The Relationship Between the Application of Lecture and Discussion Learning Methods to Learning Outcomes in Research Method Courses at the Bhakti Asih Midwifery Academy, Ciledug

Al-Bahra¹, Partono Siswosuharjo²
Information Technology Education Study Program- Raharja University, Tangerang-Indonesia¹
Information Systems Study Program, University of Muhammadiyah Banten²
e-mail: albarha@raharja.info¹, partono.siswosuharjo@umbanten.ac.id²

Abstract

The purpose of this study was to determine differences in discussion and lecture learning methods on post-test scores in the Research Methods course for students at the Bhakti Asih Midwifery Academy, Ciledug. This research is an experimental research design using the True-Experiment Posttest Only Control Group Design. The data used are primary and secondary data with research instruments in the form of questionnaires in the control class and experimental class and secondary data about the results of student learning evaluations. The population of this study was 142 respondents. Retrieval of this research data is random sampling as many as 90 respondents. Data analysis used bivariate analysis with the Wilcoxon nonparametric T-Test method. The results showed that the average post-test score for the experimental group was 95.00, while that for the control group was 81.00.

Keywords: Lecturing Method, Discussion Method, Learning Evaluation Result

Introduction

The progress of today's modern society is impossible to achieve without the presence of educational institutions as organizations that provide formal education. Educational activities that take place place this institution as one of the social institutions that still exist today. The educational process that takes place has a standardized measure in assessing the extent to which students' knowledge and skills are achieved. In general, the embodiment is in the form of values obtained by students through the teaching and learning process.

Students in relation to the world of education are one of the substances that need attention, because students are translators of the dynamics of knowledge, and carry out the task of exploring that knowledge. Students in general are subjects who have the potential to develop their life patterns, and at the same time become objects in all forms of activity and creativity. So that it is expected to be able to show the quality of its power.

The improvement in the quality of education in Indonesia has never stopped until now. This effort is made to adjust and keep pace with developments in the industrial world and the development of science and technology, which are accelerating very quickly. Without improvement and quality and balancing, the world of education will be trapped in a blunder situation, namely the...
emergence of a situation where education actually becomes a burden on society and the state due to the emergence of unemployment from productive education. Therefore, efforts that are reflective and transformative are absolutely carried out in the world of Indonesian education.

The quality of students can be seen from the learning outcomes they achieve. Learning outcomes are changes in terms of behavioral skills or abilities that can increase over time which are not caused by the growth process, but by the learning situation. So that it is seen as proof of the effort that students get. To achieve learning outcomes, many people argue that it is necessary to have high intelligence as a potential provision that will facilitate learning, and ultimately produce optimal learning outcomes.

Talking about the implementation of the Teaching and Learning Process (PBM) in educational institutions, especially at the Midwifery Academy, often still raises problems, namely the lack of students' understanding of the material being taught, this occurs because many students are able to present a good level of memorization of the teaching material they receive, but in fact, students do not understand the concepts being taught. Besides that, it is also caused by the teaching method of each lecturer in his subject. There are various kinds of teaching methods for Midwifery Academy students used by lecturers who are usually dominated by the Lecture method.

Teaching and learning activities will be determined through a process of evaluating learning outcomes, where evaluation of learning outcomes is the entire activity of measurement (data and information measurement), management, interpretation and consideration for making decisions about the level of learning outcomes achieved by students after carrying out learning activities in an effort to achieve learning objectives set, student learning outcomes can be seen through the results of the post-test after learning.

Midwives provide continuous and plenary midwifery services, focusing on aspects of prevention, promotion based on partnerships and community empowerment together with other health workers to always be ready to serve anyone who needs them, whenever and wherever they are. The midwifery profession is nationally recognized in laws and regulations of the Indonesian government which is one of the professional health service workers and is internationally recognized by the International Confederation of Midwives (ICM), Federation of International Gynecologists and Obstetricians (FIGO) and the World Health Organization (WHO). Presentation of Research Methods subject matter in the learning process using the lecture method in class depends on the way the lecturer teaches that can present material clearly, well and can attract students' attention so that students do not quickly feel bored in learning Research Methods. Students who learn Research Methods with good and effective lecture methods can improve learning outcomes of good Research Methods.

Each existing learning method has advantages and disadvantages. This depends on the lecturer being able to properly present material in the learning process in class so that the learning outcomes achieved by students will increase. The use of the lecture method in class will be successful if the lecturer can bring his students in a pleasant learning atmosphere so that the motivation to study the Research Method will increase.

According to Sugiyono, the success of a person's learning can be seen from the
learning achievement and the results of student learning evaluations. Theoretically, the teaching and learning process is a system that is in it.

The purpose of this research was to find out the differences in discussion and lecture learning methods on post-test scores in the Research Methods course for students at the Bhakti Asih Midwifery Academy, Ciledug.

**Method**

This research is an experimental research design using the True-Experiment Posttest Only Control Group Design, namely research with research subjects placed randomly into groups and exposed as independent variables given a post-test. This design involved the first group (X1/experimental group) by being given one particular treatment which was then followed by measurement observations (O1). The second group was used as the control group and was not given any treatment but only measurements were taken.

The data used are primary and secondary data with research instruments in the form of questionnaires in the control class and experimental class and secondary data about the results of student learning evaluations which are seen from the results of the previous year's students at the Bhakti Asih Midwifery Academy, Ciledug.

The population of this study were all fifth semester students at the Bhakti Asih Midwifery Academy, Ciledug, consisting of 142 respondents. Retrieval of this research data is random sampling as many as 90 respondents. The sample of this research is 1 control class and 1 experimental class. So this research is a sample research. Based on the explanation above, the researcher took 1 control class with 45 students and 1 experimental class with 45 students. The data collection instrument used post-test questions in the control class and the experimental class from the material provided.

Testing the use of discussion and lecture learning methods from the results of learning evaluations at different times, the steps are carried out as follows:

The first step is to determine which group will be used as the experimental group (using the discussion learning method) and which group will be used as the control group (using the lecture learning method). The group using the discussion learning method was designated as the experimental group, while the group using the lecture learning method was designated as the control group.

The second step was to provide material for the Research Methods to the two groups. Giving post-tests to both groups, namely the experimental group (using the discussion learning method) and the control group (using the lecture learning method) whose purpose is to find out the knowledge and abilities of students after being given treatment.

**Result**

Univariate analysis was carried out to explain or describe the characteristics of each of the variables studied, in this study it was carried out by computerization. This is intended to determine the frequency distribution, central tendency and dispersion of the observed variables, both independent and dependent variables. The univariate analysis used by the researcher is by looking at the middle tendency including the mean (average), median (middle value) and includes the standard deviation and minimum and maximum values of the lecture method and discussion method of the posttest results, where this analysis is used for a group data, what is meant here is a group
This bivariate analysis was carried out on the mean between the posttest results in the experimental group (using the discussion learning method) and the control group (using the lecture learning method). The statistical test that was carried out was the T test, while the assumption requirements that had to be met were normal/symmetrical distribution data, the two independent groups, the associated variables were numerical and categorical (remarks: categorical variables with only two groups). If there is an abnormal distribution of data, the statistical test will be carried out using the Wilcoxon test, in this test the difference in the value of the positive and negative numbers is taken into account. Statistical testing in this study was carried out using a computerized program.

The Wilcoxon test was assessed by looking at the mean between the post-tests of the two samples. This difference was tested with the Wilcoxon test which produced a P value. The test criteria were if the P value <0.05 then Ho was rejected, if the P Value ≥ 0.05 then Ho was accepted.

The distribution of teaching learning methods showed that there were 45 students who were given the Lecture learning method with a proportion of 50% and there were 45 students who were given the Discussion learning method with a proportion of 50%.

From table 1, the percentage of post-test lecture scores for scores of 90-100 is 24.4%, scores 80-89.99 are 48.8%, scores 72-75.99 are 8.9%, scores 68-71.99 is 8.9%, 56-61.99 is 4.4%, and 45-55.99 is 4.4%. While the percentage of the results of the discussion post-test scores for scores of 90-100 is 100%.

The results of the analysis showed that the average post-test result using the lecture method was 81.00 with a standard deviation of 11.26. The highest post-test score for the lecture method was 95.00 and the lowest post-test score was 45.00. From the results of interval estimation, it can be concluded that 95% believed that the mean post-test results using the lecture method were between 77.62-84.38.

The results of the analysis showed that the average post-test result using the discussion method was 95.00 with a standard deviation of 2.38. The highest post-test result score in the discussion method was 100 and the lowest post-test result score was 90.00. From the results of interval estimation, it can be concluded that it is 95% believed that the average post-test results using the discussion method are between 94.28-95.72.
Table 3. Frequency Distribution of Post-Test Results for the Control Group (Lecture Learning Method) and Experiments (Discussion Method) on Research Method Material at the Bhakti Asih Midwifery Academy, Ciledug

<table>
<thead>
<tr>
<th>Learning Method</th>
<th>Post-Test Results</th>
<th>Amount (Nominal)</th>
<th>Fr (Relative Freq) (%)</th>
<th>Fk (Cumulative-Frequency) (≤)</th>
<th>Fk (Cumulative-Frequency) (≥)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>0-44.99</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>45.00-55.99</td>
<td>2</td>
<td>4.4</td>
<td>4.4</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>56.00-61.99</td>
<td>2</td>
<td>4.4</td>
<td>8.9</td>
<td>95.6</td>
</tr>
<tr>
<td></td>
<td>62.00-67.99</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>68.00-71.99</td>
<td>4</td>
<td>8.9</td>
<td>17.8</td>
<td>91.1</td>
</tr>
<tr>
<td></td>
<td>72.00-75.99</td>
<td>4</td>
<td>8.9</td>
<td>26.7</td>
<td>82.2</td>
</tr>
<tr>
<td></td>
<td>76.00-79.99</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>80.00-89.99</td>
<td>22</td>
<td>48.9</td>
<td>75.6</td>
<td>73.3</td>
</tr>
<tr>
<td></td>
<td>90.00-100</td>
<td>11</td>
<td>24.4</td>
<td>100</td>
<td>24.4</td>
</tr>
<tr>
<td>Discussion</td>
<td>0-44.99</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>45.00-55.99</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>56.00-61.99</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>62.00-67.99</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>68.00-71.99</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>72.00-75.99</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>76.00-79.99</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>80.00-89.99</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>90.00-100</td>
<td>45</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Results of Data Processing.

Table 4. Average Post-Test Results According to Lecture and Discussion Learning Methods on Research Method Material at the Bhakti Asih Midwifery Academy, Ciledug

<table>
<thead>
<tr>
<th>variable</th>
<th>Mean</th>
<th>Median</th>
<th>Modus</th>
<th>Min-Max</th>
<th>Standar Deviasi</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>81.00</td>
<td>85.00</td>
<td>85.00</td>
<td>45.00 – 95.00</td>
<td>11,261</td>
<td>77.62-84.38</td>
</tr>
<tr>
<td>Discussion</td>
<td>95.00</td>
<td>95.00</td>
<td>95.00</td>
<td>90.00 – 100</td>
<td>2,384</td>
<td>94.28-95.72</td>
</tr>
</tbody>
</table>

Sumber : Hasil Pengolahan Data.

**Discussion**

Based on the research results, it was found that there were differences in lecture and discussion methods on the results of the post-test material for the Research Methods material for the midwifery concept course at the Bhakti Asih Midwifery Academy, Ciledug, (p value = 0.000). This is indicated by the average value of the experimental group (discussion) is 95.00, while the control group (lecture) is 81.00. The results of this study are in accordance with research which states that the discussion method has been proven and has been tested successfully in increasing the average value of students.

This is also in accordance with research on the application of the discussion method to increase student understanding, which shows that learning achievement has increased in each cycle. Other related research is to find out about the application of the discussion method to increase student learning activeness, the results of which show an increase in the average percentage of group activity.

The discussion method is a way of presenting teaching material with the
teacher providing opportunities for students or groups to hold scientific discussions in order to collect opinions, make conclusions or compile various alternative solutions to a problem (I Wayan Gabra, 2019).

Meanwhile, the teacher's duties are as a center for providing information, guiding and giving firmness (Sutisna & Widodo, 2020). So that the teacher is only a regulator of the course of the discussion so that the implementation of the discussion does not deviate from the material to be discussed.

In the discussion each student must participate actively and participate actively in problem solving. The more students are involved, the more they learn (Suandi, 2022)

Several previous studies have shown that the discussion method can improve student learning outcomes (I Wayan Gabra, 2019). The discussion method is able to increase student activity in the learning process so that the class feels alive and fun (Ni Made Rusmiati, 2022). Other research shows that the discussion method can increase student learning interest (Irwan, 2018).

The method is the way used by the teacher in carrying out teaching and learning activities in the classroom as an effort to achieve the learning objectives that have been set. The discussion method is a way of managing problems, or analysis of technology product systems whose solutions are very open. The discussion method can train students' attitudes to respect the opinions of others, train the courage to express opinions, defend opinions and give rationality regarding the opinions expressed.

Assessment in educational institutions includes various aspects, which are broadly seen from prospective students, graduates and the overall educational process which includes using appropriate and effective learning methods in class.

In the opinion of researchers that by using active learning methods such as discussion learning methods students will be motivated to study the subject matter because students find things they want to know for themselves. In addition, the responsibilities given to students will spur their enthusiasm to learn, so that the material read and obtained by students through their own efforts can last longer in students' memories besides that with repetition by the teacher at the end of class learning.

In addition to students who play an active role, this method is also felt to be more effective by students because in using this discussion learning method students make independent learning efforts with small businesses to produce satisfactory learning evaluation results..

Summary

There are differences in the results of the study evaluation in the discussion and lecture methods in the Research Methods material for the midwifery concept course. Based on these results, it is hoped that the midwifery concept course instructor can use the discussion method in the learning process so as to obtain satisfactory results.

References


