

The Implementation of Flipped Classroom Learning on Management Accounting Course

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Abstract. This research aims to evaluate the effectiveness of the implementation of Flipped Classroom Learning on Management Accounting Course in achieving the course's expected learning outcomes compared to traditional learning. The research type is applied research. The population is the students who are taking management accounting courses. This research uses census sampling. It is found that flipped learning increases the material understanding of students as indicated by the increase of formative assessment results using Kahoot. Flipped learning also increases the final grade. This research also found that flipped learning (1) can help the students to have better conceptual (2) can encourage the students to do self-learning and collaborative learning, and (3) can provide the learning flexibility. Students have also benefited from online learning videos and recommended keeping on the flipped classroom learning.

Keywords: Flipped Classroom, Traditional Learning, Course's Expected Learning Outcomes.

1. Introduction

Management accounting is a compulsory course offered in the 4th semester. This course currently uses the traditional classroom model. In the traditional classroom, students have no (or little) knowledge about the subject when they come to class. In class, they get taught all the knowledge, and it's often the basic knowledge about a subject. Students have to do the more comprehensive knowledge at home, it's called homework. The process of thoughts is mostly viewed after doing a test. Students don't have direct access to the knowledge. The teacher stands between the students and the knowledge. Students who attend a traditional education mostly have to do homework after contact moments. The flipped classroom is effective to improve the student creativity, responsibility, and learning skills [1].

Using the traditional classroom, the total number of management accounting students who got grade B- and below are 25%. This significant percentage should be improved since the job markets require the minimum cumulative GPA of 3 (4 for the highest). To improve the student grade, the flipped classroom is proposed to be developed and implemented.

Problem definition can be formulated as follows: is the flipped classroom learning more effective to achieve management accounting course's expected learning outcomes (CELOs) compared to traditional classroom learning?

The research objective is to evaluate the effectiveness of the flipped classroom learning in achieving management accounting course's expected learning outcomes. The research benefit

is to provide the input for undergraduate accounting study program and lecturers in developing the effective learning model to achieve management accounting course's expected learning outcomes.

2. Research Method

This research is applied research that emphasizes practical problem solving directed to answer the specific questions for the purpose of policy development, action, or particular performance [3]. This research is the evaluation research that is used for the evaluation of the effectiveness of an action, activity, or program [3]. This research is a qualitative approach that uses data in the form of sentences written or verbal, behavioral, phenomena, events, knowledge, or the object of the research [4]. Qualitative research is concerned with developing the explanation of social phenomena. It aims to help us to understand the world in which we live and why things are the way they are [2].

The subject of this research is Andalas University's accounting students who take management accounting course. The population is III/Int-A Class's international program accounting students and III/A2 Class's regular program accounting students who took the management accounting course in the second semester of 2018/2019. The research uses census data, that is, all III/Int-A Class's international program accounting students and all III/A2 Class's regular program accounting students who took the management accounting course. There are 61 students of III/Int-A Class's international program and III/A2 Class's regular program who took the management accounting course in the second semester of 2018/2019. The research was conducted in the semester of 2017/2018 for 6 months (January – June 2019).

The research uses primary data which are gathered by questionnaire and observation. Data are collected using two methods: observation and survey. Observation is conducted when the students are taking Kahoot's quiz. The observation aims to assess the student enjoyable of Kahoot's quiz formative assessment. The survey is conducted by distributing the questionnaire to the students on the final exam schedule. Questionnaire is developed using 5 likert scales: 1 (highly agree), 2 (agree), 3 (neutral), 4 (not agree) and 5 (highly not agree).

The steps of data analysis are: (1) tabulating the questionnaire, (2) calculating the average score of each question by dividing total score with the total number of respondents, and (3) drawing the conclusion. Besides the questionnaire, the effectiveness of the learning method is also assessed by looking at the final grade and Kahoot's quiz grade before and after the implementation of flipped classroom learning

3. Results and Conclusion

Formative Assessment Results

The formative assessment results using flipped classroom learning are presented in Table 3.1. below.

Table 1. The Formative Assessment results using Flipped Learning

No.	Topic	Kahoot's Score
1.	Introduction to Management Accounting	73,24%
2.	Cost Concepts	75,07%
3.	Standard Costing	66,51%
4.	Variable Costing	58,05%
5.	CVP Analysis – Single Product Setting	64,71%
Average		67,52%

The formative assessment results using full face to face learning (traditional classroom) are presented in Table 3.2. below.

Table 2. The Formative Assessment results using Full Face to Face Learning

No.	Topic	Kahoot's Score
1.	CVP Analysis – Multiproduct Setting	59,85%
2.	Tactical Decision Making	66,60%
3.	Functional-Based Responsibility Accounting	58,52%
4.	Transfer Pricing	76,28%
Average		65,31%

Table 3.1 dan 3.2 above shows that the average score of the formative assessment using flipped classroom learning was 67,52% which is higher than the average score of the formative assessment using full face to face learning 65,31%. It means that by using flipped learning, 67,52% of total students who took Kahoot's quiz had the correct answer while by using face to face learning, only 65,31% of total students who took Kahoot's quiz had the correct answer. Based on this fact, there is evidence that flipped classroom learning can improve the student's understanding of learning materials compared to full face to face learning.

Final Grade

The student achievement of flipped classroom learning implementation can also be seen in their final grade. The students who have more understanding of learning materials will also increase their final grades. It can be seen by comparing the final grade before and after the implementation of flipped classroom learning. The comparison of the student final grade before and after the implementation of flipped classroom learning is presented in Table 3.3 below.

Table 3 Comparison of the Student Final Grade Before and After the Implementation of Flipped Classroom Learning

	Before Flipped Learning	After Flipped Learning
A	15%	25%
A-	26%	13%
B+	24%	23%
B	10%	25%
B-	13%	13%
C+	7%	1%
C	5%	0%
Total	100%	100%

Based on Table 3,3 above, it is found that the number of students who got grade A increase from 15% (before the implementation of flipped classroom learning) to 25% (after the implementation of flipped classroom learning). There is shifting from grade A- to A. In the same case, the number of students who got grade B and B+ also increase from 34% (before the implementation of flipped classroom learning) to 48% (after the implementation of flipped classroom learning). So, there is evidence that flipped classroom learning can improve the student's understanding of learning materials compared to full face to face learning.

Questionnaire Results

Of 61 questionnaires distributed to the respondents, 58 questionnaires are returned (95%). The results are summarized in Table 3.4 below.

The questionnaire results show that the students give scores for all questions above 4 with an average score of 4,33. Questionnaire results show that flipped classroom learning is highly recommended to be implemented on management accounting course because:

- 1) Can help the students to have a better understanding of management accounting concepts
- 2) Can encourage the students to do self-learning and collaborative learning
- 3) Can provide the flexibility of students to learn anytime and anywhere
- 4) Can make the teaching and learning process to be more interesting for the students

Students recommend that the online learning video of management accounting should keep it on.

Table 3.4. Questionnaire Result.

NO.	PERTANYAAN	Nilai	Rata2
Pemahaman Konsep			
1	Pembelajaran akuntansi manajemen dengan video online (dalam jaringan / Daring) memudahkan saya memahami konsep akuntansi manajemen dibandingkan pembelajaran tatap muka	4,19	
Motivasi Belajar			
2	Pembelajaran akuntansi manajemen dengan video online memotivasi saya untuk belajar mandiri dan atau kelompok	4,24	
3	Pembelajaran akuntansi manajemen dengan video online memudahkan saya dalam mengerjakan tugas kelompok yang diberikan	4,29	4,19
Fleksibilitas Belajar			
4	Pembelajaran akuntansi manajemen dengan video online memberikan keleluasaan bagi saya untuk mempelajari kapan saja dan dimana saja	4,60	
Kesenangan penilaian formatif			
5	Penilaian (assessment) pembelajaran akuntansi manajemen dengan video online dengan menggunakan kuiz kahoot online learning game sangat menarik dan menyenangkan	4,50	
6.	Hasil kuiz kahoot secara real time menjadi umpan balik (feedback) yang sangat berharga bagi saya untuk memperbaiki kekurangan dalam belajar	4,31	
7.	Kuiz kahoot mendorong saya untuk mempelajari video online akuntansi manajemen secara lebih baik agar bisa meraih skor tinggi	4,52	4,44
Keberlanjutan			
8	Saya merasakan manfaat belajar video online akuntansi manajemen	4,40	
9	Saya sangat menyarankan video pembelajaran online akuntansi manajemen diterapkan untuk seterusnya	4,52	4,46
Rata-rata		4,33	

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