Students’ perception on learning mathematic during the time of covid 19

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Abstract. Mathematics lessons were taken by SMP Muhammadiyah 57 Kota Medan students. However, the perception of learning is not yet known, therefore it is necessary to conduct research with the aim of describing students' perceptions of learning mathematics at SMP Muhammadiyah 57 Kota Medan. His research is a descriptive study with a quantitative approach. The method used is a survey method. The research instrument used was a questionnaire with 20 statement items. Testing the research instrument was carried out on 34 students of class VIII G SMP Muhammadiyah 57 Kota Medan. The questionnaire was declared valid and reliable (r count = 0.841). The research subjects were students of class VIII D and C SMP Muhammadiyah 57 Kota Medan, totalling 67 respondents who were determined using the cluster sampling method by drawing randomly. The data analysis technique used descriptive statistical techniques in the form of descriptive and frequency distribution. The results showed that the perceptions of grade VIII students of SMP Muhammadiyah 57 Kota Medan towards learning mathematics were in the very positive category of 65.7%, the positive category 34.3%, and none (0%) of the respondents had less positive and negative perceptions. Based on the results of this study, the perceptions of grade VIII students towards learning mathematics at SMP Muhammadiyah 57 Kota Medan were mostly very positive.

1. Introduction

Mathematics is a science that has an important role for the advancement of human civilization. Mathematics was developed by the mathematician started from the time of Egyptian ancient, Babylonia, until Greek ancient [1]. At the time of the mathematics studied, developed, and used to resolve the problems in life everyday, such as the issue of trade, the measurement of land, delineation, construction, and astronomy [2]. Until now even mathematics is used, both to resolve the problems in life or assist in developing the discipline of science another [3].

The importance of learning mathematics can not be separated from its role in various aspects of life. In addition to that, by studying mathematics someone accustomed to thinking in a systematic, scientific, using logic, critical, and can increase the power of creativity [4]. It is states that mathematics is important both as a tool, as a science (for scientists), as an attitude maker and as a guide to thinking patterns [5]. Given the importance of mathematics in life everyday, then the mathematics needed to understand and mastered by all layers of society no exception students of the school as a next-generation successor.
One of the lessons that must be taken by students from elementary to high school is mathematics[6]. In everyday life, mathematics is extremely important. Like it or not, everyone has to study mathematics, particularly for students who are currently attending formal education, as it is a subject that is included in the list of national exams that are being tested starting with SD / MI, SMP / MTs, SMA / MA / SMK levels.

Learning mathematics can have a different understanding of the student when studying mathematic[7]. And the experiences from students come from the observations made during the learning process on mathematical material. It can lead to an understanding of the outcomes of these experiments where, depending on the experimentation performed by the students, the understanding is positive or negative[8]. The interactions of these students are later used to determine the advantages and disadvantages[9]. These students’ experiences are then used as a method for the evaluation by mathematical education teachers of the benefits and drawbacks of mathematical learning. The students’ perception is therefore relevant as it determines the final outcome of the SMP Muhammadiyah 57 Kota Medan mathematics learning process.

Based on the description above, the researcher wants to conduct research to find out how students perceive them. Then the researcher determined the title of the research, namely "Mathematic students’ perception on learning mathematic during the time of covid 19."

2. Research Methodology

This research is a descriptive study with a quantitative approach. Descriptive research seeks to systematically and reliably identify the facts and characteristics of a population or a specific area[10]. The purpose of this study is to examine and clarify class VIII student perceptions of mathematics learning at SMP Negeri 2 Klaten in a descriptive and percentage-based manner. This research method is a method of survey using a questionnaire tool.

In this analysis, cluster sampling or cluster sampling techniques are used. This cluster or area sampling technique has samples that are not based on individuals but rather on clusters, regions or clusters of subjects that naturally come together[11]. Of the eight classes, two were chosen, namely classes VIII D and C, as a study sample with a total of 67 students. This study approach is a survey method using a questionnaire or a questionnaire containing 20 questions. The indicators of data collection is follows:

| Variable | Factor | Indicator | Item Questions |
|----------|--------|-----------|----------------|
| Mathematics students’ perception on learning mathematic during the time of covid 19 | Internal | Interest | 5 |
| | | Attention | 5 |
| | External | Object | 5 |
| | | Environment | 5 |
| | Total questions | | 20 |

3. Result and Discussion

There were 20 items in the number of statements and 5 statements consisting of positive and negative statements from each variable. The summary of the data presented includes the mean, minimum score, maximum score, standard deviation, as well as a table of the frequency distribution and a histogram of each factor. A descriptive statistic of the outcomes of the responses of the respondents is as follows:.
3.1 Internal Factors

10 statement items contained data from internal variables. The lowest score (minimum) = 24, highest score (maximum) = 38, mean = 30.99, standard deviation (SD) = 3.488 is obtained on the basis of the study results. The knowledge is grouped into four categories: strongly accept, agree, disagree, and disagree. The detailed internal factor frequency distribution can be seen on the basis of this data in the table below:

| No. | Category       | Interval Score | Frequency | Percentage |
|-----|----------------|----------------|-----------|------------|
| 1   | Very Positive  | X> 30          | 37        | 55.2%      |
| 2   | Positive       | 25 <X ≤ 30     | 26        | 38.8%      |
| 3   | Less Positive  | 20 <X ≤ 25     | 4         | 6.0%       |
| 4   | Negative       | X ≤ 20         | 0         | 0.0%       |
|     | Total          |                | 67        | 100%       |

Based on the results of table 2 above, it shows that the perceptions of class V III students towards learning mathematics at SMP Muhammadiyah 57 Kota Medan were analyzed seeing internal factors as many as 37 respondents (55.2%) had a very positive perception, 26 respondents (38.8%) had a positive perception, 4 respondents (6.0%) had less positive perceptions, and no respondents had negative perceptions.

3.2 External Factors

There were 10 statement items in the data from external factors. The lowest score (minimum) = 24, the highest score (maximum) = 36, mean = 30.78, standard deviation (SD) = 3.341, is obtained on the basis of the study results. The detailed frequency distribution of external factors can be seen in the table below on the basis of this data:

| No. | Category  | Score Interval | Frequency | Percentage |
|-----|-----------|----------------|-----------|------------|
| 1   | Very Positive | X> 30          | 33        | 49.3%      |
| 2   | Positive   | 25 <X ≤ 30     | 32        | 47.7%      |
| 3   | Less positive | 20 <X ≤ 25     | 2         | 3.0%       |
| 4   | Negative   | X ≤ 20         | 0         | 0.0%       |
|     | Total      |                | 67        | 100%       |

Based on the results of table 3 above, it shows that the perceptions of class VIII students towards learning mathematics at SMP Muhammadiyah 57 Kota Medan were analyzed seeing external factors as many as 33 respondents (49.3%) had very positive perceptions, 32 respondents (47.7%) had positive perceptions, 2 respondents (3.0%) had less positive perceptions, and no respondents had negative perceptions.
3.3 Discussion

This research explores the perceptions of grade VIII students at SMP Muhammadiyah 57 Kota Medan towards mathematics learning. In this analysis, the perception referred to is the level of the impression of students of the learning process of mathematics based on interests, attention, objects, and the environment. 44 respondents (65.7%) had a rather positive perception, 23 respondents (34.3%) had a positive perception, and none of the respondents had a bad perception, based on the study findings performed by researchers, which were collected from 67 students. Positive and harmful. Based on the results of data processing, it can be seen that the majority of students have a strong impression very positive towards learning mathematics. The "Very Positive" category in this study shows that mathematics learning has gone well or it can be interpreted that mathematics learning is in accordance with the expectations of the parties concerned, both from the teacher and the school.

From the research results, internal factors have a very positive category reaching 37 students (55.2%), while external factors have a positive category reaching 33 students (49.3%). This shows that students' perceptions are more dominantly influenced by internal factors, namely good interest and attention. With high interest and attention from students, it is expected that they can improve overall mental and emotional aspects of students. In addition, mathematical activities carried out with the aim of maintaining health and strengthening the muscles of the body can be achieved properly.

In addition, the teacher acts as a conduit and incentive to understand mathematics [12]. The learning method based on the mathematics education curriculum can be maximized properly by the teacher so that mathematics learning is in accordance with the expectations and goals of mathematics education[13]. Sufficient learning time is also an important asset for students to study the material in mathematics, coupled with the support of facilities and infrastructure from the school that does not make it difficult for students to take part in learning and the need for a conducive environment[14].

4. Conclusion
Based on research data on students of SMP Muhammadiyah 57 Kota Medan, it can be concluded that the majority of grade VIII students have very positive perceptions of learning mathematics. This can be seen in the internal factors as much as 55.2% (very positive), 38.8% (positive), 6% (less positive), and none of them have negative perceptions. There were 49.3% (very positive), 47.7% (positive), 3% (less positive) external factors, and none of them had negative perceptions. While overall students' perceptions of mathematics learning activities, seen from 67 respondents, 44 respondents (65.7%) had very positive perceptions, and 23 respondents (34.4%) had positive perceptions. So the overall perception of grade VIII students towards mathematics learning at SMP Muhammadiyah 57 Kota Medan is in a very positive category.

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