

**THE UTILIZATION OF GOOGLE CLASSROOM ON STUDENTS' SELF
REGULATED LEARNING DURING THE COVID-19 PANDEMIC****Mardiati, Lilis Saputri, Khairina Afni, Dewi Rulia Sitepu**

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Email: mardiati2208@gmail.com, falinsyah16@gmail.com, khairinaafni@gmail.com,
dewiruliasitepu@gmail.com.**Abstract**

This study aims to determine the effect of using google classroom on the learning independence of Mathematics Education Study Program students during the Covid-19 pandemic. This study applies a quantitative method with a descriptive approach. The research was conducted on the number of mathematics education students as many as 124 students. The design of this research is Nonequivalent Control group design. The instrument used is a questionnaire of self regulated learning. The results of this study showed that there is an effect of using google classroom on student' self regulated learning during the Covid-19 pandemic. Therefore, it is recommended to the teachers can provide training on the use of google classroom before learning begins.

Keywords: google classroom; online learning; self regulated learning

Received 20 Januari 2022, Revised 30 Januari 2022, Accepted 10 January 2022

Introduction

The significant challenges that hit the whole world, including Indonesia, is a severe problem that hurts human life, especially for the Indonesian nation. The big challenge for the Indonesian government is the handling of the Covid-19 pandemic. Covid-19 is one of the deadliest viruses, and this virus has spread to almost all countries in the world. This challenge has made the Indonesian government aggressively convey to the public to live clean.

Policies are being pursued to slow down the spread of the Covid-19 virus in the community. One of the efforts made by the Indonesian government in overcoming the problem of the Covid-19 pandemic is to enforce a physical distancing policy. To limit the development of the Covid-19 virus, the government, through the Ministry of Education and Culture (Ri, Lt, & Subroto,

2020), responded by issuing Ministerial Circular No. 4 of 2020 point 2 with a study from home policy. Of course, with this condition, learning cannot be done face-to-face, but knowledge can be done using online methods.

To carry out online learning, many choices can be made for an educator in carrying out teaching and learning activities, one of which is by applying various online methods, namely the use of applications on laptops as a form of online learning carried out by students of Mathematics Education. The use of software in helping computer-based learning can also assist teachers in delivering material that is considered difficult by students (Saputri, 2014). This, of course, can make it easier for lecturers and students to do online learning. However, in this study, only a few indicators will be investigated.

There are eight indicators of self regulated learning, namely "learning initiative, having the ability to determine one's own destiny, diagnosing learning needs, being creative and taking initiative in utilizing learning resources and choosing learning strategies, monitoring, regulating and controlling learning, being able to restrain oneself, making their own decisions, and able to solve problems" (Lestari & Yudhanegara, 2015).

Based on the results of the learning independence questionnaire, there are indicators of student learning independence. The result is 12% that there are still many students who are not yet creative and have the initiative in utilizing learning resources and choosing learning strategies. Apart from that, several indicators obtained that student learning initiative is 8%, monitoring, regulating, and controlling learning is 6%, and solving problems by 6%. So it can be concluded that many students of the Mathematics Education Study Program have not shown good self regulated learning. Almost all students show that autonomy is still lacking/low.

Students show that low self regulated learning certainly has an unfavorable impact on improving their academic abilities in lectures. So that the desired learning achievement is still not appropriately fulfilled. self regulated learning is essential in mastering intellectual skills in this era of the Covid-19 pandemic. Where now learning must be done by online or online methods. In this Covid-19 pandemic, the use of learning media is not only online, but students also carry out an self regulated learning process or independent learning.

From data from the Mathematics Education, the online learning process carried out by lecturers during the Covid-19 pandemic used two applications, namely WhatsApp and Google Classroom. With this application, lecturers can provide or share materials and assignments during the learning process. The number of lecturers who use Google Classroom is 13 lecturers.

Google Classroom is an application that allows the creation of classrooms in cyberspace (Nirfayanti & Nurbaeti, 2019). This method is an activity that must be carried out for every Mathematics Education student in participating in lecture activities so that the expected goals run well. In addition, Google Classroom can distribute assignments, submit assignments, and even assess submitted works (Hammi, 2017). Thus, this application can help students carry out the learning process more deeply. This is because both students can collect assignments, distribute assignments, assess projects at home or anywhere without being bound by time limits or class hours. The use of Google Classroom in lecture activities will undoubtedly have a negative or positive effect depending on the seriousness of the students following it.

Regarding class members in google classroom (Hammi, 2017) explains that google classroom uses classes available to anyone who has Google Apps for Education, a set of free productivity tools including Gmail, documents, and drive. Class designs that apply Google Classroom are environmentally friendly. This is because students do not use paper to collect their assignments. This is in line with Herman's opinion in (Hammi, 2017), who explained that in the google classroom, the class is designed to help lecturers create and submit paperless assignments, including time-saving features such as the ability to make copies of google documents for each student automatically. Classes can also create drive folders for each project and each student to organize things.

Google Classroom provides an opportunity for educators to explore their scientific ideas for students (Afrianti, 2018). The use of online-based learning media can affect learning outcomes, so educators must be careful in choosing and using media.

During online learning, the teacher no able to control by full activity study teach students. This is appropriate with result research (Wu, Y., Li, D., & Li, 2020) who

explain that participant educate often do mistakes in understanding the lesson with representation difference.

Independence is one aspect of a person's nature. In addition to using online learning media, students also carry out an self regulated learning process or self regulated learning in this pandemic situation. self regulated learning for students is a step in maximizing student abilities without having to depend on lecturers so that the teaching and learning process will be more optimal (Muhammad, 2020).

Independence or autonomy is the ability to control and regulate one's thoughts, feelings, and actions freely and try to overcome feelings of shame and doubt. Learning to find their own will arouse students' curiosity motivate them to continue working until they get answers to questions that arise (Sutrisno, 2011).

self regulated learning is a form of learning that is primarily responsible for planning, implementing, and evaluating its business (Ashadi & Suhaeb, 2020). The indicators of learning independence are as follows:

Table 1
Indicators of Learning

| Independence Learning Independence Indicator |
|--|
| 1. Confident, |
| 2. Initiative, |
| 3. Responsible, |
| 4. Setting learning targets and objectives, |
| 5. Select and implement learning strategies. |

Source: (Sugiyono, 2010)

Self regulated learning of a student is one of the absolute requirements that a student must own so that the purpose of the lecture is following the expected goals. The independence of a student shows the student's success in participating in learning activities. Students must master every lesson

that is taught by utilizing various existing learning resources.

Based on the description above, the purpose of this research is to find out whether there is an effect of using google classroom on the self regulated learning of students of the Mathematics Education during the Covid-19 pandemic.

Method

This research was conducted on Mathematics Education. The type of research used is quantitative method with a descriptive approach. The population in this study were all students of the Mathematics Education as many as 124 students.

The questionnaire instrument about the perception of the use of google classroom and student learning independence is a questionnaire consisting of 40 statement items or questions. This questionnaire instrument was conducted using a google form, where research was conducted at Mathematics Education by providing a link to the object of research and filling in questions or statements in the form of answer choices set by the researcher.

The first step taken by the researcher in compiling the questionnaire was to make a grid of questionnaires according to the indicators. Before being used, the questionnaire instrument was first validated by the validator. After being validated, the questionnaire can be tested on all students of the Mathematics Education. The research design used Pretest Posttest control group design.

Results and Discussion

Based on the normality test of the pretets and posttest using Kolmogorof-Smirnov test showed that the data were normally.

Table 1
Normality of student's self regulated learning data

| Data | Signifikansi | Sebaran |
|----------|--------------|--------------------|
| Pretest | 0,20 | Normal distributed |
| Posttest | 0,06 | Normal distributed |

For homogeneity test have been done on pretest and posttest data using F-Test. The result were homogen. After requisite test was fulfilled, data were analyzed using T-Test.

The hypotheses tested in this hypothesis test are.

Ha : There is a difference in the level of self-regulated learning before and after.

H0 : There is no difference in the level of self-regulated learning before and after.

Conclusions in hypothesis testing using the statistical test of the paired-sample t test were carried out using a significance level of 0.05. These criteria provide provisions for drawing conclusions that if the significance value obtained is 0.05, H_0 is accepted and H_1 is rejected

Based on the results of the Paired Samples Test statistical test, it proved that there were differences in the level of student self-regulated learning before and after. The results of the Paired Samples Test statistical test obtained the value of Sig. (2-tailed) $0.000 < 0.05$ then H_0 is accepted and H_1 is rejected, which means that there are differences in the level of student self-regulated learning before and after using google classroom in the learning process.

This is in line with the research results of (Yuliati, Saputra, Rachmadtullah, Rasmitadila, & Lasha, 2019) prove that the implementation of online learning with the blended learning method using the google classroom media has an influence on the level of self-regulated learning of students.

Likewise the results of research (Izzati & Kuswanto, 2019) which prove the influence of the blended learning process on the personal independence of students. when learning online, the absence of the teacher requires students to study independently at home.

Based on the results of the study (Laviana et al., 2021) stated that there was a difference in the cumulative percentage of students' interest in learning mathematics with the offline learning model, which was 75.7% while the online learning model was 67%.

Conclusion

For the conclusion, that there is an effect of google classroom using on the self regulated learning of students of the Mathematics Education Study Program during the pandemic". For further research, it is recommended to examine the use of applications found on Google to help the online learning process.

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