

Interest in Learning Mathematics for Students of SMP Negeri 2 Tuntang Semarang Regency towards Learning During a Pandemic

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ABSTRACT

This research is motivated by indications of the less than ideal mathematics learning performance of class VIII students of SMP Negeri 2 Tuntang in the 2021/2022 academic year in online learning. The goal to be achieved in this research is to find out how the interest in learning mathematics in class VIII SMP Negeri 2 Tuntang is during the Covid-19 pandemic. This research uses an approach approach. Data collection was carried out by distributing questionnaires as instruments for preliminary studies, interviews and documentation. Data were analyzed through data reduction, data presentation and conclusion drawing. Testing the validity of the data is done by technical triangulation. The results showed that the interest in learning mathematics in grade VIII SMP N 2 Tuntang during the pandemic was categorized as high and medium interest. Students in the high interest category do not like online learning, have an interest in online learning, are involved in online learning, have an interest in online learning. The students in the category of moderate interest, do not like online learning, have an interest in online, have poor interaction in discussion and collection activities but have good involvement in asking about material to friends or teachers, and lack attention to online learning.

Keywords: Interest in Learning Mathematics, Pandemic Period

ABSTRAK

Penelitian ini dilatarbelakangi oleh adanya indikasi mengenai kurang idealnya performa belajar matematika siswa kelas VIII SMP Negeri 2 Tuntang tahun ajaran 2021/2022 dalam pembelajaran online. Tujuan yang akan dicapai dalam penelitian ini adalah untuk mengetahui bagaimana minat belajar matematika siswa kelas VIII SMP Negeri 2 Tuntang pada masa pandemi Covid-19. Penelitian ini menggunakan pendekatan kualitatif. Pengambilan data dilakukan melalui penyebaran kuesioner sebagai instrumen preliminary study, wawancara dan dokumentasi. Data dianalisis melalui reduksi data, penyajian data dan pengambilan kesimpulan. Pengujian keabsahan data dilakukan dengan triangulasi teknik. Hasil penelitian menunjukkan bahwa minat belajar matematika siswa kelas VIII SMP N 2 Tuntang pada masa pandemi berkategori minat tinggi dan sedang. Siswa dalam kategori minat tinggi kurang menyukai pembelajaran online, memiliki ketertarikan dalam belajar online, terlibat dalam pembelajaran online, memiliki perhatian pada pembelajaran online. Adapun siswa pada kategori minat sedang, tidak menyukai pembelajaran online, memiliki ketertarikan dalam belajar online, memiliki keterlibatan yang kurang baik dalam kegiatan diskusi dan pengumpulan tugas tetapi memiliki keterlibatan yang baik dalam bertanya mengenai materi kepada teman atau guru, dan kurang memiliki perhatian terhadap pembelajaran online.

Kata kunci: Masa Pandemi Covid-19, Minat Belajar Matematika

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Introduction

Mathematics has a very important role in life. Misel and also Dewimarni state that the important role of mathematics is to be a means in solving life problems (Suandito, 2017). This important role can be found in various fields of life including education, economics, engineering, health, culture, information technology, psychology, and in many other fields. Given the importance of mathematics in everyday life, mathematics needs to be studied by the whole community and most importantly students as the nation's next generation.

The Covid-19 pandemic has had a major impact on the education system in Indonesia (Shavira et al., 2022). During the pandemic, face-to-face learning was not carried out, it was shifted to internet-based technology-assisted learning (Handayani & Irawan, 2020). Trisniawati et al stated that implementation of online learning is possible implemented remotely that allows educators and students to be in different so that learning is not face-to-face in one place (Trisniawati et al., 2021).

SMP Negeri 2 Tuntang is an educational unit in the Semarang Regency area has implemented distance learning starting in the even semester of the 2019/2020 school year. Distance learning is currently being carried out in its 2nd year. Students at the school really feel learning with a system that is very different from learning before the pandemic period. Especially for class VIII students who since becoming junior high school students have undergone distance learning.

There are indications that the performance of class VIII students of SMP Negeri 2 Tuntang is less than ideal in online learning. These conditions include students who are less disciplined and less enthusiastic in participating in distance learning. There were some students found that there was a lack of responsibility in learning, lack of order, such as procrastinating the tasks given by the teacher, so that student learning activities experienced delays. In addition, there are some students who do not have gadget facilities for learning, in some locations it is difficult to access the internet, so that online learning is experiencing problems.

Interest as one of the internal aspects, has a role in supporting student learning achievement (Pangestu et al., 2015). Haryati stated that interest is a source of motivation that drives someone to do something what they want interest is high liking and interest with self-awareness of something that is seen as giving profit and satisfaction in himself so as to encourage individuals participate in the activity without anyone asking (Falah & Fatimah, 2019). According to Pramono, interest is a desire/state where someone pay attention to something and be accompanied desire to know, learn, and prove it (Aswin et al., 2022). Collate and Chiappetta interest as curiosity or attraction to a thought or event that involves attention (Ruhayana & Aeni, 2019). Nurhasanah & Sobandi stated that if someone is interested in a lesson then he will have feelings of interest in the lesson (Sutrisno et al., 2020). Dai and Sternberg expressed interest in terms of focus on attention, engagement or both (Silviani et al., 2017).

Stimulating interest in learning in each lesson is important, especially in the application of mathematics learning which for some students is less attractive. If students are less interested in pursuing mathematics, their expertise in mathematics will be hampered (Sirait, 2016). Amelia stated that factors that influence students' learning interest among them are encouragement from within, social motivation, and emotional (Kumalasari et al., 2021). Interest in learning mathematics can be shown by interest, willingness, intensity and satisfaction obtained from learning mathematics (Utami, 2013).

Interest in learning mathematics as interest, attention and pleasure in mathematical objects that encourage students to be actively involved in learning mathematics so that students have the ability to learn and understand mathematical material (Herzamzam, 2018). Silviani stated that one of the efforts that teachers can make in training students' mindsets is by foster student interest in learning mathematics (Putri et al., 2019). Interest in learning mathematics is an important factor that affects students' mastery of mathematical concepts, interest is closely related to learning, learning without interest will feel boring (Gusniwati, 2015). From the description above, it can be concluded that interest in learning mathematics is interest,

willingness, intensity or satisfaction so that students are actively involved in learning mathematics so that students will have the ability and understanding of mathematics material and will affect students' mastery of mathematical concepts.

Indicators of interest in learning mathematics in this study refer to Slameto (Syahputra, 2020) and Lestari and Mokhammad (Friantini & Winata, 2019) which include 1) feelings of pleasure in which students have feelings of pleasure or liking towards a lesson and teacher attitudes so that there is no compulsion for students to take part in learning; 2) interest, namely the enthusiasm of students in participating in learning; 3) attention in learning where attention is a concentration that puts everything aside, with an interest in a particular object, it will automatically pay attention to that object; and 4) student involvement, namely the participation of students in participating in learning;

Interest is one of the factors that can be considered in reviewing students' mathematics learning outcomes. There is a significant effect between learning style in mathematics and students' interest in learning mathematics on student learning outcomes (Falah & Fatimah, 2019). Male and female students with high interest in learning have the ability to understand concepts, namely being able to explain, apply the relationship between concepts and procedures, and provide examples instead of examples but are unable to develop the concept (Winata & Friantini, 2020). Interest in learning can be increased through several actions, including inquiry based learning setting group investigation (Silviani et al., 2017), game method (Priyaningsih & Suyono, 2020). Students' achievement and interest in learning mathematics using the discovery learning model are better than those using the conventional learning model (Sutrisno et al., 2020).

This study discusses students' interest in learning mathematics in the period before the Covid-19 pandemic. Differences in learning systems during the Covid-19 pandemic triggered changes in all elements of education. This requires a special study, especially regarding students' interest in learning mathematics during the pandemic, namely online learning.

Considering the importance of interest in learning, it is necessary to conduct an in-depth investigation of how the interest in learning mathematics of class VIII students of SMP Negeri 2 Tuntang in implementing distance learning is necessary. The search is based on 4 indicators of learning interest. This research is expected to provide recommendations regarding learning designs that can be carried out to seek high learning interest in distance learning mathematics.

Research Methods

This study uses a qualitative approach. The research was conducted at SMP Negeri 2 Tuntang, Semarang Regency from August to October 2021. SMP Negeri 2 Tuntang was chosen as the research location because it was a junior high school which at the time of data collection was still carrying out distance learning. The data in this study consists of primary data and secondary data. Primary data are the results of filling out questionnaires and the results of interviews with class VIII students. Class VIII students were chosen because they were students who had started distance learning since the beginning of junior high school. Secondary data in the form of data from interviews with teachers in mathematics class VIII SMP Negeri 2 Tuntang for the academic year 2021/2022.

The instruments used are questionnaires, interview guidelines, and documentation guidelines. The interest in learning questionnaire as a preliminary study instrument uses a questionnaire

from Lestari (Lestari, 2021) which has been tested with the results that all items are valid and that the instrument has high reliability. The questionnaire uses a Likert scale with four answer options, namely Very Appropriate, Appropriate, Not Appropriate, and Strongly Disagree. The statement items in the questionnaire consist of positive statements and negative statements.

This research was carried out with the following steps. First, the researcher carried out a preliminary study by distributing questionnaires to obtain quantitative data on students' interest in learning mathematics. The results of filling out the questionnaire were then analyzed using descriptive statistics to obtain the average, frequency distribution, and categories of student interest. Next is the in-depth study stage in which from each of the existing categories, several students are selected to be interviewed based on indicators of students' interest in learning mathematics. Data were also collected through documentation in the form of a Distance Learning Implementation Plan compiled by the teacher, teaching materials, quizzes, knowledge assessment aid sheets. To confirm, interviews were conducted with teachers in charge of mathematics. Data were analyzed through the stages of data reduction, data presentation, and data verification (Miles et al., 2014). Checking the validity of the data is done through technical triangulation in which the data from filling out the questionnaire is confirmed with data from interviews and data from documentation.

Result and Discussions

The research results are described based on the research stages including preliminary studies and in-depth studies.

Preliminary Study Data

Preliminary study data in the form of data from the results of filling out a questionnaire on interest in learning mathematics by 80 class VIII students of SMP Negeri Tuntang for the academic year 2021/2022. The data is presented in table 1:

Table 1. Frequency Distribution of Students' Mathematics Learning Interest Data

Categories	Criteria	Intervals	Frequencies	Percentage
High	$70 \leq X$	70-88	26	32,5 %
Medium	$46 \leq X < 70$	46-69	54	67,5%
Low	$X < 46$	23-46	0	0%

Based on table 1, it is known that students' interest in learning mathematics varies, as many as 32.5% of students have high interest in learning and as many as 67.5% of students have moderate interest. The average is 66.41 which meets the medium category.

Interview Result Data

The in-depth study was carried out through (1) interviews with each group of subsequent student interest categories and (2) documentation. Interviews were based on indicators of interest in learning mathematics.

The first indicator is the feeling of pleasure in learning mathematics online. The researcher asked the students who had a high interest in learning, "Do you like learning mathematics

online?" "Why do you like/don't study math online?" The following are answers from some students:

Subject 2: "It's not like that, Sis, but I still enjoy it, because if the math isn't explained right away, I'm confused"

Subject 3: "It's good, Sis, but I prefer face-to-face, because online when I explain, I'm a bit confused about the material"

Subject 4: "No, but yes, I'm still enthusiastic, because when I study online at home I don't understand the material from these subjects"

The statement shows that students who are included in the high interest category do not really like online learning, preferring face-to-face learning. Conditions that occur to students with high interest in learning are having difficulty in learning mathematics without explanation, trying to keep enjoying online learning.

The second indicator is interest in learning based on students' curiosity in participating in online mathematics learning. The researcher asked the students, "Have you read some books or information on the internet?" Students in the high interest group stated the following:

Subject 2: "Yes, I often look for other sources for me to read"

Subject 3: "Yes, sometimes, Sis"

Subject 4: "Yes, Sis, sometimes I read books on the internet"

The statement shows that students with high learning interest try to find other learning resources that are expected to support understanding of the material. The researcher asked, "Did you take notes on the important things the teacher said as material for learning?" Students stated:

Subject 2: "Yes, Sis, if it's important, I'll write it down"

Subject 3: "Yes, I always take notes so that when I have assignments it becomes easier"

Subject 4: "Yes, Sis, I always record every material sent by the teacher"

These statements indicate that students with high interest categories have curiosity in participating in mathematics learning, indicated by looking for information on other learning resources on the internet and noting important things as material for learning.

The third indicator is attention while learning, namely the attention of students when participating in online mathematics learning. The researcher asked, "During online learning, did you arrive on time and follow the lesson until the end?" Students stated the following:

Subject 2: "Yes, I always arrive on time and follow until the end of the lesson"

Subject 3: "Alhamdulillah, yes, I am always on time and to the end"

Subject 4: "Yes, Sis, I always come early and I follow the lesson until it's finished"

This statement shows that students with high learning interest are always present on time in online learning and follow the lesson until it is finished. This is in accordance with the statement of the mathematics teacher who stated that among the many students there were students who were very enthusiastic about participating in online learning, which was indicated by participating in learning on time and until the end of the lesson. Here is the teacher's statement:

"...but there was a child whose enthusiasm was extraordinary when the teacher scheduled 8 o'clock, at 8 o'clock at that time he had entered the class and actually finished so the children who really attended the meeting until it was finished did not leave the lesson, and this is children who have a high desire to learn, so no one comes along, just to be absent, then come out..."

Students with high learning interest also always listen to the material when delivered by the teacher in online learning. The researcher asked, "During online learning, did you arrive on time and follow the lesson until the end?"

Subject 1: "Yes, Sis, I always listen carefully to the teacher's explanations"

Subject 2: "Yes, I always listen"

Subject 3: "Of course I'm listening"

In addition, students also responded to the teacher while explaining the material online. The researcher asked, "Do you respond to the teacher when explaining or are you actually busy with other things?" The following are student statements:

Subject 1: "I respond, Sis, I always focus when the teacher explains"

Subject 2: "I always respond sis"

Subject 3: "I always respond when the teacher explains even though sometimes, I don't understand what the teacher is explaining"

The fourth indicator is the involvement of students in participating in online mathematics learning as indicated by the participation of students in participating in online mathematics learning. The researcher asked, "When discussing in groups, did you actively express your opinion?" Students with high interest stated that they were always active in opinion as follows:

Subject 1: "Yes, I am always active in opinion"

Subject 2: "Sometimes yes, Sis, I convey my opinion"

Subject 3: "Yes, Sis, I am always active"

In addition, students also try to ask friends or teachers when experiencing difficulties. The researcher asked, "When you have difficulty, do you try to ask your friends or teachers through private messages?" The students answered:

Subject 1: "Yes, Sis, if the answer from a friend is not satisfactory, I immediately ask the teacher"

Subject 2: "Yes, sometimes I ask friends and teachers"

Subject 3: "Yes, if I don't understand the material, I ask my classmate personally"

Regarding the timeliness of students in doing assignments, the researcher asked, "When the teacher gave an assignment, did you finish it quickly/on time?" The resource persons stated as follows:

Subject 1: "Yes Sis, I always try to finish it on time"

Subject 2: "Yes, Sis, as long as I can I am always on time"

Subject 3 "Sometimes Sis, but I always try to be on time"

The statements submitted by students during the interview showed that students with high interest categories actively expressed their opinions, tried to ask friends or teachers for less understood material, and tried to always do assignments on time.

As for students with an interest in learning mathematics in the medium category, in terms of the first indicator, namely feelings of pleasure in learning mathematics online, the researcher asked, "Do you enjoy learning mathematics online?" "Why do you like/don't study math online?" Students stated as follows:

Subject 5: "No, because online I can't understand any further material"

Subject 7: "No, because mathematics is very difficult to understand let alone learn online"

Subject 8: "No, because it is difficult to understand"

Subject 9: "No, because it is difficult to learn without a direct explanation from the teacher"

Subject 10: "No, because I didn't understand when it was explained through the class group"

These statements indicate that students with moderate interest do not like online learning. The condition expressed by students with moderate interest in learning is that they find it difficult to understand the material during online learning. This condition was also expressed by students with high interest in learning.

As for the second indicator, namely interest in learning which is measured based on students' curiosity in participating in online mathematics learning. The researcher asked, "Have you read some books or information on the internet?" Students with moderate interest in learning also look for other learning resources on the internet as their statement as follows:

Subject 5: "Yes, when I get an assignment and it's hard for me to find it on the internet"

Subject 6: "Yes, when I didn't understand the material, I looked it up on the internet"

Subject 7: "Yes, sometimes I search the internet if the material is difficult to understand"

Subject 8: "Yes, if there are questions that I don't understand"

Subject 9: "Yes, I often search for material that I don't understand on google"

Regarding whether students note important things as material for learning, the researcher asked, "Did you take notes on the important things the teacher said as material for studying?" The students stated the following:

Subject 5: "No, because I use a wide screen so I can open it again at home"

Subject 6: "Yes, some, only the important parts"

Subject 7: "Sometimes, I take notes on important things the teacher says"

Subject 8: "Yes, and usually I open it and read it again"

Subject 9: "No, because sometimes it is hampered by signal"

Subject 10: "Yes, so that later you will also understand more when there are difficult questions"

This statement shows that students who are in the category of moderate interest also have high curiosity and keep recording important things to facilitate learning.

The third indicator is attention when learning which is seen based on students' attention when participating in online mathematics learning. When the researcher asked, "During online learning, did you arrive on time and follow the lesson until the end?" The students stated the following:

Subject 5: "Yes, if you are not on time, you will get a warning"

Subject 6: "Not until finished, because I was tempted by other applications such as facebook, instagram"

Subject 7: "No, often late due to signal"

Subject 8: "Rarely, because I forgot to fill out the attendance list, I was late"

Subject 9: "Sometimes when doing google meet"

Subject 10: "No, sometimes it's because I'm interested in other applications for example youtube"

This statement shows that most students who are in the category of moderate interest in learning are less concerned about online learning.

Students with moderate learning interest found varied conditions, namely listening to the teacher's explanation, less optimal in listening to the teacher's explanation because of running out of internet quota, weak internet network, choosing to open other applications as stated by students as follows:

Subject 5: "Yes, I am listening"

Subject 6: "Rarely, because the quota suddenly runs out"

Subject 7: "No, because I was tempted by other apps"

Subject 8: "Rarely, because they are more focused on other groups"

Subject 9: "Sometimes, if there is no internet network problem"

Judging from the students' responses to the teacher when delivering the material, when the researcher asked, "Do you respond to the teacher when explaining or are you actually busy with other things?" The students stated the following:

Subject 5: "Yes, I respond"

Subject 6: "Sometimes, because you are busy with other things, sometimes your quota suddenly runs out"

Subject 7: "Sometimes I respond to the teacher explaining when I'm not busy with other things"

Subject 8: "Rarely responds"

Subject 9: "Sometimes, only when I want to do"

These student statements indicate that students who have an interest in learning mathematics in the moderate category are not always present on time, switch to using other applications so that sometimes they do not follow the lesson until the end, rarely listen and rarely actively respond to the teacher when delivering material.

As for the indicators of student involvement, it is seen based on the participation of students in participating in online mathematics learning. Regarding the delivery of students' opinions during group discussions, students with moderate interest categories stated that they rarely even never expressed their opinions. When the researcher asked, "When discussing in a group, did you actively express your opinion?" The students answered as follows:

Subject 5: "No, because I'm still shy"

Subject 6: "Rarely, because I'm still shy"

Judging from the students' efforts to ask friends or teachers when experiencing difficulties, students stated the following:

Subject 6: "Yes, when I have difficulties I ask my friends / subject teachers in a japri way"

Subject 7: "Yes, I asked a friend who understands the material better"

Subject 8: "Yes, I often ask friends and teachers"

Subject 9: "Sometimes, when the material presented is not understood"

Judging from the timeliness of students in doing assignments, the extent to which the teacher provides provisions for the time for collecting assignments also influences student actions. The researcher asked, "When the teacher gives an assignment, do you finish it quickly/on time?" The following are answers from some students:

Subject 6: "Rarely, depending on the teacher"

Subject 7: "Depends on teacher's rules"

In addition, difficulties in working on questions also make students take longer in collecting assignments. The researcher asked, "When the teacher gives an assignment, do you finish it quickly/on time?" Students answer as follows:

Subject 8: "Rarely, if there are questions that have not been answered and are difficult, so they are late in sending"

Subject 10: "Rarely, if I understand I will do it quickly"

The results of the interview showed that students who were in the category of moderate interest, students rarely expressed their opinions during discussions because they were embarrassed, but tried to ask friends and teachers for material that they did not understand, rarely submitted assignments in a timely manner in which conditions were determined as well as how the teacher's provisions regarding assignment collection were. and students' difficulties in solving math problems.

The results of the interviews with these students were confirmed by the results of interviews with teachers regarding the learning process implemented in class VIII of SMP Negeri 2 Tuntang during the Covid-19 pandemic. Regarding the technical implementation of learning, the teacher stated that teaching and learning activities still use a fully online system with better management than the previous year, namely the availability of online learning accounts for students from the government. As for learning during the previous year's pandemic using the Whatsapp application. Learning uses the Google Classroom application to share teaching materials, conduct video conferences and conduct assessments.

Regarding the characteristics of the tasks given to students, the teacher stated that the material was delivered through the lecture method, the teacher made a presentation in the form of a power point that was designed to be interesting and easily understood by students. These assignments are in the form of quizzes or assignments that are done manually and then the completion results are photographed and sent via Google Classroom.

The teacher also stated that as in face-to-face learning, students' seriousness in working on questions did vary. This is in accordance with the results of the preliminary study that students' interest in learning varies from the medium category to the high category. The teacher stated that there were students who were very enthusiastic and enthusiastic in doing assignments, there were also students who took part in online learning but did not do assignments, there were students who did assignments but many were late in submitting assignments so the teacher had to make efforts to get students to immediately submit assignments. For the technical delivery of assignments to teachers, students do not experience difficulties but the obstacles come from students themselves, namely students who are less enthusiastic or have difficulty in the process of completing assignments or do not know how to complete the task.

The data obtained through documentation in the form of lesson plans for Mathematics subjects in online learning, teaching materials, questions, student learning outcomes documents, and interview transcript documents. The lesson plans contain the identity of the subject, class, semester, subject matter, time allocation, basic competencies to be achieved, learning objectives, description of online learning activities to be carried out including introduction, core and closing activities, online assessment, and available learning resources used.

The research results that are relevant to the results of this study are stated by Sumartini and Fitri (Sumartini & Fitri, 2021), namely the indicator of interest in learning for class VIII students in

online mathematics learning is achieved with the percentage results in the good category with an average of 63.32%; Most students feel happy with online learning because they can find answers from various references and other students feel that learning mathematics online is less fun because it is limited in time, not used to learning mathematics online, feels that the material presented looks difficult.

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Conclusion

The interest in learning mathematics for grade VIII SMP Negeri 2 Tuntang students towards learning during the COVID-19 pandemic was in the medium and high categories, with the average being in the medium category. Students in the high interest category do not like online learning, have an interest in online learning, have an interest in online learning, and are involved in online learning. The students in the category of moderate interest, do not like online mathematics learning, have an interest in online learning, have less attention to online learning, have poor involvement in discussion activities and task collection but have good involvement in asking about material to friends or teachers.

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