Analysis Effectiveness of the Online Learning through the Use of Google Classroom during the COVID-19 Pandemic

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Abstract: Analysis Effectiveness of the Online Learning through the Use of Google Classroom during the COVID-19 Pandemic. The purpose of this study was to analyze the effectiveness of online learning asynchronously through the use of google classroom media at Medan State University, Chemistry Education Departement, batch 2018 in the chemical separation course during the COVID-19 pandemic. This study used descriptive qualitative method. The sample of this research was 29 students of the fifth semester class A chemistry education study program in 2018. The data collection technique used was filling out a questionnaire via google form as many as 24 statements. The results obtained indicate that the benefits of google classroom are good with a percentage of 76.9%, ease, quality of user use, use of google classroom and effectiveness are 86.3%, 80.3%, 81.9%, and success respectively. 88.6% in very good category. In general, the effectiveness of online learning through the use of google classrooms at Medan State University, Chemistry Education Study Program class of 2018 is very good, students find it easy to use google classroom, have very good quality of use of learning, and have good enough use for students.

Keywords: online learning, COVID-19, google classroom, effectiveness.

Abstrak: Analisis Efektifitas Pembelajaran Daring Melalui Pemanfatan Google Classrom Pada Masa Pandemi COVID-19. *Tujuan penelitian ini adalah untuk menganalisis efektifitas pembelajaran daring secara asinkron melalui pemanfaatan media google classroom di Universitas Negeri Medan Prodi Pendidikan Kimia angkatan 2018 pada mata kuliah kimia pemisahan di masa pandemi COVID-19. Penelitian ini menggunakan metode deskriptif kualitatif. Sampel penelitian ini adalah mahasiswa prodi pendidikan kimia semester V kelas A angkatan 2018 sebayak 29 mahasiswa. Teknik pengumpulan data yang digunakan adalah pengisian angket melalui google form sebanyak 24 pernyataan. Hasil yang diperoleh menunjukkan bahwa kemanfaatan google classroom sudah cukup baik dengan persentase 76,9%, kemudahan, kualitas penggunaan pengguna, penggunaan google classroom dan efektifitas secara berturut-turut adalah 86,3%, 80,3%, 81,9%, dan 88,6% dalam kategori sangat baik. Secara umum efektifitas pembelajaran daring melalui pemanfaatan google classroom di Universitas Negeri Medan Prodi Pendidikan Kimia angkatan 2018 sudah sangat baik, mahasiswa merasa mudah dalam menggunakan google classroom, memiliki kualitas penggunaan pembelajaran yang sangat baik, serta memiliki pemanfaatan yang cukup baik bagi mahasiswa.*

Kata kunci: *pembelajaran daring, COVID-19, google classroom, efektifit*

▪ **INTRODUCTION**

In early 2020 the world of education was experiencing a period of shock due to the emergence of the coronavirus 2 (SARS-COV-2) or known as COVID-19. COVID-19 has had an impact on the world of education, namely in the process of carrying out learning that must be done in a distance (online learning). The issuance of a circular from the Minister of Education and Culture Number 4 of 2020 concerning the implementation of educational policies in the emergency period of the spread of Corona virus disease (COVID-19), has led to the face-to-face learning process in schools being shifted to learning at home as one of the efforts to prevent the transmission of COVID-19 in Indonesia (Kurniasari, et al, 2020; Prasetia, et al, 2020). The distance learning process requires educators to carry out an online learning process which of course requires a variety of learning media and learning technologies (Pakpahan & Fitriani, 2020). At first, educators tried hard to realize the effectiveness of online learning so that learning could run as it should. According to Salehudin (2020), some of the efforts made by educators in online learning to achieve success are using social media assistance in the form of WhatsApp, Facebook, Instagram and YouTube as e-learning media. However, this effort is not useful, this is due to the lack of interaction between teachers and students, the success of online learning is influenced by social presence (social distancing) and the comfort of students when learning online (physical distancing) (Tantri, 2018).

In online learning there are two terms of learning, namely synchronous and asynchronous (Chaeruman, 2017; Narmaditya, et al, 2020; Putri & Utami, 2020). Synchronous learning is learning that takes place when students or students and educators are in the same place at the same time (Chaeruman, 2017). One example of synchronous learning is when a lecturer gives lectures through a via-zoom meeting to students. It creates virtual classrooms that allow educators to engage directly with students in both discussion and question-and-answer. Whereas asynchronous is learning carried out by educators and students / students at different times that can be read or responded to at any time through the use of media (Naila, I & Khasna, 2021 & Narmaditya, 2020). Asynchronous learning can be supported by email, online discussion boards, wekipedia, and blogs. Generally, asynchronous learning activities interact with the Learning Management System (LMS), communicate using email, read articles and post results in discussion forums (Kurniasari, et al, 2020). Overall asynchronous learning has advantages such as flexibility, efficiency, comfort and forms a responsible and professional personality. The difference between synchronous and asynchronous learning is that synchronous learning involves direct interaction of educators with students, whereas asynchronous learning involves learning that is centered on students to increase student independence.

Online learning has been carried out by students of the Medan State University in the chemistry education departement, batch 2018 in the chemical separation course. Lectures are carried out asynchronously by utilizing the google classroom media during the COVID-19 pandemic.

Based on the conditions described above, the purpose of this study is to analyze the effectiveness of online learning asynchronously through the use of google classroom media at Medan State University, chemistry education departement, batch 2018 in the chemical separation course during the COVID-19 pandemic.

▪ **METHOD**

This study used descriptive qualitative method. The qualitative descriptive method is a research method that describes the data obtained from students and analyzes the student response questionnaire data in the form of qualitative explanatory sentences (Sudjana, 2009).

This research was conducted from 06 December 2020 to 02 February 2021 which was held at the Medan State University, Faculty of Mathematics and Natural Sciences, chemistry education departement.

The population of this study were all students of the 2018 class of chemistry education departement FMIPA Medan State University, with the research sample being 29 students of the 5th semester Regular-A of the 2018 class of chemistry education departement. The sample selection in the study used a purposive sampling technique, namely samples that were deliberately selected based on certain characteristics required in the study (Azzani, 2020).

The data collection technique used was a questionnaire by giving questionnaires via google form to students. The questionnaire used is an adoption questionnaire from Sari's research (2019) using a linkert scale [1-4].

In data analysis, research variables were arranged descriptively by assessing the percentage of standard achievement in tabular form. The data analysis technique used the Miles and Huberman technique. Data description is done in percentage form below:

$$\% = \frac{\text{number of parts}}{\text{total number}} \times 100\%$$

▪ **RESULT AND DISCUSSION**

Research conducted at Medan State University, Chemistry Education Departement Class A Regular-A class of 2018 which has a number of respondents of 29 students is intended to answer the statements that have been listed on the google form. The statement questionnaire on the google form contains 24 statements. The following grid of statements can be shown in Table 1.

Table 1. Grid for Student Response Questionnaires on Online Learning Using Google Classroom Media

No	Indicator	Statement Items	Item Number
1.	Perceptions of Benefit	5	1; 2; 3; 4; 5
2.	Perception of Ease	6	6; 7; 8; 9; 10; 11
3.	Quality of Service Usage	5	12; 13; 14; 15; 16
4.	Use of Google Classroom	4	17; 18; 19; 20
5.	Learning Effectiveness	4	21; 22; 23; 24

Based on the results of the questionnaire responses given via google from with the following address.

https://docs.google.com/forms/d/e/1FAIpQLSf4hEdoXFlcVNtgns4Kmf2eVj9boF T3lYFnb6Tqux9TkdO8qg/viewform it was found that:

- Using Google Classroom can increase my learning productivity. From the second item, the majority of students answered agree (A) with a percentage of 69%, disagree (D) as much as 17.2%, and very agree (VA) as much as 13.8%.
- Using Google Classroom can improve my learning effectiveness. From the third statement item, the results obtained by students who answered (A) were 72.4%, (VA) and (D) were 13.8%.

- I can use Google Classroom according to my wishes. From the statement of the 7th item, the results of students who answered (A) were 55.2%, (VA) were 41.4%, and (D) were 3.4%.
- It was easy for me to become proficient with Google Classroom. From the 10th statement it is known that students who answered (VA) were 51.7% and students who answered (A) were 48.3%.
- I've never had a system failure while completing a separation chemistry assignment with Google Classroom. From the 12th statement it is known that the majority of students answered (A) with a percentage of 48.3%. While the minority of students answered totally disagree (TD) with a percentage of 6.9%. Students who answered (VA) were 24.1% and students who answered (D) were 20.7%.
- The information listed in Google Classroom is easy for me to understand. From the 14th statement item it is known that the average student answered (VA) and (A) with a percentage of 48.3%, and a minority of students answered (D) with a percentage of 3.4%.
- Lecturers responded quickly when there are questions from students via Google Classroom. From the 15th statement it is known that the majority of students are answered (A) with a percentage of 51.7%. Meanwhile, the minority of students answered (TD) as much as 3.4%. Students who answered (VA) were 31% and those who answered (D) were 13.8%.
- I am interested in using Google Classroom to help me in the process of learning separation chemistry and completing assignments. From the 19th item, it is known that the majority of students answered (A) with a percentage of 65.5%. While those who answered (VA) were 31% and those who answered (D) were 3.4%.
- The low risk of using Google Classroom makes me continue to use Google Classroom in the future. From this 20th statement item it is known that the majority of students answered (A) with a percentage of 62.1%. While students who answered (VA) were 27.6% and those who answered (D) were 10.3%.
- Lecturers provide assignments and materials through Google Classroom according to the syllabus. From the 22nd statement item it is known that students who answered (A) were 58.6% and those who answered (VA) were 41.4%.
- Students feel motivated to complete assignments through Google Classroom because there is a grace period given by the lecturer. From the 23rd statement item it is known that the majority of students answered (A) as much as 65.6%. Meanwhile, the minimum number of students who answered (D) was 3.4% and students who answered (VA) were 31%.

Furthermore, to find out the results of the effectiveness of online learning through the use of google classroom, the results of the analysis of each statement item are taken on a positive average and converted to predetermined effectiveness criteria (Pribowo, 2017). Interpretation and decision making about the results of data analysis on the converted research using the criteria in Table 2.

Table 2. Conversion Levels of Achievement and Qualification of Effectiveness

Criteria	Qualification
80%-100%	Very good
60-79%	Good
50-59%	Bad
<49%	Very bad

Based on the conversion table for the effectiveness of online learning through the use of google classroom, the data obtained is calculated on average for each indicator to be analyzed based on the effectiveness qualification. The analysis of the results of filling out the questionnaire on the implementation of online learning through the use of google classroom is presented in Table 3.

Table 3. Analysis of Student Questionnaire Results

No	Indicator	Average	Effectiveness Qualifications
1.	Perceptions of Benefit	76,9%	Good
2.	Perception of Ease	86,3%	Very good
3.	Quality of Service Usage	80,3%	Very good
4.	Use of Google Classroom	81,9%	Very good
5.	Learning Effectiveness	88,6%	Very good

Based on the results of research conducted by providing questionnaires via google form, it can be seen that in general the implementation of online learning through the use of google classrooms at Medan State University, Chemistry Education Departement, Class V Regular-A semester V class 2018 is running very well with a percentage of 76-89%. When analyzed more deeply the effectiveness of online learning through google classroom works very well because students already have google classroom in terms of ease, quality of user use, use of google classroom and its effectiveness. This is in line with the expression Permata & Bakhi (2020) which states that google classroom is effective in virtual classroom learning in terms of use, appearance and access to more efficient material announcements and assignments..

The use of google classroom has fulfilled the expectations of the world of education. This media has proven effective in helping educators carry out learning activities asynchronously. This is evidenced by the results of the positive responses in the questionnaire given to students.

In addition, the benefits of google classroom have also received a pretty good response. This is due to the belief that the use of google classroom can improve students' learning ethos. This is in accordance with Sari's (2019) statement which states that the use of google classroom can increase learning productivity. Another opinion also states that the benefits of google classroom can foster students' enthusiasm and interest because the learning process is fun (not boring) (Wicaksono, 2020).

▪ **CONCLUSION**

Based on the discussion above, it can be concluded that in general the effectiveness of online learning through the use of google classrooms at Medan State University, Chemistry Education Departement, batch 2018 is very good. Students find it easy to use google classroom, the quality of user use, the use of google classroom and the effectiveness of learning is very good, and it has good enough use for students. The results

of this study are suggested to be a reference for researchers to re-examine the effectiveness of google classrooms in other learning processes.

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