susanto, 2014: 196-197).

Teachers should think and make a good planning to improve the learning process and learning outcomes of their students and in order to improve the quality of teaching. In addition, the model and learning media which will be used should be considered for the learning process run effectively and hopefully students interest to learn get improvement.

Improving the quality of learning can be realized if there are efforts of teachers to try to optimally design learning activities that can equip learners in developing knowledge, attitude, and skills. However, the facts show that teachers still lack understanding of the nature and basic concepts of learning. This will certainly affect the learning process in the classroom, especially in social studies. Based on the observations in SDN Tanggul Patompo 2, teachers still felt difficulty while teaching social studies in the classroom. In addition, there are teachers who teach IPS by using conventional methods in the process of learning in the classroom. Students difficult to understand the material which taught by teachers, teachers sometimes do not explain the lesson so that students do not understand the lesson well. In addition, students are only writing down the material in the package book into their notebooks. The problem above made social
studies be a saturates lesson and unattractive to students.

Teachers as a designer of learning in the class have to make a learning equipment as a guide in learning activities. Without such devices, it will be difficult to create a quality of teaching process and interesting for students. Lack of knowledge of teachers to design interesting learning is one of the factors causing student learning outcomes low. Therefore, serious effort is needed in learning process in the classroom with hope it can make the students more active and motivated to learn with the result that the learning outcome increase too.

Teachers should be aware that being active requires direct involvement of students in learning activities. To be able to involve students physically, mentally, emotionally and intellectually in the learning activities, the teacher should design and implement the learning activities by considering the characteristics of the content of the lesson (Riyanto, 2009: 79).

One of the efforts that can be used by teachers to cultivate the potential of their students is through cooperative learning model. Cooperative learning is a learning model that is conducted with the division of learning groups by giving each learner the opportunity to work with all students in tasks assigned by the teacher.

Cooperative learning models are developed to provide students with responsibility for the success of their group and also help others to succeed together. In cooperative learning individual success is still recognized, but the expected students are helping each other. (Susanto, 2014).

In addition, cooperative learning can enhance learning activities and positive attitudes of learners, provide motivation and confidence and will improve the social skills of learners. Furthermore, Husni, Lasmanan, and Marhaeni (2013) argue that in cooperative learning students are given opportunities to obtain the information they need to complement and enrich the knowledge possessed by teachers and other study group members. The learning atmosphere and sense of community will grow and develop among fellow group members and enable students to understand and understand the subject matter better. Such a process of personality development will help less-interested students become more passionate about learning.

Think Pair Share is one type of cooperative learning that can be used as a reference in teaching and learning process. The cooperative model of think pair share is developed in order to increase students’ activeness in the class because students will think to solve the problem assigned to him (Think), then the students will discuss with their partner (Pair), then the students will share to his classmates. Research conducted by Ahmad Muzakki Alfahmi and Ganes Gunansyah (2014) on the subject of Social Studies I in class V SDN Kedunggede I Dlanggu Mojokerto District concluded that the implementation of cooperative learning model type think pair share can increase the activity and student learning outcomes.

Social studies learning process by using cooperative learning model type think pair share will be interesting to student when presented by using learning media. Media is a tool or intermediary used to convey an information from the teacher to the students.

One of the media that can be used is power point. Students will be easier to understand the subject matter that will be expected to improve their learning outcomes. Power point is a media that can display interesting features that include text, images or graphics, sound and film photos (Triwahyuni and Abdul, 2004: 1-2). With the features contained in the power point is expected to attract students’ attention and facilitate students in understanding the learning materials with the result that the outcome of learning is expected to be increased. Based on the description of the background, the researcher will develop learning equipment oriented model of cooperative model type Think Pair Share with power point to improve students social studies learning outcomes in 4th Grade Elementary School.

2 Methodology

This study is research and development (R&D). The development of learning tools was conducted to produce learning tools which consist of lesson plan, learning materials, learning media, student activity sheet, and learning outcomes test. The subject of this research is the fourth-grade students of SDN Tanggul patompo 2. The fourth grade B students as experimental class and grade IV A students as a control class. This research was conducted at SDN Tanggul Patompo II of Makassar city in the even semester of the academic year 2016/2017. Procedure in this research consists of two stages. The first stages is development of learning equipment using model cooperative learning type think pair share and the second stages is implementation learning equipment in class IV.
The design of learning equipment development in this study refers to Four-D Models (4-D development model) by Thiagarajan and Semmel & Semmel. This development model consists of four stages namely define, design, develop, and disseminate. but due to limited time Researchers then the research will only be done until the development stage followed by implementation. The learning equipment development stage is described as follows:

1. Definition Stage (Define)
   The purpose of this stage is to define and define the necessary conditions in learning. This stage begins with the analysis of objectives within the boundaries of learning materials that will be developed device. At this stage, there are five main steps, namely front-end analysis, learner analysis, task analysis, concept analysis, and specifying instructional objectives.

2. Stage Design (Design)
   This stage aims to produce device design learning-oriented model of learning cooperative type think pair share media-aided power point. Steps taken at this stage are:
   a. Selection of format
      At this stage the preparation of formats to design Content of learning, selection of learning models, learning strategies, learning methods, and learning resources to be used.
   b. Selection of media
      Activities undertaken at this stage are decisive appropriate media in the implementation of learning, selection process. The media is tailored to the analysis of materials and student analysis. Media which used in this research is power point with hyperlink.
   c. Initial design
      Activity at this initial design is composing. The design of all activities to be done before the trial implemented, starting from the initial design of learning equipment up to the research instrument.
      The research instruments consist of learning device learning sheet, learning implementation observation sheet, and student response questionnaires. The result of this initial draft is called draft I

3. Development Stage (Develop)
   The purpose of this stage of development is to produce a final draft learning tools that have been revised based on input of experts (validator) and data from field trials. Steps taken at this stage are:
   a. Validation learning devices
      Validation activities are performed by competent experts to assess the learning tool. This activity aims to gain assessment and input of instructional devices (draft I).
      Validation activities performed with reference to the assessment instrument in the form of validation sheet which has been compiled. The validation results are then analyzed and used as a consideration for revising draft I.
   b. Limited trials / small group trials
      Revised draft I improvements based on suggestions and inputs from the next validator is called draft II. After obtaining draft II Learning device, then tested on trial limited. Activities at this limited trial stage are conducted for Obtain data and input from teachers, and observers against. Learning tools that have been compiled. Test execution process Try this I will be observed by 2 observers with a set on the instrument sheet of observation.
      The results of this limited trial are then analyzed and used as a matter of consideration to revise draft II. Results of revised draft II referred to as draft III. Draft III is then tested on trial 2. Test 2 is implemented with the presence of 2 people observers to observe the entire learning process with Based on the observation instrument sheet.
      The research design on the implementation of this trial using Control group pretest-posttest design. Design of trial design starting with a pretest to find out the student's initial ability, then given treatment in the run certain time. At the end of the learning done the final test (posttest) as the final test.
      Methods of data collection include the validity of learning equipments, observation, and tests. Instruments used to collect data in this study are: Learning equipments validation sheet, Observation sheet of learning process, student response questionnaire, and learning outcomes test. All data obtained in this study will then be analyzed by using analysis descriptive that describes result of learning equipment validity, learning process, and student responses during learning. In addition, to know differences in student learning outcomes of experimental
groups and control groups of researchers using the t-test or Independent Sample t-Test. Hypothesis test results in this study processed with the help of SPSS program for windows version 24.

3 Result and Discussion

One of the requirements of the device developed eligible to be applied in the learning is valid. Valid is an accurate measure of the instrument and can measure the success of a learning device development (Basuki and Hariyanto, 2015: 99). The result of learning device validation is described as follows:

1. Lesson Plan

Lesson plan which developed in this research is a lesson plan oriented to the model of cooperative learning type think pair share. Validation activities are carried out to determine whether the prepared RPP is feasible to apply in the learning process. Aspects assessed in the lesson plan are lesson plan format, content, time, and language. Based on the validation results it can be concluded that the average score given by the validator is 3.55. Total score of validator 1 is 70 and validator 2 is 65. Total score given by first validator of each component of assessment is 49 and second validator is 43. Percentage score of first validator is 92.11% and second validator equal to 85.53%. After averaging, the percentage score of both validators is 88.82%. According to (Riduwan, 2006: 88) the appraisal criteria of the device with a score of 81-100 including the criteria is very good and feasible to use with a little revision.

2. Learning Materials

Learning materials which developed in this research contain the material development of production, communication, and transportation technology. This learning material is assessed by the validator of the content feasibility aspects, presentation, language, and legibility. After being validated, the average score given by two validators is 3.54. The number of scores given by first validator of each component of the assessment of 49 and second validator amounted to 43. Percentage score of first validator is 94.23% and second validator is 82.69%. After averaging, the percentage score of both validators is 88.46%. Based on the validation results can be stated that the developed student materials are categorized very good and feasible to use with a little revision. This is in accordance with the criteria set by Riduwan (2006: 88) that the learning device is considered qualified if the criteria are feasible or very feasible to use if it gets a value of ≥ 75.

3. Learning Media

Teachers can motivate their students by arousing their learning interests and by giving and raising expectations. The expectation of achieving a passion or purpose can be the motivation that teachers generate into students. One of the provision of hope is to facilitate students in receiving and understanding the content of the lesson through the use of appropriate learning media (Munadi, 2012: 122).

Learning media which used in this research is power point. According Arsyad (2013: 29) learning media can improve and direct the attention of children, it can lead to learning motivation. Clarify the presentation of messages and information can facilitate and improve the process and learning outcomes. Furthermore, the use of power point media in learning is more interesting because there are color games, letters, and animated text or images or photographs (Daryanto, 2010: 163). In addition, with the use of this power point media, information submitted by teachers will be more easily understood by students. The results of research conducted by Setiawan (2016) proves that the use of power point media can improve student learning outcomes of grade VI SDN Sindangpalay West Bandung with classical completeness above 85%. Learning media is a tool used by teachers to make it easier for students to understand the subject matter. Assessments include media precision with learning materials, text composition (size, color, and type) clear so easy to read, illustration quality (images, audio, and animation) in terms of size and layout, image compatibility with actual state, narrative language Which is used in accordance with the cognitive level of the child, the suitability of the media with the characteristics of students, the media used can facilitate students understand the lesson, and the media display used to attract students’ attention. The average validation feasibility of learning media from first
validator is 94.23 and second validator is 82.69 with very decent category. Thus, the developed learning media can be used with little revision.

4. Student Activity Sheet

Student Activity Sheet is a guide used by students in conducting activities in learning. Student Activity Sheet developed in this study is a guide used by students to conduct learning activities in accordance with the stages of cooperative learning model type think pair share. Assessments include format, language, questions and content. After being validated by two expert validators, an average score of 3.50 was obtained. The number of scores given by the first validator of each assessment component is 55 and the second validator is 50. Percentage score of first validator is 91.67% and the second validator is 83.33%. After averaging, the percentage of scores from both validators is 87.50% with very good category and deserves to be used with little revision.

5. Learning Outcomes Test

Learning outcomes test is a measuring tool used to determine student learning outcomes after the teaching and learning process. Assessment includes the format, content and language of writing questions. The learning result test developed in this research is a multiple-choice test which is used before and after the lesson is implemented using the developed equipment. After obtained the results, then processed using SPSS 24 program to see the effect of devices developed on student learning outcomes. Based on the assessment of two validators obtained an average value of 3.30. The number of scores given by first validator of each assessment component is 55 and second validator is 50. Percentage score of first validator is 91.67% and second validator is 83.33%. After averaging, the percentage of scores from both validators is 87.50% with very good category and deserves to be used with little revision.

The results of the validation of learning as a whole can be seen in the following table:

<table>
<thead>
<tr>
<th>No</th>
<th>Kind of equipment</th>
<th>V1</th>
<th>V2</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lesson Plan</td>
<td>92.11</td>
<td>85.53</td>
<td>88.82</td>
</tr>
<tr>
<td>2</td>
<td>Teaching Materials</td>
<td>94.23</td>
<td>82.69</td>
<td>88.46</td>
</tr>
<tr>
<td>3</td>
<td>Learning Media</td>
<td>96.88</td>
<td>81.35</td>
<td>89.115</td>
</tr>
<tr>
<td>4</td>
<td>Students Activity Sheet</td>
<td>91.67</td>
<td>83.33</td>
<td>87.5</td>
</tr>
<tr>
<td>5</td>
<td>Learning outcomes Test</td>
<td>80.00</td>
<td>85.00</td>
<td>82.5</td>
</tr>
</tbody>
</table>

The average value of learning activity

Student response data is collected by using questionnaires to be filled by students after the learning ends. The result is to give a positive response to the learning activities undertaken. Students feel happy and interested in learning equipment developed.

Learning outcomes are a change of behavior in a person that can be observed and measured in the form of knowledge, attitude, and skills. (Hamalik, 2003: 155). In this research, the assessment focused on the learning outcomes of the cognitive domain obtained through the tests given at the end of the lesson. Based on the average of pretest and posttest analysis results, it is known that the pretest value of the test of student learning outcomes in the experimental class is 45.17 and the pretest value of the control class is 47.32. This shows the average pretest of student learning outcomes in both classes there is no significant difference. Normality test results revealed that the value of significance (sig) of student learning outcomes in pretest the experimental class 0.110 and class 0.365. The result of both classes on pretest points to a result greater than 0.05. Homogeneity
test results can be seen that the value of significance (sig) value of student learning outcomes on pretest experimental class and control class is 0.536 > 0.05. From the prerequisite test results above, it can be concluded that the data pretest student learning outcomes are normally distributed and have the same variant (homogeneous) so that it qualifies to be tested independent t test.

Furthermore, to determine whether there is a significant influence from the application of cooperative model learning type of think pair share on student learning outcomes, the researchers do posttest. Based on the data obtained, it is known that the average posttest score of the students' learning outcomes in the experimental class is 77.67 and the value of the control class posttest is 69.11%. Based on the different data it can be seen that there is difference of test result of student learning result between experiment class and control class. But to know the difference of test result of student result, statistically inferential in this research use independent t test.

Independent t test can be done because based on prerequisite test (normality and homogeneity test) test result data of student learning on posttest which is normal distribution and have the same variant (homogeneous). This is indicated by the result of normality test with significance value (Sig.) Test of student learning outcomes in the experimental class and control class that is 0.573 and 0.155. The results of the two classes on the posttest point to results greater than 0.05. The result of homogeneity test of student learning result resulted significant value (Sig.) in experiment class and control class that is 0.751 > 0.05.

The test result of independent t test of student's learning outcomes on posttest is tested in experiment class and control class 4,446 (df 41) and Sig (2-tailed) value is 0.000. This result shows $t_{\text{count}} = 4.446$ (df 41) > $t_{\text{table}} = 2.020$ (df 41) and Sig. (2-tailed) 0.000 < 0.05 meaning Ho is rejected and Ha accepted. Thus, there is a significant difference between student learning outcomes in the experimental class on student learning outcomes in the control class.

4 Conclusions

Based on the results of research that has been implemented, it can be concluded that the development of learning equipment orientation by cooperative model think pair share aided power point is feasible and can improve students social learning outcomes in 4th grade elementary school.

5 References


