# Comparison Of Cooperative Learning Models With Inquiry on Student Learning Outcomes

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**ARTICLE INFO**

**ABSTRACT**

Purpose of this study was to find out how the learning outcomes of class X Marketing students on business communication material using cooperative-based learning models, knowing how to learn Marketing class X students on business communication material using inquiry-based learning models, find out whether there are differences in learning outcomes of class X Marketing students on business communication material with cooperative learning and inquiry models. It is said that cooperative learning models are due to teaching strategies designed to educate group cooperation and interaction between students. While the inquiry learning model is learning that is centered on the activities of students to find their own experiences and knowledge. The design of this study is pre-test, treatment of learning models, and post-test. The results of this study are that there are differences in the learning outcomes of experimental class 1 students (X Pm 1) with an average value of 74.75 and experimental class 2 (X Pm 2) with an average value of 77.00. And the calculation using the t-test obtained tcount= 2.086> ttable = 0.39. Based on the results of these studies it can be concluded that the experimental class 2 which uses the inquiry learning model is better than the experimental class 1 which uses the cooperative learning model.

## INTRODUCTION

For humans education is a necessity that cannot be avoided. With education, humans will be directed to become human beings who are deceived and improve their standard of living. Education also carries out the task of producing a better generation so that it becomesa benchmark for a country's strength. The rapid development of science and technology requires a State to improve the quality and quality of education in order to be able to compete with countries in the world (Arsyad,2010)

The quality of education is closely related to the learning process. In the learning process raises interactions between teachers and students. Through interactions between teachers and students and interactions between fellow students in the learning process will have a positive impact. This teacher and student play an important role in the quality and quality of education. Measuring the achievement of quality and quality of education is outlined in student achievement. Furthermore, student learning achievement is realized in academic achievement which is measured through learning outcomes (Daryanto, 2012)

Learning outcomes are very important in the world of education because they are indicators of achieving planned targets. For teachers learning outcomes are not only indicators of success in delivering material to students but rather the use of methods used in the teaching and learning process and determine students who have achieved minimal completeness and have the right to proceed to the next material. For students learning outcomes become a measure of mastery of the material delivered by the teacher. For schools good learning outcomes increase the credibility and reputation of the school both in the community and the world of education. For other agencies and educational institutions learning outcomes are an evaluation material for the implementation of the curriculum in schools (Majid,2013).

According to Rifa'I and Anni (2009) learning outcomes are behavioral changes obtained by students after experiencing learning activities. The acquisition of aspects of behavior change depends on what is learned by the students ".

Learning methods are different ways to achieve different learning outcomes under different conditions based onlearning competenciespredetermined. Learning methods are an important part of the teaching and learning process and the ability that students are expected to have. According to Sanjaya (2009) that the teacher as one of the learning resources is obliged to provide a creative learning environment for students' learning activities in the classroom. This

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will be determined by the relevance of using the right method, in accordance with the standards of success arranged in a goal. Suitable method so that students can think critically, logically, be able to solve problems openly, creatively and innovatively. Then the situation needs to be developed optimally with active learning.

Based on the background above, the formulation of the problem can be made as follows: (1) How are the learning outcomes of class X Marketing students on business communication material using cooperative-based learning models? (2) What are the learning outcomes of X Marketing class students on business communication material using inquiry-based learning models? (3) Are there differences in the learning outcomes of class X Marketing students on business communication materials with cooperative learning and inquiry models?

Based on the formulation of the problem above, the objectives to be achieved in this study are as follows: (1) knowing how the learning outcomes of class X Marketing students on business communication material using cooperative-based learning models (2) knowing how to learn the results of class X marketing students on business communication material using learning models inquiry-based (3) knowing whether there are differences in learning outcomes of class X marketing students on business communication material with cooperative learning models and inquiry.

According to Suprijono (2012) learning models are patterns used as guidelines in planning classroom learning and tutorials. Wahab (2008) defines the learning model as a teaching plan that describes the process taken in the teaching and learning process in order to achieve specific changes in student behavior as expected.

Cooperative learning or cooperative learning is a general term for a set of teaching strategies designed to educate group cooperation and interaction between students. Cooperative learning objectives include at least three learning objectives, namely academic learning outcomes, acceptance of diversity, and development of social skills. This strategy is based on Vygotsky's (1978) learning theory which emphasizes social interaction as a mechanism to support cognitive development.

The inquiry learning model is centered on the activities of students to find their own experience and knowledge. Majid (2013). Stating that all activities carried out by students are directed to find and find their own answers from something in question so that they are expected to foster self-belief. Sanjaya (2006) argues that the inkuiry model is a learning model thatemphasizes the process of thinking critically and analytically to find and find answers to a question in question.

Business communication is communication that is used in the business world which consists of various forms of communication, both verbal and non verbal to achieve certain goals in accordance with the business interests of the communication actors (Djoko Purwanto, 2006).

## METHOD

The research is a type of pure experimental research (True Experimental Design) in SMK Dr. Soetomo Surabaya because in this design, researchers can control all external variables that influence the course of the experiment. Thus, internal validity can be high (Sugiyono, 2011). used to examine the differences in student learning outcomes between classes using cooperative learning and inquiry models.

### Material

The data collection techniques were an observation sheet to assess the comparison coopertive learning model with inquiry syntaxes and the questionnaire of the students' responses which comprises of pretest and posttest. The results of the observation sheet were analysed using Guttman scale, while the student's questionnaire was assessed usingfive-point Likert scale. The data of students' responses to the application of comparison coopertive learning model with inquiry were analysed by calculating the percentage of statement items through the score of responses given by the students.

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**Data Analyses**

The experimental design of this study is described as follows:

Table 1. Design of the pre-test and post-test

| Class | pre-test | Treatments | Post-test |
|---|---|---|---|
| **Experiments 1** | $O_1$ | $X_1$ | $O_2$ |
| **Eksperiments 2** | $O_2$ | $X_2$ | $O_2$ |

(Nazir, 1988)

Description

O1=Pre-test is a test given to students before teaching and learning activities

O2=Post-test is a test given to students after the activity teaching and learning

X1=Learning in business communication materials using cooperative learning models

X2 =Learning pad a material for business communication using inquiry learning models

Based on table 1 for data O1 and O2 were analyzed using normality, homogeneity and comparison test, namely t-test of two parties to find out student learning outcomes.

This research was conducted at Dr. Vocational School Soetomo Surabaya in the odd semester of the 2018-2019 academic year, the sample in this study consisted of class X marketing vocational program (Pm) 1 as experimental class 1 and marketing (Pm) 2 as experimental class 2.

**FINDINGS**

Table 2. Testing Results PretestNormality

**Test Statistics**

| | pretest_kooperatif | pretest_inkuiri |
|---|---|---|
| Chi-square | 5.500[a] | 4750[a] |
| df | 14 | 12 |
| Asymp. Sig. | .09 | .07 |

a. 40 cells (100%) have expected frequencies less than 5. The minimum expected cell frequency is 2,1

b. 40 cells (100%) have expected frequencies less than 5. The minimum expected cell frequency is 2,7

Table 2 above explains that the value of the chi-square normality test for the cooperative pre-test value has a significance of 0.09. While the value of the normality test for chi-square for the value of the inquiry pre-test has a significance of 0.07. This means that the data is normally distributed.

The homogeneity test is used to determine whether the data from the two classes are homogeneous, the analysis of data from homogeneity testing for pretest can be seen in table 3.

Table 3. Homogeneity Test Results

| Test of Homogeneity of Variance | | Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|---|---|
| Hasil pretest | Based on Mean | 3,693 | 1 | 78 | ,058 |
| | Based on Median | 1,363 | 1 | 78 | ,247 |
| | Based on Median and with adjusted df | 1,363 | 1 | 77,621 | ,247 |
| | Based on trimmed mean | 3,974 | 1 | 78 | ,050 |

Table 3 explains that the test homogeneity of pretest the cooperative model has a significance of 0.058. While for the pretest homogeneity test the inquiry model has a significance of 0.247. This means that the data is homogeneous.

Posttest analysis is used to test selected hypotheses with the following hypothesis criteria: $H_0$=student learning outcomes using cooperative learning models similar to inquiry learning model $H_1$=student learning outcomes using cooperative learning models not the same as inquiry learning models From the above calculation results obtained tcount= 2.086. While from table t (1- 0.05) (0.42) = 0.39. Thus tcount> ttable.So that $h_0$ isrejected and $h_1$ is accepted. So it can be concluded that the learning outcomes of the experimental group 2 students were better with the group experimental 1 with a significance level of 0.05 or a confidence level of 95%. The results of the analysis of hypothesis testing using SPSS are presented in table 4.

Table 4. Results of Hypothesis Testing

**One-Sample Test**

| | Test Value = 0 | | | | | |
|---|---|---|---|---|---|---|
| | | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | |
| | | | | | Lower | Upper |
| hasil_posttest | 5,756 | 9 | ,000 | 75,75000 | 74,1754 | 77,3246 |

From table 4. Above explains that the average value is 75.75000the standard deviation is 7.07554 and the standard error is 79107. Based on the one sample statistical test the SPSS t-test can get a t value of 95.756 and a significant value of 0.000. This means that there are significant differences when different learning techniques are applied, namely between cooperative learning models and inquiry learning models.

The discussion of the pretest problem, which is based on the results of the research conducted on the pretest test, this study provides results namely the test questions at the beginning before the taught material each gets an average value of 69 for experimental class 1 (cooperative model) and average value 66 for experimental class 2 (inquiry model).

Based on table 2 the results of the pretest normality test show that chi-square normality testing for the pretest value of the cooperative model class has a significance of 0.09, while the chi-square normality test for the pretest value of the inquiry model classhas a significance of 0.07. It can be concluded that the cooperative model class and inquiry model class are normally distributed data because of the square value > 0.05.

Based on table 3 the results of the pretest homogeneity test show that homogeneity testing for the pretest value of the cooperative model class has a significance of 0.058. While the homogeneity test value for the pretest value of the inquiry model class has a significance of 0.247. It can be concluded that the cooperative model class and the inquiry model class are homogeneous data because the value of homogeneity is > 0.05.

Discussion of the value of student learning outcomes, which is based on the results of research on cooperative model learning and inquiry models, this study provides results that are the average value of experimental class 1 (Pm 1 / cooperative model) learning outcomes of 74.75 and the average value of results learning experiment class (pm 2 / inquiry model) is 77.00. While the results of the t-test of the two parties obtained a value of t count of 2.086 and from t table of 0.39. Thus tcount> ttable.So the hypothesis $H_0$ is rejected and H1accepted. the student learning outcomes of the experimental group 2 with a significant level of 0.05 or the confidence level of 95%.

In the cooperative learning model the teacher conveys the learning objectives and motivates students then the teacher presents information through the media or the source of learning. The conclusion is that the student learning outcomes of the experimental group 1 are different or not the same froudent learning resources after which the teacher organizes students into groups and guides student learning groups towork on the questions after which the teacher gives an evaluation of the learning outcomes that have been achieved. So that passive students in the group only follow active students and only active students understand more about the questions given by the teacher. While the inquiry learning model the teacher makes groups and gives problems or problem orientation to analyze the problem formulation, submit hypotheses, gather information, test hypotheses and finally conclude the results of the hypotheses that have been

formulated. So that in the inquiry learning model students are more active in solving problems that have been formulated.

Based on existing theories and research on inquiry learning models proves that this method has a major influence on students to develop the knowledge they have understood, foster student creativity and stimulate students to learn to express their opinions, provide comprehensive experience, facilitate students to learn material in study groups so that they can improve student learning outcomes.

**RESULT, DISCUSSION, AND SUGGESTIONS**

Based on the results of the research that has been carried out, the following conclusions can be drawn:

1. The learning outcomes of students in the experimental class 1 with cooperative learning models on business communication material have an average value of 74.75.

2. The learning outcomes of experimental class 2 students with inquiry learning models in business communication materials get an average value of 77.00. 3. There are differences in student learning outcomes using cooperative learning models and inquiry learning models with the average experimental class 1 cooperative model 74.75 and experimental class 2 model inquiry 77.00. And obtained tcount= 2.086> ttable = 0.39.

Based on the above conclusions, things can be suggested as follows:

1. It is expected that professional teachers should provide learning methods that are appropriate to the conditions of students so students are more active and creative so that it can enhance student intelligence.

2. From the results of the comparison of cooperative learning models with inquiry learning models it can be suggested to use the inquiry learning model because it can improve student learning outcomes.

3. In this study there are still many shortcomings, especially in the limited reference to the inquiry learning model theory. It is expected that in future studies to add theoretical references and previous research on cooperative learning models and inquiry learning models.

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