THE APPLICATION OF PRACTICE REHEARSAL PAIRS LEARNING MODEL TOWARD BASIC PROGRAMMING LEARNING OUTCOMES

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Abstract

Learning model is a general pattern of learning behavior to achieve conducive and effective learning goals. The PRP (Practice Rehearsal Pairs) model is one of the effective learning models used in this study. The purpose of this study was to determine the effect of PRP learning models on student learning outcomes in basic programming subjects. This type of research is quantitative research using quasi experimental design carried out at *Hamzanwadi University*. The design in this study uses posttest only control group design with a total population of 54 students and the number of samples taken using the saturated sampling method is 54 students. Data collection used learning outcomes tests. Data analysis used descriptive analysis and paired sample t_{test}. The results showed that the average value of learning outcomes in the RPS model was 75.07 higher the average value of learning outcomes on the contextual model was 70.37. Hypothesis test results show that t_{test} (8,619)> t_{table} (2,060) (significant with $\rho < 0.05$). Thus, the conclusion of this study is that there is a significant effect of student learning outcomes after applying the PRP learning model.

Keyword: Practice Rehearsal Pairs Learning Model, Contextual Learning Model, Learning Outcomes.

INTRODUCTION

A teacher should be able to choose a suitable learning model for their students, so that the learning objectives that have been set can be achieved. Learning model is an approach that has a systematic reference framework used as a guide in implementing learning activities to achieve learning objectives. In *Kamus Besar Bahasa Indonesia* (2005: 751) model is defined as a pattern (eg, reference, variety, etc.) of something to be created or produced. While, Rusman (2014: 133) states that learning model is a general pattern of learning behavior to achieve the expected learning objectives. Meanwhile, the learning model can also be interpreted as a learning planning systematically arranged that serves as a guide to achieve a goal (Komalasari, 2010; Trianto, 2010; Wahab, 2007).

The success rate of learning models used by lecture and teachers in achieving effective learning is the learning where students learn by themselves actively. Sanjaya (2007) states that active learning is a learning that invites students to learn so that they can actively use the brain, either to find key ideas from subject matter, solve problems or apply what they have just learned into a problem that exists in life real. While, D'Silva (2010: 77) describes the notion of active learning, by stating that "active learning refers to the models of instruction that focus on the learning of students by promoting higher-order thinking. Strategically designed active learning is critical for the overall development of graduate students towards life-long learning ". Meanwhile, Hamalik (2000) reveals that effective teaching is a teaching that provides self-study opportunities.

Contextual learning model is a model that has been on the Basic Programming course at Hamzanwadi University. This learning model is done by connecting the subject matter with real activities or adjusted to the real world situation by promoting the practice activity in the learning activities. In the implementation of lectures using contextual model, the lecturer gives explanation of the material by directly giving the training to the students to do or make simple program based on the theory that has been given.

The based on the results of preliminary observations, contextual learning model that applied the positive impact that is able to help students to achieve competence in the realm of skills. This is evidenced by the acquisition of the average value of 70. However, this contextual learning model has not been able to help students achieve competence in the realm of knowledge. This means that the level of understanding of the concept of students on the material that has been given is still low, students are only able to understand the material with practice directly but the students less than the maximum conceptual or theoretical. This is because that still low ability of students in absorbing material given by lecturer, less attention to explanation of material which has been presented by lecturer, and still the students who are lazy to think for solve the problems that have been given by the lecturer.

Based on the above description, one way that can be used to overcome the problem is to use practice rehearsal pairs learning model. This learning model is one of the active learning models that can improve students' understanding of the material they learn. Zaini et al (2008: 81) states that Practice Rehearsal Pairs (PRP) is a simple learning model that can be used to practice a skill or procedure with a classmate aimed at ensuring that each partner can perform the skills correctly. While Silberman (2009: 228) states that the language practice rehearsal pairs means practice exercise in pair. Whereas according to the term practice rehearsal pairs are a simple method used to practice a skill or procedure with a learning partner. This means that some students are grouped into sections and they are required to actively practice a particular skill, so that each group works together.

In accordance with the terms of the PRP model above, it can be concluded that PRP is a simple learning model that can be used to practice a skill or procedure with a classmate. With the friends learn, students are more encouraged to improve learning and free to share knowledge or ask with friends learn, and can improve students' recall of the material that has been presented by the lecturer. Therefore, by applying PRP learning model is expected to influence student learning outcomes in Basic Programming course.

The aims of this study is to determine whether there is influence of the practice rehearsal pairs (PRP) learning model to student learning outcomes in the basic programming courses. This research is expected to provide benefits: (1) for students: can be grow liveliness, thinking skills, communicate, and can work together to improve student learning outcomes in the basic programming courses, (2) for lecturer: this research can be used as input and information about instructional model that can be applied in learning process in an effort to improve student learning result, (3) for the institution: this research can be used as reference material in improving the quality of education through model practice rehearsal pairs towards student learning outcomes.

METHOD

The type of this research is quantitative research using experimental method. The nature of this research is quasi experimental design, because in this study not all the symptoms that arise can be used as sample, so the sample in this research is class II A and class II B.

Tabel 1. *Posttest Only Control Group Design*

Group	Treatment	Posttest
Experiment (E)	X_1	O2
Control (C)	X_2	O4

This research uses 2 classes (group), that is experiment group and control group. The experimental group is chosen based on certain considerations, namely the class having a lower knowledge domain value than the skill domain value, and homogeneity testing to ensure that the experimental and control group have the same learning ability. The control group is a class that is taught by the previously applied learning model of contextual learning, while the experimental group is a class that is taught by the PRP learning model.

The technique of data analysis in this research using descriptive analysis and inferential analysis. For descriptive analysis, the researcher will describe data about basic programming learning result, where each will be described in the form of distribution table and histogram. Descriptive analysis is based on the average of ideal score (MI) and standard deviation (SD). Instrument of data collecting in this research is using a test to know student learning outcomes in basic programming course. While for the analysis of inferential using paired sample t_{test} that aims to determine whether there is influence PRP learning model of student learning outcomes in the basic programming courses. Before performing the hypothesis analysis, first perform the prerequisite analysis test consisting of normality test and homogeneity test.

RESULT AND DISCUSSION

After doing the data normality test, obtained the result that all data is normally distributed. Meanwhile, homogeneity test also shows that the value obtained is significant. This means the data has a homogeneous variance. Thus the analysis using paired sample t-test can be continued. The results of the data description analysis in this study are shown in table 2 below.

Table 2. *The Result of Data Description Analyst*

Statistik	Experiment Group	Control Group
N	27	27
Mean	75.07	70.37
Std. Deviation	6.36	5.35
Variance	40.45	28.70
Range	25	25
Minimum	60	55
Maximum	85	80

Based on table 2 above, the acquisition of the average value of student learning outcomes in the experiment group applied to the PRP model is 75.07 with the highest value of 85 and the lowest value of 60. While the average student learning outcomes in the control group are applied to the model Contextual learning is 70.73 with the highest value of 80 and the lowest value is 55. Based on these data it can be seen that students 'understanding of the experimental class is better than students' understanding of the control class.

The difference in learning outcomes between the experimental class students and the control class is also proven by testing hypotheses using the paired sample t-test listed in table 3 below.

Table 03. The Result of Hipotesis Testing

Class	N	t_{test}	t_{table}	df	Sig. (2-tailed)
Experiment	27	8.619	2.060	26	0.000
Control	27				

In table 3 above, the ttest value is 8,619 and t table is 2,060 with Deggre Freedom (df) 30 at 5% significance level. So that obtained t_{test} (8,619)> t table (2,060) then H_a accepted H_0 is rejected. Judging from the significance value based on the data, the probability (sig) is 0.000 <0.005, then Ha is accepted and H_0 is rejected. So it can be concluded that the PRP model has a significant effect on student learning outcomes.

This happens because students in the experimental class who are exposed to the PRP learning model can increase participation among students, easier interaction and more opportunities for the construction of each partner, and can improve their memory, so that the concepts of the material provided by the lecturer easy to understand. In addition, the results of this study are supported by the results of research conducted by Widianto & Kustini (2016). The results of their study indicate that the PRP type cooperative model influences the student learning outcomes at SMK 3 *Jombang*. Meanwhile, the results of research conducted by Zakaria (2017) show that the PRP model can increase motivation and student learning outcomes in lathe subjects.

CONCLUSION

Based on the results and discussion of the above research, it can be concluded that there is a significant effect of learning model of PRP that has been applied to student learning outcomes in the basic programming courses.

It is evident that, the average value of student learning outcomes applied with the PRP model amounted to 75.07; this result is higher than the average value of student learning outcomes applied with a contextual model of 75.07. In addition, based on the hypothesis test obtained t_{test} (8.619) > t_{table} (2.060), so there is a significant effect of student learning outcomes in the basic programming courses after applied model of learning PRP.

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