Description of student's difficulty in understanding online mathematics learning materials

H Ishak\textsuperscript{1,2,*}, Sukestiyarno,YL\textsuperscript{1}, SB Waluya\textsuperscript{1}, Rochmad\textsuperscript{1}, and S Mariani\textsuperscript{1}

\textsuperscript{1}Department of Mathematics, Faculty of Mathematics and Natural Science, Universitas Negeri Semarang, Indonesia
\textsuperscript{2}Department of Mathematics Education, Faculty of Mathematics and Natural Science, Universitas Khairun Ternate, Indonesia

*Corresponding author: hasrianishak79@gmail.com

Abstract. The Covid-19 pandemic has changed many social structures in society. This also impacts the world of education, where suddenly the learning model that is usually done in schools must be done online. This problem has an impact on student learning outcomes, especially in the field of mathematics. This study aims to examine the problems faced by students in learning during the pandemic period. This research uses descriptive qualitative methods, conducted by interviewing 15 mathematics teachers and observations made to 10 junior high school students. Based on the results of interviews with mathematics teachers, it is found that learning in online classes is very different from learning in class both in terms of student attendance, student learning outcomes, and student activities in the online learning process. Meanwhile, from the results of direct observation with students, it was found that students felt bored and did not understand the material in online classes due to a lack of time to ask questions about teaching materials and absence in online classes partly due to inadequate facilities.

1. Introduction

In the Circular of the Minister of Education and Culture Number 36962 / MPK.A / HK / 2020 dated 17 March 2020 regarding online learning and working from home to prevent the spread of Corona Virus Disease (COVID-19) [1]. So that most schools use technology in learning, in this case, using an online learning system.

Online learning will undoubtedly change student learning behavior automatically. This will also certainly affect student learning outcomes. Such a situation requires that a teacher must be able to use teaching strategies to achieve learning goals. Teaching online is certainly more difficult but extremely challenging because it requires different methods and techniques for the capabilities and behavior of different students. Teaching also requires knowledge of scientific discoveries about the teaching-learning process, lesson objectives, subject matter, and students' nature [2-3]. Teachers who believe in this point of view consider the knowledge and application of tested techniques to make learning an important tool in their success as teachers [4-5]. Teacher teaching techniques will have a major impact on learning behavior and student learning outcomes.
2. Methods
This research uses descriptive research methods with a qualitative approach. Qualitative research aims to describe and analyze phenomena, events, social activities, attitudes, beliefs, perceptions, thoughts of individuals individually or in groups.

The research subjects used were 15 teachers and ten junior high school students from different schools in five big Indonesia islands. The teacher and students are selected to be given a test to be interviewed and then analyzed. The data collection techniques used were interviews and observation of several students. Interviews are used in the form of telephone conversations.

This research procedure includes three stages: the preparation phase, the implementation stage, the stage of data analysis, and the data conclusion. The preparation phase determines the research subject and prepares the research instrument, namely preparing the interview guidelines. After conducting interviews, the implementation phase is interviewing the research subject via cell phone to obtain information about the learning process. The data analysis and conclusion stage conducting data analysis is carried out to answer the research questions [6].

3. Results And Discussion
According to Mardianto, in outline, the factors that cause learning disabilities are (1) Student internal factors, namely things or circumstances that arise from within students themselves; (2) Student external factors, namely things or circumstances that come from outside the student [8].

According to Humadi, Widodo [9], in general, six stages can be done to overcome student learning difficulties, namely: (1) Data gathering; (2)data processing; (3) Diagnosis; (4) Prognosis; (5) Treatment/treatment; and (6) Evaluation. Based on the six stages, the most important is the diagnosis stage. At the stage of diagnosis, we must be able to find where the difficulties experienced by students. According to Ross and Stanley [9], the stages of diagnosis of learning difficulties (1)Who are the pupil having trouble?; (2) Where are the errors located ?; (3) Why the errors occur ?; (4) What remedies are suggested ?; (5) How can errors be prevented?

Based on research in the form of interviews and observations on some students, it is found that students' presence in online classes is only about 50% in each class and student learning outcomes are less satisfying. Difficulties experienced by students in participating in online learning are related to several factors as follows:

a. In mastering the material, students have difficulty in understanding the material because online learning methods use the same model as the model learning classroom learning, namely lectures and assignments. Simultaneously, time and distance are limited, so students do not have the opportunity to ask more questions.

b. Some students do not have adequate facilities to attend online classes at any time due to economic factors that do not have an android phone and/or can not buy data pulses.

c. Some students cannot use the application because there is no prior socialization about online learning applications.

The factors that cause students difficulties in understanding mathematics material during the COVID-19 pandemic stem from internal factors. Namely, the use of learning models and learning applications cannot play an optimal role. The research analysis results are expected to be used for further research and can be a reference for the same research.

4. Conclusion
This paper concludes that the causes of students' difficulties in understanding mathematical material during the COVID-19 pandemic are categorized into three factors: factors originating from aspects of the teacher's method 1. The teacher does not use a learning model that is effectively compatible with online learning 2. Fulfillment of student learning facilities must be given, 3. There is a need for socialization about the application used in both the learning application and the Math application.
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