



IMPLEMENTATION OF ASSESSMENT IN IMPLEMENTING ONLINE MATHEMATICS LEARNING AND OFFLINE DURING THE COVID-19 PANDEMIC

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Article history:	Abstract:
Received: 17 th July 2021 Accepted: 26 th July 2021 Published: 24 th August 2021	Learning in the midst of the COVID-19 pandemic is a challenge for teachers, students, and also parents. Learning that is not done face-to-face makes students learn to learn independently. This study aims to find out how the implementation, learning evaluation results, and obstacles in learning with line and angle material boldly and fishing in class VII SMP Negeri 1 Dolok Pardamean. This research uses descriptive analytical method to describe and analyze a research result. Subjects in this study each class used a sample of 12 students, class VII A through bold learning and VII B through offline learning. This research was conducted by analyzing the reliability of the items assisted by SPSS Cronbach Alfa which consisted of 10 multiple choice questions and 5 questions. From the results of the evaluation of student learning, the reliability test of the assessment instrument learning learning with offline learning did not give fixed results because there were obstacles in learning including not all students have the facilities to learn, teachers find it difficult to develop student learning, while engaging learning is that students do not can learn with focus due to unfavorable situations and conditions.

Keywords: Pandemic COVID-19, Online and Offline learning, Assessment,

INTRODUCTION

Education is the most important element in improving human resources. Through education, humans will be able to master science and technology, improve human resources, and be able to solve the problems they face (Situmorang Adi S. and Siahaan Friska, 2019). The world of education has undergone changes due to the COVID-19 pandemic, even greatly affecting all aspects of human life. The place that is seen and functions as a producer of high quality human resources is education. One of the fields of education that has an important role in improving the quality of education is mathematics education (Sihombing, et al 2021:42). Indonesia is one of the countries affected by the spread of the COVID-19 virus and over time has become the country with the most cases in Asia based on data obtained from the Ministry of Health of the Republic of Indonesia. The Indonesian government has made many efforts to stop the spread of the COVID-19 virus and to anticipate the transmission of the virus, the government has issued various policies, such as isolation, social and physical distancing to large-scale social restrictions (PSBB) (Siregar, H.S et al., 2020). According to Arifin (2012: 73) that "Education is part of the activities of social and national life". So that every country will never be separated from the world of education. The higher the quality of education of a country, the higher the quality of human resources who can advance and make the country proud.

From the Circular Letter of the Minister of Education and Culture Number 3 of 2020 concerning Prevention of the Covid-19 virus in Education Units, and Number 36926/MPK.A/HK/2020 concerning online learning, teachers are required to provide a teaching and learning process that increases student interest in learning. This step was taken to reduce the number of patients affected by the Covid-19 virus (Kemendikbud, 2020).

Until now, the government's effort to break the chain of the spread of COVID-19 is to implement distance learning (PJJ). So that it has an impact on growth, especially in the field of education. All teaching and learning activities are carried out online in accordance with government regulations. With the problems that occur, many students think mathematics is difficult. Moreover, the current condition of learning is done online so that this is also one of the causes of students feeling that mathematics is difficult. In fact, mathematics is not always about numbers, but it is much deeper than that. Many abilities can be developed from learning mathematics, including problem solving, mathematical communication, and mathematical connections. (Yuliza, 2020:21)

During the Covid-19 pandemic, teachers can apply several learning strategies, one of which is online and offline distance learning. According to Mutiani, M., & Faisal, M (2019), so that learning can be carried out in the era of a pandemic, online learning is used to achieve educational standards by utilizing Technology and Communication. While in offline learning students can do it at school by reducing student capacity. So that in the learning process there are those who enter in the morning and some who enter in the afternoon.

Online learning is one of the learning processes that aims to expand student communication (Mustofa, Chodzirin, & Sayekti, 2019; Purmadi, Hadi, & Najwa, 2018) training students to be able to communicate and learn using the internet network (Radita, 2018; Sobron, Bayu, Rani, & Meidawati, 2019). This online learning requires students to be able to learn independently without depending on the teacher, and in the learning process does not require students to meet directly with teachers and other students. Through online learning, students can have freedom in their study time. Students can study whenever and wherever they want.

In the learning process, there are things that are no less important, namely assessment or assessment. According to Uno da Koni (2012), assessment is a method used by educators to determine the achievement of students during the learning process. With the internet network, the implementation of remote assessment can run easily due to the rapid development and advancement of technology. To conduct assessments and evaluation results of online learning, teachers can use application media that are connected to the internet network.

Learning assessments in conditions of social distancing and physical distancing carried out at home can use the remote assessment method. With the rapid development of technological advances today, the implementation of remote assessment is very possible and facilitated, especially with the internet network. Online learning activities must be monitored and optimized in the use of media by teachers because students learn online from home. Therefore, teachers must always innovate when teaching so that students stay focused on following the lesson. The E-learning method can be used by teachers during the implementation of learning, so this method utilizes information and communication technology. Learning carried out by teachers and students currently uses computers or laptops that are connected to the internet network. Learning facilities according to (Albert Efendi, 2020) that can be used by teachers include E-Learning, Edmodo, Google Meet, V-Class, Google class, Webinars, Zoom, Skype, Webex, Facebook live, You tube live, Schoology, What's up, email, and Messenger or other online learning tools. Through these online facilities, teachers are able to supervise students while learning at the same time even though students are studying from home. Teachers can use application media that are connected to the internet network to conduct online assessments and evaluations of learning outcomes. The assessment can be in the form of quizzes, online tests, individual assignments, or other forms of online assessment using the internet.

Assessment in learning can be carried out in various ways and purposes, but according to Wiliam & Leahy (2007) in general assessment has three functions: 1) helping to improve learning, 2) determining student learning outcomes, and 3) evaluating the quality of learning programs. In SMP Negeri 1 Dolok Pardamean, there are still learning activities that have not utilized technology optimally because not all students can use the internet. Whereas learning technology, both as a scientific discipline, study program, and profession continues to experience rapid development (Warsita, et al., 2008). From this evaluation in online distance learning through the media google form. Judging from the results of the study (Fauzi, 2014), the use of google form media as a learning evaluation tool has a good impact and benefit in SMP Negeri 1 Lembang. Based on this explanation, a research study entitled "Application of Assessment in Implementing Online and Offline Mathematics Learning During the Covid-19 Pandemic" was conducted with the aim of knowing how it was implemented, the results of student learning evaluations, and the assessment constraints that occurred.

A. RESEARCH METHODS

This study uses quantitative descriptive research and uses analytical descriptive methods according to (Sugiono: 2009; 29) is a method that serves to describe or provide an overview of the object under study through data or samples that have been collected as they are without analyzing and making conclusions that applies to the general public. In other words, analytical descriptive research takes problems or focuses attention on problems as they are when the research is carried out, the results of the research are then processed and analyzed to draw conclusions.

This research was conducted at SMP Negeri 2 Dolok Pardamean with the subject of each class using a sample of 12 students, class VII A through online distance learning and VII B through offline learning. There are 2 research instruments used, namely instruments in the form of multiple-choice test instruments and essays for the line and angle chapter, these instruments are used to determine the results of student learning evaluations in online and offline distance learning. The instrument questions used have been corrected by 2 Mathematics teachers. The test instruments distributed were 15 questions consisting of 10 multiple choice questions and 5 essay questions. Before analyzing the items, the previous researcher determined the score for each item. For multiple choice questions, each correct answer will get a score of 5, and the wrong answer will get a score of 0. For essay questions, if the answer is correct, it will get a score of 10, while if it is wrong, it will get a score of 0. Then the instrument is in the form of a questionnaire or questionnaire via google form as an evaluation tool. distance learning online. For the process of developing the question instrument using testing:

Reliability Test

$$R_x = \left(\frac{n}{n-1}\right) \left(1 - \frac{\sum \sigma_t^2}{\sigma_t^2}\right)$$

Information:

R_x : Reliability value

n : number of question items

∑ σ_t² : total variance score for each item

σ_t² : varians total

The instrument is said to be reliable if the reliability coefficient is at least 0.6 (Sugiyono, 2012), and the item is said to be reliable with criteria > 0.40 or with sufficient, high and moderate criteria (Sundayana, 2016).

Questionnaire Analysis = PR = $\frac{S}{N} \times 100\%$

Information:

PR : response percentage

S : total score obtained

N : total score

(Purwanto, 2002)

Tabel 1. Skala Angket

Interval Presentase Respons	Kategori
80 ≤ PR ≤ 100	Sangat baik
70 ≤ PR < 80	Baik
70 ≤ PR < 70	Cukup
< 60	Kurang

(Abidin, 2016)

Test Result Assessment

Value = (total student score)/(total score) x 100 (Purwanto, 2002)

RESULTS AND DISCUSSION

Based on the results of observations and interviews conducted at SMP Negeri 2 Dolok Pardamean, the learning process during the pandemic was carried out online and offline. In the implementation of online learning, students use Android and the internet guided by teachers and parents. While in the aspect of learning evaluation in online learning using google form media. The following picture shows the results of the evaluation scores of online distance learning for class VII A and offline learning for class VII B as follows

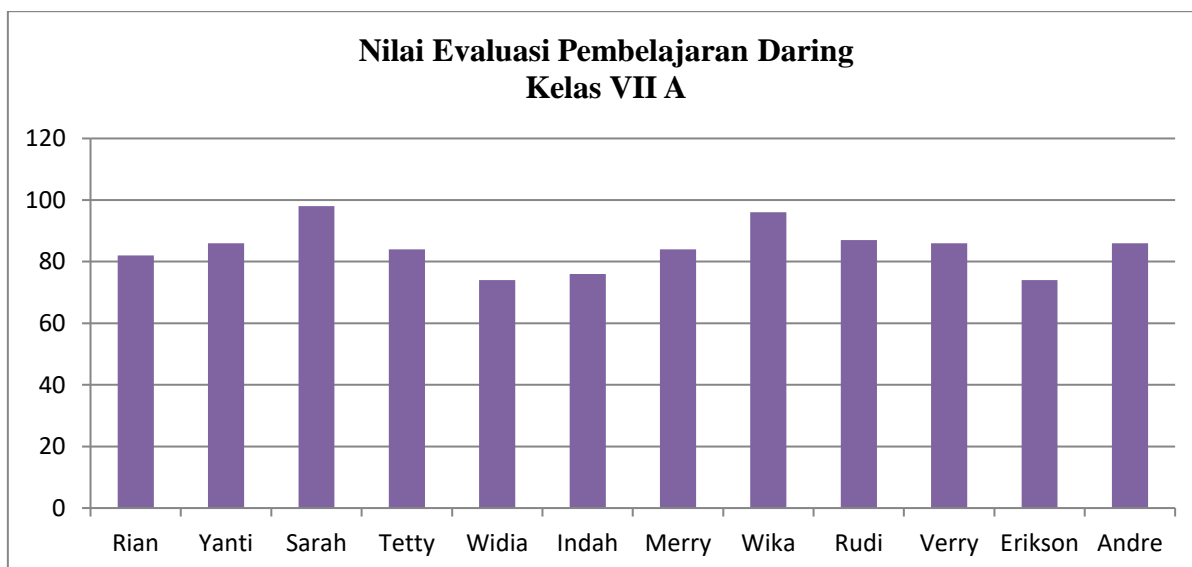


Figure 1. Evaluation Value of Class VII A Online Learning

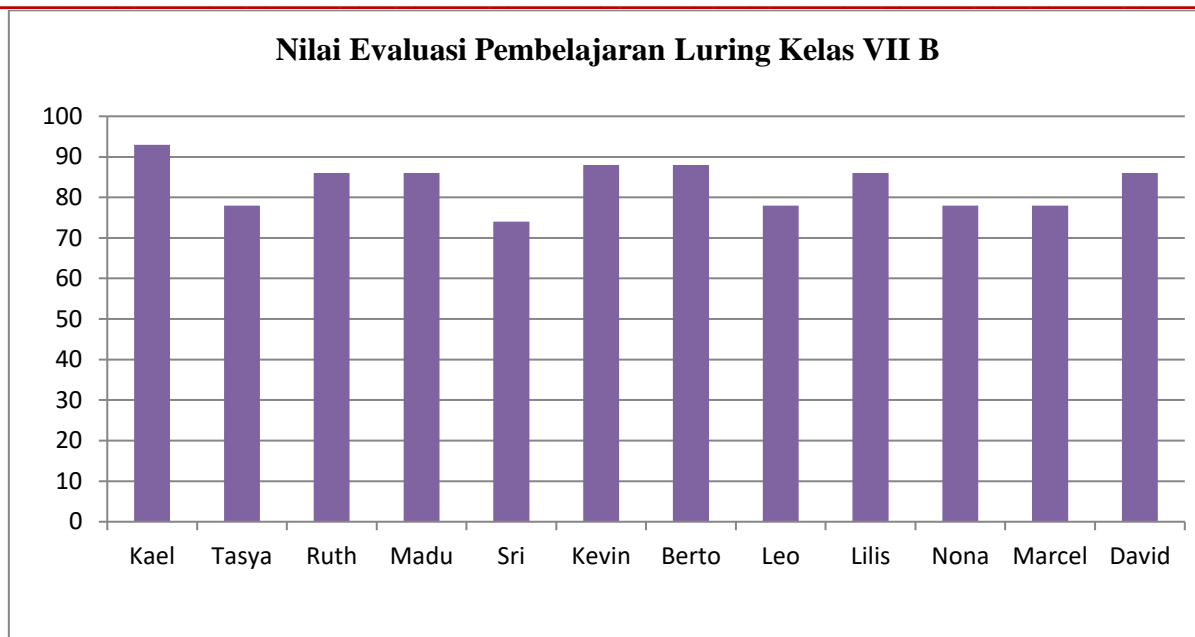


Figure 2. Evaluation Value of Class VII B . Offline Learning

Based on the picture above, the evaluation value of distance learning online and offline on the line and angle material, the results obtained that grade VII A and VII B students get scores above the KKM and based on the results of interviews with the mathematics teacher concerned, the grade VII KKM scores in Mathematics in Junior High School Negeri 2 Dolok Pardamean is 66. From this it can be stated that students are complete and can be given enrichment. Regarding assessment during the pandemic, according to the Ministry of Education and Culture No. 719/P/2020 concerning Guidelines for Implementing Curriculum in Education Units in special conditions, the government provides flexibility for schools to determine the curriculum according to the learning needs of students. Then after scoring, reliability was tested to determine the stability of the score obtained when retested with the same test in different situations, namely online learning for class VII A using google form media and offline learning for class VII B.

Table 2. Results of Online Learning Multiple Choice Questions

Cronbach's Alpha ^a	N of Items
-0,287	10

From the results of the analysis of the reliability value of multiple-choice questions in online learning assisted by SPSS Cronbach alpha, the overall value is -0.287 which indicates that it is not reliable. This agrees with Sugiyono (2012) who explained that the instrument is said to be reliable if the reliability coefficient is at least 0.6, while according to (Sundayana, 2016) the item is said to be reliable with criteria > 0.40 or with sufficient, high and moderate criteria. It can be concluded that for multiple choice questions in online distance learning in class VII A, the reliability is categorized as very low.

Table 3. Results of Learning Essay Reliability Score

Cronbach's Alpha ^a	N of Items
0,354	5

Then the results of the reliability value of essay questions in online learning assisted by SPSS Cronbach alpha is 0.354 which indicates that it is not reliable. This agrees with Sugiyono (2012) who explained that the instrument is said to be reliable if the reliability coefficient is at least 0.6, while according to (Sundayana, 2016) the item is said to be reliable with criteria > 0.40 or with sufficient, high and moderate criteria. It can be concluded that essay questions in online distance learning in class VII A are categorized as low reliability.

Table 4. Results of the Reliability Score of Offline Learning Multiple Choice Questions

Cronbach's Alpha ^a	N of Items
0,619	10

From the results of the analysis of the reliability value of multiple choice questions in offline learning assisted by SPSS Cronbach alpha, the overall value of 0.619 indicates reliable. This agrees with Sugiyono (2012) who explained that the instrument is said to be reliable if the reliability coefficient is at least 0.6, while according to (Sundayana, 2016) the item is said to be reliable with criteria > 0.40 or with sufficient, high and moderate criteria. It can be concluded that for multiple choice questions in offline distance learning in class VII A, it is categorized as high reliability.

Table 5. Results of Offline Learning Essay Questions

Cronbach's Alpha ^a	N of Items
0,321	5

Then the result of the reliability value of essay questions in offline learning assisted by SPSS Cronbach alpha is 0.321 which indicates that it is not reliable. This agrees with Sugiyono (2012) who explained that the instrument is said to be reliable if the reliability coefficient is at least 0.6, while according to (Sundayana, 2016) the item is said to be reliable with criteria > 0.40 or with sufficient, high and moderate criteria. It can be concluded that essay questions in offline distance learning in class VII A are categorized as low reliability.

In the research that has been done from the results of the analysis of the reliability value of multiple choice and essay questions, it can be said that the questions that have been given to evaluate students from the teaching and learning process are adequate, but improvements are needed. Then there is a difference, namely in multiple choice questions, the reliability value of online learning is very low, while offline learning has high reliability. Then in the essay questions there are similarities, namely the reliability values are both low. From the results of research conducted at SMP Negeri 2 Dolok Pardamean, it was found that the reliability value of online distance learning was low.

According to (Alwan F and Puji N, 2021) the problems faced by students during online learning are dominated by inadequate internet networks and full cell phone memory. In addition, mathematics also becomes its own difficulties and challenges for students when learning online due to several factors, namely: (1) limited space for interaction with teachers, (2) the number of formulas used in mathematics, (3) objects studied in mathematics have different characteristics. abstract pattern. Agree with the results of the study (Sena, Wachid Palguna Bayu, 2020) the difficulties experienced were signal technical problems and the inability to learn online in the form of an unstable network, students were less focused when the teacher explained, students were not ready in terms of learning the material.

Table 6. Google Form Media Questionnaire Category Results

No intem pertanyaan	Jumlah siswa	Skor	Rata-rata skor	Presentase respon 100%	kategori
1	12	53	4	88	Sangat Baik
2		48	4	80	
3		49	4	82	
4		53	4	88	
5		54	5	90	
6		52	4	87	
7		53	4	88	
8		53	4	88	
9		51	4	85	
10		54	5	90	
11		54	5	90	
12		54	5	90	

Based on Table 6, it can be seen that researchers have asked 12 items of questions to students to find out responses to the use of google form media as an evaluation tool in online distance learning for class VII A which includes (1). The questions are in accordance with the basic competencies contained in the 2013 Curriculum, (2). Items in accordance with the indicators, (3). The suitability of the content of the material in the question, (4). Google Form makes it easier to answer questions, (5). The contents of the google form are clearly visible, (6). Google Form contains clear supporting images, (7). The facilities owned by google form are easy to understand, (8). The facilities owned by google form are easy to use (9). The questions in the google form are easy to use, (10). The use of language is in accordance with EYD, (11). The language used is communicative, (12). The sentences used are easy to understand and clear. After calculating the results, it was found that the response to the use of google form media as an evaluation tool in online distance learning the percentage of responses was very good and from student responses to the use of google form media as an evaluation tool in distance learning in accordance with aspects of the questionnaire filled in by students. the results are very agreeable.

Based on the findings (Septiawan, 2020) on the results of the analysis and discussion of the results of the questionnaire that has been carried out, namely the effectiveness of using google forms in online learning at SMK Negeri 1 Koba has a positive value to the use of google form media with good categories. From the results of the questionnaire response indicators, it was found that some students stated that the use of Google Form as a learning

medium showed a positive response, this can be seen from the average percentage of 72.66% with good categories. With these results, Google Forms can be used as one of the learning media during the COVID-19 pandemic as an alternative to face-to-face learning. Agree with the findings (Nofitasari et al, 2020) on the results of the implementation of the google form-based learning evaluation, it is highly recommended to use it, because its use is easy and practical, it's just that in its use it must always be connected to the internet. For this reason, there needs to be collaboration between teachers and parents as well as training for teachers, and providing ICT learning from an early age for students.

From this, the google form media can provide benefits, namely that it is easier for students to work on and understand distance learning evaluation questions online through the google form media and make it easier for teachers to make as well as correct or collect data. Based on the results of the research conducted, I agree with Warsita, et al (2008) which states that learning technology as a scientific discipline, study program, and profession continues to experience rapid development.

B. CONCLUSION

Based on the results of the research and discussion, it can be concluded that SMP N 2 Dolok Pardamean is conducting online and offline learning. From the results of the evaluation of student learning, there are results of reliability tests on online and offline learning instruments that do not get fixed results because there are obstacles when learning online, namely the limitations of the internet network in the environment, not all students have the same facilities when learning online, students are less focused on when the teacher explains. As for offline learning, namely the lack of student focus in learning due to inadequate situations and conditions. And it can also be concluded that using google form media can provide benefits and can make it easier for teachers to give assignments and collect assignments. As well as google form media is very easy and practical to use.

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