Journal of Business, Management, and Accounting
Volume 2
Issue 1
March Edition 2020

THE EFFECT OF E-LEARNING-BASED PROJECT LEARNING ON STUDENTS MOTIVATION

Annisa Dwi Astari[1], Citra Utami[2], Desty Kurnia Pratiwi[3], Prawidi Wisnu Subroto[4]
[1]*Annisadwiastariii@gmail.com,* [2]*Citrautami018@gmail.com,* [3]*Destykurnia03@gmail.com,* [4]*Prawidi.wisnu.s@gmail.com*
Muhammadiyah Tangerang University

Keywords: Learning, E-Learning, Students, Learning Motivation.

Abstract: The purpose of this study was to determine whether there were differences in learning motivation between students given project-based and conventional learning. This quantitative research method was conducted in class VIII YPI Al-Maghfiroh Gandasari Tangerang, Tangerang City in Mathematics with a sample of 24 people. The independent variable in this study is student motivation with 8 indicators, namely: a) Persevering in the task; b) Resilient in facing difficulties; c) Showing interest in various problems; d) Prefer to work independently; e) Get bored with routine tasks quickly; f) Can defend his opinion; g) It is not easy to give up what is believed; h) Happy to find and solve complex problems. Then arranged in the form of a questionnaire instrument with a total of 15 items. The instrument has been tested for validity by expert validators. While the dependent variable is the Mathematical formative test scores derived from documentation data on average student achievement in learning. Based on the Hypothesis test obtained, the magnitude of the correlation coefficient (r) that is equal to 0.5482 is greater than 0.491 with a significant level of 5%. Thus it can be concluded that Ha is accepted, that is "there is an influence of e-learning project-based learning on student motivation". The results showed that in general project-based learning on learning motivation of VIII MTS AL - Maghfiroh students was classified as good.

1 INTRODUCTION

The National Council of Teachers of Mathematics (NCTM) issues the Principles and Standards for School Mathematics. Teaching effective mathematics requires an understanding of what students know and need to learn and then challenge and support them to learn it well (NCTM, 2000). Important technology in learning and teaching mathematics; technology influences the mathematics he teaches and enhances student learning processes (NCTM, 2000). The development of education in Indonesia is getting better and better, the government is paying more attention to education. Many budget expenditures have been spent by the government for the development of education and must be utilized very well to achieve the goal of quality education. Quality human resources (HR) are very much needed in facing competition in various fields of life, especially being able to compete in the mastery and development of science and technology (Sastrika et al, 2013). Mathematics is a compulsory subject from elementary to high school level. For students, in general mathematics lessons become scary lessons in learning, not infrequently many students fail just because of one subject. One factor that makes students less motivated to learn mathematics is because mathematics is identical to counting and numbers that are complicated to understand. This matter must be corrected by a mathematics teacher.

2 LITERATURE REVIEW

The use of learning models that are less precise can lead to boredom, poorly understood, and monotonous so that students are less motivated. According to Arends (in Suprijono, 2013) the learning model refers to the approach used including learning objectives, stages in learning activities, learning environment and classroom management. While Istarani (2011) learning model is a whole series of presentation of teaching material that covers all aspects before, being and after learning by the teacher and all related facilities that are used directly or

indirectly in the learning process. From the opinions of some of the experts above it can be concluded that the learning model is a series of approaches in which there are objectives and stages of learning by the teacher directly or indirectly related to the learning process.

Project-based learning is process-centered learning, relatively timed, focused on problems, meaningful learning units by integrating concepts from a number of components, be it knowledge, scientific disciplines or the field. Critical thinking skills are developed at every stage of learning project-based learning model. Students become encouraged in their learning, the teacher acts as a mediator and facilitator.

One learning model that is recommended to be used is a project based on learning model. This is certainly not without reason, because given the superior characteristics of this learning model that is able to accommodate the reasons mentioned above. In addition, learning certainly must be changed from the old tendency (one direction) to become more interactive (multi-directional). Through this learning model, students will also be expected to become actively investigating (learning) by presenting the real world (not abstract) to them. In this learning model, students will work in teams (groups) cooperatively and change mere factual thinking into more critical and analytical thinking.

Project-based learning approaches are supported by constructivist learning theories. Constructivism is a theory of learning that has broad support that relies on the idea that students build their own knowledge in the context of their own experiences. The opportunity to convey ideas, listen to the ideas of others, and reflect their own ideas on the ideas of others, is a form of individual empowerment experience. The interactive process with peers helps the knowledge construction process (meaning-making process). The use of E-Learning media enables the development of high learning flexibility. That is, students can access learning materials at any time and repeatedly. In addition students can also communicate with the teacher at any time, for example through chat and email. Jaya Kumar C. Newspaper (2002), defines E-Learning as just any teaching and learning that uses electronic circuits (LAN, WAN, or internet) to convey learning content, interactions, or guidance. There are also those who interpret E-Learning as a form of distance education that is carried out through the internet method. The conclusion E-learning is the use of the internet in the delivery of learning.

Motivation is a strength (power motivation), driving force (driving force) or a tool to build a willingness and strong desire in students to learn actively, creatively, innovatively and fun in order to change behavior both in cognitive, affective and psychomotor aspects (Nanang Hanafiah, 2012). Motivation according to Wlodkowsky (Sugihartono, 2012) is a condition that causes or gives rise to certain behaviors and which gives direction and resilience to the behavior. High learning motivation is reflected in the perseverance that is not easily broken to achieve success despite being confronted by various difficulties. According to Mc.Donald (Sardiman A.M, 2012), motivation is a change of energy in a person which is characterized by the appearance of "feeling" and preceded by a response to the existence of goals. Based on some understanding of motivation above, it can be concluded that motivation is an encouragement from within the individual to do something to achieve the desired goals and there is no element of compulsion from the individual.

The formulation of the problem in this study is whether there are differences in learning motivation between students who are given project-based and conventional learning? The purpose of this study was to determine whether there were differences in learning motivation between students given project-based and conventional learning

3 METHODOLOGY

This quantitative research method was conducted in class VIII YPI Al-Maghfiroh Gandasari Tangerang, Tangerang City in Mathematics with a sample of 24 people. The independent variable in this study was students' learning motivation with 8 indicators as revealed by Sardiman, (2011) then arranged in the form of a questionnaire instrument with a total of 15 questions. The instrument has been tested for validity by expert validators. While the dependent variable is the Mathematical formative test scores derived from documentation data on average student achievement in learning.

Table 1. Student Motivation Criteria Table

Criteria	Category
$x \geq x_{id} + 0{,}61_{sd}$	High
$x \geq x_{id} + 0{,}61_{sd}\ x \geq x_{id} + 0{,}61_{sd}$	Medium
$x \geq x_{id} + 0{,}61_{sd}$	Low

Source: Riduan (2009).

Information:

x : Mean
x_{id} : Median
Sd : Standard Deviation

Based on the criteria above, the next step is to calculate the Normality Test, Correlation Test and Determination Coefficient Test based on Hypothesis (H_0) "There is no effect of project-based learning assisted e-learning on student motivation in Mathematics". While Ha "There is the effect of project-based learning on student motivation in Mathematics.

4 FINDINGS AND DISCUSSION

Based on the results of calculations using Microsoft Excel in the results of the analysis of the results of the average questionnaire from the total number of students valid, reliable, and normally distributed. The following calculations calculate the value of student motivation:

Table 2. Demographic Respondent

Questionnaire						Total
Respondents	1	2	3	4	5	
1	0	0	13	3	9	25
2	0	2	8	10	2	22
3	0	2	12	8	2	24
4	0	9	11	1	3	24
5	1	2	8	9	4	24
6	0	2	14	5	3	24
7	0	3	8	2	2	15
8	0	1	5	16	3	25
9	2	0	10	5	7	24
10	0	1	7	11	5	24
11	0	6	10	7	1	24
12	3	2	6	9	4	24
13	2	4	9	4	5	24
14	0	2	4	13	5	24
15	1	1	9	6	6	23
Total	0,150337133	-0,0796516	0,1078189	0,3377198	0,3394238	
t value	0,548279555	-0,2881032	0,3910262	1,2936738	1,3010487	3,2459249
t total	0,150337133	-0,0796516	0,1078189	0,3377198	0,3394238	0,8556481
Information	valid	valid	valid	valid	valid	

Source: Researcher Data (2019).

Table 3. Description of Student Learning Motivation

N		Mean	Std.Deviation	Min	Max	Sum
Valid	Missing					
24	0	82,5	88, 93966	65	100	1980

Source: Researcher Data (2019).

The results of the description of students' motivation data in this study explained that there were a number of cases of 24 students who filled out the questionnaire with an average (Mean) of 82.5. The standard deviation

(standard deviation) is 88, 93966, the minimum score is 65, and the maximum motivation score is 100, with a total score of 1980.

Based on the Hypothesis test obtained, the magnitude of the correlation coefficient (r) that is equal to 0.5482 is greater than 0.491 with a significant level of 5%. Thus, it can be concluded that Ha is accepted, which is the effect of project-based learning assisted by e-learning on student motivation. Thus the data above has a high level of relationship between project-based learning on student motivation. This is consistent with the results of research by Mahanal (2008) and Darmawan (2009) who explained that project learning is able to display better mastery of concepts compared to students who are facilitated by conventional learning. Furthermore, Indriwati (2007) stated in her dissertation that a project-based learning strategy is an effective strategy for improving high cognitive learning outcomes and life skills.

The results showed that in general project-based learning assisted by e-learning towards learning motivation of VIII MTS AL-Maghfiroh students was classified as good. This means that project-based learning assisted by e-learning can increase student motivation. This can be seen in the magnitude of the relationship coefficient (r) that is equal to 0.5482 greater than 0.491

5 CONCLUSION

Based on the results of research and discussion, it can be concluded that the effect of project-based learning assisted by e-learning students of class VIII YPI Al-Maghfiroh Tangerang City is classified as good. The results of this study are expected to provide information to the school regarding e-leaning project-based learning. Given the importance of developing technology now students must be familiar with e-learning-assisted learning.

REFERENCES

Doni Septumarsa Ibrahim., 2014. Pengaruh Penggunaan *E-Learning* Terhadap Motivasi dan Prestasi Belajar Matematika Siswa SD Negeri Tahunan Yogyakarta. *Jurnal Prima Edukasia, Volume 2 - Nomor 1.*

Evin Yudhi Setyono., 2015. Pengaruh Penggunaan Media Jejaring Sosial Edmodo Terhadap Hasil Belajar Mahasiswa Pada Topik Pembuatan Kurva-S Menggunakan Microsoft Excell. *Soshum Jurnal Sosial dan Humaniora, VOL.5, No.1.*

Nur Jannatu Na'imah, 2015. Penerapan Pembelajaran Berbasis Proyek Berbantuan *E-Learning* untuk meningkatkan hasil belajar siswa.

Sardiman. (1994). *Interaksi dan motivasi mengajar*. Jakarta: Raja Grafindo Persada.

Sastrika, I.A.K., Sadia, I.W. & Muderawan, I.W., 2013. Pengaruh model pembelajaran berbasis proyek terhadap pemahaman konsep kimia dan keterampilan berpikir kritis. *e-Jounal Program Pascasarjana Universitas Pendidikan Ganesha Program Studi IPA*, 3.

.