



Case-Based Accounting Learning Strategies



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Abstract

This study aims to obtain empirical evidence of differences in student learning outcomes. They apply case-based learning with students who do not apply case-based learning. The research method used was an experiment with true experimental design research design, pre-test post-test control group. Two groups were observed, namely the control group and the treatment group. Case-based learning for financial accounting courses is applied to accounting students in the accounting study program at the Faculty of Economics, Warmadewa University semester 2018/2019. The sample was obtained by convenience sampling method. The data analysis technique used was the independent sample t-test. The results showed the case-based learning strategy in financial accounting courses was effective in increasing student's understanding of the teaching and learning process. The student's perceptions of case-based learning strategies in financial accounting courses indicate most students perceive case-based learning strategies enhance learning and the level of effective acceptance from classes applying the case method.

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1 Introduction

Learning strategies can be understood as a way, a set of ways, techniques are carried out and taken by a teacher or student in an effort to make a change in behavior or attitude (Warsita, 2008). Learning in constructivism theory is an active process of students constructing meaning, discourse, dialogue, and physical experience. Learning is also a process of assimilating and linking experiences or information learned with the understanding that students have, therefore, their knowledge develops. The phenomenon of learning in universities currently still uses instructional strategies. They are centered on educators. Learning activities start from the planning, implementation, and assessment of the process and learning outcomes. It is carried out and controlled by the educator himself, while students act as followers of the activities displayed by the educator.

Higher education institutions in Indonesia need to make fundamental changes to the education system from lectures to learning. The change in teaching paradigm (*teaching*) to learn (*learning to learn*) the learning process tends to be dynamic and practical, namely developing the process of exploration and creativity. Therefore, lecturers need to provide a variety of learning activities have implications for a variety of learning experiences. The students are able to develop competencies after applying their knowledge. To realize the implementation of quality and optimal learning in an effort to improve the quality of student learning processes and outcomes. The effective learning methods are needed to further empower student's potential. Due to the tendency of educational experts to think about learning theory is present developing on learning is not merely memorizing. However, students must construct their own knowledge. They learn from experience, noting themselves meaningful patterns of new knowledge and not just given by the lecturer.

Problem-solving is the highest form of learning because in the process students are faced with the need to understand information and rules on the one hand. On the other hand, students must have the ability to apply their understanding of reality. Therefore, student involvement in problem-solving will develop the ability to critically evaluate and gain new knowledge and have a commitment to continue learning. To overcome these problems, an effort should be made, namely by applying a learning method allows students to be active in the learning process. The variety of learning methods develop brings different impacts on learning outcomes. This view encourages new policies in educational practice, which emphasizes the need for students to play an active role in gaining knowledge. Considering how important the active role of student is implementing effective and efficient methods is a must. On hope, the learning process is fun and not boring.

The learning strategies in Indonesia implemented are still conventional, such as instructors who give lectures in the teaching and learning process, while students are only as listeners (Saputra *et al.*, 2017). According to Eggen & Kauchak (2004), lectures are the method most often used by teachers in the learning process. Lecture as a learning method is seen as the easiest method to apply, all students are able to do it and are not complicated, so it is very flexible to be applied by lecturers. If it is implemented and planned well, lecturer is also an effective learning method. Through lectures, time can be streamlined, time is devoted to dealing with students at once in large numbers. Lectures are flexible and can be applied to many subjects. In the lecture method, lecturers still play an important role in the learning process. The long-term impacts include: lack of student participation, highly dependent on the ability of teachers, cannot be used for various learning styles such as problem-solving, communication skills, and interpersonal relationships. The application of conventional continuous learning methods will result in the limitations of students in conducting analysis and reasoning related to cases in the field of accounting.

Case-based learning is one of the learning models that require student's mental activities to understand a learning concept through situations and problems presented at the beginning of learning with the aim to train students to solve problems (Utomo *et al.*, 2014). Meanwhile, Tampubolon (2014), stated a case-based learning model can train and develop the ability of students to solve problems oriented to authentic problems from actual life to stimulate higher thinking skills. The case-based learning process implemented in the accounting education curriculum in Indonesia will be the right object in the process of developing student's analytical skills. Therefore, it will be interesting in the teaching and learning process in the classroom. The selection of case-based learning methods in financial accounting courses is based on several things, namely: 1) financial accounting learning requires real case illustrations in the application of knowledge gained from lectures and PSAK provisions; 2) teaching lecture-based financial accounting often makes students passive; 3) effective learning process is a process involves reflection (*double-loop learning*). It is expected involving students in case-based learning, students will have a high sense of enthusiasm, a better understanding of the basic concepts of accounting and a better understanding. The courses will be used as experiments in this study are financial accounting courses, especially cash flow material, the reason researchers choose cash flow because cash flow material describes the cash flow statement which in the cash flow statement reports cash receipts,

cash disbursements, and changes in net cash flows arising from operating, investing and financing activities during the reported period.

After a learning process ends, students get a learning outcome. Learning outcomes have an important role in the learning process. Learning outcomes are used to determine the ability of students to understand the material. Learning outcomes can also be seen through evaluation activities aimed at obtaining evidentiary data will indicate the level of student's ability to achieve learning objectives. Bloom (1956), defined learning outcomes to include cognitive, affective, and psychomotor abilities. The results of research related to case-based learning include research conducted by Hsu *et al.* (2016), stated student learning outcomes in the case-based learning course (experimental group) are superior in the control group. However, Moilanen (2017), found the results of the analysis did not show any positive influence from the assignment of cases in developing the concept of learning. This research was conducted to further research related to the application of case-based learning methods in accounting courses. Researchers choose case-based learning to be used as an experiment because case-based learning is very effective in developing independent learning behavior in students and improving student's analytical skills in problem-solving.

Literature review and hypothesis

Problem-based learning is one form of learning is based on the constructivism paradigm. It is very concerned with students and oriented to student learning processes. Therefore, problem-solving can foster student learning processes as a group or individually. It is the main characteristic of problem-based learning (Putri, 2017). The constructivism theory students can think to solve problems, look for ideas and make decisions (Rumate, 2005; Agus Yogeswara Wibawa & Wiksuana, 2019). Students will understand better because they are directly involved in developing new knowledge. They will be more understanding and able to apply it in all situations. As long as students are actively involved, they will remember all concepts longer.

According to Bettencourt (1989), in the constructivist learning model, knowledge is not passively accepted but is actively developed by the learner. Hidayat & Budiartma (2018), explained as learning process-oriented to student learning processes, problem-based learning is strongly influenced by student and lecturer authority in intellectual interaction. The interaction between student and lecturer authorities is one of the most important components in problem-based learning, known as the degree of structure or structure of problem-based learning. The more structured problem-based learning, means the more oriented lecturers, while the more unstructured problem-based learning, means more student-oriented (Putri, 2017). The formulation of the hypothesis is as follows:

H1: There are differences in student learning outcomes apply case-based learning to those do not apply case-based learning.

2 Materials and Methods

The study uses experimental research with *true experimental design* research design, *pre-test post-test control design group*. In this design, there are two groups are randomly selected then given a pre-test and post-test. The treatment given to the experimental class is by providing learning through case-based learning media as well as testing student's abilities by giving a post-test at the end of the meeting. The treatment for the control group is to provide learning with the lecture method and conduct a post-test at the end. The scores from the experimental and control class post-test results are compared. To test the difference between student learning outcomes are applied to case-based learning and students who have not applied case-based learning, the *Paired Sample T-test* and *Independent Sample T-Test* are used. It was previously tested the validity and reliability of the instrument used. Normality test and homogeneity test are also used.

3 Results and Discussions

Analysis of the effectiveness of case-based learning was tested based on learning outcomes between groups after being treated using the case-based learning method. The results of the significance analysis were paired t-test. The effectiveness test can show a significant effect on treatment if the p-value is less than 0.05 ($p < 0.05$). It is presented in Table 1.

Table 1

Average effectiveness test of group learning outcomes before and after using the case-based learning method

Treatment	Subject Group	Mean	T	P
<i>Case Based Learning</i>	Pre Treatment	37,5000	-9,022	0,000
	Post Treatment	58,7500		

Source: Processed Data (2019)

Based on the results of the paired t-test between treatment groups with the case-based learning method obtained $P = 0,000 < 0,05$. It can be concluded treatment with the method can improve learning outcomes. Conventional effectiveness analysis is tested based on inter-group learning outcomes after being treated using conventional methods. The results of the significance analysis were paired t-test. Effectiveness test can show a significant effect in treatment if the p-value is less than 0.05 ($p < 0,05$)

Table 2

Average effectiveness test of group learning outcomes before and after using conventional methods

Treatment	Subject Group	Mean	T	P
Konvensional	Pre Treatment	38,3333	0,569	0,575
	Post Treatment	40,0000		

Source: Processed Data (2019)

Based on the results of the paired t-test between the treatment groups with the conventional method obtained $P = 0,575 > 0,05$. It can be concluded the conventional method cannot improve learning outcomes.

3.1 Differences in learning outcomes that implement case-based learning with students who do not apply case-based learning

This research was conducted with two series of activities namely pre-test and post-test or before treatment and after treatment. The next step is to provide treatment in the experimental class by conducting learning using the *Case-Based Learning* approach, while the control class using conventional learning, with varied lectures. After the implementation of learning for about one month, the results of the analysis showed there were significant differences between the treatments using the case-based learning method and using conventional methods. Wherein student learning outcomes experienced a fairly high increase in the experimental group. The average post-test score of students in the experimental group reached 58.75, while the control class was only 40.00. The experimental class experienced an increase of 21.25 which in the pre-test was only 37.50. In contrast to the control class, the increase was much less at 1.67 with a pre-test score of 38.33. This shows there is a significant increase in learning outcomes in experimental class students who have been treated, compared with student learning outcomes in the control class.

The use of the *Case-Based Learning* approach encourages students to be motivated and active in implementing learning activities. Student's interest and attention towards the subject matter increase because the *Case-Based Learning* approach exposes students to cases in real life. This is consistent with the opinion of Nurhadi & Senduk (2004), stated *Case-Based Learning* was developed primarily to help students develop various adult roles through engaging them in real or simulated experiences and becoming independent learning. This is in accordance with research (Linawati, 2017), stated learning with the *Problem Based Learning* approach with recitation methods can improve the activities and learning outcomes of accounting students in the experimental class. It is compared to the control class which approaches and learning methods use conventional methods. *Case-Based Learning* can improve student's thinking skills because in case-based learning students are left to find problems. Thus, students can better understand the problem.

3.2 Student perceptions on case-based accounting learning

Student's perceptions of the satisfaction questionnaire showed 100% applied case-based learning helped them to learn financial accounting, and 100% agreed case-based learning helped them integrate curriculum content (subjects). 25%

students indicated case-based learning helped them clarify the relationship between curriculum content (courses). 100% student presentations show case-based learning stimulates them to independently learn and think. Most students give the opinion case-based learning helps them reduce learning barriers and increase them in learning financial accounting 95% students. 100% students think case-based learning can be a new approach to teaching and learning financial accounting, and 100% students think case-based learning strategies can be easily used in another curriculum. 87% students will consider using case-based learning strategies in another curriculum (*courses*). Regarding student satisfaction, 100% students are satisfied with using case-based learning to study financial accounting and 95% students like to use case-based learning to help them learn financial accounting. 100% student can immediately adapt to case-based learning. From the analysis above, it can be concluded students have agreed on perceptions related to case-based learning to improve learning. These results are in line with [Hsu et al. \(2016\)](#), which shows students believe the *problem-based learning* method helps them to develop a desire for independent learning and independent thinking.

4 Conclusion

Based on the research analysis and discussion has been fully above described, the conclusions of this study are as follows:

- 1) Empirical evidence shows case-based learning strategies can improve student learning outcomes. It can improve student's thinking skills because in case-based learning students are left to find problems, thus, students can better understand these problems. In addition, in case-based learning student's ability to make decisions is developed. If the ability is to make decisions increases, the decision making by students in finding answers to questions given by the lecturer will be better.
- 2) The results of a survey of students showed student's perceptions after adopting a case-based learning strategy, the majority of students had the perception of agreeing with case-based learning to improve learning. The use of case studies enhances student learning by helping develop certain thinking skills and providing the benefits identified in the literature.

Conflict of interest statement

The authors declared that they have no competing interests.

Statement of authorship

The authors have a responsibility for the conception and design of the study. The authors have approved the final article.

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