

Development of Learning Models of Large and Small Groups on Creativity and Learning Outcome in the Study of History Learning Evaluation

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Abstract-This study aims to construct the syntax of a learning model that can stimulate learning activity and effectiveness. In this case, activeness is a student's physical and mental participation in learning activities. While the effectiveness of learning is achieving learning outcomes according to the objectives that have been formulating, to construct, validate, and know the activeness and effectiveness of the Big Group and Small Group models this research adopted the theory by the Borg and Gall model. The subjects involved in this study consist of experts, practitioners and students. Validating the construction or syntax of the learning model is conducted rationally by two development research experts, the result is analyzed qualitatively and revised. The implementation of the learning process was observed and assessed by two practitioners as rater and analyzed by the Kappa formula. An empirical trial is conducted to validate the feasibility of the learning model. Stage 1 involved 33 people and stage 2 consisted of 74 students. The analytical technique used Inter-class Correlation Coefficients (ICC). The instrument used was a valid and reliable questionnaire and test. The result of the empirical trial phase 1 found that the correlation was 0.71. Stage 2 Empirical Test. The correlation coefficient results are 0.93. The result of learning activeness observation from 74 students based on criteria showed that 25 people (34%) are very active, 31 people (42%) are quite active, 11 people (15%) are less active, and seven people (9%) are not active. The results from the data analysis of learning outcomes test from 74 students according to the curriculum applied by Universitas Negeri Medan are as follows: 27 people (36%) got A score, 39 people (53%) B score, 6 people (8%) C Score and only 2 people (3%) do not meet the criteria. Based on the above data we can conclude that the Learning Model of Large Groups and Small Groups is feasible and effective to use for the History Learning Evaluation course.

Keywords-*Learning Model, Large and Small Groups, Activity, Learning Outcomes.*

I. INTRODUCTION

The History Learning Evaluation course is an essential and compulsory subject for prospective teachers because it deals with the three main tasks of a teacher, namely designing, implementing and evaluating/assessing learning activity. Based on experience while teaching the History Learning Evaluation course, data from the odd semester of the 2017/2018 academic year shows that the outcomes of student learning activity based on

several formative examinations carried out objectively were quite alarming. Of 3 classes that taught in parallel, neither obtained an A grade, while only 20% obtained B grade, 32% got C and the rest scored below the passing grade. It is occurred because of various factors, including the lack of active students in participating in learning activities, as indicated by the tasks of reading and writing resumes in each meeting that was not following the theme and materials that arrange in an unsystematic and careless manner. Regarding soft skills, students are often late to collect or did not even make assignments at all, lacking honesty and often copy and paste their assignments, and lack cooperation in groups. Regarding activity, they sometimes refrain from participating in class discussions, lacking ideas and not asking or answering enough questions.

This course is an applied course, not only aimed at providing knowledge to students about techniques and procedures in evaluating or assessing learning processes and results. In addition to discussing theory, the course prioritizes practice and direct practice, namely contextual learning. Therefore students must be active both in preparing material and conducting activities during class discussions, while paying attention to attitudes, especially about discipline and honesty and cooperation. The learning process must have an effective and efficient strategy and must be able to meet the expected goals. One step in the strategy is mastering presentation techniques or commonly called learning methods/models. The learning model has a considerable contribution to teaching and learning activities. The ability that is expected to be possessed by students will determine by the relevance between the use of a model and its purpose. It means that the learning objectives will achieve by using the right model, by the success standards imprinted in a goal. It is, therefore, necessary to develop an appropriate model so that students can be active in participating in learning activities.

The learning model that will develop in this study is the 'Large Group and Small Group Learning Model'. This model, if implemented, is expected to stimulate or motivate students' active participation in the learning process so that they can achieve maximum Learning Outcomes. As in the concept of constructivism, students

who are active in learning always find knowledge, information, or skills by experiencing them in person. This model was adopted and modified from the contextual learning approach and the existing cooperative learning model, then modified into more detailed steps and procedures to facilitate the measurement, assessment and evaluation of student participation and learning outcomes.

Based on the approach, the model and variables that will develop in this study base on several theories and concepts. According to [1] stated that development research is an attempt to develop useful products for use in schools, and not to test theories. Furthermore, according to [2] defined development research as a systematic assessment of the design and development of learning programs, processes and products that must meet the criteria of validity, practicality, and effectiveness. Research and development methods are methods used to produce specific products and to test the effectiveness of these products[3]. In line with the above statement, Research and Development (R & D) is a processor steps to develop a new product, or improve existing products, with accountability. Such products are not always objects or hardware, but also software. From the conclusion, the product that will develop in this research is software in the form of learning models used in lectures.

Many development research models can be referenced from experts as follows. According to [4] the focus is on two stages namely the preliminary stage and the formative evaluation phase which includes self-evaluation, prototyping (expert reviews and one-to-one, and small group), as well as a field test. The 4D model stands for Define, Design, Development and Dissemination developed by Thiagarajan [5]. The ADDIE model stands for Analysis, Design, Development or Production, Implementation or Delivery and Evaluation as told [1] proposed ten stages of mass research and development procedures. From the above choices of model, it can conclude that the development steps to develop and validate the product do not look much different, each has its weaknesses and advantages. Borg and Gall's models used to develop a learning model for large groups and small groups in this study.

A model is something that describes a pattern of thinking. A model usually describes the whole concept that is interrelated. The model is an abstraction of reality, a simplified, representation of some real-world phenomenon. The purpose of the definition is that the model is a representation of several phenomena that exist in the real world-the definition of the model the representation of a process in the form of a graphic or narrative, by showing the main elements and structure. So, from these definitions, it can be concluded that the model is a process of thought patterns and components contained in it, which represented in graphical or narrative form. The model usually describes the steps or procedures that must be taken to create effective, efficient and exciting learning activities. As such, a model in learning development is a systematic process of design,

construction, utilization, management and evaluation of learning systems. Based on the understanding of learning development, there are at least five criteria that must do in the learning model, namely: 1) it has a purpose; 2) suitable for its purpose; 3) systematic; 4) it has evaluation activities and 5) fun.

This learning model is a modification of cooperative and contextual learning approaches. The model that will develop is by the understanding, characteristics, elements and cooperative and contextual learning objectives described above. The learning model has four unique characteristics that are not similarly possessed by strategies, methods, and procedures. The characteristics include: 1) rational, theoretical, logical, compiled by the creators or developers, 2) the foundation of thinking about what and how students learn (learning objectives), 3) the teaching behaviour required so that the model can appropriate implemented, 4) learning environment required so that the objectives can achieve.

Each learning model always has stages (syntax). There is a difference between the syntax with one another. This difference mainly lies between the opening and closing of learning so that the model can implement successfully. The quality of learning models must identify from two aspects, namely processes and products. The process aspect refers to whether learning can create social learning situations and encourage students to learn and think creatively actively. The product aspect refers to whether the learning process can achieve its objectives, namely to improve students' abilities by the specified standards of ability or competency. In this case, before seeing the results, the process aspects must first be ensured. The steps of the large and small group learning models are as follows:

TABLE I. SYNTAX OF LEARNING MODELS FOR LARGE GROUPS AND SMALL GROUPS

| Teacher Behavior | Student Behavior |
|---|--|
| The lecturer divides students into two broad groups named odd groups and even groups. Grouping of odd and even members is determined based on the order of attendance. | Students sit in groups according to their respective groups, namely odd and even. |
| The lecturer asks students to divide each large group into several smaller groups consisting of 1-5 people. | Students divide large groups into several smaller groups consisting of 1-5 people. |
| Lecturers give assignments to each small group to discuss and work on the same lecture material | Students work and discuss assignments together in their respective groups |
| Lecturers require each to have at least one sourcebook, and sourcebooks in one small group must vary. No two authors can be the same. | Each student provides one sourcebook that is different from that of his/her other friends |
| The lecturer asks each in the group to collect data or work on assignments with different sourcebooks. | Each student collects data and works on assignments using different sourcebooks |
| After each's assignment is completed, the lecturer asks for discussion in each small group then reports the results of the group discussion to present in front of the class. | Students hold discussions with each group and create a report on the results of group discussions for presentation |
| Lecturers require each to pose at least 1 question based on the material that they worked on to make sure that the class discussion is lively. | Each student prepares questions from the material work on |

TABLE I. SYNTAX OF LEARNING MODELS FOR LARGE GROUPS AND SMALL GROUPS

| | |
|---|---|
| The lecturer said that each group must be prepared at any time to make a presentation by drawing lots. | Each group prepares itself for the presentation even though it is not their turn, because the turn determines by lot-drawing. |
| The lecturer requires that each group use learning media by the material discussed, at least power point when making a presentation. | Each group prepares learning media by the material discussed |
| The lecturer asks everyone to copy the resume of their material and group resumes on a CD. (This CD will be filled with all the tasks done by each). The results of this overall assignment use for portfolio assessment. | Each student copies the resume of his material and his group's resume into a CD |
| Ways of class discussion: Odd groups face even groups. If one of the groups has an odd presentation, then the other odd groups must help, while the even groups make the comparison. | Each group presented the results of group discussions in the field by the rules that had been submitted by the lecturer |
| Each group member must master the material produced. The activeness in answering and the accuracy of the answers to other group members' questions as well as those of the lecturer are used as indicators of mastery of the material. | Each group member must master the material, active in the discussion and provide accurate answers to obtain additional value. |
| The lecturer requires that each group member be present during their presentation. Members who are not present give zero (0) score. | Every student/group member attends the presentation. |
| The lecturer requested that during the discussion in each class the students record the course of the discussion. What must be recorded by each is: Which group presented, 2) what material discussed, 3) who was the moderator, 4) who posed questions, 5) what was the question, and 6) who answered. | Each student records the process of discussion by the rules and directives given by the lecturer |

II. RESEARCH METHOD

The method used herein is research and development [3]. The purpose of this study is to develop a product in the form of a valid and effective learning model. It means that the large and small group learning models developed are suitable to be used as learning models that can stimulate learning activeness and are useful for improving student learning outcomes in the course of historical learning evaluation. The location of the study was the History Education Department of the Faculty of Social Sciences, Universitas Negeri Medan. Period of the study was the odd semester of 2018-2019. The research subjects consisted of experts on learning model, educators (lecturers) and students.

The Development Model and Procedure used in this research adapted from Borg and Gall [6]. The application of which adapted to the needs of the study. The research procedure carried out was Research and information collecting, Planning, Develop a preliminary form of product, Preliminary field testing, Main product revision, Main field testing, Operational product revision, Operational field testing, Final product revision, and Dissemination and implementation.

The technique used for data collection at the product validation stage is a questionnaire, while at the dissemination and implementation stage, observations and tests are carried out. Validity and reliability tests are conducted to maintain the quality of research instruments. Rational validation is analyzed qualitatively by experts and peers. Quantitative analysis of product validity in empirical tests at the product implementation stage is carried out quantitatively, namely by using the Intra-Class Correlation Coefficient. Intra-class correlation coefficients (ICC). This coefficient is developed based on the analysis of variance, but in some instances, the results are similar to alpha coefficients. Use of the ICC coefficient considered appropriate if (a) the rater is used a lot and (b) the score of the assessment results is continuous.

The research instrument for feasibility validation was a questionnaire with a scale rating system, namely 1) questionnaire to validate the construction/syntax of the learning model, 2) questionnaire for the implementation of the learning model. Questionnaires are used to determine the activeness of learning and multiple choice tests used to identify learning outcomes.

III. FINDING AND DISCUSSION

This research is development research, the procedure of research and development is an adaptation of the steps of the research and development of Borg and Gall. The purpose of this study was to develop a learning model for evaluating history learning. This model is adapted from a cooperative and contextual approach, and involves several methods of construction, resulting in systematic syntax called Big and Small Group models.

Procedures or standardization steps carried out to identify the feasibility and effectiveness of this learning model include: analyzing problems, reviewing theory, designing research, constructing models, objective tests, empirical tests 1 and 2 to validate feasibility, last implementation phase to determine the effectiveness of learning models.

1. Rational Test

After the learning model is completed or constructed, analytical validation is carried out by experts. In this case, 2 person Doctors from the Department of Educational Technology and 2 practitioners or colleagues were asked to act as validators to correct, assess and provide input to correct the shortcomings of the construction of learning models designed by researchers relating to 5 indicators, namely: 1) the relevance of the model with the objectives of the course, 2) the relevance of the model with the character of the student, 3) the relevance of the model with evaluation, 4) the relevance of the model with pleasure, effectiveness, learning efficiency, 5) systematics of the learning model.

The results of the corrections, assessments and input from the experts were analyzed qualitatively, and the results were several improvements that could be made to the four indicators above to improve the model developed.

2. Stage 1 Empirical Test

After an objective test and improvement of constructs or syntaxes, the Large and Small group learning models are followed by empirical tests or stage 1 field tests of limited groups. The test was conducted in class C and involved 33 students taking courses in evaluating history learning with the material in the form of basic concepts of historical learning evaluation. This phase 1 test aims to ask students' opinions about whether the learning model applied is feasible or valid. From the assessment of 33 students through questionnaires with a scale assessment system, the data were analyzed using the intraclass correlation coefficients (ICC) developed by Pearson. The results of the analysis obtained the correlation coefficient of 0.71. This figure shows that the learning model of the large and small groups that are applied is feasible and adequate but not yet maximal. After the syntax and RPP are improve, a second test is conducted. On this occasion, data collection was conducted to obtain validity and reliability of learning activeness questionnaires and learning outcomes tests.

3. Stage 2 Empirical Test

Just as with phase 1 tests, this stage 2 empirical test also aims to validate the feasibility of applying the Big and Small Group learning models to the course learning process entitled evaluation of historical learning. The second test involved two parallel classes, namely, class A totalling 41 students, and class B 33 people, so there was a total of 74 students/respondents. Based on the assessment of students through questionnaires with a scale system, after the Intra-Class Correlation Coefficient technique analyzed the data, the result of the correlation coefficient was 0.93. This figure shows that the learning model of large and small groups that are applied is very feasible, does not need to be repaired and can be implemented.

4. Implementation of Learning Method

Implementation of the learning model to determine the effectiveness of large and small group models is carried out simultaneously at the time of the second trial. When the learning process takes place, task assessment and observation are carried out on student learning activeness during the learning process. The percentage of learning activity from the observations of 74 students based on criteria shows that: 25 people (34%) were very active, 31 people (42%) were quite active, 11 (15%) were less active, and 7 (9%) were not active. Based on the above percentage it can be said that the learning model of large groups and small groups effectively stimulates student learning activeness in the course of evaluating history learning. For more details, see the frequency distribution table and the following histogram:

TABLE II. PERCENTAGE OF LEARNING ACTIVENESS FROM OBSERVATION OF STUDENTS

| Learning Activeness | F | Percentage | Criteria |
|---------------------|----|------------|--------------|
| 71-80 | 25 | 34% | Very Active |
| 61-70 | 31 | 42% | Quite Active |
| 51-60 | 11 | 15% | Less Active |
| < 50 | 7 | 9% | Inactive |
| Total | 74 | 100% | |

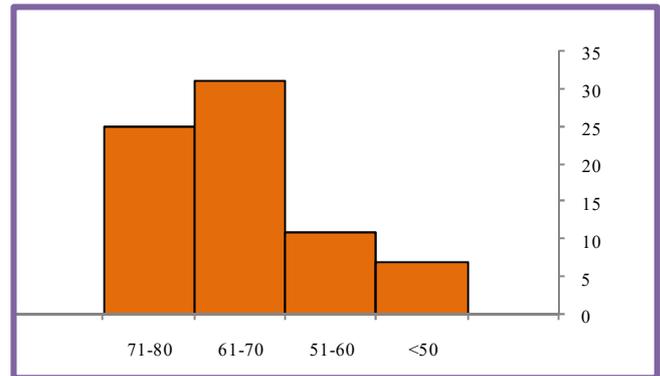


Fig. 1 Learning Activeness from Observation of Students

At the next meeting, a multiple-choice learning outcome test was conducted to find out whether students successfully mastered the material discussed using a large and small group learning model. The results of data analysis from 74 students, based on the Universitas Negeri Medan applied criteria, were as follows: 27 people (36%) got an A score, 39 people (53%) got a B score, 6 people (8%) got a C score, and only 2 people (3%) failed to meet the criteria.

TABLE III. STUDENT LEARNING OUTCOMES TEST

| Learning Outcomes | F | Percentage | Criteria |
|-------------------|----|------------|----------|
| 90-100 | 27 | 36% | A |
| 80-89 | 39 | 53% | B |
| 70-79 | 6 | 8% | C |
| < 70 | 2 | 3% | E |
| Total | 74 | 100% | |

Based on the above data we can conclude that the Learning Model of Large Groups and Small Groups is feasible and effective to use for the History Learning Evaluation course.

IV. CONCLUSION

In rational trials that aim to correct, assess and improve the construction of learning models of large groups and small groups by experts and practitioners, there are several things related to the construction of models that must be repaired, added, and disposed of because they are not appropriate.

Phase 1 Empirical Test involving 33 students aimed at asking students' opinions about whether the learning

model applied was feasible or valid. The results of the analysis using the Intra Class Correlation Coefficient technique produced a correlation of 0.71. This figure shows that the learning model of the large and small groups applied is feasible and adequate but is not yet optimal.

Phase 2 Empirical Test involves two parallel classes, namely class A with 41 students and class B with 33 students, so a total of 74 respondents. Based on the assessment of students through a questionnaire with a scale system, after the Intra-Class Correlation Coefficient technique analyzed the data, the correlation coefficient was 0.93. This figure shows that the learning model of the large and small groups applied is very feasible, does not need to be improved anymore and implemented. Implementation of learning models to determine the effectiveness of large and small group models on student learning activity carried out during the learning process.

Percentage of learning activeness observation results from 74 students based on criteria showed that 25 people (34%) were very active, 31 people (42%) were quite active, 11 (15%) people were less active, and seven people (9%) were not active. Based on the above percentage it can be said that the learning model of large groups and small groups effectively stimulates student learning activeness in the history learning evaluation course. To find out whether the material discussed using the learning model of large groups and small groups has success, a test of learning outcomes with multiple choices was carried out.

The results of data analysis from 74 students, based on the criteria applied by Unimed are as follows: 27 people (36%) got an A score, 39 people (53%) got B scores, 6 people (8%) scored C and only 2 people (3%) that do not meet the criteria. Based on the above data it can be concluded that the Learning Model of Large Groups and Small Groups is feasible and effective to use for the History Learning Evaluation course.

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