

DIFFERENCE OF ACCOUNTING LEARNING RESULTS USING MODEL CREATIVE PROBLEM SOLVING LEARNING AND MODELLING THE WAY AT STUDENTS FACULTY OF TEACHER TRAINING AND EDUCATION

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Abstract— the purpose of this study was to find out whether there were differences in accounting learning outcomes using the learning model of Creative Problem Solving and Modeling The Way on the subject matter of Finished Product at students of the 4th semester 2018/2019. The problem in this study is that the low learning outcomes possessed can be seen through the quiz values performed at the end of the material. The population in this research is 41 people consisting of 40 female and 1 male from the 4th semester. The sampling technique used is the Total Sampling technique so that the sample used is all students in he 4th semester A1. The instrument used is a written test which 5 valid items. The data analysis technique used is descriptive analysis technique. Before carrying out the analysis, first test the analysis requirements which consist of determining the average value and standard deviation, normality test, homogeneity test and hypothesis test. The results of this study are CPS post-test obtained an average of 72.83 and standard deviation 12.22. Whereas for the MTW post-test data obtained an average value of 73.67 and standard deviation of 17.56. This study uses the Liliefors test to determine the normality of learning outcomes data. It can be concluded that there are differences in accounting learning outcomes using the learning model Creative Problem Solving and Modeling the Way.

Keywords—*Model Creative Problem Solving Learning, Modelling the Way, Learning Outcome*

I. INTRODUCTION

Lecturers are professions that require the perpetrators to be willing to continually learn to develop their knowledge. UU no. 15/2005 section 1 verse 2 states that lecturers are professional educators and scientists with the main task of transforming, developing and disseminating science, technology and art through education, research and community service.

In order to improve and develop the quality of learning in accordance with the demands of the teaching profession related to the high level of teaching and learning, efforts to improve the quality of education must always be carried out through observation and research carried out in the learning process.

Accounting is a field of science that is needed in all aspects of life because accounting is the language of the company in providing information in the form of financial data for decision making. One of the accounting courses found in the faculty of teacher training and education at University of Muhammadiyah Sumatera Utara department of accounting education is cost accounting, which functions to calculate costs with the aim of planning and controlling activities. Cost accounting is one of the very complex subjects of discussion that requires a little longer time in understanding than other accounting subjects.

This is the background of the researchers to find the right learning model so that the process of understanding students towards material cost accounting courses at the basic price of finished products becomes efficient so that students experience cognitive improvement and improvement in learning outcomes. The 4th semester A1 was chosen as the subject of research because through the results of observations while in the classroom, the ability of students to answer and solve material related problems was very low, seen in the daily test scores (quiz) as follows

Table 1: Recapitulation of Daily Student Test 4th Semester A1 Academic Year 2018/2019

No	Value	Students	Percentage (%)
1	≥ 60	11 Students	(26.83%)
2	< 60	30 Students	(73.17%).
	Total	41 Students	

Source: Document List of Value of Accounting Education Students of University of Muhammadiyah Sumatera Utara

To solve the above problems, it is necessary to make an effort so that the students understanding of accounting is better, besides lecturers must master the

material taught, lecturers must also be able to choose learning models that are in accordance with the material taught, students' abilities, and learning objectives. With the right model, it is expected that the teaching and learning process can take place more effectively and efficiently.

Using two different models for the same situation aims to produce the most appropriate model to overcome existing problems. One such alternative is to look at and analyze the differences in student learning outcomes using Creative Problem Solving (CPS) and Modeling The Way (MTW). The CPS model requires students to think creatively to solve problems, while the MTW model requires students to be more active in the learning process because they have to be able to practice the skills they have in relation to the material they have acquired.

II. METHODOLOGY

Creative Problem Solving (CPS) is one of the operational problem solving models, where creativity is applied in completing the task at hand. Creative Problem Solving (CPS) is deliberately designed as a variation in problem solving by involving creativity in the problem solving process. The Creative Problem Solving (CPS) model is a learning model that concentrates on teaching and problem solving skills, followed by strengthening skills. When faced with a question, students can do problem solving skills to choose and develop their responses. Not only by memorizing without thinking, problem solving skills expand the thought process according to Hamzah (2011: 223). According to Batubara, IH. (2017) explain that problem based learning is learning based on experience, authentic Learning, and Anchored Instruction

According to Mohc (2015) the Modeling the Way (MTW) learning model is a model that gives students the opportunity to practice specific skills that have been learned in the classroom through demonstration. Demonstration is a suitable alternative for acting. With Modeling the Way (MTW) students do not feel threatened and do not feel nervous.

According to Euis (2016) learning outcomes is a change in behavior because of an experience. According to Elizar (2015: 4) Accounting is the art of recording, classifying, and evaluating transactions and events that are generally of a financial nature in an efficient manner and in the form of units of money and interpreting these results. So that by using the right model, it is expected that there will be a change in behavior caused by a learning experience that is right for the sample in this study.

The type of research used is experiment, because this method is partly from quantitative methods. According to Fraenkel, et al (2012: 265) Experimental research is unique in two very important things. This research is the only type of research that directly tries to influence a particular variable, and when properly applied. Experimental research methods can be interpreted "as a research method used to find the effect of certain treatments on others in controlled conditions". The type of experimental research that the researchers used was One-Group Pretest-Posttest Design. Research variables are attributes, properties or values of people, objects or activities that have certain variables determined by research to be studied and then drawn conclusions (Sugiyono, 2012: 61).

The variables in the study are:

X₁ is the Learning Model of Creative Problem Solving (CPS)

X₂ namely Learning Modeling the Way (MTW) Model

This study uses descriptive analysis with test requirements analysis including normality test, homogeneity test, and hypothesis testing. The sample used is the whole of the total population, namely all the 4th semester accounting education students A1.

III. RESULT AND DISCUSSION

Description of Research Results

1. Implementation of Learning Using the Learning Model of Creative Problem Solving (CPS) On Meeting 1

At the core activity the lecturer first explains the subject matter about calculating and recording the cost of the finished product (finished processing). After explaining the subject matter to be achieved, then explain the learning activities using the Creative Problem Solving (CPS) learning model with the following steps:

a. Problem classification

Student is divided into small groups to discuss cases or questions that have been given to the lecturer. Where each group consists of 4-5 people. In groups.

b. Opinion Disclosures

Students solve problems that are presented according to the instructions provided. Where student is free to express opinions or resolve cases about various kinds of problem solving strategies. Student receives guidance and direction from lecturers in solving the problem.

c. Evaluation and Selection

Each group discusses the right answers according to the instructions available in the question.

d. Implementation

The student determines which strategies can be taken to solve the problem.

e. Then representatives from each group come forward to present the results discussed in front of the class and other participants respond. Then the lecturers and students concluded the results of the discussion.

2. Implementation of Learning Using Learning Models Modeling the Way (MTW) Meeting 2

The implementation of learning in the first meeting is as follows:

In the initial activity the lecturer gives greetings and prayers, then the lecturer checks the attendance of the student. The lecturer asks students' knowledge related to the cost of the order, to determine the extent to which students understand the basic competencies in analyzing the cost of the finished product. Lecturers motivate students to understand about calculating and recording the cost of goods in the process so that students are encouraged to learn more about cost accounting. Then the lecturer conveys the learning objectives at this meeting.

At the core activities the lecturer first explains the subject matter to be achieved, namely about calculating and recording the cost of goods in the process. Then explain the learning activities using the Modeling the Way (MTW) learning model with the following steps: The lecturer divides the students into several groups, students in a group discussion to demonstrate the scenario given according to the

material delivered by the lecturer. Each group is numbered (minimum 2-3 people). Student is given 10-15 minutes to create a special scenario that describes the general situation about the cost of goods in the process. Each group also determines how they will demonstrate skills to other groups. Give them 5-7 minutes to practice.

Where each group (one group representative) will get a turn to deliver demonstrations according to the material about the cost of goods in the process. Give an opportunity for feedback on every demonstration carried out. Then the student lecturer together concluded the results of the discussion.

In the final activity the lecturers and students conclude the results of the discussion and conclude the material about the cost of goods in the process. Then the lecturer gives evaluation questions, after that the lecturer tells the student to study the next material. And the lecturer closes the lesson by saying hello.

During the learning process in the class the students were given a post-test to determine the ability when using the Creative Problem Solving (CPS) learning model. Based on the results of calculations obtained by \bar{X} post-test = 72.83 this shows that the average student has met the minimum completeness criteria. Meanwhile, during the learning process in the class the students were given a post-test to find out their abilities when using the Modeling the Way (MTW) learning model. Based on the calculation results obtained \bar{X} post-test = 73.67 shows that the average student has met the minimum completeness criteria. From the results of the two models, the average learning outcomes when using the Creative Problem Solving (CPS) learning model are smaller than the average learning outcomes using the Modeling The Way (MTW) learning model, because students who are still less challenged with the cases he gave. So that students who take part in the learning process when using the Creative Problem Solving (CPS) learning model do not mean it. So when students are faced with solving cases or giving questions, not all students can solve the problem according to what the teacher wants. While during the learning process using the Modeling the Way (MTW) learning model, where with the Modeling The Way (MTW) model students will be more challenged because they must be able to practice the knowledge that is known. Therefore, students better master the material in depth.

Based on the results of t count = -3.256 and df = 28 then obtained t table = 1.701 for the level of error 5% and t table = 2.467 for the level of error of 1%, then the result t count falls in the reception area H_0 both at the level of error of 5% and 1% means that the learning outcomes use the Modeling The Way (MTW) model rather than the learning outcomes using the Creative Problem Solving (CPS) model. Thus it can be stated the conclusion that H_0 is accepted, where there are differences in accounting learning outcomes using the Creative Problem Solving and Modeling The Way models for IV semester A1 students.

IV. SUMMARY

Based on the results of the research and discussion, it can be concluded that:

1. When using the Creative Problem Solving (CPS) learning model the average value of Post Test or $(\bar{x}) = 72.83$ with the highest value of 90 and the lowest value of 60 and the standard deviation of 12.22.
2. When using the Modeling The Way (MTW) learning model the average value of Post Test or $(\bar{x}) = 73.67$ with the highest value of 90 and the lowest value of 60 and the standard deviation of 17.56.
3. Accounting learning outcomes on the basic competencies of analyzing the cost of finished products taught using the Creative Problem Solving and Modeling The Way learning model there are significant differences between the accounting learning outcomes taught to students. This is evidenced by the results of t -test calculations with the results t count = -3.256 and df = 28, then obtained t table = 1.701 for the error level of 0.05, thus the results t count fall in the reception area H_0 both at the level of 0.05 error means that the learning outcomes use the Modeling The Way (MTW) model rather than the learning outcomes using the Creative Problem Solving (CPS) model. Thus it can be concluded that H_0 accepted, then there are differences between them.

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