Journal of Economics, Business, and Government Challenges

Implications of the Application of Flipped Classroom Learning Media to Self-efficacy and Student Learning Participant

Hesty Prima Rini [a1]*, **Wilma Cordelia Izaak** [a2]*

[a] Management, Universitas Pembangunan Nasional Veteran Jawa Timur, Indonesia.

ARTICLE INFORMATION

ABSTRACT

The importance of learning activeness of UPN Veteran Jawa Timur management program students in the success of the learning process, one of which is influenced by internal factors inherent in students (talents, interests, and IQ), one of which is shown by the level of self-efficacy. This study aims to analyze the implications of application of flipped class room learning media to increase self-efficacy and student learning activities. This research uses quasi experiment or pseudo experiment with one-group-pretest-posttest design model, where the research will be conducted in two cycles of assessment that is the first cycle in the period before the learning process "Interactive Classroom Activities" and "Explicit Instruction Methods" after seven initial meetings before Midtest and after Midtest. This research process is done cyclically as suggested by Kemmis & McTaggart (1988) with respect to plan, implementation, monitoring, and reflection. Test reliability is done by technique test-retest (repeat measurement). The population in this study are all students of Management Faculty of Economics and Business UPN Veteran Jawa Timur. The sample in this research is student of UPN Veteran Jawa Timur Management class of 2015-2016 as experiment class with number of 30 people. Based on the classroom action research conducted by the influence of self-efficacy on student activity, the effect of using flipped classroom learning media on self-efficacy in two different cycles proved to have positive but not significant effect. Second, the influence of the use of flipped classroom learning media visually proved to have a positive and significant impact on student activeness.

[1]* **Corresponding author**.
E-mail address: hestyprimarini.mnj@upnjatim.ac.id
[2]* **Corresponding author**.
E-mail address: wilma.izaak.mnj@upnjatim.ac.id

INTRODUCTION

The rapid development of information technology has an impact on various fields including education in Indonesia. The Ministry of Research and Technology and Higher Education (Ristekdikti) as a higher education institution in Indonesia has a vision of realizing quality higher education and science and technology capabilities and innovation to support the nation's competitiveness. One form of response to technological developments in the world of education through the development of learning methods aim is to improve the quality of learning, one of it is an active learning methods that have been applied at UPN Veteran Jawa Timur by utilizing digital platform.

In the learning process activities, students are required to understand the material and complete the lecture assignments properly. With these demands, a student must have confidence in the competencies they have in completing tasks or high self-efficacy. According to Siahaan (2010) one of the determinants of student success in higher education is the extent to which students are able to complete the tasks given by the lecturer well and on time. According to Schmoker (2012) active learning is a teaching and learning process that emphasizes student activity physically, mentally, intellectually and emotionally in order to obtain learning outcomes in the form of a combination of cognitive, affective and psychomotor aspects in the classroom. The definition of learning activeness is only limited to the scope in the classroom, so that through active learning by utilizing digital technology or e-learning and supported by the method of "flipped classroom" is expected to be able to create active learning for students in the classroom and outside the classroom. The problems faced in creating the first active learning are mastery of lecturers in interaction patterns, learning situations, media and technology. The second problem is the ability of students to empower themselves to learn facts; concept; principle; law; theory; and other innovative ideas using technology to find; interpret; assess and use information so that students are able to produce creative ideas or ideas to solve problems and determine attitudes in decision making.

The importance of learning activeness of UPN Veteran Jawa Timur management study program students in the success of the learning process, one of which is influenced by internal factors inherent in students (talent, interest, and IQ), one of which is indicated by the level of self-efficacy. According to Bandura (1997), self-efficacy refers to beliefs about a person's ability to organize and carry out actions to achieve results of self-efficacy is a key factor source of human action (human agency), "what people think, believe and feel affect them in acting ". In the context of the student learning process, the notion of self-efficacy in this study is a self-assessment belief regarding the competence of management study program students to achieve success or success in their learning activities at UPN Veteran Jawa Timur.

In the results of previous studies with the title of the relationship between student self-efficacy and academic procrastination in completing lecture assignments, it can be concluded that the relationship of self-efficacy with academic procrastination has a significant negative relationship. These results mean that the higher the self-efficacy of a student, the lower the level of academic procrastination (Yamarik, 2007). In this regard, the tendency of student behavior in the learning process can be predicted through the level of self-efficacy possessed so that the importance of the role of student self-efficacy is able to create active learning in management study programs in the learning process both inside and outside the classroom.

In this study using self-efficacy and active learning as variables that will be examined before and after the application of Flipped classroom learning media. The renewal in this study is to use the variable self-efficacy and student motivation as a variable that will measure the level of difference before and after the application of flipped classroom learning media using quasi-experimental or quasi-experimental methods with the one-group-pretest-posttest design model. description of these problems, this study aims to determine the differences in the level of self-efficacy and activity of students with the use of flipped classroom methods. So the title in this study is the Implication of the Application of Flipped Classroom Learning Media to Self-efficacy and Activity of Student Learning.

LITERATURE REVIEW

Self-efficacy

The broader and more appropriate definition of self-efficacy for positive organizational behavior refers to individual beliefs about their ability to mobilize motivation, cognitive resources, and actions needed to successfully carry out tasks in certain contexts (Bishop & Verleger, 2013). Definition of self-efficacy refers to individual beliefs about their ability to mobilize motivation, cognitive resources, and actions needed to successfully carry out tasks in certain contexts, with reference to Bandura (1997) having the following indicators: Difficulty level (Magnitude) ability to complete task with a certain level of difficulty, Generality (Generality) is the ability to carry out tasks with a variety of task areas, Strength (Strength) is a strong or weak belief of an individual.

Flipped Classroom Learning Media

According to Johnson (2013) flipped classroom is a strategy that can be given by educators by minimizing the number of instructions or direct directions in their teaching activities while maximizing interaction with each other. The flipped classroom learning media method will be used in two parts of the media, namely the form of print media and video media. Indicators used in the media variable flipped classroom learning are: Small group discussion activities in the classroom (Interactive Classroom Activities) and video tutorials in the classroom (Explicit Instruction Methods).

Learning Participant

Activity is an activity that is both physical and mental, that is acting and thinking as a series that cannot be separated (Slavin & Davis, 2016). The activity of students or students in their learning varies according to the character of each student or student, this can be explained by Siahaan (2010) several indicators of learning activeness, namely: paying attention and reading (Visual), discussion, asking questions, solving problems (Oral), working question or task (writing).

Based on the background of the problem formulation and the research method, a research plan can be obtained as follows:

Figure 1. Conceptual Framework
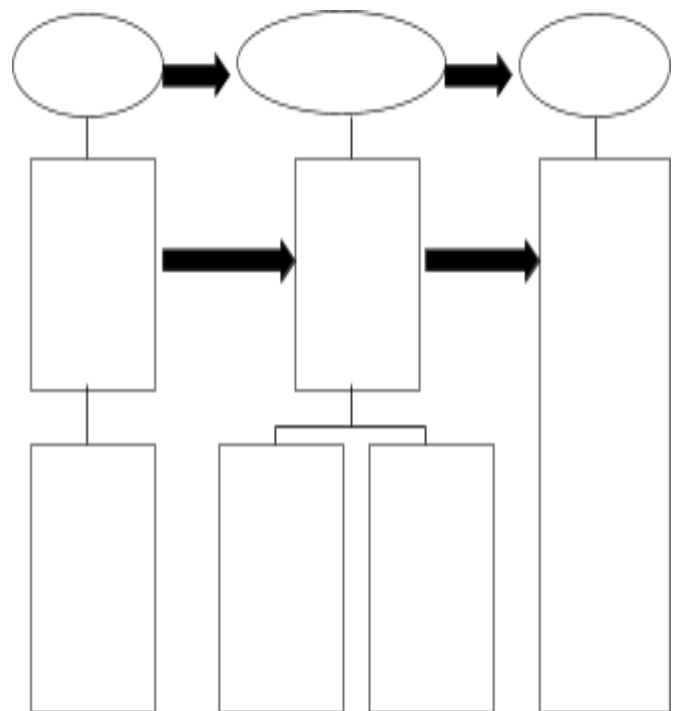
METHOD

In this study, it would be more appropriate to use a Classroom Action Research model. In this study the authors chose to use quasi-experimental methods or quasi-experiments with the one-group-pretest-posttest design model, meaning that the author would only use one group of subjects so that the writer could know the consequences of treatment given to the class as the subject group. This research will be conducted in two assessment cycles, namely the first cycle at the time period before the learning process of "Interactive Classroom Activities" and "Explicit Instruction Methods" is carried out after seven initial meetings before the midterms up to seven meetings after midterms.

Data collection techniques used in this study were using documentation, questionnaires, observation and interviews. The process of this research is carried out cyclic where this research will be carried out in two assessment cycles, namely the first cycle at the time before the learning process "Interactive Classroom Activities" and "Explicit Instruction Methods", namely after seven initial meetings before midterms until after midterms, as suggested by Bishop & Verleger (2013) with regard to plan, implementation, monitoring, and reflection. The researcher hopes that by distributing questionnaires, direct

observation and interviews can show the level of self-efficacy and activity of students (visual activity, listening activities, oral activities and writing activities) through a classroom flipped learning media strategy.

The population in this study were all students of Management Study Program Faculty of Economics and Business UPN Veteran Jawa Timur. Samples are partially or representative of the population under study Nasution (2003) the sample is as part of the population taken using certain methods. This study is an experimental study, according to Bergmann et al. (2012) where based on the research design used, the number of samples is 2 classes of 80 students, of which at least 15 subjects per group (Husein, 2016, p.147-148). The sample in this study were students of Management Study Program at UPN Veteran Jawa Timur class of 2015-2016 as an experimental class with 30 people. The sample was selected by purposive technique which then selected 30 parallel A class students as the experimental class who fulfilled the requirements for filling out the questionnaire, interviewing.

Analysis of the data used in this classroom action research is descriptive analysis. Descriptive analysis is an activity to describe the process and results of conducting research. Qualitative data are analyzed and described in the form of expressions and sentences to explain and describe phenomena that appear during the research process, namely for 1 semester consisting of 14 times face to face, especially in the implementation of actions. While quantitative data were analyzed by descriptive statistics which included the presentation of data in the form of tables and figures, as well as descriptive statistical measures such as average, minimum, maximum and standard deviation. Reliability test is done using the test-retest technique. To find out reliable or not a measuring device, in this classroom action research the researcher will ask the same respondent to answer all the questions listed in the measuring device twice. The recommended distance between the first and second measurements should be between 15-30 days in general (Husein, 2016, p.196-197).

Reliability and Validity

Based on the results of Corrected item-total correlation shown in tables 1 and 2, where the value of the corrected item-total corralation is shown to be higher than the table of r product moment values of 0.349 with the number n = 30 and significance of 5%. Thus, it can be stated that all measurement indicators used in this study have good validity and reliability, so that further analysis can be carried out at the treatment stage using classroom flipped learning media.

Table 1. Pretest Reliability

	Scale Mean if Item delected	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Self-efficacy				
Magnitude	4.2333	0.737	1.0000	-0.599
Generality	4.1333	1.361	1.0000	0.547
Strenght	7.5000	1.776	1.0000	0.570
Learning Participant				
Visual	4.5333	1.430	1.0000	0.531
Oral	8.0000	1.034	1.0000	0.138
Writing	4.7000	2.355	1.0000	0.668

Table 2. Posttest Reliability

	Scale Mean if Item delected	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Self-efficacy				
Magnitude	8.7333	1.444	1.0000	0.885
Generality	8.3000	1.183	1.0000	0.466
Strenght	9.2333	0.599	1.0000	0.415
Learning Participant				
Visual	8.7667	1.430	1.0000	0.799
Oral	8.0000	1.034	1.0000	0.138
Writing	7.9333	1.651	1.0000	0.819

T-test

On the results of the T test, the average value of pretest Self-efficacy and student activeness was 28,833, whereas for the posttest value obtained an average of self-efficacy and activeness of 50,9667 with the number of respondents 20 students as samples. The results stated that there was an increase in the level of self-efficacy and student activity after the implementation of flipped classroom learning media.

RESULT AND DISCUSSION

Self-efficacy and Learning Participant

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pretest	28.8333	30	2.76184	.50424
	posttest	50.9667	30	3.01128	.54978

The relationship between the two data is pree test (initial data) with posttest (data after treatment) the application of flipped classroom learning media has a correlation value of 0.450 with a significance of 0.013 (<0.05).

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	pretest & posttest	30	.450	.013

Through the paired sample test it can be seen that the probability value or sig. (2-tailed) <0.05, then there is a significant difference between the results of the treatment at the pretest and posttest which means that there is an influence on the use of learning strategies in improving learning outcomes by applying flipped classroom media to students.

Paired Samples Test

|		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	95% Confidence Interval of the Difference Upper	t	df	Sig. (2-tailed)
Pair 1	pretest - posttest	-22.13333	3.03669	.55442	-23.26734	-20.99932	-39.918	29	.000

This research took place at the Faculty of Economics and Business, UPN Veteran Jawa Timur, the meeting was conducted in 2 cycles, namely before and after the Mid Semester Exam. Learning method is a tool in the teaching and learning process in the process, not all students can immediately understand and digest the visualization of the material delivered by the instructor or in this case the lecturer. Through self-efficacy and the use of the flipped classroom method, the solution is to increase student learning activeness. Based on the results of questionnaires obtained the following results:

Application of Classroom Flipped Learning Media to Student Self-Efficacy

Self-efficacy refers to individual beliefs about their ability to mobilize motivation, cognitive resources, and actions needed to successfully carry out tasks in certain contexts, with indicators: (1) the magnitude of the ability to complete work with certain difficulties, (2) Generality namely the ability to carry out tasks with a variety of task areas, (3)

Strength is a strong or weak belief of an individual. The results obtained during the implementation of flipped classroom (pretest) can be seen in figure 2 as follows:

Figure 2. Self-efficacy Pree Test and Post Test
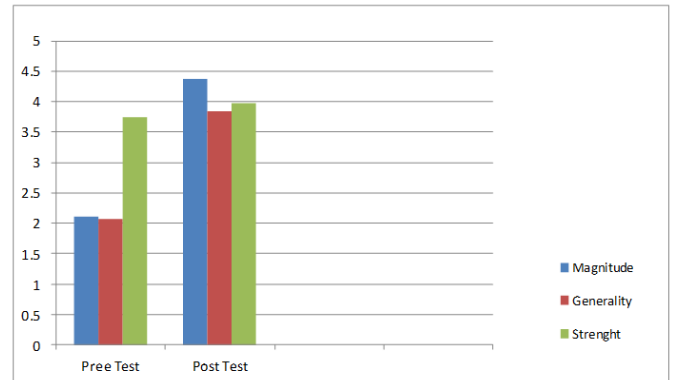
The level of self-efficacy before the use of flipped classroom learning media (pree test) has a relatively low average value with an average value of less than 3, namely the magnitude indicator (mean = 2.1167) and generality (mean = 2.0667) but only the indicator steng has a high enough value (mean = 3.75). At the time of post test or after the use of flipped learning learning media, the high level of self-efficacy is obtained, namely magnitude (mean = 4.3667); generality (mean = 3.85) and structure (mean = 3.9667). So it can be concluded that there is an increase in student self-efficacy after being given treatment using classroom flipped learning media, this is in line with the opinion This is consistent with the opinion of Anggraini and Nuraini (2016) stronger or higher self-confidence, the higher interest study.

Application of Classroom Flipped Learning Media to Learning Participant

The activity of students or students in their learning participant varies according to the character of each student or student, this can be explained by Holyt et al. (2010) several indicators of learning activeness, namely: paying attention and reading (Visual), discussion, asking questions, solving problems (Oral), working question or task (writing). The level of student activity before the use of classroom flipped learning media (pree test) has a low average value with a value (mean <2.5) that is on the visual indicator (mean = 2.2667) and oral (mean = 1.8667) and write (mean = 2.35). This is in accordance with the opinion of Johnson (2013) that the conventional learning process which

emphasizes the delivery of knowledge from the instructor to students and the activities of students during the learning process mostly only listens to all the information conveyed by the teacher, thus causing a lack of student participation in the process learn how to teach.

At the time of post test or after the use of flipped learning learning media, a high level of activeness (mean> 2.5) was obtained, namely visual (mean = 3.7167); Oral (mean = 3.4) and Writing (mean = 3.383). So it can be concluded that there is an increase in student activity in the learning process after being given treatment using classroom flipped learning media. This is in line with the opinion of Roach (2014) that the application of Flipped Classroom learning media makes students more motivated in completing their assignments both in the form of reports and practice questions. In addition, flipped classroom learning media is used by teachers to reduce the number of direct instruction in learning, so that the time spent in class is more efficient and focused on the task and writing group discussion reports in the classroom as Roach (2014) argue.
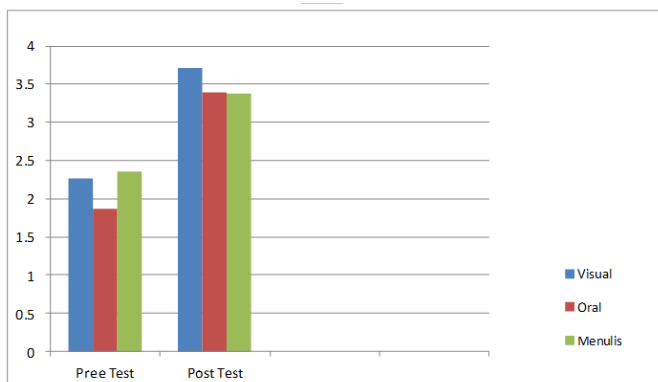

Figure 3. Learning participant Pree Test dan Post Test

CONCLUSION

Based on the results of research conducted the influence of the use of classroom flipped learning media on self-efficacy and activeness of students in the management study program of the Faculty of Economics and Business UPN Veteran Jawa Timur are as follows:
1. The use of flipped classroom learning media proved to have a significant difference in student self-efficacy before and after treatment using classroom flipped learning media. This is indicated by the increase in the

mean self-efficacy of the pree test to post test after being given a treatment of classroom flipped learning media. This is because when conventional learning (pretest) students experience self-uncertainty in understanding the material, overcoming difficulties and doing college assignments on. So that with the use of flipped classroom learning media able to train students to explore the potential that is owned optimally in the learning process and become confident in their own ability to complete college assignments. This is in accordance with the results of previous studies where, the learning process with the application of active learning can improve academic self-efficacy and student learning outcomes.
2. The use of flipped classroom learning media proved to have a significant difference in student activity before and after treatment using classroom flipped learning media. This is indicated by the increase in the mean pree test to post test after being given treatment using flipped classroom learning media on all indicators of student activity. This is because the emergence of the desire of students to be more active in using learning media because students feel very interesting and not boring, and able to provide a clear picture of the work to be done.

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