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PROSES DAN HASIL BELAJAR MATEMATIKA SISWA SEKOLAH DASAR
DIMASA PEMBELAJARAN TATAP MUKA TERBATAS

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Abstract: The aim of the research is to analyze the learning process and the learning outcomes of students in limited face-to-face learning. The research method used was descriptive qualitative, the research subjects were class V teachers and fifth grade students. The research instruments used were interview text, observation, documentation. The validity of the data obtained was tested using the triangulation test, and the analysis process used the Miles and Huberman model, namely data reduction, data presentation and conclusion. The results of the study show that the implementation of limited face-to-face learning at elementary school is carried out in compliance with health protocols. The learning process in the classroom the teacher explains the material briefly, concisely and clearly, after that gives examples of practice questions to students. In the learning activities the teacher uses the talking stick learning method, lectures and explanations of sample questions. The learning activities in the class are quite active, and the learning outcomes achieved by students have been able to reach the specified KKM. However, in the learning process it is still teacher center, so it needs to be developed into a student center so that the learning process is more meaningful for students. So that students are given the freedom to explore knowledge independently more deeply and improve self-quality.

Keyword: Learning outcomes, Limited face-to-face learning, Mathematics

CITATION

INTRODUCTION

For 2 years Indonesia has been faced with the problem of the Covid-19 pandemic. The existence of the Covid-19 virus has taken many lives, and not only that, all joints of human life in business, economy, tourism, and the world of education are also affected by the existence of the Covid-19 virus. In the world of education, the learning process system has changed to online learning. However, mathematics learning which was carried out online after the entry of the Covid-19 outbreak made the teaching process a little hampered because of problems in explaining material that could not be explained directly (Onde, et all. 2021). It is this limitation of learning activities that causes the level of students' understanding of the material to decrease, because alternatives to involving online learning media experience obstacles including the teacher's lack of readiness in using the media, inadequate network access, quota availability, limited smartphone ownership, lack of parental assistance, and lack of experience in managing online-based classes.

Online learning connects students with learning resources that are physically separated but can communicate, interact or collaborate with each other. An internet network with flexibility, connectivity, accessibility and interaction skills is needed in the online learning process (Sadikin & Hamidah, 2020). Students have problems when learning online, thus making student learning motivation decrease and become bored. Mathematics learning that does not involve students to be active will cause students not to be able to use their mathematical abilities optimally in solving mathematical problems.

Student motivation decreased during learning during the pandemic which then affected learning outcomes (Cahyani, Listiana, & Larasati, 2020). During online learning there is no progress in student learning, where students who are disadvantaged with learning loss are seen to be more prominent (Engzell, Frey, & Verhagen, 2021). According to The Education and Development Forum, learning loss is when students experience academic gaps in terms of knowledge and skills (Pratiwi, 2021). When learning loss occurs during a pandemic, children's learning experiences changes such as longer time holding mobile phones, less social interaction, increased stress, and reduced physical activity (Bao, Qu, R., & Hogan, 2020).

The learning process in teacher networks uses WhatsApp, Google Classroom, Zoom, and Youtube as media for delivering material. In using this media, teachers tend to burden students with independent assignments, so skills development is needed in using online media in learning mathematics (Sulistyaningrum, Sutama, & Desstya, 2021). In the online learning period, teachers are expected to be able to implement a learning process that goes well supported by a sense of responsibility and professionalism (Fauzi & Khusuma, 2020).

According to Miswar (2017) learning is a conscious effort that aims to gain experience in the form of cognitive, psychomotor and values as controlling student attitudes. In carrying out learning activities students are expected to be motivated, active and happy. So that learning results are obtained that are positive, functional, directed and active (Nurintiyas, 2020). Learning is said to be successful if students are physically, mentally and socially active. The success of learning is also influenced by family environmental factors and student character. With the support from the environment and student character that supports the learning outcomes will get more optimal results.

Especially in learning mathematics, this is because mathematics is a lesson that requires detailed explanation in the process of solving the problem. Mathematics is knowledge of logic that discusses shape, composition, quantity, and related concepts (Wandini & Banurea, 2019). Mathematics learning that
does not involve students to be active will cause students not to be able to use their mathematical abilities optimally in solving mathematical problems. For this reason, learning mathematics is very important to involve the media to develop students' understanding, so careful planning is needed.

Learning mathematics is synonymous with formulas and numbers, so it requires explanatory models and media that support explanations. With the mathematics subject, it equips students to think critically, logically, analytically, systematically, creatively and collaboratively, however, because the learning process occurs online, several problems arise. Problems that arise in learning mathematics when the learning process is online are students having difficulty understanding learning material, learning motivation decreases, and mastery in lessons is not good (Fadilla, Relawati, & Ratnaningsih, 2021).

Students’ mathematics learning outcomes in the online learning period have decreased. This is because students do not understand the material during online learning. Unstable learning outcomes indicate that online learning has a less than optimal impact on delivering mathematics learning material. Where most of the formulas, calculations, operational explanations of problem solving. So that the online learning process causes the material to be incomplete (Mira et al., 2021).

To deal with this, the government took new actions, namely by holding limited face-to-face learning (Dewi, 2020). Limited face-to-face learning is a teaching and learning process in one room during the Covid-19 pandemic between teachers and students (Kemendikbudristek, 2021). Implementation of limited face-to-face learning requires caution in its implementation. Which can be implemented if all educational staff vaccinate, comply with the 5M health protocol (wearing masks, washing hands, keeping distance, staying away from crowds and mobility). There are 3 things that are considered in limited face-to-face learning, namely students, teachers and education staff in increasing immunity and infrastructure that complies with health protocols. By re-opening the limited face-to-face learning process, it will provide fresh air for the world of education. Based on this background, it became the background for researchers in researching the processes and results of learning mathematics for fifth grade students of elementary school in limited face-to-face learning.

THEORETICAL SUPPORT

Learning Process

Education seeks to form students who have knowledge. The interaction between those who teach and those who learn is called the teaching and learning process. Then accidentally, this process is called learning (Herawati, 2018). To achieve a good learning process it must be done consciously and organized.

There are goals to be achieved in the learning process. Where the goal is learning outcomes, the learning outcomes will show changes in behavior that are permanent, functional, positive and conscious. Learning outcomes according Dakhi (2020) namely the academic achievement of students, equipped with active asking and answering questions. In learning outcomes always have a relationship with the evaluation of learning. Therefore, techniques and procedures for evaluating effective learning are needed.

Learning Outcomes

The results of learning mathematics are the abilities possessed by students after following the material of mathematics (Muslina, 2018). In accordance with the objectives of learning mathematics, the results of learning mathematics will be very useful for students in developing their potential both in terms of cognitive, affective, and psychomotor.

Motivation in learning is also very necessary for every student. Without motivation in learning, it is impossible for the knowledge taught by each teacher to be
accepted by students. Motivation is an encouragement that comes from within the student. Motivation is defined as a person's strength that can raise the level of will in carrying out an activity. Motivation comes from within (intrinsic motivation) and from within (extrinsic motivation), how strong student motivation in learning will determine the quality and learning outcomes, therefore teachers are required to be able to encourage and increase student motivation in learning.

Learning motivation is the desire to learn from an individual. A student can learn more efficiently if he tries his best. It means he motivates himself. Learning motivation can come from himself (intrinsic) who diligently read books and high curiosity about a problem. Motivation to learn can be generated, enhanced and maintained by external conditions (extrinsic), such as the presentation of lessons by teachers with varied media, appropriate methods and dynamic communication (Gunawan, et all. 2018).

**Face to Face Learning**

Face-to-face learning is a teaching and learning event directly between teachers and students (Kemendikbudristek, 2021). In the new normal era of Covid-19, the learning process occurs in a limited way. Where must comply with the circular of the Office of Education and Culture No. 420/04/60728 regarding the implementation of teaching and learning activities. The regulations that have been regulated are as follows:

1. Enter for all classes and only 1 lesson hour
2. Rest with time a duration of 15 minutes Istirahat
3. Class has a maximum of 16 students, if there are more than 16 students, it will be divided into shifts in the future
4. Student sitting distance of at least 1 meter (Nissa & Haryanto, 2020)

**METHOD**

The research method used is descriptive qualitative method. The object of research is the process and results of mathematics of fifth grade students in limited face-to-face learning. The research subjects were the fifth grade teacher and 15 fifth grade students. The research location was carried out at elementary school, and the research was carried out in April-May 2022.

Data collection is done by interviews, observation and documentation. First, what the researcher observed was the learning model, and the implementation of learning from start to finish. Second, the interview is a question and answer activity with sources regarding the topic being researched. The interviews were carried out together with the class V teacher and fifth grade students. Third, documentation is the activity of collecting and recording existing data (Hardani et al., 2020). The documentation collected is the implementation of learning activities and learning outcomes of mathematics.

The validity of the data using the credibility test. The credibility test is carried out by triangulation, triangulation is checking data obtained from sources in various ways and at times (Sugiyono, 2015). Data analysis uses the Miles and Huberman model analysis, which is carried out interactively and continuously until the data is saturated (Sugiyono, 2015). The data analysis steps are data reduction, data presentation and conclusion.

**RESULTS AND DISCUSSION**

**Learning Process**

The learning process at elementary school is carried out from 07.30-11.00 pm, complying with health protocols such as wearing masks, taking one break, the distance between students sitting is 1 meter, in one class there are less than 16 students so that the learning process is not divided into two shifts, and provide a place to wash hands. Where this is in accordance with the circular of the
Department of Education and Culture NO. 420/04/60728 regarding the implementation of face-to-face teaching and learning for the 2021/2022 school year.

Before starting the learning activity the teacher makes a Learning Implementation Plan (RPP). Where the RPP refers to the syllabus and curriculum used by public elementary schools, and is modified according to the conditions in the education unit. Based on the results of interviews with class teachers, the learning process during the pandemic was different from the previous normal period. Because the duration of learning is shortened so that it condenses material and learning activities can only be carried out in class, except for learning Physical Education and Sports. Therefore the teacher prepares a Learning Implementation Plan in accordance with current conditions. That the implementation of learning during a pandemic was carried out by explaining the main subject matter, and giving practice questions to see students' abilities (Dewi, 2020).

The steps of the learning method carried out by the teacher during the mathematics learning process are carried out, namely the teacher opens the class by praying, then the teacher does an apperception of the previous learning material and relates it to the material that will be studied that day. After carrying out prayer activities the teacher conditions students to create conducive learning conditions by calming students who are still noisy and admonishing students who are not tidy. This is done so that students are mentally and physically ready to participate in learning. And then teacher explains the meaning or concept of the material, which then the teacher explains the material to the blackboard and writes mathematics learning material accompanied by examples. Then students work on the exercises given by the teacher, the purpose of giving practice questions is as a form of seeing students' comprehension after paying attention to the teacher's explanation.

The learning method used in the learning process for class V elementary school is the lecture learning method, which is then combined with fun using games or called talking sticks accompanied by math practice exercises. In the learning process does not use special media in delivering material to students, this depends on the material to be delivered to students. Implementation of the talking stick learning method is packaged in the mathematics learning process using the help of a stick, where students holding the stick are required to answer questions from the teacher after the explanation of the subject matter has been taught (FITRIA & Fitriana, 2019).

With this talking stick method can train psychomotor and cognitive abilities. So that the learning atmosphere becomes fun and students are active in participating in the learning process. Where learning mathematics is considered a boring and scary lesson, it becomes an exciting lesson and is easily absorbed by students because of the management of learning carried out by the teacher. In elementary school teachers apply this model by using the help of a ballpoint pen/pencil as a substitute for sticks and children's songs as accompaniment to learning method activities. In using this method the teacher and students in the class become enthusiastic and active in answering the questions asked.

In the learning process that occurs using the talking stick method, there is interaction between students and teachers. Where the teacher will randomly ask questions to students, and students who get questions posed by the teacher must be answered by these students. In answering the questions posed by the teacher, if a student makes an error, he will ask his friend about solving the problem so that the correct answer is obtained. After the learning process is almost complete, then the teacher gives some practice questions to students as a form of cognitive honing and
measuring students’ understanding of the subject matter presented.

**Learning Outcomes**

Maulidya & Nugraheni (2021) mathematics learning outcomes are obtained when students have taken a test that aims to measure ability and understanding of the material after participating in learning within a specified time. In learning outcomes, learning outcomes will be obtained that can exceed the KKM and cannot exceed the KKM. Learning outcomes that have not been able to exceed the KKM are assumed that students lack mastery of the material. Because learning outcomes are related to the cognitive domain in brain activity and students' thinking orientation.

In the limited face-to-face learning period, the fifth grade mathematics learning process at elementary school was carried out in a systematic, solid and structured manner. Where the teacher conveys the subject matter to be conveyed during the learning hour. Even though the learning time is limited, the teacher is able to manage learning in a fun way by using the talking stick method to inspire student enthusiasm for learning, and answer the exercise questions given with enthusiasm. Public elementary schools have a KKM score of 75. KKM or Minimum Completeness Criteria is determined based on passing daily exams or school exams. This value is determined based on teacher deliberations based on the intake, complexity, and carrying capacity of the school (Mardapi, Hadi, & Retnawati, 2015). So that the KKM in each school is different from other schools.

The following are the results of learning mathematics for class V elementary school students for the 2021/2022 academic year for odd semesters during limited face-to-face learning:

<table>
<thead>
<tr>
<th>Student’s</th>
<th>Cognitive Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>S1</td>
<td>83.21</td>
</tr>
<tr>
<td>S2</td>
<td>83.14</td>
</tr>
<tr>
<td>S3</td>
<td>81.85</td>
</tr>
<tr>
<td>S4</td>
<td>83.55</td>
</tr>
<tr>
<td>S5</td>
<td>77.43</td>
</tr>
<tr>
<td>S6</td>
<td>84.06</td>
</tr>
<tr>
<td>S7</td>
<td>83.01</td>
</tr>
<tr>
<td>S8</td>
<td>83.31</td>
</tr>
<tr>
<td>S9</td>
<td>83.09</td>
</tr>
<tr>
<td>S10</td>
<td>84.01</td>
</tr>
<tr>
<td>S11</td>
<td>82.86</td>
</tr>
<tr>
<td>S12</td>
<td>76.90</td>
</tr>
<tr>
<td>S13</td>
<td>76.50</td>
</tr>
<tr>
<td>S14</td>
<td>84.11</td>
</tr>
<tr>
<td>S15</td>
<td>83.24</td>
</tr>
<tr>
<td>Average</td>
<td>82.02</td>
</tr>
</tbody>
</table>

Based on the table above, it can be seen that the mathematics learning outcomes of class V students in elementary school can achieve the KKM that has been determined. This is because in the limited face-to-face learning period students have the opportunity...
to directly ask teachers and friends about the material being studied, and is supported by a learning atmosphere that makes students’ enthusiasm for learning grow again. This process makes students’ understanding better when the learning process occurs face-to-face is limited.

**DISCUSSION**

Based on the results of research in grade V elementary schools, learning takes place with the teacher explaining the material using the lecture method and sometimes using a talking stick, and explaining the material on the blackboard. The teaching and learning process is carried out, namely the teacher explains and after it is finished, students will be asked in advance about their understanding of the material that has been explained. Then students work on exercises in accordance with the material described. The learning process is still teacher-based learning, where the teacher is the center of learning and students listen, pay attention and their learning is dictated by the teacher. When students do the tasks that have been ordered by the teacher, some students experience difficulties in the results of multiplication and division. So that it becomes an obstacle for students when answering questions.

By using teacher based learning, it does not explore insights and student knowledge. so that a paradigm shift is needed in the process that was previously teacher-centered into student-centered learning. With student centered it is hoped that students will be actively encouraged in building knowledge, attitudes and behavior. Student-centered learning process, will make students opportunity and facilitate to build their knowledge so that they will gain a deep understanding and finally be able to improve student quality.

The choice of approach is due to the fact that learning makes students enthusiastic about existing problems so that they want to try to solve the problem. The steps that can be taken in the student center learning process are to create study groups consisting of 3-4 students, role play, discovery learning, and contextual learning.

Then in the mathematics learning outcomes of students during this limited face-to-face learning period it was produced that student scores were satisfactory. This is encouraged because learning activities that present directly between teachers and students in one place make the interaction and encouragement of learning bigger.

**CONCLUSIONS AND RECOMMENDATIONS**

The learning process that is carried out does not divide student study time shifts because in one class there are only 15 students, the school complies with health protocols in education units and regions, and the learning outcomes of class V SD Negeri in limited face-to-face learning can exceed the KKM that is has been determined. Things that support student learning outcomes can achieve KKM, namely the active attitude of the teacher in conveying the subject matter, students who actively ask questions and cooperate with each other in helping friends who do not understand the material. In the learning process the teacher conveys the material briefly, concisely, clearly adjusting to lesson hours during limited face-to-face learning, so that it is efficient to achieve the learning objectives that have been set. Apart from that, it is also supported by the enthusiasm that has grown again after experiencing learning loss during the online learning period, the delivery of material that is clear and easy for students to understand.

However, in the learning process it is still teacher center, this needs to be developed into a student center so that the learning process is more meaningful for students. So that students are given the freedom to explore knowledge independently more deeply and improve self-quality.
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Ariani Haffidah Lestari, Ratnasari Diah Utami | Learning outcomes, Limited face-to-face learning, Mathematics

Pages | 559