The Influence of Complex Instruction Type Cooperative Learning Models on Student History Learning Outcomes SMA Negeri 5 Banda Aceh

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ABSTRACT
This article aims to know the effect of the cooperative learning model of complex instruction type on history learning outcomes of class XI IPS students SMA Negeri 5 Banda Aceh. The method used in this research is quasi-experimental with the form of design used being the nonequivalent control group. The population in this study are all students of class XI IPS SMA Negeri 5 Banda Aceh. The sample in this study was XI IPS 1 as an experimental class and XI IPS 2 as a control class, samples were taken by purposive sampling technique. Data collection techniques used are test and documentation. Data analysis techniques using SPSS version 20. The results showed that the cooperative learning model of complex instruction type influences student history learning outcome with an average student learning outcomes of students in class XI IPS 1 is 73,45 while class XI IPS 2 is 58,50. The results of data processing using Mann-Whitney test on the experimental class and control class showed that Asymp. Sig. (2-tailed) that is 0,001 < 0,05, so H_a is accepted and H_0 is rejected, it means that there is an effect of the model on history learning outcomes of class XI IPS students.

Keywords: Cooperative Learning model, Complex Instruction, Learning Outcomes

ABSTRAK
Artikel ini bertujuan untuk mengetahui pengaruh model pembelajaran kooperatif tipe complex instruction terhadap hasil belajar sejarah siswa kelas XI IPS SMA Negeri 5 Banda Aceh. Metode yang digunakan dalam penelitian ini adalah quasi-experimental dengan desain nonequivalent control group. Populasi pada penelitian ini adalah seluruh Dihapus kemudian diganti “being”siswa kelas XI IPS SMA Negeri 5 Banda Aceh. Sampel dalam penelitian ini adalah XI IPS 1 sebagai kelas eksperimen dan XI IPS 2 sebagai kelas kontrol, sampel diambil dengan teknik purposive sampling. Teknik pengumpulan data yang digunakan adalah tes dan dokumentasi. Teknik analisis data menggunakan SPSS versi 20. Hasil penelitian menunjukkan bahwa model pembelajaran kooperatif tipe complex instruction berpengaruh terhadap hasil belajar sejarah siswa dibuktikan dengan rata-rata hasil belajar siswa kelas XI IPS 1 sebesar 73,45 sedangkan kelas XI IPS 2 sebesar 58,50. Selain itu hasil pengolahan data menggunakan uji Mann-Whitney pada kelas eksperimen dan kelas kontrol menunjukkan bahwa Asymp. Sig. (2-tailed) yaitu 0,001 < 0,05, sehingga H_a diterima dan H_0 ditolak berarti terdapat pengaruh model pembelajaran kooperatif tipe complex instruction terhadap hasil belajar sejarah siswa kelas XI IPS.

Kata Kunci: Model Pembelajaran Kooperatif, Complex Instruction, Hasil Belajar
INTRODUCTION

Education is a process that includes three dimensions, namely the individual, society or community and the entire content of reality, both material and spiritual, which plays a role in determining the nature, destiny, form of humans and society. Education is something that is considered crucial and affects aspects of human life, where education is expected to improve morals, character and intelligence (Nurkholis, 2013: 24).

Education today is one aspect to measure the progress of a country. Countries that can develop education well are able to improve quality human resources, both in terms of intellectual and psychomotor, so that they have competitiveness that is commensurate with other countries. However, in reality education is currently still unable to produce quality education. This is a crucial problem in the world of education caused by less effective learning. The effectiveness of a learning is influenced by several factors, one of which is the teacher who directs learning activities (Satria & Kamza, 2021:55). The teacher is the most important component directly involved in designing and implementing learning activities. Therefore, teachers are required to be able to create fun, interesting and effective learning that makes it easier for students to understand the material. This has an impact on the achievement of learning objectives. Whether or not the learning objectives are achieved can be seen from the learning outcomes. In addition, learning activities are two-way interactions between teachers and students (Isaleha et al., 2021:38).

Based on the results of initial observations of history learning activities in class XI IPS SMA Negeri 5 Banda Aceh which was carried out on April 5, 2021, it showed that student learning outcomes were still in the low category and did not meet the Minimum Completeness Criteria (KKM) because the learning process was less effective. Of the 59 students of class XI IPS there are only 15.25% whose learning outcomes are complete and there are 84.75% who are not. The KKM for history subjects at SMA Negeri 5 Banda Aceh is 72. Less effective learning processes occur due to lack of innovation and variations in learning models. This can be seen when the learning process takes place only a few students are responsive to the teacher’s explanation, causing learning activities to be less effective. Less effective learning makes students less understanding of the material being studied. Understanding the material will determine whether or not the learning outcomes obtained are low. From these problems, it is necessary to have new innovations in the learning model used so that the learning process becomes more effective and can improve learning outcomes. Students will increasingly master the material if given the opportunity to carry out student-centered learning activities, so that they will be more free to explore their abilities and be able to understand the material being taught. Such learning is expected to foster a balance between knowledge, social, spiritual and psychomotor (Shavab & Miftahudin, 2019:15).

The learning model provides information to the teacher regarding the learning activities to be carried out. Cooperative learning model type of complex is a learning activity that can generate students’ knowledge so that higher order thinking in heterogeneous cooperative groups. Not only that, this learning model can also increase the competence of students who have low learning skills and minimize the dependence of students on teachers (Warsono & Hariyanto, 2016:208).

Several relevant studies regarding the effect of the complex instruction on student learning outcomes have been studied using the same approach and research method with sampling techniques, data collection techniques, data analysis and different
subjects by Nursafitri et al., (2020), Nurhikmah et al., (2017), and Purmintasari & Lestari (2016). The results of some of these studies explain that the complex instruction affects student learning outcomes in the cognitive domain and can minimize students' dependence on teachers. In addition, this model can make students more confident in their abilities so that students are triggered to be bolder in expressing their opinions. From some of these relevant studies, it can be concluded that complex instruction is a learning model which can be used as an alternative to make the learning process more effective and have an impact on student learning outcomes in a better direction. So this article examines whether the complex instruction affects the history learning outcomes of students in class XI IPS SMA Negeri 5 Banda Aceh.

**RESEARCH METHOD**

This research uses a quantitative research approach. The research method used is a quasi-experimental design with a nonequivalent control group. This design is an experimental research design whose research samples were not randomly selected from either the experimental group or the control group (Sugiyono, 2019: 120). In this study, the design uses two classes were not chosen randomly, then these two classes were given a pre-test to find out if there was a difference between the experimental class and the control class, after the two classes were treated the next step was to do a post-test, then the results were compared to see the effect of type cooperative learning model complex instruction on student learning outcomes.

The population in this study were all students of class XI IPS SMA Negeri 5 Banda Aceh which consisted of 2 classes and totaled 61 students. The samples in this study were class XI IPS 1 as the experimental class with 31 students and class XI IPS 2 as the control class with 30 students. This sample was taken using purposive sampling technique. Data collection techniques used are tests and documentation. Data analysis technique using SPSS version 20 with steps consisting of normality test, homogeneity test, hypothesis test and N-Gain test.

**RESULTS AND DISCUSSION**

**Analysis of the Experimental Class and Control Class Students' Test Results**

Before giving treatment to the experimental class and control class, the researcher conducted a pre-test to determine the students' initial abilities. Then the treatment was given to both classes. The experimental class was given treatment in the form of a complex instruction model, while the control class was given treatment in the form of a think pair share model. The results of the pre-test and post-test can be seen in table 1.

| Table 1. Descriptive Statistics |
|---------------------------------|
|                               | N | Minimum | Maximum | Mean  | Std. Deviation |
| Pre-test Experiment            | 29|   15    |     60  | 33,97 | 13,388         |
| Post-test Experiment           | 29|   40    |     95  | 73,45 | 15,359         |
| Pre-test Control               | 30|    5    |     50  | 25,00 | 9,097          |
| Post-test Control              | 30|   30    |     90  | 58,50 | 19,125         |
| Valid N (listwise)             | 29|        |        |       |                |

Source: Results of SPSS Data Processing Version 20
Results of descriptive statistical data processed with the help of SPSS version 20, the results obtained are the results pre-test the lowest value is 15 and the highest value is 60 with an average value of 33.97 and a standard deviation of 13.388. While the results of the post-test experimental class the lowest score was 40 and the highest score was 95 with an average value of 73.45 and a standard deviation of 15.359. In addition, the results pre-test the lowest score was 5 and the highest score was 50 with an average value of 25.00 and a standard deviation of 9.097. The post-test the control class had the lowest score of 30 and the highest score of 90 with an average value of 58.50 and a standard deviation of 19.125. The results of this statistical data indicate that student learning outcomes in the experimental class are higher than the control class, but this cannot be concluded because normality testing, homogeneity testing, hypothesis testing and N-Gain testing must be carried out.

Normality Test
Normality test was conducted to determine whether the research data were normally distributed or not. The results of the normality test can be seen in table 2.

| Class                     | Kolmogorov-Smirnov<sup>a</sup> | Shapiro-Wilk               |
|---------------------------|-------------------------------|-----------------------------|
|                           | Statistic  | Df     | Sig. | Statistic | df     | Sig. |
| Pre-test Experiment       | .203       | 29     | .004 | .928       | 29     | .049 |
| Post-test Experiment      | .299       | 29     | .000 | .850       | 29     | .001 |
| Pre-test Control          | .167       | 30     | .033 | .950       | 30     | .170 |
| Post-test Control         | .206       | 30     | .002 | .892       | 30     | .005 |

Source: Results of SPSS Data Processing Version 20

Based on these data, it can be concluded that pre-test was not normally distributed because the significant value was 0.049 < 0.05. Data post-test experimental class data pre-test the control class were normally distributed because the significance value was 0.170 > 0.05. Data post-test was not normally distributed because the significance value was 0.005 < 0.05.

Homogeneity Test
Test was conducted to determine whether the sample data from the two classes had the same or homogeneous data variance. Based on the results of the homogeneity test, it shows that the level of significance value based on the mean is 0.013 < 0.05, so the research data is not homogeneous. Homogeneity test is not an absolute requirement, therefore, Mann-Whitney to test the hypothesis.

Hypothesis Test
Testing in this study uses the Mann-Whitney type of cooperative learning model complex instruction has an effect or not on learning outcomes. The results of the Mann-Whitney can be seen in table 3.
The result of the analysis of hypothesis testing using the Mann-Whitney test on the post-test experimental class and control class show that Asymp. Sig. (2-tailed) that is 0.001 < 0.05, so that H_a accepted and H_0 rejected with the average value of the experimental class being higher than the control class. Therefore, it can be concluded that there is an effect of the complex instruction on the history learning outcomes of students in class XI IPS SMA Negeri 5 Banda Aceh.

**N-Gain Test**

Test The N-Gain test was conducted to see the difference between the pre-test and post-test between the experimental class and the control class. Based on the table, it can be concluded that there is an increase in student learning outcomes in the experimental class and the control class after being given different treatments. This is indicated by the difference in the pre-test and post-test of each class with higher learning outcomes in the experimental class than the control class on the N-Gain test. The experimental class learning outcomes before being given treatment had an average of 33.97, after being given certain treatment using a complex instruction had an average of 73.45 with an N-Gain score of 0.64 included in the medium category. The control class learning outcomes before being given treatment had an average of 25.00 and after being given treatment using a think pair share had an average of 58.50 with an N-Gain score of 0.51 included in the medium category. Although the results of the N-Gain score between the experimental class and the control class are both in the medium category, they have a difference of 0.13.

**The Effect of the Complex Instruction type of Cooperatif Learning Model on the History Learning Outcomes**

Research was conducted in class XI IPS SMA Negeri 5 Banda Aceh which includes tests and documentation using a complex instruction type cooperative learning model. This study aims to determine the effect of type of cooperative complex instruction on the history learning outcomes of students in class XI IPS SMA Negeri 5 Banda Aceh.

In this study, researchers conducted a learning process with one meeting or 2 hours of lessons for each class, both class XI IPS 1 and class XI IPS 2 with the material of the influence of World War I and World War II on global political life. Before learning begins, each student is given a pre-test in both the experimental class and the control class. The purpose of the pre-test is to determine the ability or prior knowledge of students regarding the material before the learning model is applied. After learning is complete, each student in the two classes is given a post-test to determine learning outcomes both in the experimental class using the complex instruction and the control class using the think pair share model.

The results of the pre-test obtained by the experimental class were the lowest score was 15 and the highest score was 60 with an average value of 33.97, while the post-test the experimental class were the lowest score was 40 and the highest score was 95 with an average value of 73.45. Based on the
explanation, there were 22 students or 76% who completed, while there were only 7 students or 24% who did not complete. This shows that classically students in the experimental class have completed their learning. The results of the pre-test control class the lowest score is 5 and the highest score is 50 with an average value of 25.00. The results of the post-test control class the lowest score was 30 and the highest score was 90 with an average score of 58.50. Based on this explanation, there were 12 students or 40% who completed, while there were 18 students or 60% who did not complete. This shows that individually the students in the control class have not completed or have not reached the KKM that has been set.

The results of hypothesis testing using the Mann-Whitney on the post-test the experimental class and control class showed that Asymp. Sig. (2-tailed) is 0.001 < 0.05, so that is H_a accepted and H_o rejected. This shows that there is an influence of the model of the influence of the complex instruction on the history learning outcomes of students in class XI IPS SMA Negeri 5 Banda Aceh. In addition, the N-Gain test also shows that there is an increase in student learning outcomes in the experimental class and the control class after being given different treatments. The N-Gain score in the experimental class was 0.64 in the medium category, while in the control class the N-Gain score was 0.51 in the medium category. It can be concluded that the N-Gain scores in the two classes are in the same category, which is moderate, however, there is a difference in score of 0.13.

The results showed that the cooperative learning model can create maximum learning. This is in accordance with the main principle of cooperative learning, namely the use of small-scale groups that allow students to work together so that learning in groups is maximized (Sjafei, 2017: 28). Based on the description of the research results prove that the complex instruction able to improve learning outcomes in the cognitive domain of students. This model shows that the competence of students with low learning skills can increase. Learning activities take place more conducive and effective because students have their respective roles in the group. In addition, students can also freely express their opinions on learning materials.

CONCLUSION

Based on the results of research that has been conducted at SMA Negeri 5 Banda type cooperative learning model complex instruction on the history learning outcomes of students in class XI IPS. In the experimental class the mean value of the pre-test obtained was 33.97 and the average value of the post-test obtained was 73.45, while in the control class the average value of the pre-test was 25.00 and the average value was average post-test was 58.50. Based on the results of the Mann-Whitney in the experimental class and control class using SPSS version 20, it shows that Asymp. Sig. (2-tailed) is 0.001 < 0.05, so H_a accepted and H_o rejected. This means that there is an effect of the complex instruction on the history results of class XI IPS students at SMA Negeri 5 Banda Aceh. The results of the N-Gain test show that the experimental class's N-Gain score is 0.64, while the control class is 0.51 with a difference in scores of the experimental class and the control class of 0.13. The difference in scores shows that the increase in student learning outcomes in the experimental class is higher than the control class.

SUGGESTIONS

This suggestion aims to provide renewal and innovation in the use of learning models in learning activities. Based on the results of the research and the conclusions that have been described, the advice given is that the teacher as a student facilitator must be able to create effective and conducive learning by using learning models so that students become responsive and easy to understand the material. Meanwhile, schools as educational institution should provide education to subject teachers to be more innovative in managing learning in the classroom. In addition, this research is expected to be a
reference and it is hoped that further researchers will try to review the type of cooperative learning complex instruction but should measure it in different aspects.

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