The barriers in the implementation of mathematics learning for slow learner during the COVID-19

Hidayatul Wafiroh 1 *, Harun 2

1 Education Research and Evaluation Department, Yogyakarta State University, Yogyakarta, Indonesia
2 Early Childhood Education Department, Yogyakarta State University, Yogyakarta, Indonesia

*hidayatulwafiroh.2019@student.uny.ac.id
© The Author(s) 2022

Abstract

Slow learners also carry out the implementation of online learning at inclusive elementary schools. Online learning conditions are different from face-to-face learning, and it becomes a challenge for teachers to deliver mathematics learning for slow learner students. Learning mathematics is a learning that is considered difficult by slow learner students. It is because slow learner students have limited cognitive abilities and understanding of symbols, abstracts, and concepts. This study aimed to determine the obstacles in the implementation of mathematics learning, which includes the planning, implementation, and assessment stages for slow learner students at inclusive elementary schools. This research is qualitative research with a descriptive approach, and the subjects were ten inclusive elementary school class teachers in Sleman. The data were collected by interview and analyzed with the help of Atlas.ti software. Based on the analysis results, teachers experienced barriers in implementing online learning. The teacher experienced barriers in planning learning media and limited learning resources specifically for slow learner students at the planning stage. The most significant barriers come from the students' condition at the implementation stage, and another barrier comes from parents and teachers. Furthermore, the barriers in the assessment stage included the limitations of distance and time, the validity of the answers, student independence, and decreased enthusiasm of students for working.

Keywords: barriers; mathematics learning; slow learner

Received: 20 November 2021 | Revised: 30 November 2021
Accepted: 13 December 2021 | Published: 6 January 2022
Introduction

The Corona Virus (COVID-19) pandemic has spread worldwide. The transmission of the COVID-19 virus occurs from individual to individual at a rapid rate of spread. The Indonesian government implements social distancing for all sectors to prevent the spread. In the education unit, with the issuance of the Circular Letter of the Minister of Education and Culture Number 36962/MPK.A/HK/2020 concerning "online learning and working from home in the context of preventing the spread of coronavirus disease (COVID-19)." For areas that have been affected by COVID-19, online learning is applied to all education units. Furthermore, for the implementation of online learning, the government issued a Circular Letter of the Minister of Education and Culture Number 4 of 2020 concerning "implementation of education policies in the emergency period of the spread of coronavirus disease (COVID-19)."

The implementation of online learning has been going on for more than a year. It aims to minimize contact between individuals during the school environment's learning and teaching process. Online learning applies to all students of all levels of education, including students with special needs with the slow learner category in inclusive elementary schools. Slow learner students have intellectual potential that is slightly below standard intellectual potential but cannot yet be categorized as mentally disabled students (Kustawan, 2013). The slow learner is physically the same as students in general. However, the level of intelligence possessed by slow learner students is below the average of between 75-90 (Aziz et al., 2016).

Slow learner students have problems in learning, namely limitations in reading, writing, and arithmetic (Mumpuarti & Cahyaningrum, 2011). Slow learner students experience difficulties related to cognitive abilities in organizing new information received and combining it with previous information, require more time learning activities, completing tasks, and developing skills than their peers (Shaw, 2010). Slow learners also delay thinking, responding to stimuli, and adaptability (Utami, 2019). In addition, slow learners tend to be slower to understand things related to symbols, abstracts, or concepts (Malik, 2009). In contrast, mathematics is related to symbols, abstract, and conceptual where mathematics is a science related to logic which includes forms, arrangements, quantities, and concepts that are interconnected in large numbers and are then divided into three fields consisting of algebra, analysis, and geometry (James & James, 1976). Learning mathematics is one of the weaknesses of slow learner students during the learning process, usually indicated by poor learning achievement (Hadi, 2016).

Meanwhile, learning mathematics in primary education has an essential role in introducing concepts, skills, and thinking strategies for further student education (Tran et al., 2020). However, according to Hadi (Sakinatullaila et al., 2020), slow learner students have difficulty planting mathematical concepts. Slow learner students also have difficulty and are slow in accepting the material that the teacher conveys during mathematics learning (Manikmaya & Prahmana, 2021). With these conditions, online math learning services are needed to consider needs and abilities.

Learning for learners with special needs in inclusive education is done by considering learning principles adapted to student learning characteristics (The Regulation of Ministry of
The implementation of inclusive education requires schools to make adjustments in terms of curriculum, educational facilities and infrastructure, and learning systems tailored to the individual needs of learners (Directorate of PSLB, 2004). According to the Directorate of PPK-LK (2011), the adjustment includes a curriculum that can accommodate the needs and abilities of students, school infrastructure facilities equipped with accessibility, and learning systems implemented according to the needs of students in the setting of inclusion classes. The implementation of inclusive schools for learners with special needs must create a friendly learning environment, which allows all learners to learn with comfortable and enjoyable moments (Rokhmaniyah & Chamdani, 2018). Therefore, it presents learning using various approaches to mediate difficulties in learning abstract concepts (Mumpuniarti et al., 2011).

The implementation of online learning is new for schools and teachers in inclusive schools at the elementary school level (Putri et al., 2020). Online learning is implemented to provide a meaningful learning experience without burdening learners with completing all curriculum achievements. Therefore, teachers must provide a meaningful learning experience by giving assignments and activities tailored to learners' interests and conditions by considering the gaps in access and learning facilities in each student's home. However, at the beginning of the implementation, there were obstacles where classroom teachers and special assistant teachers experienced difficulties and were unprepared to implement innovative online learning for special-needs learners (Minsih et al., 2021). Teachers accustomed to using conventional teaching styles when face-to-face learning feel that the total online mechanism does not provide satisfaction in teaching (Fauzi & Khusuma, 2020).

So far, Mathematics learning for slow learner students is done the same as students in general. Slow learner students get the same material as general students. The learning methods used are lectures, questions and answers, and discussions. The lack of teacher ability, where some teachers do not have an inclusive educational background, makes teachers apply limited learning methods and media according to what they know. Modifications of learning are carried out by teachers, such as the allocation of time where for slow learner students are done adding time and many repetitions of material. Considering slow learner students need more time to understand the material than their peers. In the assessment, the questions given to slow learner students are the same as students in the second year. Modifications are made by providing a simpler remedial compared to students in general, and different KKM grades are lower than other general students. However, implementing learning in inclusion schools at the elementary school level experienced some barriers. In the research of Wanabuliandari et al. (2020), in learning mathematics, teachers have not developed their teaching materials and have not fully understood the characteristics of slow learners. Another research conducted by Tarnoto (2016) based on the teachers' perception, the problems that arise in learning, such as the lack of teacher competence in dealing with children with special needs, lack of parental concern for children with special needs, a large number of learners with special needs in a study group, and lack of cooperation from various parties. In addition, research by Rokhmaniyah and Chamdani (2018) reported several obstacles in implementing inclusive education, namely the incomplete facilities for learners with special needs due to lack of funds resulting in learners experiencing
barriers, unable to adapt to the environment thoroughly, and lack of enthusiasm for learning. Still, few teachers can teach and have the skills and knowledge of inclusive education. Some teachers cannot use an appropriate curriculum tailored to the learner's needs.

With online learning conditions that are different from face-to-face learning, teachers are expected to adapt quickly. In inclusion schools, teachers are faced with efforts to optimize the implementation of learning services; one of them is that the teacher has the competence to support all students with special needs and students in general (Directorate of PPK-LK, 2011). So, of course, it takes the role of teachers in creating effective and innovative mathematical learning that is adapted to the conditions and abilities of slow learners. Is so that slow learner students can understand mathematical concepts as with students in general. The implementation of education in schools refers to the Regulation of Ministry of Education and Culture No. 22 of 2016, where the implementation of education is adjusted to the standard of the education process, which includes planning the learning process, implementing the learning process, assessing learning outcomes, and supervising the learning process. Where contained in the regulation that at the stage of planning, implementation, and assessment is a process carried out by educators (teachers), and the principal and supervisor carry out the learning process stage of supervision. The implementation of mathematics learning in inclusion where students are slow learners and other general students certainly requires adjustments at the planning, implementation, and assessment stages adapted to inclusive education arrangements that provide for the needs and characteristics of students learning (Hasibuan et al., 2020). However, based on the results of interviews with teachers, the implementation of online learning is a new thing applied in the teaching-learning process. This condition results in the unpreparedness of teachers in the implementation of online learning in the inclusive education setting. At the beginning of the implementation of online learning, mathematics learning ranging from planning, implementation, and assessment for slow learner students is carried out the same as students in general. Learning modifications for slow learner students is done with limited abilities owned by the teachers. Based on the study above, this research is essential to know the barriers to implementing mathematical learning for slow learner students in elementary schools, including the stages of planning, assessment, and assessment during the implementation of online learning during the COVID-19 pandemic.

**Methods**

This research was qualitative research with a descriptive approach. The analysis was carried out with the help of *Atlas.ti* software. The study subjects were inclusion elementary school teachers totaling ten classroom teachers ranging from grade four to grade six. The subject consists of four male teachers and six female teachers. The selection of research subjects used a *purposive sample technique*. Subjects were selected based on the criteria set by the researcher, namely the inclusive elementary school class teacher, and there were slow learners in the study group. This research was conducted in five inclusive elementary schools in the Sleman district. The research was conducted in the range of May 2021 to July 2021. To achieve the research
objectives, researchers went directly to the field to meet with research subjects to collect and conduct data analysis during the research process.

The data collection technique used is an unstructured or open interview. The interview guidelines used are only in outlines related to the problem (Sugiyono, 2015). Then the subject can export the answer openly as experienced by the subject. Data analysis techniques include four stages: data collection, data reduction, data presentation, and concluding. According to Sugiyono (2015), data reduction is summarizing, selecting, focusing on essential data, and discarding unnecessary data. Data reduction analysis is done with the help of Atlas.ti by coding the data by determining the code, marking the data with the appropriate code, and discarding the data that is not appropriate. The next stage, the presentation of data, is to present the data obtained to conclude (Sugiyono, 2015). With the help of Atlas.ti, the data presentation stage is done by making multiple quotations from each data, comparing, and creating a network (network overview). The last stage is the withdrawal of conclusions and verification to answer the focus of the research. If the conclusion at the initial stage is supported by valid and consistent evidence, then the conclusion is credible (Sugiyono, 2015). Test the validity of data by data triangulation. Triangulation is a collection technique that combines existing data and sources (Sugiyono, 2015). The triangulation of data in this study was carried out by triangulation of sources by ensuring the data obtained through several sources included parents of students, students, and inclusion school teachers.

Results

Learning media is the main thing in the implementation of online learning. Learning media connects teachers and students to interact and communicate teaching and learning. In this industrial era 4.0, many learning media platforms can help the learning process. Based on the analysis results with Atlas.ti, the learning media used by teachers are as shown in Figure 1.

![Figure 1. Word cloud learning media](image)

Figure 1 shows that WhatsApp is the most widely used instant messaging platform or application in online learning because they are used to using the platform. Besides sending text, it can also send photos, videos, and voices. The following learning media is the zoom platform and classroom. With zoom, the interaction between teachers and students during learning is carried out directly online, such as interactions in class. Meanwhile, the classroom provides materials, assignments, and coordinated assessments in one class. In addition to using social
media platforms, some teachers also conduct home visits in groups while still implementing health protocols. The platform is used for all students, both for slow learners and students in general during online learning. The implementation of online learning cannot be separated into three stages: planning, implementation, and assessment. In implementing these three stages, the teacher encountered several barriers. In analyzing the data, the researcher used the barriers category that included three codes, namely 1) planning, 2) implementation, and 3) assessment. These barriers were as follows:

The barriers to planning the learning process

Learning planning was designed in a syllabus and lesson plan (RPP). In the Ministry of Education and Culture Regulation Number 22 of 2016, "learning planning includes preparing learning implementation plans and learning media and resources, assessment tools, and learning scenarios." Teachers must make plans as guidelines and descriptions to achieve learning objectives to carry out learning. Teachers also made lesson plans during the online learning implementation, like face-to-face learning. Teachers needed to make lesson plans according to online learning conditions and student conditions in different situations. With the average number of learners with special needs in one study group being 10% of the total number of study groups, teachers must also make learning plans that could accommodate the conditions and needs of slow learners in their class. Based on the results of the interview, where the teacher openly revealed the barriers experienced in the learning planning process, it was found that the barriers experienced by some teachers at the planning stage of the online math learning process for slow learner students. The analysis results with Atlas.ti showed the obstacles experienced by the teacher at the planning stage, which can be seen in the quotations section as shown in Figure 2.

○ Planning: learning media
6 Quotations:
1:1 ¶ 6 in transkrip wawancara 1
Sometimes I find it difficult to determine the learning media that will be right for students with needs. Because sometimes if zoom / meet, slow learner students are less able to follow.

2:1 ¶ 6 in transkrip wawancara 2
I have difficulty providing media that can help students to more easily understand the material due to the limitations of technological capabilities.

6:1 ¶ 10 in transkrip wawancara 6
If we teach online, either using meet or zoom, it's difficult for children with special needs. So far, the learning media used has been less varied.

7:1 ¶ 4 in transkrip wawancara 7
I pay attention to the condition of parents for consideration in preparing the right media because most parents are less technologically literate. Because of this, online condition, when students cannot access learning media, they will ask for the help of their parents.

9:1 ¶ 4 in transkrip wawancara 9
I feel less in planning a varied learning medium that can help students understand learning, especially slow learner students.

10:1 ¶ 4 in transkrip wawancara 10
I decided on the media in learning because I didn't have an outstanding educational background. So that the media used by students with special needs is the same as students generally.

0 Codes

○ Planning: a source of learning
4 Quotations:
1:2 ¶ 6 in transkrip wawancara 4
The procurement of learning resources for slow learner students is still a little in the sense of the lack of learning books that are specifically for students with special needs.

4:1 ¶ 6 in transkrip wawancara 4
Limited sources of reference in providing learning resources, especially for students with special needs.

5:1 ¶ 10 in transkrip wawancara 5
Limited student learning resources.

9:2 ¶ 4 in transkrip wawancara 9
Lack of special learning resources for students with special needs, which contain the same material as general students. However, it is presented specifically for students with special needs.

0 Codes

Figure 2. Quotations barriers to planning the learning process
Based on the results of quotations in figure 2 above, some teachers experience barriers at the planning stage of the mathematics learning process for slow learner students, including learning media planning and limited learning resources specifically for slow learner students. With the implementation of online learning, the use of learning media certainly has a difference from that used when face-to-face learning. Learning media is a means to convey learning materials. Therefore, learning media planning becomes essential. In addition to this, the limited learning resources are designed explicitly for slow learner students who are by the characteristics of slow learners. The learning resources used by slow learner students are the same as students in general.

The barriers to implementation of the learning process

Implementation of online learning for elementary school learners required the cooperation of stakeholders, including teachers, students, and parents. Besides teachers, parents also assisted slow learners in learning, especially for lower classes. It was due to the limited distance of the teacher to accompany slow learners to learn directly. With good cooperation, learning was expected to take place effectively. Therefore, the analysis of barriers to the implementation of learning was based on barriers from learners, parents, and teachers themselves. The analysis results with Atlas.ti, show the relationship between implementation barriers and stakeholders. Therefore, it can be concluded in the Sankey diagram, as shown in Figure 3.

![Sankey diagram showing the connectedness of implementation barriers and stakeholders](image)

**Figure 3.** The connectedness of implementation barriers and stakeholders

Based on figure 3, teachers' most obstacles in implementing learning are slow learner students. Some of the barriers experienced by teachers had in common. It can be concluded that these obstacles include the slow learner's decreased enthusiasm for learning, students are getting bored and bored, students' concentration decreases, the learning environment is not conducive, tantrums, and internet network constraints. Further barriers come from parents of students who broadly include limited parental time to accompany students, technological abilities, parental understanding skills, slow response, and lack of communication. At the same time, the barriers that come from teachers broadly include the lack of technological capabilities and internet networks.

The barriers to assessment of learning outcomes

Assessment collects information used to monitor progress and make educational decisions (Overton, 2008). This information can be used as feedback for teachers and students to change
the teaching and learning activities better than before (Mansyur et al., 2019). The assessment process includes collecting evidence about student learning achievements, tests, observations, or self-reports (Mardapi, 2008). The assessment model in inclusive schools is adjusted to the type of curriculum used by each academic unit. According to the Directorate of PPK-LK (2011), the assessment model in inclusion schools includes using the national standard curriculum, and the assessment can be done without modification or modification according to the type of student's feasibility. While if using an accommodative curriculum, the assessment is adjusted to the type and level of student ability. So, whether using the national standard curriculum or accommodating, teachers can modify the assessment according to students' ability level with special needs in their schools. The assessment instruments used by teachers can be seen in Figure 4.

**Figure 4. Assessment instruments**

The assessment instruments used by teachers for slow learners are worksheets, assessment instruments developed by teachers, and textbooks. Worksheets are the most widely used instrument by teachers. Then, it is followed by the instrument developed by teachers and textbooks. The assessment during online learning is carried out online either on the book-written or a google form. Based on the analysis results, some teachers experienced barriers in assessing learning outcomes for children with special needs. These barriers can be seen in the networks in Figure 5.

**Figure 5. Networks barriers to the assessment of learning outcomes**
Based on the results of the networks above, some teachers experienced barriers in the assessment process. Assessment barriers relate to distance and time limitations in the execution of assessments. This condition causes teachers to be unable to conduct direct guides. Teachers cannot guide slow learner students in solving math problems. Where sometimes, slow learner students need teacher guidance to understand a problem. Another barrier has to do with the validity of students' answers. In addition, the barriers to assessment also come from students where the student's self-reassessment is low, the student's enthusiasm for self-harm decreases, and there are slow learner students who do not work on assessment instruments.

Discussion

In learning planning, teachers developed learning tools (syllabus, lesson plans, students' worksheets, assessment sheets, and materials) by considering individual differences and the results of assessments or input from related parties such as Special companion teachers, psychologists, doctors, parents, and others (Directorate of Special Education and Special Services, 2011). Besides, the teachers could also pay attention to the curriculum used by each academic unit. Based on the Regulation of Ministry of Education and Culture Number 70 of 2009, schools provided inclusive education using a unit-level curriculum that accommodated the needs and abilities of learners according to their talents, interests, and potential. The curriculum consisted of a national standard curriculum and an accommodating curriculum. The national standard curriculum was used for general and special needs learners with average and above-average intelligence potential. Meanwhile, the accommodating curriculum consists of an accommodating curriculum for students with special needs who have intelligence potential below the average and an accommodating curriculum above the national standard for students with special needs who have the potential for intelligence and unique talents. Each inclusion school carries out the development of an accommodative curriculum with the goal of accommodating curriculum development focusing on aspects of objectives, competency standards (SK), essential competencies (KD), indicators, materials, processes, and evaluations (Directorate of PPK-LK, 2011).

Different online learning conditions make teachers need their efforts to compile teaching materials, so teachers must change the structure of learning (Widyangsih, 2020). Some teachers have difficulty teaching slow learner students due to a limited understanding (Prawesti & Yoenanto, 2021). One of them is related to the use of learning media. Teachers have difficulty accessing learning media (Wardany & Sani, 2020). Teachers use the same learning media as students in general, no particular media is used to pursue inclusion classes (Sakiinatullaila et al., 2020). Teachers' use of learning media in inclusion classes is still limited and needs variety (Suprihatiningrum, 2016). Meanwhile, by using speciality media for slow learners, it is hoped that students will not experience difficulties understanding the mathematical material presented (Saleh et al., 2017). Slow learners have difficulty understanding the material and memorizing formulas in mathematics (Sakiinatullaila et al., 2020). So, selecting the right learning media affects the online learning process. The more interactive the media used, the more effective student learning outcomes (Sholikhati et al., 2021).
Besides the constraints of learning media, the limitations of learning resources adapted to the conditions of slow learners were also obstacles in learning planning. The learning resources used by slow learner students are the same as other general students. Research by Suprihatiningrum (2016), and Wanabuliandari and Purwaningrum (2018) found that teachers still have difficulty making and accessing specifically teaching materials for special needs students. To overcome the limitations of learning resources for slow learners, teachers could develop mathematics learning modules adapted to the characteristics of slow learners where slow learners had difficulty learning symbols, abstract, or conceptual. So that in developing the suitable mathematical learning module for slow learners by connecting with concrete circumstances (Wanabuliandari & Purwaningrum, 2018). When information delivery is given concretely, slow learner students will show better achievement (Shaw, 2010).

Online learning that has been going on for more than a year affects the condition of slow learners. In addition, coupled with the condition of the attitude and mood of learners with special needs, which can change every day, it affects the learning process (Hamidaturrohmah & Mulyani, 2020). Learners' enthusiasm for learning also decreased compared to the beginning of online learning. Research by Murnie (2020), Putria et al. (2020), and Wahyuningtyas and Sulasmono (2020) also stated that learners' enthusiasm for learning to take part in online learning decreased. Slow learners were getting bored and bored in participating in online learning. This condition was in line with research conducted by Wahyuningtyas and Sulasmono (2020), Putria et al. (2020), and Gökbülbül et al. (2021). The condition of learners who felt bored and bored with online learning could cause learners with special needs to experience tantrums (Prasetyo & Supena, 2021). Tantrums were emotional outbursts where learners found it difficult to control their emotions so that sometimes they expressed their anger accompanied by destructive actions (Anjani et al., 2019). When learners experience tantrums that have led to dangerous behavior and can cause damage (destructive), parents or teachers must immediately intervene (Nuraini & Tawil, 2017). Therefore, creativity and innovative teachers are needed in packaging the learning process to attract students to do learning activities so as not to get bored and bored (Murnie, 2020).

When learning is done with zoom, students cannot concentrate and focus on following the learning in line with research (Prasetyo & Supena, 2021), where students do not concentrate on following online learning. Because slow learner students tend to have a relatively short range of attention, low concentration power, and cannot concentrate following learning delivered verbally for more than 30 minutes (Amelia, 2016). Slow learners also could not focus on studying optimally because of various factors that made learners lose concentration (Safitri & Jusra, 2021). One of the influencing factors was the condition of the learning environment that was not conducive. A less conducive home atmosphere could distract learners, making it challenging to focus Putria et al. (2020). This situation demanded the teacher's creativity. One of them was ice-breaking to melt the less conducive atmosphere (Febriandar, 2018). After learning conditions have started to be conducive, learning could be carried out again.

Online learning was also inseparable from the constraints of an inadequate internet network in the student's home area due to the geographical conditions of learners' homes which were sometimes difficult to reach by the internet network. It was in line with previous research.
by Ariesca et al. (2021), Putria et al. (2020), and Gökbulut et al. (2021) that learners experienced internet network problems in the implementation of online learning. The teacher also felt the constraints of the internet network. An unstable internet network could hinder teachers from carrying out online learning. With network constraints, learning materials could not be delivered optimally, which affected the understanding of slow learners (Safitri & Jusra, 2021). Meanwhile, slow learner students need repeated explanations because of their limitations in understanding the material. So that the stability of the internet network is needed so that the material can be fully delivered and not experience delays or disjointed. In addition, the technological capabilities of some teachers are lacking, especially for older teachers. Not all teachers are tech literate, so operating technology is less than optimal (Wardany & Sani, 2020).

Implementing online learning activities carried out at home required parents' role and cooperation in helping learners learn. Online learning conditions made teachers cannot help learners directly, so teachers could ask for help from learners' parents to supervise the implementation of slow learners learning (Handayani & Asri, 2021). Communication between teachers and parents was needed so that learning took place effectively. However, some parents were less communicative and slow in responding. It was in line with the research by Wardany and Sani (2020) that in communicating during online learning, parents were less cooperative and responsive. Another obstacle experienced by teachers came from parents' condition, namely where parents had limited time to accompany learners to study because parents were busy working. Parents are less than optimal to accompany students' learning at home with limited time and busyness. Whereas slow learner students, mainly low-grade, slow learners, need more mentoring. This condition was in line with research conducted by Arsani et al. (2021) and Hamidaturrohmah and Mulyani (2020) that parents could not accompany them at all times because parents worked. The next obstacle was the limited ability of parents' technology in operating technology that affected the learning implementation process. It was in line with Wardani and Ayriza's (2020) research that parents also had difficulty operating gadgets. This condition was caused by some parents who were not technology literate. Besides limitations in technology, parents also had limitations on understanding related to knowledge. This condition was in line with Wardani and Ayriza's (2020) research that parents' limited understanding of the material became an obstacle in implementing online learning. Lack of parental knowledge about how to teach online learning material made the learners unable to understand (Gökbulut et al., 2021). Therefore, creativity and innovation must be carried out by teachers to continue to provide the best educational services to a diversity of learners (Robiyansah, 2020).

To find out the success of students and the extent to which learning is successfully applied, so necessary to assess learning outcomes. Assessment serves to determine the achievement of instructional objectives, feedback for learning improvement, and a basis for compiling reports on student learning progress (Sudjana, 2002). During the COVID-19 pandemic, the assessment will be carried out online. During the implementation of the online assessment, teachers experienced problems related to distance and time limitations, where the assessment process is commonly carried out in a school environment. Hence, now, it is carried out separately. The limited distance caused the teacher not to accompany slow learners who sometimes need assistance understanding a case. In addition, some slow learners use cell
phones with their parents. Thus, they have to wait for their parents to come home first to work. These conditions affect the assessment process, which cannot be carried out simultaneously at the same time. Teachers have limited time to accompany students with different processing times between students. It is lined with Widyangsih's (2020) research that teachers experience obstacles related to the time of collecting data of the learning outcomes due to the assessment carried out by the teachers at a different time or non-simultaneous.

With the limitation of distances and times that are not simultaneous, sometimes even outside working hours, teachers cannot supervise and observe how students process in solving a problem directly and whether students understand the material being studied. In the assessment process, teachers have difficulty conducting assessments both in the process and student learning outcomes (Ariesca et al., 2021). The teacher only accepts the results of student work so that the substance of learning which prioritizes the process cannot be observed by the teacher (Anugrahana, 2020). In fact, the assessment is racing on the results of student work and the process of completion. With limited supervision and only accepting the results of student work, teachers are hesitant about the validity of students' answers. The student's work is purely a student who works or gets the help of parents or others. It is in line with previous research by Widyangsih (2020), Rigianti (2020), and Yansa and Retnawati (2021) that the validity of student answers is an obstacle in the assessment. This condition caused the teacher to be unable to obtain an overview of the student's abilities, what had been mastered and had not been mastered, and how the students' process to solve the problem was.

The following assessment barrier comes from the students themselves, where students' independence in working on the assessment instrument decreased. Commonly, students try to do it themselves at school, and sometimes with teacher guidance. Meanwhile, it is easy for students to ask others to do their work without trying first at home. This condition aligns with Ariesca et al. (2021) research, which states that students are less independent and depend on their parents while doing assignments. It can be seen from students' enthusiasm in working on the declining assessment. Slow learners can lose interest in assignments and refuse to work because of mood swings and boredom. (Hadi, 2016). This condition causes some students who do not submit assignments until the deadline. It is in line with (Widyangsih, 2020), which states that not all students are involved in online assessment applications. This condition affects the teacher in carrying out the assessment process. Teachers can make assessment modifications for slow learner students at the assessment stage. Modification of the assessment can be in the form of simplifying questions, reducing the number of problems, and remedial adapted to the characteristics of a slow learner.

**Conclusion**

Teachers experience barriers in implementing mathematics learning for slow learner students at learning planning, implementation, and assessment. Teachers experience obstacles in planning the right learning media for slow learners. In addition, the limitations of specific learning resources for slow learners become obstacles for teachers in the learning planning process. In the implementation of learning, the most significant barriers come from students'
condition, wherein following the learning spirit of students has begun to decrease compared to the beginning of the implementation, students feel bored. Saturation affects the level of student learning concentration begins to decrease, and the emergence of tantrums in some slow learner students. Aside from the condition of students, a learning environment that is not conducive and internet network constraints are also barriers. The implementation of online learning is inseparable from the role of parents. However, due to parental limitations, not all parents can accompany slow learner students. Parents have business and work, limited comprehension skills related to mathematical concepts and materials, and less communicative parents. Barriers from teachers include the lack of technological and operational capabilities and internet network constraints. At the assessment stage, distance and time limitations, the validity of answers, student independence, and students' enthusiasm in working decrease. Researchers feel some obstacles in data retrieval. Not all elementary schools host inclusion education, and not all schools have slow learner students. In addition, in the conditions of the COVID-19 pandemic, the space for research movement becomes limited.

Acknowledgment
The researcher thanked the guidance lecturer for the guidance in this study. Not forgetting, the author thanked the inclusion elementary school teachers who have supported and assisted in providing data and information in this study.

Conflicts of Interest
This study is a study that does not contain a particular conflict. The author's responsibility is for everything related to plagiarism, misconduct, data fabrication or falsification, double publication or submission, and redundancies.

References
Amelia, W. (2016). Karakteristik dan jenis kesulitan belajar anak slow learner [Characteristics and types of slow learner child learning difficulties]. Jurnal Aisyah: Jurnal Ilmu Kesehatan, 1(2), 53-58. https://doi.org/10.30604/jika.v1i2.21
Anjani, D., Fadhila, M., & Primasari, W. (2019). Strategi komunikasi pendidik dalam menghadapi temper tantrum anak berkebutuhan khusus [Educator communication strategies in the face of temper tantrums of children with special needs]. Makna: Jurnal Kajian Komunikasi, Bahasa, dan Budaya, 5(2), 1-16.
Aneugrahana, A. (2020). Hambatan, solusi dan harapan: Pembelajaran daring selama masa pandemi COVID-19 oleh guru sekolah dasar [Obstacles, solutions, and hopes: Online learning during the COVID-19 pandemic by elementary school teachers]. Scholaria: Jurnal Pendidikan dan Kebudayaan, 10(3), 282-289. https://doi.org/10.24246/j.js.2020.v10.i3.p282-289
Ariesca, Y., Dewi, N. K., & Setiawan, H. (2021). Analisis kesulitan guru pada pembelajaran berbasis online di SDN se-kecamatan Maluk [Teacher difficulty analysis on online-based
Arsani, S., Hadi, N., & Purwasisih, J. H. (2021). Peran orang tua dalam pembelajaran daring anak berkebutuhan khusus pada masa pandemi COVID-19 di sekolah inklusi SDN Mojorejo I Kota Batu [The role of parents in online learning of children with special needs during the COVID-19 pandemic at SDN Mojorejo I inclusion school in Batu City]. *NATURALISTIC: Jurnal Kajian Penelitian Pendidikan dan Pembelajaran*, 5(2), 846-855. [https://doi.org/10.35668/naturalistic.v5i2.1135](https://doi.org/10.35668/naturalistic.v5i2.1135)

Aziz, A. N., Sugiman, S., & Prabowo, A. (2016). Analisis proses pembelajaran matematika pada anak berkebutuhan khusus (ABK) slow learner di kelas inklusif [Analysis of mathematics learning process in children with special needs (ABK) slow learner in inclusive classroom]. *Kreano, Jurnal Matematika Kreatif-Inovatif*, 6(2), 111-120. [https://doi.org/10.15294/kreano.v6i2.4168](https://doi.org/10.15294/kreano.v6i2.4168)

Direktorat PLB. (2004). *Pedoman penyelenggaraan pendidikan inklusif* [Guidelines for inclusive education]. Dirjen Dikdasmen.

Direktorat PPK-LK Pendidikan Dasar. (2011). *Pedoman umum penyelenggaraan pendidikan inklusi* [General guidelines for the implementation of inclusion education]. Kemendikbud.

Fauzi, I., & Sastra Khusuma, I. H. (2020). Teachers’ elementary school in online learning of COVID-19 pandemic conditions. *Jurnal Iqra’: Kajian Ilmu Pendidikan*, 5(1), 58-70. [https://doi.org/10.25217/ji.v5i1.914](https://doi.org/10.25217/ji.v5i1.914)

Febriandar, E. I. (2018). Pengaruh kreativitas guru dalam menerapkan ice breaking dan motivasi belajar terhadap hasil belajar siswa sekolah dasar [The influence of teacher creativity in applying ice breaking and learning motivation to elementary school students' learning outcomes]. *Briliant: Jurnal Riset dan Konseptual*, 3(4), 485-494. [https://doi.org/10.28926/briliant.v3i4.253](https://doi.org/10.28926/briliant.v3i4.253)

Gökbulut, Ö. D., Gökbulut, B., & Yeniasr, M. (2021). The impact of pandemic process on special education in Cyprus. *LAPLAGE EM REVISTA*, 7(2), 364-384. [https://doi.org/10.24115/S2446-6220202172749p.364-384](https://doi.org/10.24115/S2446-6220202172749p.364-384)

Hadi, F. R. (2016). Proses pembelajaran matematika pada anak slow learners (lamban belajar) [Mathematics learning process in children slow learners (slow learning)]. *Premiere Educatandum: Jurnal Pendidikan Dasar dan Pembelajaran*, 6(1), 35-41. [https://doi.org/10.25273/pe.v6i01.295](https://doi.org/10.25273/pe.v6i01.295)

Hamidaturrohmah, H., & Mulyani, T. (2020). Strategi pembelajaran jarak jauh siswa berkebutuhan khusus di SD inklusi era pandemi COVID-19 [Distance learning strategies of students with special needs in SD inklusii era COVID-19 pandemic]. *ELEMENTARY: Islamic Teacher Journal*, 8(2), 247-278. [https://doi.org/10.21043/elementary.v8i2.7907](https://doi.org/10.21043/elementary.v8i2.7907)

Handayani, I., & Asri, A. N. (2021). Peran guru dan orangtua dalam mengatasi kesulitan belajar matematika anak slow learner di masa pandemi COVID-19 [The role of teachers and parents in overcoming the difficulty of learning mathematics slow learner children in the COVID-19 pandemic]. *Jurnal Pedagogi dan Pembelajaran*, 4(2), 202-210. [https://doi.org/10.23887/jp2.v4i2.36014](https://doi.org/10.23887/jp2.v4i2.36014)

Hasibuan, H. Y., Syamsuri, S., Santosa, C. A. H. F., & Pamungkas, A. S. (2020). Profil pembelajaran matematika pada anak berkebutuhan khusus ragam slow learner di kelas inklusif SMP Garuda Cendekia Jakarta [Profile of mathematics learning in children with special needs of slow learner variety in inclusive class of Garuda Cendekia Jakarta Junior High School]. *Journal of Medives: Journal of Mathematics Education IKIP Veteran Semarang*, 4(1), 37-51. [https://doi.org/10.31331/medivesveteran.v4i1.993](https://doi.org/10.31331/medivesveteran.v4i1.993)

James, G., & James, R. (1976). *Mathematics dictionary*. Van Nostrand Reinhold Company.

Kustawan, D. (2013). *Manajemen pendidikan inklusi* [Inclusion education management]. PT. Luxima Metro Media.
Malik, S. (2009). Effect of intervention training on mental abilities of slow learners. *International Journal of Educational Sciences, 1*(1), 61-64. [https://doi.org/10.1080/09751122.2009.11889977](https://doi.org/10.1080/09751122.2009.11889977)

Manikmaya, P., & Prahmana, R. C. I. (2021). Single subject research: Pembelajaran perbandingan senilai dan berbalik nilai berpendekatan contextual teaching and learning untuk siswa slow learner [Single subject research: Comparative learning worth and turning the shortness of contextual teaching and learning for slow learner students]. *Journal of Honai Math, 4*(1), 35-48. [https://doi.org/10.30862/jhm.v4i1.172](https://doi.org/10.30862/jhm.v4i1.172)

Mansyur, Rasyid, H., & Suratno. (2019). Assessment of learning in school. *Pustaka Pelajar*.

Mardapi, D. (2008). *Teknik penyusunan instrumen tes dan nontes* [Test and nontest instrument preparation techniques]. Mitra Cendekia Press.

Menteri Pendidikan dan Kebudayaan RI. (2016). *Peraturan menteri pendidikan dan kebudayaan RI nomor 22 tentang standar proses pendidikan dasar dan menengah* [Regulation of the Minister of Education and Culture of the Republic of Indonesia number 22 concerning the standard of primary and secondary education processes]. Kemendikbud.

Menteri Pendidikan dan Kebudayaan RI. (2009). *Peraturan menteri pendidikan dan kebudayaan RI nomor 70 tentang pendidikan inklusi bagi peserta didik yang memiliki kecanduan dan memiliki potensi kecerdasan dan/atau bakat istimewa* [Regulation of the Minister of Education and Culture of the Republic of Indonesia number 70 concerning inclusive education for students who have disabilities and have the potential for intelligence and/or special talents]. Kemendikbud.

Menteri Pendidikan dan Kebudayaan RI. (2020). *Surat edaran mendikbud nomor 36962/mpk.a/hk/2020 tentang pembelajaran secara daring dan bekerja dari rumah untuk mencegah penyebaran COVID-19* [Minister of Education and Culture circular letter number 36962/mpk.a/hk/2020 regarding online learning and working from home to prevent the spread of COVID-19]. Kemendikbud.

Menteri Pendidikan dan Kebudayaan RI. (2020). *Surat edaran mendikbud nomor 4 tentang pelaksanaan kebijakan pendidikan kebijakan dalam masa darurat penyebaran corono virus disease (COVID-19)* [I Circular of the Minister of Education and Culture number 4 regarding the implementation of education policies in education policies during an emergency period for the spread of corona virus disease (COVID-19)]. Kemendikbud.

Minsih, M., Nandang, J. S., & Kurniawan, W. (2021). Problematika pembelajaran online bagi anak berkebutuhan khusus di sekolah dasar masa pandemi COVID-19 [Online learning problems for children with special needs in elementary school during the COVID-19 Pandemic]. *Jurnal Basicedu: Journal of Elementary Education, 5*(3), 1252-1258. [https://doi.org/10.31004/basicedu.v5i3.876](https://doi.org/10.31004/basicedu.v5i3.876)

Mumpuniarti, R., & Cahyaningrum, E. (2011). *Kebutuhan belajar siswa lamban belajar (slow learner) di kelas awal sekolah dasar Daerah Istimewa Yogyakarta* [Students slow learning needs (slow learner) in the early classes of Yogyakarta Special Region Elementary School]. Universitas Negeri Yogyakarta.

Murnie. (2020). Optimalisasi pembelajaran daring di sekolah dasar: Sebagai respon dari new normal di era COVID-19 [Optimization of online learning in elementary schools: In response to the new normal in the COVID-19 era]. *Equity In Education Journal, 2*(2), 68-76. [https://doi.org/10.37304/eiej.v2i2.1852](https://doi.org/10.37304/eiej.v2i2.1852)

Nuraini, P., & Tawil. (2017). *Peningkatan pemahaman orang tua terhadap temper tantrum anak usia dini* [Improved parents' understanding of early childhood temper tantrums]. University Research Colloquium (URECOL).
Overton, T. (2008). *Assessing learners with special needs: An applied approach (7th Edition)*. The University of Texas-Brownsville.

Prasetyo, T., & Supena, A. (2021). Learning implementation for students with special needs in inclusive schools during the COVID-19 pandemic. *Musamus Journal of Primary Education, 3*(2), 90-103. https://doi.org/10.35724/musipe.v3i2.3313

Prawesti, F. S., & Yoenanto, N. H. (2021). Strategi pembelajaran shaw untuk meningkatkan keterampilan guru mengajar siswa slow learner [Shaw's learning strategies to improve teacher skills teach slow learner students]. *Jurnal Ecopsy, 8*(1), 66-78. https://doi.org/10.20527/ecopsy.2021.02.006

Putri, R. S., Purwanto, A., Pramono, R., Asbari, M., Wijayanti, L. M., & Hyun, C. C. (2020). Impact of the COVID-19 pandemic on online home learning: An explorative study of primary schools in Indonesia. *International Journal of Advanced Science and Technology, 29*(5), 4809-4818. http://sersc.org/journals/index.php/IJAST/article/view/13867

Robiyansah, I. E. (2020). The transformation of learning at special schools on the learning from home policy during the COVID-19 pandemic. *IJEBD (International Journal Of Entrepreneurship and Business Development), 3*(3), 296–299. https://doi.org/10.29138/ijebd.v3i3.1114

Safitri, O., & Jusra, H. (2021). Analisis kesulitan belajar dan self confidence anak berkebutuhan khusus slow learner dalam pembelajaran matematika [Analysis of learning difficulties and self confidence of children with special needs slow learner in math learning]. *Jurnal Pendidikan Matematika Reflesia, 6*(2), 68-80.

Sakimnulhaila, N., K. F. D., Priyanto, M., Fajar, W., & Ibrahim, I. (2020). Penyebab kesulitan belajar matematika anak berkebutuhan khusus tipe slow learner [Causes of difficulty learning math children with special needs slow type learner]. *Jurnal Pendidikan Matematika (Kudus), 3*(2), 151-162. https://doi.org/10.21043/jmtk.v3i2.7471

Saleh, M. H., Huriaty, D., & Riadi, A. (2017). Pembelajaran matematika pada anak berkebutuhan khusus (ABK) tipe slow learners [Math learning in children with special needs (ABK) type of slow learners]. *Math Didactic: Jurnal Pendidikan Matematika, 3*(2), 84-92. https://doi.org/10.33654/math.v3i2.58

Shaw, S. (2010). Rescuing students from the slow learner trap. *Principal Leadership, 12*(6-12). http://www.eric.ed.gov/ERICWebPortal/recordDetail?accno=EJ894654

Sholikhati, N., Prayogo, M., & Santoso, J. (2021). The effect of distance learning on learning outcomes of children with special needs in inclusive schools in the new normal. *IJDS: Indonesian Journal of Disability Studies, 8*(1), 145-154. https://doi.org/10.21776/ub.ijsonline.2021.008.01.11

Sudjana, N. (2002). *Penilaian hasil belajar mengajar [Assessment of teaching and learning outcomes]*. PT. Remaja Rosdakarya.
Sugiyono. (2015). *Metode penelitian pendidikan (pendekatan kuantitatif, kualitatif, dan R&D)* [Educational research methods (quantitative, qualitative, and R&D approaches)]. Alfabeta.

Suprihatiningrum, J. (2016). Persepsi siswa difabel terhadap praktik pendidikan inklusif di SMA Inklusi di Yogyakarta [Perception of students with disabilities towards inclusive education practices at inclusion high school in Yogyakarta]. *INKLUSI*, 3(2) 225-244. https://doi.org/10.14421/ijds.030204

Tarnoto, N. (2016). Permasalahan-permasalahan yang dihadapi sekolah penyelenggara pendidikan inklusi pada tingkat SD [Problems faced by school education inclusion at the elementary level]. *HUMANITAS*, 13(1), 50-61. https://doi.org/10.26555/humanitas.v13i1.3843

Tran, T., Nguyen, T. T. T., Le, T. T. T., & Phan, T. A. (2020). Slow learners in mathematics classes: the experience of Vietnamese primary education. *Education*, 48(5), 3-13. https://doi.org/10.1080/03004279.2019.1633375

Utami, N. E. B. (2019). Layanan guru kelas bagi siswa slow learner di sekolah inklusi (SDN Bangunrejo 2 Yogyakarta) [Classroom teacher service for slow learner students at school of inclusion (SDN Bangunrejo 2 Yogyakarta)]. *Al-Bidayah: Jurnal Pendidikan Dasar Islam*, 10(2), 271-290. https://doi.org/10.14421/al-bidayah.v10i2.164

Wahyuningtyas, R., & Sulasmono, B. S. (2020). Pentingnya media dalam pembelajaran guna meningkatkan hasil belajar di sekolah dasar [The importance of media in learning to improve learning outcomes in elementary school]. *Edukatif: Jurnal Ilmu Pendidikan*, 2(1), 23-27. https://doi.org/10.31004/edukatif.v2i1.77

Wanabuliandari, S., & Purwaningrum, J. P. (2018). Pembelajaran matematika berbasis kearifan lokal Gusjigang Kudus pada siswa slow learner [Learning mathematics based on local wisdom Gusjigang Kudus in slow learner students]. *Eduma: Mathematics Education Learning and Teaching*, 7(1), 63-70. https://doi.org/10.24235/eduma.v7i1.2724

Wanabuliandari, S., Ristiyani, R., & Kurniasih, N. (2020). Desain pengembangan modul matematika berbasis santun berbahasa untuk siswa slow learner di sekolah dasar [Design development of language-based mathematics modules for slow learner students in elementary school]. *AKSIOMA: Jurnal Program Studi Pendidikan Matematika*, 9(3), 601-616. https://doi.org/10.24127/ajpm.v9i3.2889

Wardani, A., & Ayriza, Y. (2020). Analisis kendala orang tua dalam mendampingi anak belajar di rumah pada masa pandemi COVID-19 [Analysis of parental constraints in accompanying children to study at home during the COVID-19 pandemic]. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 5(1), 772-782. https://doi.org/10.31004/obesi.v5i1.705

Wardany, O. F., & Sani, Y. (2020). Pelaksanaan pembelajaran jarak jauh bagi anak berkebutuhan khusus (survey terhadap orangtua dan guru di Lampung) [Implementation of distance learning for children with special needs (survey of parents and teachers in Lampung)]. *Jurnal Pendidikan Khusus UNY*, 16(2), 48-64. https://doi.org/10.21831/jpk.v16i2.32793

Widyangsih, O. (2020). Penerapan pembelajaran online (dalam jaringan) di sekolah dasar [Application of online learning (in-network) in elementary school]. *Trapsila: Jurnal Pendidikan Dasar*, 2(2), 50-60. https://doi.org/10.30742/tpd.v2i2.1106

Yansa, H., & Retnawati, H. (2021). Identifikasi praktik dan hambatan guru dalam asesmen kognitif matematika di masa pandemi COVID-19 [Identify teacher practices and barriers in cognitive assessment of mathematics in the COVID-19 Pandemic]. *Jurnal Elemen*, 7(1), 84-97. https://doi.org/10.29408/jel.v7i1.2585