Increasing Learning Outcomes Using Contextual Teaching and Learning Model in Accounting Subject

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Abstract: This study aims to determine whether there are differences in students' learning outcomes between classes that implement Contextual Teaching and Learning model with classes that do not apply the Contextual Teaching and Learning. Media module was used in accounting subject. The research design was quasi-experimental control group by using Post Test Only. The population in this study were senior high school students in Bandung City. The sampling technique used was purposive sampling. The t Test result that the use of contextual teaching and learning model using modules can improve learning outcomes.

1 INTRODUCTION

In the era of globalization as it currently requires the existence of high quality human resources in various fields of science. Superior human resources will bring the nation forward and competitive in the midst of globalization. Indonesia as a developing country must always improve the quality of human resources. One way to improve the quality of human resources is through education. In order to increase the quality of education, various efforts have been made, such as through the standard of graduation as well as improvement in education curriculum, teacher quality, educational facilities, either in the form of building or books and media.

The government issued various education policies in the hope of improving the quality of human resources. Education is a pillar to achieve high quality human resources. To achieve the educational objectives the government issued a policy of passing standards. The purpose of education can be said to succeed if the student achieve good learning results. Gronlund stated (in Purwanto: 2011) that 'measured learning outcomes reflect the purpose of teaching'. In fact, Purwanto (2011) reaffirmed the statement about learning outcomes, namely "Learning outcomes are often used as a measure to find out how far a person has mastered the material already taught".

To improve learning outcomes, the quality of the learning process must be improved, one of them is by applying learning models. Applying the right learning model will affect the learning result because it will facilitate the students in absorbing the given material. Sanjaya (2007) stated that the selection of appropriate models or learning strategies in accordance to the goals and potential of students is the ability and basic skill that teachers must possess. Selection of the appropriate learning model will help teachers and students in improving learning outcomes.

One of the learning models that is often used in is contextual learning model or Contextual Teaching and Learning. The use of contextual teaching learning can improve students' learning outcomes, because this model is a learning concept that helps to link between the materials taught to the real world situation of the students. This is in line with Johnson's (2011) saying that Contextual Teaching and Learning helps students to find meaning in their lessons by connecting academic material to the context of their daily lives. Applying the CTL approach, they make important relationships that produce meaning by implementing self-directed, cooperative, critical thinking and creative learning. They also learn to respect others, achieve high standards, and participate in authentic assessment tasks. In line with Sanjaya's (2007) philosophy of contractual philosophy that learning is not merely to memorize, but the process of constructing knowledge through experience. Knowledge is not the result of "giving" from others like the teacher, but the result of the individual construction process. Knowledge resulted from the received information will not be meaningful. This philosophy is reinforced by Lave & Wenger's

argument that there is no context-free learning and knowledge is context-bound (Libman:2010). This implies that the material learned in the classroom must be connected to real-life situations. Likewise, Berns & Erickson, (2001); Blanchard, (2001) stated that Contextual learning is a concept that helps teachers to relate the material taught to the students' personal situations and to encourage students to make connections between the acquired knowledge and its application in their life as members of a family, community and country. Johnson (2002) mentioned that contextual learning enables the students to relate the curriculum's content to the context of their daily life to find out its meaning.

Empirically, there are a lot of research which used Contextual Teaching and Learning model to improve learning result, as done by Glynn and Winter (2004) the findings of this study indicate that the Contextual Teaching and Learning model is a collaborative interaction with students, connects to a real-world context, andis used in conjunction with good classroom management techniques. Research In line Setiawan (2008) that indicate that there is an increasing students' interactions and learning outcomes in Biology lesson of Grade X2 in Undiksha Senior High School Laboratory. The results of Miswadi, Wijayati, &Farikhati (2010) showed PQRST method through Contextual Teaching and Learning approach to improve student learning outcomes on the subject of atomic structure and periodic elements system so that there are differences in student learning outcomes. Research Jaya (2012) shows that there is a difference in the mean score of learners' learning outcomes after using contextual physics module with the learner before using contextual physics module. Hayati, Supardi, and Miswadi (2013) there is an increase of cognitive learning outcomes of students on science learning vocational high school with project-based contextual model.

The available research are mostly from different subjects, therefore this study aims to provide a contribution towards the benefit of Contextual Teaching and Learning for students' learning outcomes in Accounting classroom. The reason for the need to apply contextual teaching and learning model using module media in accounting subject is because the learning material of accounting consists of conceptual, procedural and vocational understanding so that students are expected to understand the concepts of accounting in real terms. While the field of accounting learning, especially in high school has not brought students in the real world. This is seen when the process of learning, the teachers

convey accounting materials and questions in the form of narrative only. Where as in daily life that will be in the proof of the transaction in the form of receipts, notes, invoices, memos and cash incoming evidence and any cash out evidence. On that basis, in learning accounting materials not just memorize, but there must be a process to construct knowledge by connecting to real life situations with the help of accounting module. Based on the description of the background of the problem then the research question is whether the implementation of contextual learning learning model learning by using the module can improve the learning outcomes of accounting subjects at students of public high school in Bandung.

The hypothesis proposed in this study "There are differences in learning outcomes between experimental class students who apply learning model contextual teaching and learning by using module with student learning outcomes control class that does not apply learning model contextual teaching and learning using module".

2 METHODS

The population in this study is the students of public high school in Bandung amount to 29 senior high school. As for the sample in this study as many as 10 Senior high school with purposive sampling technique. In this study, the researcher divided the subjects into two groups: the experimental group was the students who were given treatment by applying the contextual teaching learning model using the module during accounting learning, while the control group were the students who did not use the contextual teaching learning model and learning using modules. The research design used Control-Group Design. Before hypothesis test the first tested the normality of data. After doing the normality test, it can be calculated the hypothetical truth of this study by using the t-Test or wilcoxon Test. Hypothesis statistic in this research as follow:

H_o : $\mu1 = \mu2$ = There are not differences in learning outcomes between experimental class students who apply contextual teaching and learning model by using module with student learning outcomes control class that does not apply contextual teaching and learning model by using module.

H_a : $\mu1 \neq \mu2$ = There are differences in learning outcomes between experimental class students who apply contextual and teaching learning model by using module with student learning outcomes control class that does not apply contextual teaching and learning model by using module.

3 RESULTS AND DISCUSSION

The learning process in the control classes did not apply the Contextual Teaching and Learning model. The teachers explained the material with the conventional learning model, then gave some examples on the blackboard, students got the subject matter directly from the teacher. After the teacher explained the materials and gave examples of questions, students were given individual exercise about the topic described on the Student Workbook which is owned by the students. After the students finished the exercises, the teacher then checked the students' work. Students received information from teachers without having to search for information about the topic material being studied and not self-analyzing the learned material. Theseactivities make the students less active in the learning process, the circumstance resulted in the students less understanding of the topic material already given.

Meanwhile, in experimental class Contextual Teaching and Learning model was applied by using module in Accounting cycle of Service Company on transaction recording into general journal subject. Teachers applied the Contextual Teaching and Learning model at the first and second meetings by implementing seven components: Constructivism, Questioning, Inquiring, Learning Community, Modelling, Reflection and Authentic Assessment.

The first component in the process of implementing the contextual learning model was constructing, the teachers prepared the module containing the instructional material in the form of transaction documents. Modules prepared by teachers were teaching materials that would be studied by students to be observed and analyzed. Students constructed knowledge by observing and analyzing the evidence of transactions. In this stage, students knew that transaction evidence is the initial step in transaction recording into general journal.

In the following stage, the teacher invited students to ask question and answer with fellow students or directly to the teacher. The process of question and answer session gave a lot of advantages that students were required to be active, express opinions, and also from the affective side of students learned to respect each other's opinions. Moreover, the students got the broader the insight on the subject matter.

In the third stage, namely inquiry, the process of applying the contextual learning model was conducted. In this stage students were expected to find their own concepts from the material learned from the results of constructing knowledge from observation and analysis and also from the question and answer process. Then the teachers directed or clarified concepts that have not been understood by the students.

The fourth stage involvedthe process of applying contextual learning model that is learning society. The students formed a community of learning to discuss the topic and the teacher took the role as a guide director who clarified students' incomprehension of the subject matter. Also, studentscooperatively recorded evidence of transaction available in the learning module.

The fifth stage in the contextual learning model was modelling where the teachers invited the students to do the modelling by proceed to the front of classroom to do the recording demonstration of the module they have discussed. Through this modelling teachers could see the ability that has been obtained by students, while students themselves would understand more because students directly saw the model that would further clarify the material being discussed.

The sixth stage in the process of applying the contextual learning model was reflection. At this stage the teachers with the students reflected on how the learning process using the contextual teaching learning model, and also students' understanding. The teacher invited the students to make a conclusion on the material they have learned, and then the teacher gave reinforcement.

The last stage was an authentic assessment, the teacher performed an assessment of individual students to see the success of the learning process. In addition to seeing the end result of the learning process, the teachers was able to see the student's involvement and attitude during the learning process. In the stage of authentic assessment, teachers can assess the three aspects in accordance with Bloom's taxonomy, i.e. cognitive, affective, and psychomotor.

This learning process is in accordance to the Center on Education and Work at the University of Wisconsin Madison (in Kunandar, 2007: 295) defined "contextual learning is a conception of teaching and learning that helps teachers relate subject content to real-world situations and motivate students to make connections between knowledge and application in the life of students as members of family, community, and workers and ask for diligence learn". In line with Sanjaya (2007: 255) that "Contextual learning is a learning concept that helps teachers relate between the material they teach and real-world situations and encourage students to make connections between their knowledge and application in daily life. "In harmony with Komalasari (2013: 7) reveals that "Contextual learning is a learning approach that links

between the material learned and the real life of the everyday students, both in the family environment, in schools, communities and citizens, in order to find the meaning of the material for Life ".

After applying the Contextual Teaching and Learning model using module during two meetings, ending with post-test. Teachers provide similar post test questions to compare learning outcomes in the experimental class with learning outcomes in the control class. Problem post-test given in the form of a document or evidence of transactions in trading companies. Prior to the testing of hypotheses, researchers first test the data normality. Normality test is done to determine whether the data taken normal distribution or not. Normality test in this study was calculated by using Chi-Square test (after the normality test, it was found that the second school data is the control class post-test data and the experimental class is not abnormal distribution so that the next process in hypothesis testing can use non parametric statistical calculation, I.e. using wilcoxon to see the difference in the data While there is also the second data is the control class post-test data and the experimental class is normally distributed so that the next process in testing the hypothesis can use parametric statistical calculation, that is using t test to see the difference in the data. Results of hypothesis testing as follows:

Table 1: Summary of Hypothesis Testing Results

No	School Name	Data Distribution	Testing Hypothesis	Result
1	Public Senior High School 2 Bandung	Not Normal	Wilcoxon Test	P value 0.004 < 0.05
2	Public Senior High School 6 Bandung	Normal	T Test	P value 0.000 < 1,96
3	Public Senior High School 4 Bandung	Not Normal	Wilcoxon Test	P value 0.000 < 0.05
4	Public Senior High School 8 Bandung	Not Normal	Wilcoxon Test	P value 0.000 < 0.05
5	Public Senior High School 10 Bandung	Not Normal	Wilcoxon Test	P value 0.000 < 0.05

Table 1. Cont.

No	School Name	Data Distribution	Testing Hypothesis	Result
6	Public Senior High School 13 Bandung	Not Normal	Wilcoxon Test	P value 0.003 < 0.000
7	Public Senior High School 14 Bandung	Normal	T Test	P value 0.000 < 0.05
8	Public Senior High School 15 Bandung	Not Normal	Wilcoxon Test	P value 0.000 < 0.05
9	Public Senior High School 19 Bandung	Not Normal	Wilcoxon Test	P value 0.00 < 0.05
10	Public Senior High School 24 Bandung	Not Normal	Wilcoxon Test	P value 0.036 < 0.05

In table 1 it can be seen from the school where the experiments student class that all there was Ha accepted. This mean are differences in learning outcomes between the experimental class students and the students' learning outcomes of the control class

The experimental results and hypothesis testing showed that there is a difference, hence the application of contextual learning model by using module affects the improvement of student learning outcomes. Research from different classroom subjects showed identical results. For example, Setiawan (2008) which investigated the learning outcomes of high school students Grade 10 showed that there was an increase in their Biology learning outcomes following the application of Contextual Teaching and Learning. Hayati et al (2013) who also studied learning outcomes of vocational high school students on Biology found there was an increase of cognitive learning outcomes of the students on science learning in a vocational school with project-based contextual model.Moreover, studies on learning outcomes improvement on Physics showed that Contextual Teaching and Learning model had positive impact on the subject of atomic structure and elemental periodic system (Miswadi et al, 2010) and there is a difference in the mean score of learners' learning outcomes after using contextual physics module with the learner before using contextual physics module. (Jaya, 2012).

Thus, the Contextual Teaching and Learning model applied to this experimental group influences students' learning outcomes, so that the Contextual Teaching and Learning model is effective when

applied to accounting subjects. In accordance to the theory put forwarded by Johnson (2011) that "Contextual Teaching and Learning helps students find meaning in their lessons by linking academic material with the context of everyday life. They make important relationships that produce meaning in carrying out self-regulated, cooperative, critical and creative thinking, respecting others, achieving high standards, and participating in authentic assessment tasks ".

One impact of the application of contextual learning according to Johnson is to achieve high standards in terms of improving learning outcomes as well as the ultimate goal of the learning process. Johnson further said that achieving high standards is to encourage students to achieve success in learning and encourage students to achieve the best in developing their talents and interests. In line with Komalasari's opinion (2013: 7-8) that one characteristic of contextual learning model is Reaching High Standards, that students recognize and achieve high standards, identify goals and motivate students to achieve them. Master shows students how to achieve what is called "excellence".

Therefore, the learning process by applying Contextual Teaching and Learning model can make the students can more easily understand the subject matter including on the subject of accounting, because the Contextual Teaching and Learning model makes accounting lesson metrical that is considered abstract by the students become more concrete because it is associated with the student's real life. These conditions help improve student learning outcomes, thus causing differences in learning outcomes achieved by students, in which the results of students' learning experiments class superior to the results of student learning control class.

The findings of this study indicate that the Contextual Teaching and Learning model is a collaborative interaction with students, connects to a real-world context, andis used in conjunction with good classroom management techniques (Glynn &Winter, 2004). In accordance to Berns and Erickson (2010) research titled Contextual Teaching and Learning: Preparing Students for the New Economy which showed that students are better prepared for the new economy. They better retain their knowledge and skills, there by enhancing their academic and student career.

The use of contextual teaching and learning model can be used to help students understand general journal material with the help of the media in the form of transaction proof such as students often find in daily life, so that students are easier in

understanding the material which in turn can improve student learning outcomes on Accounting subject.

4 CONCLUSIONS

Based on the results of research in public senior high school in Bandung, it can be concluded that the implementation of contextual teaching and learning models have an influence on learning outcomes. So, with the influence of the application of contextual teaching and learning model provened that the application of contextual teaching and learning model by using module can be used as a strategy to improve learning outcomes.

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