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The Difficulties and Learning Processes of Mathematics in Elementary Schools during the Pandemic

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Online learning is a learning process utilizing the internet network so that interaction occurs in learning. Online learning can be concluded as a learning system that utilizes technology and internet networks to communicate or interact with students even though they are separated by distance and place. Using the internet as a medium for online learning does not have a good impact on all students. This is because there are various factors that influence student success in carrying out online learning, such as the environment along with the student characteristics, such as the enthusiasm and enthusiasm of students in participating in the learning process. The implementation of online learning can not be as much as learning in class, especially in mathematics. However, according to Setyorini (Sulistiani, 2020), the advantages of online learning are unlimited time, plenty of free time and saving on transportation costs. Mathematics is a science that must be studied for all levels of education from elementary school to college. Learning mathematics in elementary schools aims to make students have skills in using various mathematical concepts in everyday life. Puadi (2017) explains that the goals of mathematics education are knowledge and skills. For knowledge, it is expected that students have an understanding and knowledge of mathematics both to face further studies, as well as for practical use in other subjects and everyday life. For their own skills, students are expected to: 1) have the skills to solve math problems, both those related to daily life and other fields of study, as well as in mathematics itself. 2) Students are skilled in using mathematical knowledge to support other subjects. 3) Students have the ability to analyze, synthesize, and draw conclusions. 4) Students have skills in using measuring tools, calculating tools, and tables.

Based on the level of the intellectual development of students according to Piaget, elementary school students who are 6-11 years old on average are in the concrete operational stage (Bjuri, 2018). Therefore, in instilling the basic concepts of mathematics for elementary school students, it is supposed to begin by presenting concrete material then presenting semi-concrete material and continuing with presenting material in an abstract way using mathematical symbols. In addition, Brunner also revealed that students in elementary school would develop through 3 stages of mental development: enactive, iconic, and symbolic. Learning about the concepts and structures of mathematical material begins with a contextual introduction to the problem. By posing problems contextually, students are guided in stages to master concepts in mathematics. In order to increase the effectiveness and maximize online learning of mathematics, it is necessary to use information technology as well as teaching aids or qualified media such as the use of the internet as a support in its process.

During the COVID-19 pandemic, students are required to study at home and be guided by their parents, including learning mathematics. Online learning took place by using WhatsApp and Zoom applications. Based on the results of observations, it was found several factors that became obstacles in the process of learning mathematics, such as not all students having cellphones and inadequate internet access networks. These factors are the main cause of online learning not being carried out properly so that students have difficulty understanding the material, difficulty accessing material and difficulty in collecting assignments. In other observations, it was also found several problems such as there were still some students who have difficulty learning mathematics, such as difficulty in counting, using formulas, and difficulty in solving math problems. This is related to students' learning disabilities such as learning disorders (dyscalculia) which is a mathematics learning disorder. Students who have learning difficulties in mathematics can experience problems in understanding mathematical concepts, such as the concept of numbers, counting and lack of understanding of a number, and have problems learning to count. Learning difficulties are disorders in children related to general or special tasks that cause children to have constraints in learning which is shown in low achievement learning (Hasibuan, 2018). In the online learning process, the teacher uses very limited facilities due to the unstable network. The teacher only uses the WhatsApp application in sending assignments to students (Astini, Sari, 2020). Teachers are an important component to help students achieve learning goals, therefore teachers must

understand the implementation of appropriate learning methods which help the learning process take place well to achieve the learning objectives. The method chosen by the teacher must be in accordance with the difficulties faced by the students. The role of the teacher must be able to assist students in overcoming learning difficulties experienced by students when learning mathematics. As a motivator, the teacher must build student motivation on studying hard. If the students do not feel motivated to learn from the beginning, it causes students to be lazy and the material presented is not clear. To be able to meet the needs of students in learning mathematics, teachers need to create pleasant situations and conditions. The learning atmosphere can build understanding and interest in learning mathematics so as to improve student learning outcomes and teach mathematics in schools. Teachers must master mathematical concepts correctly and be able to present interesting and varied presentations.

The following are some of the learning difficulties experienced by students when learning mathematics during the pandemic:

1. The difficulty in accessing mathematics learning material

In accordance with the opinion (Anugrahana, 2020), the obstacles to online learning are unavailable tools and unstable network connections. The poor connection is the main obstacle in online learning because the students live in remote areas which leads the students to have difficulties accessing material. Without a stable internet network, learning will not run optimally. In addition, the use of internet network quotas runs out quickly and the financial condition of students' parents is still below average which leads them to not be able to provide quotas. Students only mostly use quota assistance from the government because schools do not provide learning quota assistance. Another difficulty is the condition of cellphones that do not support and the ability to master technology is the cause of students' difficulties in accessing mathematics learning material.

2. The difficulty in understanding mathematics subject

Some of the difficulties experienced by students were found to be mathematics subject matter using formulas and there was no teacher assistance during the learning process so students had difficulty understanding the material and working on the questions given by the teacher. Their reference here is only to memorize formulas, so they have difficulty answering questions. The limited space for interaction between teachers and students during online learning is the cause of student difficulties because lower-grade students in elementary schools still really need assistance, which is different from high-grade students or above who can learn independently. The solution that can be done in overcoming this problem is that the teacher must make good efforts to present interesting, creative, and fun material so that students are eager to learn even though they are independent. In addition, teachers must provide technological facilities so that online learning can be carried out optimally.

3. Teacher preparedness in teaching

According to Prabowo et al. (2020), the factor that affects the readiness of teachers in the field to carry out online learning is that the teacher does not feel confident in expressing various emotions in virtual media. It can be noted that students think the teacher is not very ready and only relies on WhatsApp.

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