

THE EFFECT OF COOPERATIVE LEARNING JIGSAW MODEL ON STUDENTS' COMPETENCE IN PREPARING FINANCIAL REPORT AT SMK NEGERI 6 KUPANG

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ABSTRACT

This article discusses the effect of jigsaw learning model as one of cooperative learning models that is applied on students' competence in preparing financial report at SMKN 6 Kupang. It aims to know the effect of the use of jigsaw learning model on competence in preparing financial report. The research method is pre-experimental design in the form of one-group pre-test-post-test design. The research is conducted in class Accounting X with 33 students as the population. This research is conducted by giving pre-test in the beginning of meeting, then conducting learning by using jigsaw learning model, and giving post-test at the end of the meeting. The result of pretest and post-test is tested using analysis test to find out the effect of jigsaw learning model on competence in preparing financial report. The analysis test used is Z test and according to statistic calculation, pretest average value is 25,303, the post test average value is 53,818 with deviation standar is 19,122. The result getting according to calculation is $Z_{count}=8,522$ and $Z_{table}=1,65$. Therefore, the hypothesis stating that post-tets value is just the same with pretest value is refused. Based on analysis test, jigsaw learning model has effect on students' competence in preparing financial report. It means that jigsaw learning model can be applied in preparing financial report.

Keywords: cooperative learning, Jigsaw learning model, Competence in preparing financial report.

1. INTRODUCTION

Education is one of needs that is very important for every person. Because of that the government makes an education institution in the form of schols as formal institution to organize and support the education in a planned way. Schools are place where students not only learn the subjects but also develop their own sense of accomplishment, their values and prosperity (Darmon, Buch, & Desbar,2012)

The requirement in job world today demands the graduates from formal education to have good quality. The

quality must be developed during school time, particularly in vocational high school (SMK) or madrasah aliyah kejuruan (MAK). Skill and potency devolopment become the main things in vocational high school because the graduates of this institution are expected to get into workplace directly.

Vocational high school have some areas of expertise. They are : engineering, techology information hygiene technology, agritechnology fisheries, marine management, bussines, and tourism. In management and bussine there is accounting subject that is acconting. Accounting competence is

taught in vocational high school because accounting is very important in business. Information and condition about finance of a business will appear in financial report. Financial report must be made suitable with certain procedure known as accounting cycle.

Teacher of accounting should reflect learning model that is suitable with requirements because the demand of accounting institution for accounting graduates is increasing (Ballantine & Larrens, 2007). Learning process has changed from teacher-centered where the teacher is the center of information to student-centered that emphasize the students to be more active in learning process. The transformation about quality of environment, transparent, tolerant and not arrogant must be visible because it is very important where the education is the leader that accommodates all questions and needs of students (Aunurrahman, 2010).

In connection with some things presented above, SMK Negeri 6 Kupang that has accounting program to prepare its students so that they will have ability in their vocational field. According to the result of special observation on the subject of basic accounting in class X semester 1, this school has good potency, but not all potencies are used well. Learning process in class X is held at noon. According to observation in class X, the atmosphere in the class started to change when learning process was given more than 90 minutes. The change was in the form of decreasing concentration of the students. The students could not understand the subject given. Besides, the interest to learn the subject was decreasing as well that made many students choose to do other activities, so that their attention was not focused on the learning process

in the morning, because the students felt tired and the environment became more crowded.

According to the observation, it was found also that learning process made the teachers had more domination (teacher-centered). Subject explanation by the teacher was still general and did not emphasize on concept understanding so that the students seemed to memorize only what the teacher gave to them. What the teacher gave to the students was not enough to take their attention and interest. The teacher hoped that the students could understand the subject above standard line. The method used by the teacher was lecturing method and question and answer method so that the students were not interested to follow the learning process. The result was the students did not participate well in the learning process.

According to observation result, transformation should be done in learning process in SMK Negeri 6 Kupang especially in class X of accounting program. The transformation expected is about to change the method or learning model. Method or learning model must be as efficient and effective as possible, so that the students could learn the subject well (Slameto, 2010). Method or model used must support the purpose of accomplishment of accounting learning and emphasize more to the skills. Method or model used must increase participation of the students in accounting learning so that they become more interested and active to the subject given by the teacher. Cognitive formation of the students must be formed so that they get better understanding about accounting not only cognitive ability but also the ability to interact between students and teacher and among students themselves are needed because social relationship is needed in the workplace.

Learning process expected is learning process that can develop the knowledge of the students based on their experiment and social interaction. In learning process there must be relation between the teacher and the students and among the students themselves. The appropriate learning flow is constructivism learning. Constructivism is a knowledge philosophy emphasizing that knowledge is a formation (construction) (Von Glasersfeld in Battencourt, 1989). This flow assumes that the idea of the students can be formed in sequence according to their experience. The teacher must give some freedom to the students to investigate, observe, and look for the solution of some problems by themselves (Slameto, 2010). Therefore, in learning process, chances are given to the students to be more active in learning process. It can help the students in understanding the subject given by the teacher. With interaction in learning process, the students will get various experience and new knowledge obtained from other people.

Gradually, modern education practice helps the students to get creative and critical mindset. Learning model using constructivism theory is cooperative learning model. Jolliffe (2007) said that the essence of cooperative learning needs the students to work together in a small group and support each other to increase their own learning and also other people learning. It means that cooperative learning is just the same with learning in a group. Cooperative learning is one of practical methods used to increase motivation and progress in a class. Studying in groups also increases confidence, communication skill, and active participation in education process (Chu, 2014).

Cooperative learning has many models that can be applied in learning process which are suitable with needs and condition of the students. The use of cooperative learning model selected must be adjusted with the condition of the class. There are various differences in a class that can create unhealthy competition among students. Besides, SMK is a school that prepares the students to get into real job world directly when they graduate from the school. It demands a learning process that emphasizes more to the skill and good social attitude. A teacher must understand the condition of the class, so the selection of learning model should unite various differences and can form skills and good social attitude. Based on that things above, the use of Jigsaw learning model is assumed as the right model to be used. It is because in learning process using Jigsaw model students will be divided into some groups (main group/start group/home group) that is heterogeneous and every student gets different subject. This partition gives space to the students to get different subject. Then, students will make another group according to the subject they have. In Jigsaw group/expert group students will discuss about the subject in detail so that their understanding of the subject is better. From Jigsaw group, the students will go back to their main group to teach the subject to other students. Because of the assessment in this model is not for individuals only but also for the group. Thus every student will try to teach their friends, so that every group member will understand the subject. This condition will raise empathy of the students.

2. METHOD

This research is a quantitative research with experiment research

design. Experiment design used is pre-experimental design with the form of one-group pretest posttest design. This research was held in Class X Accounting of SMK Negeri 6 Kupang in 2017/2018. Data in this research came from a class of accounting consisting of 33 students. Data were gained based on the result of pretest given before the study using Jigsaw learning model and posttest in the end of the study. Hypothesis test using Z-test to find out if there is any affect of using Jigsaw learning model to the students' competency of making financial report.

3. RESULT

3.1 Pretest data

Table 1. Pretest data

Total Value	Average Value	Total Data
835	25,303	33

Based on table 1, total value for accounting class is 835 with average value 25,303 from 33 student. It shows that the average pretest value is not enough to reach minimal of learning set by school that is 75.

3.2 Posttest data

Table 2. Posttest data

Total Value	Average Value	Total Data
1776	53,818	33

Based on table 1, total value for accounting class is 1776 with average value 53,818 from 33 students. It shows that the average pretest value is not enough to reach minimal of learning set by school that is 75.

3.3 Hypothesis test

This research uses Z-test to test the hypothesis with 5% significancy.

Formula:

$$Z_{hitung} = \frac{\bar{x} - \mu_0}{\frac{\sigma}{\sqrt{N}}} \quad (1)$$

$$Z_{\alpha} = 5\% = 0,05$$

Acceptance criteria H_0 :

Accept : $Z_{count} < Z_{table}$

Refuse : $Z_{count} > Z_{table}$

According to statistic calculation, pretest average value is 25,303, the post test average value is 53,818 with deviation standar 19,122.

The result according to calculation is $Z_{count} = 8,522$ and $Z_{table} = 1,65$. Therefore, $Z_{count} > Z_{table}$ which means that the hypothesis stating that posttest value is just the same with pretest value is refused, and the hypothesis saying that posttest value is better than pretest value is accepted.

4. DISCUSSION

Jigsaw learning model was developed by Elliot Aronson and his friend in University of Texas. This method has two additional versions. They are Jigsaw II developed by Robert E. Slavin and Jigsaw III by Spencer Kagan (Huda, 2013). In this article, the writer mostly used Jigsaw II. Jigsaw II can be used every time the subject is given in writing narrative form. It is the most appropriate method in subjects like social science, literature, some parts of science and related field where skills are the concept of the purpose of the study (Slavin, 1995). Based on those things above, accounting as one of the competences that must be taught in education world should emphasize on skill also. The skill is the students can make financial report well. The competence in making financial report taught in vocational high school emphasizes more on skill because the graduates of vocational high school are

expected to get into job world directly. Thus, they must be able to master the skill they have.

Some studies using jigsaw learning process have been done. Chu (2014) finds out the effect of Jigsaw cooperative learning method to the study performance of the students in economy field showed that the students gradually changed from passive learning to active learning. Empirical findings shows that academic achievement that students get is increasing. The application of cooperative learning using Jigsaw could increase participation of the students in learning process, it was proven that the student worked together and became more active in the classroom (Adams, 2013).

Jigsaw Learning process will increase success, make the students more confident, make them more active and encourage them to make a research (Maden, 2011) and it can increase better academic achievement as well (Chu, 2014; Naomi & Githua, 2013). The using of Jigsaw learning model is expected to give positive effect for the achievement of learning process. Some studies have proven that Jigsaw learning process can increase the participation of the students in learning the topic and give opportunity to the students to exchange ideas between the members of the group (Pozzi, 2010). The opportunity in exchanging ideas will increase the cooperation among people and can create solidarity in a group among the students (Maden, 2011) through the classification task (Sharan in Sengul & Kartranci, 2014). The result of the research is pararell with the research done by Ardiyanto, Santosa, & Sudiyanto (2013) that Jigsaw learning method is more effective than conventional learning.

The students can feel that cooperative learning has benefit to them because they can help other students and cooperate with others and to promote each other learning as well (Zakaria, Solfitri, & Abidin, 2013).

5. CONCLUSION

Learning process in a school has to focus more on activeness of the students so that teacher should apply learning model which is suitable with student needs. Based on the result of the research done to the students of class X Accounting in SMK Negeri 6 Kupang, it is found that Jigsaw learning model has effect to the learning result especially in accounting in terms of making financial report. This result of the research becomes the reflection for accounting teachers to apply Jigsaw learning process to improve students' competence in making financial report.

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