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An Analysis of Mathematics Learning from Homes of Grade 1 Elementary School Students During the Covid-19 Pandemic

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Abstrak

Pandemi Covid-19 telah berdampak di seluruh sektor penting seperti pendidikan. Kejadian ini membuat orang tua ikut mengambil peran dalam membantu anak belajar dari rumah, termasuk pembelajaran matematika untuk kelas 1 SD. Penelitian ini bertujuan untuk menganalisis pembelajaran matematika dari rumah di masa pandemi Covid- 19 pada anak kelas 1 di SD Islam Al Ishlah Bukittinggi di semester 1 tahun ajaran 2020/2021. Jenis penelitian menggunakan kualitatif deskriptif. Pengambilan data menggunakan metode dokumentasi, wawancara, kuisioner dan lembar observasi. Hasil penelitian bertujuan untuk melihat bagaimana aktivitas pembelajaran, proses dan harapan anak, orang tua dan guru selama masa pandemi Covid-19.

Abstract

The Covid-19 pandemic has affected all important sectors such as education. This incident made parents take part in helping children learn from home including learning mathematics for grade 1 SD. This study aimed to analyze mathematics learning from home during the Covid-19 pandemic in grade 1 students at Al Ishlah Bukittinggi Islamic Elementary School in the 1st semester of the 2020/2021 school year. This type of research used descriptive qualitative. Collecting data used the method of documentation, interviews, questionnaires and observation sheets. The results of the study aim to see the learning activities, processes and expectations of children, parents and teachers during the Covid-19 Pandemic.

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INTRODUCTION

Learning mathematics is an important lesson in preparing Human Resources (HR) to compete in the globalization era (Annur & Hermansyah, 2020). Mathematics is one of the cognitive branches that is critical for global competition. Interaction with others, direct learning, language use, and reflection are all used in the study of mathematics (Suryana, 2016). Mathematics learning is also one of the thematic lesson in elementary schools that are positioned as a means for students to achieve competence rather than just mastering mathematics (Wiryanto, 2020). This is consistent with the objectives of learning mathematics (Yuliani & Sujiono, 2008), which state that math games aim to teach children the fundamentals of learning mathematics, such as counting, in an environment that is interesting, safe, comfortable, and fun, with the hope that later children will be prepared to participate in real learning at the next level. In this case, today's mathematics learning is a critical foundation for educating the nation's life so that it is prepared to compete in the era of globalization and advances in science and technology, as well as its application in relevant aspects of life (Nahrowi Adjie, 2020).

Mathematics in basic education is a bridge and foundation for further education (Fatimah, Lyesmaya, & Maula, 2020). The quality of education at the secondary and higher education levels depends on the education developed since elementary school (Mustopo, 2019). If the understanding of the concept being taught is incorrect from the start, it will continue to be incorrect in the future. Mathematics is required to interact with the environment, such as when purchasing daily necessities. It truly necessitates mathematical abilities.

In 2020, the entire world joins forces to fight an invisible foe known as Covid-19. The Covid-19 pandemic has spread to countries all over the world, including Indonesia. As of September 1, 2020, there had been 42,000 positive cases in Indonesia, with victims ranging from the elderly to children (KPCPEN, 2020). This epidemic requires all activities to be carried out at home through online, offline, study, work, school and so on (Choerotunnisa, 2020). Like it or not, everyone must be ready to switch to a different learning approach than usual,

including learning math from home. Teaching must be carried out as well as possible so that the learning process can be effective and good.

In the midst of this situation, the creativity and activity of parents must be present when learning is transferred to the home. Mathematical activities should be carried out in a fun and enjoyable way even though the child has entered the elementary level. Because in essence, the age of 0-8 years is still categorized into the early childhood education category (Bredekamp, 1987). Meanwhile, according to Piaget, elementary school students aged 6 to 11 years old are in the concrete operational stage of their intellectual development (Bjuri, 2018). However, parents are unable to teach their children at home because they are not trained in education, whereas teachers are trained in learning activities.

According to the findings of interviews with several first graders at Al Ishlah Islamic Elementary School, the children wanted to study at school with their teachers and friends. Although they understand the importance of learning mathematics with parental guidance at home, children prefer to attend school because they are tired of studying at home with nearly the same activities and methods every day.

Based on what has been described above, the purpose of this study is to analyze mathematics learning activities from home during the Covid-19 pandemic for grade 1 elementary school students. While the formulation of the problem is to see how the activities of learning mathematics from home is and the guidance of teachers from schools and the obstacles they face by using several guidelines to fulfill this research.

LITERATURE REVIEWS

According to Tilaar in (Suryana, 2013), education is a unit consisting of several components that cannot be separated in achieving the goals of education. Children have the potential to develop from birth and require assistance from their surroundings in stages. This stage lasts from infancy to adulthood. Parents and educators have an obligation to provide opportunities for their children to develop their potential independently and responsibly for themselves. As a result, even

during the Covid-19 pandemic, professional staff (educators) must design learning activities that can develop the potential of different children, particularly in learning mathematics.

Online Learning during the Covid-19 pandemic

In dealing with Covid-19, the government has made efforts so that people can avoid this disease by making regulations for all activities to be carried out from home, including school. The school environment makes this place a very rapid spread because hundreds of people meet here (Sintema, 2020). To anticipate the spread of Covid-19 in the school environment, the government issued rules regarding implementing learning from home or online.

This online learning is carried out to ensure that learning activities continue in the midst of a pandemic and that children receive meaningful learning.

Teachers and students collaborate on learning activities via apps such as Whatsapp, Zoom, and Google Classroom. According to Yamamoto, Nakayama, and Santiago (2007), online learning is not as effective as face-to-face learning because it is influenced by the environment and student characteristics.

Mathematic Learning

Learning is not related to environmental or genetic factors, but rather to the experiences that children gain as a result of their experiences (Suryana D., 2014). Similarly, in order for children to learn mathematics effectively, they must gain direct experience with mathematical activities.

One of the factors that influence success in learning mathematics is the use of appropriate methods according to the development and abilities of students (Amir, 2014). Media is used in education to help abstract concepts become more concrete. Furthermore, the use of media facilitates students' understanding of the concepts being studied. Teachers have an important role in the implementation of learning activities (Anwar, 2012). Teachers must be able to master and develop methods according to the characteristics of the subject so that learning objectives can be achieved.

The application of learning that will be analyzed here is learning for grade 1 level which is connected with thematic lesson during this Covid-19 pandemic. During a pandemic, teachers and parents collaborate to be able to play a role in providing learning to children to be more effective even though via online platforms (Wiryanto, 2020).

METHODS

The research method used by the researchers was descriptive qualitative research. The researchers described a situation on how to carry out learning from home activities for math activities during this Covid-19 period at Al Islah Islamic Elementary School, Bukittinggi. Then, the problems and expectations of all components such as class teachers, parents and grade 1B students were described. The study used the Spradley model with the key informant is the teacher who was the homeroom teacher for class 1B and the object of the study was students of class 1B. The instruments used in the study were interview guidelines, questionnaires via google form, and documentation.

RESULT AND DISCUSSION

RESULT

Based on the results of interviews and questionnaires completed by parents and classroom teachers, the teacher sent activities in the form of videos and voice recordings through WhatsApp groups to students in grade 1 B Islamic Elementary School Al Islah Bukittinggi who were learning from home. The implementation was quite effective when it came to sending video activities and sound recordings. Furthermore, parents with an average educational background of S1 and S2 believed that they could help their children overcome difficulties in learning mathematics. From this learning process, parents also understood how real their support and role is needed by children in the learning process from home, especially math activities. They always accompanied, guided, and directed the children in doing their assignments, so that they could still study at home. Similarly, the teacher

should receive a report on the children's work. Teachers could monitor children's activities at home through online learning, though not as thoroughly as in-person supervision. The results showed that the Covid-19 pandemic had an impact on the education sector, especially mathematics learning at the beginning of the school year.

DISCUSSION

According to Piaget's theory in (Khadijah, 2016), elementary school children with an age range of 6-11 years are still in the stage of concrete operational thinking. At this stage, students are able to think logically but cannot interpret something abstract yet. This makes mathematics must be presented with real concepts directly to them.

In general, teachers provide explanations via whatsapp and give assignments with a certain period of time. This is done in order to achieve learning competence. However, face-to-face learning provides a more pleasant learning experience for children because they can listen to explanations directly.

There are many impacts that are felt by parents, teachers and children by learning from home. The positive impact is that teachers become more technologically creative by producing various types of interesting learning videos and utilizing various conferencing applications to achieve educational goals. In addition, children and parents have more time to learn together. However, the negative impact is that many students feel bored with parental explanations which are considered less interesting and learning time is considered less effective because there is no feedback from the material provided, the communication is also not established and children are bored with the tasks given. Parents have more duties with children's activities at home besides the usual work. As a result, the explanation of the material does not appear to be as comprehensive as that provided by the teacher at school.

CONCLUSION

Based on the results of research and discussion, it can be concluded that the analysis of mathematical activities with learning activities from the homes of grade 1B students at Al Islah Islamic Elementary School Bukittinggi during the pandemic could still be handled by parents at home. Parents with an average educational background of S1 and S2 found it easy to introduce mathematics to their children. Parents used media around their children to introduce mathematics to children. However, the role of the teacher was still directly needed by the child. The children were bored studying from home because they missed school and wanted to meet their teachers and friends. It also demands the ability of teachers to use technology media so that learning from home does not feel boring for students. In addition, positive communication between teachers and parents also determines the success of learning from home, especially in learning mathematics.

Each child's mathematical ability varies due to the manner in which their parents were educated. The habit of doing chores at home was also different. Some parents paid attention to the use of finger media and children's toys when doing math assignments, while others performed tasks in bulk because they are bored with such activities.

Each student has a different character due to different family environmental factors. To overcome this, teachers are expected to be able to innovate creative and fun math learning activities by using appropriate approaches and methods and according to the material presented at that time. In terms of mathematical ability, each student is also definitely different from one student to another.

Based on the results of the research and discussion as well as the conclusions that have been described, the researchers provide several suggestions. First, schools can improve learning media facilities, comfortable classroom layouts and training in the use of technology media for teachers so that teaching and learning activities are more effective and efficient both online and offline. Second, teachers are expected to improve professionalism by optimizing the use of technology-based learning media and improving better teaching methods. Third, teachers must also establish positive communication with parents so that parents do not feel burdened

with additional tasks at home. Fourth, parents can play a more pleasant role in learning mathematics so that it has a positive impact on the quality of learning and learning outcomes.

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