

# The Effectiveness of Mathematics Learning in Limited Face-to-Face at SMP Negeri 1 Palopo

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**Abstract:** This study aims to determine the effectiveness of learning mathematics in limited face-to-face at SMP Negeri 1 Palopo. This type of research is descriptive with a quantitative approach. The population is all students of SMP Negeri 1 Palopo starting from grades VII-IX for the 2021/2022 academic year, totaling 916 students. Sampling was carried out using the Proportionate Stratified Random Sampling technique. The sample was used by 90 students. Data is obtained through questionnaires that are shared directly with students. Furthermore, the research data was analyzed descriptively. The results of this study showed that the effectiveness of mathematics learning in limited face-to-face at SMP Negeri 1 Palopo is quite effective. This can be inferred from the overall number of indicators assessed, namely the quality of learning of 80.38% is considered effective, the suitability of the learning level of 79.28% is classified as effective, the incentive of 85.39% is classified as very effective and the time of 80.22% is classified as effective. Overall, the fourth percentage of indicators is 81.22% which is quite effective.

**Keywords:** Keywords Effectiveness, Limited Face-to-Face, Proportionate Stratified Random Sampling.

## Introduction

Since the Covid-19 pandemic occurred in early March of this year 2020, the learning process which was initially face-to-face was then transferred to the online system (in the network). This is done by the minister of education and culture of Nadiem Makarim as a response to the World Health Organization (WHO) statement which recommended a temporary stop activities that may cause crowds.

According to Tya Ayu Pransiska and Arief Sadjarto, online learning is learning that is carried out remotely, not online directly (face to face) using the help of technology and networks Internet. In its application, online learning has various kinds obstacles, ranging from inadequate facilities to impact negative for child development. According to the results of research conducted by Kusuma and Sutapa, online learning has a negative impact to children's social emotional behavior, such as lack of cooperative attitude students, lack of tolerance,

lack of socialization and rising children's emotions down. The application of online learning which turns out to have various kinds constraints, made the government issue a new policy, namely opening all schools to carry out **limited face-to-face learning** in July 2021.

Limited face-to-face learning according to Handy Ferdiansyah is learning that combines online learning and face-to-face or conventional learning. This means learning carried out at school and at home, while adhering to health protocols which exists. **Limited face-to-face learning** is learning face to face which is not as usual because of the meeting time between teachers with limited students.

Based on the results of an interview with one of the mathematics teachers in SMP Negeri 1 Palopo is known that, one of the biggest obstacles in learning **limited face-to-face mathematics**, namely time such a short lesson. This makes the teacher feel dissatisfied because they have to summarize or

condense math subject matter to suit the time allotted.

According to research conducted by Lusia Sri Rejeki, mathematics lessons more effective when delivered in person or face to face. Mathematics lessons, which are mostly procedural in nature, make these lessons difficult to understand, especially if they are not delivered directly (online). However, face-to-face learning is limited in its application Meeting time is so limited that it is difficult to study mathematics explained so difficult for students to understand. Based on background Therefore, the purpose of this study is to determine effectiveness learning mathematics in **limited face-to-face** at SMP Negeri 1 Palopo.

## Materials and Methods

### METHODS

#### Procedures

This type of research uses descriptive quantitative research methods. This study aims to obtain information about effectiveness learning mathematics in limited face-to-face at SMP Negeri 1 Palopo for the 2021/2022 school year. Data collection techniques using a questionnaire instrument. Questionnaire is a list of questions or statements that have been prepared to be given to the research sample. The questionnaire instrument is used to find out the effectiveness of learning mathematics.

#### Data analysis

The data analysis technique used is descriptive statistical analysis. Calculation of descriptive statistics in this study using Microsoft Office Excel. The data is then analyzed using the deep calculation formula the percentage form is as follows:

$$P = \frac{F}{N} \times 100\%$$

Furthermore, the percentage calculation results obtained will be classified according to the following categories:

**Table 1.** Score Percentage Interpretation Criteria.

Percentage	Category
81% – 100%	Very Effective
61% – 80%	Effective
41% – 60%	Effective Enough
21% – 40%	Not Effective
0% – 20%	Less Effective

## Results and Discussion

Research on the effectiveness of learning mathematics in face-to-face is limited at SMP Negeri 1 Palopo was measured using 90 respondents and 20 statements. Based on the results of the acquisition of learning effectiveness questionnaire data mathematics in limited face-to-face which consists of 4 indicators, data obtained can be seen in the following table:

**Table 2.** Results of Obtaining Data on the Effectiveness of Learning Mathematics in Limited Face to Face

No	Indicators	Percentage (%)	Category
1	Quality of Learning	80,38	Effective
2	Appropriate Levels of Learning	79,28	Effective
3	Incentive	85,39	Very Effective
4	Time	80,22	Effective
Rata-rata		81,12	Very Effective

#### Quality Of Learning

This indicator is measured by 3 sub-indicators, namely the teacher's skills in managing learning with a percentage of 88.78%, student activity with a percentage of 78.59%, and learning completeness students with a percentage of 74.67%. The results of the questionnaire analysis on this indicator are included in the effective category, as stated in the sub-indicators of teacher skills in managing learning, knowledge and student skills after getting student learning and activities when the teacher explains the material is good enough. however, there are still few students who answer their assignment scores or test scores always or often goes down during limited face-to-face learning and there are some students rarely never even ask if there is material they don't understand yet to the teacher.

#### Appropriate Levels of Learning

The indicator of level suitability indicator learning is measured by 1 sub-indicator, namely the readiness of students to receive lessons through face-to-face learning limited advance which obtained a percentage of 79.28%. On this indicator, there are still some students who feel that they are

not ready to accept subject matter. This indicator get a value the lowest percentage compared to other indicators but still in the effective category.

### Incentive

This indicator is measured by 2 sub-indicators, namely the provision of motivation with a percentage of 85.34% and reward with a percentage of 85.56%. On this indicator, there are still some students who get low scores in the questionnaire, but with a small frequency compared to the statement on the other indicators. Each of the statement items on this indicator is in the category of very effective which means that all four points of the statement are already very good implementation both from providing motivation, encouragement following the lesson and working on assignments, interest in materials and rewarding to students. Therefore, the incentive indicator has the most percentage value high among other indicators.

### Time

The indicator of time is measured through sub-indicators completion of tasks according to the time allocation which obtained a percentage of 80.22%. On this indicator, there were still some students who answered that it was rare never even able to complete the task in accordance with the time given.

### Discussion

Incentive indicators are measured through the motivational sub-indicator learning and giving rewards get the highest percentage compared with other indicators. Each item statement on this indicator are in the category of very effective which means in general the provision of motivation learning and giving rewards to students has been very well implemented. This is in accordance with Slavin's theory which states that incentive indicators said to be effective if the teacher's efforts in providing motivation to students it's enough. While the suitability indicator of the level of learning that is measured through the sub-indicators of student readiness to receive lessons in limited face to face learning to become indicator with the lowest percentage compared to other indicators. Appropriate learning level refers to the degree to which teachers ensure readiness students

in receiving new material in learning. According to Slameto, readiness is a person's condition that makes him ready to give answer or response to the conditions encountered. In this study, still There are some students who feel they are not ready to accept the subject matter. Of course, this will affect the process of material absorption by students. Therefore, the teacher must really ensure the readiness of each student in receive learning.

### Conclusions

The research results show that the effectiveness of learning limited face-to-face mathematics at at SMP Negeri 1 Palopo is very effective. This is obtained from the results an average of 81.12% of all indicators assessed, namely: (1) Quality of learning 80.38%, (2) Appropriate Levels of Learning 79.28%, (3) Incentive 85.39%, and (4) Time 80.22%

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