



Mapping the Challenges in Distance Learning for Students with Disabilities during Covid-19 Pandemic: Survey of Special Education Teachers

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ABSTRACT

The rapid spread of the Covid-19 virus has had an impact on various aspects of life, such as the economy, education, and socialisation. One of the social distancing policies in the field of education is the application of distance learning at the preschool, primary school, secondary school, special school, and college education levels. Its implementation has led to challenges for teachers, students, and parents, especially students with disabilities (SWD). The purpose of this study is to identify the challenges faced by the special education teachers (SETs) who have been providing distance learning for children with special needs during the Covid-19 pandemic. The study was conducted using a survey method by distributing questionnaires via Google Forms to 226 SETs in Indonesia. Data analysis was conducted using descriptive statistics. The results show that most of the SETs (66%) stated that they had faced barriers to distance learning that came from parents, students, and other teachers, as well as technical barriers. According to the SETs' perceptions, some of the barriers that came from parents included lack of coordination and communication, limited use of mobile phones, and limited time for parents to accompany the students. The barriers coming from students were boredom and their lack of abilities. Furthermore, the barriers from the SETs themselves included difficulties in adapting material to online learning, difficulties in monitoring and evaluating student progress, and the lack of direction and coordination from schools. Other technical barriers were the frequent blackouts and insufficient internet signal.

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1. INTRODUCTION

At the end of December 2019, the world was shocked by the spread of a new virus strain called coronavirus disease 2019 (Covid-19) from Wuhan, China (Arnani, 2020). The very rapid spread of the virus through droplets has subsequently also occurred in other areas outside China. Covid-19 can cause death in some patients who have contracted the virus. Based on data from the World Health Organization (World Health Organization, 2020), confirmed cases of Covid-19 as of November 2020 had reached more than 57 million in 220 countries around the world. In Indonesia, confirmed cases had reached 498,000, with 15,884 deaths, as of 22 November 2020 (Satuan Tugas Penanganan COVID-19, 2020). The rapid spread of Covid-19 has had an impact on the implementation of social distancing to reduce the spread of the virus (Qian & Jiang, 2020). These restrictions on social movement include the implementation of a work from home (WFH) policy, the closure of all schools, with learning to take place online, and large-scale social restrictions.

Starting from early March 2020, the Indonesian government officially acknowledged the first case of Covid-19 in Indonesia (Utomo, 2020). Due to the conditions, the Indonesian government introduced the policy of social distancing, including limiting activities in the field of education. The Minister of Education and Culture subsequently issued the Minister of Education and Culture Form Letter No. 4 of 2020 concerning the implementation of education policies in the emergency period of the spread of Covid-19 (Kemdikbud, 2020), including the limitation of activities at school and the decree that all learning should be done from home using distance learning.

In some studies, the term 'distance learning' is also referred to as electronic learning (e-learning) or online learning (Napitupulu, 2020). In this article, the term 'distance learning' will be used interchangeably with 'online learning'. Such learning is defined as an experience that occurs in a synchronous or asynchronous environment

using various devices (laptops, mobile phones, etc.) and connected to the internet (Singh & Thurman, 2019). In this environment, students can learn independently, interacting with teachers and other students at any time. During synchronous learning, students can interact real-time with teachers and other students and can obtain direct feedback (Dhawan, 2020). On the other hand, in asynchronous learning, learning content is not available in real-time, but on discussion forums and different learning systems, or what is commonly known as Learning System Management (LMS).

Distance or online learning has been an effective choice during the Covid-19 pandemic. Some experts state that such learning can be accessed easily and can reach rural and even remote areas (Dhawan, 2020). However, the implementation of this learning is also inseparable from various challenges. Online learning during the Covid-19 pandemic has posed many challenges for teachers and schools (Rahadi, 2020). These are partly related to teachers' competency in implementing online learning and their skills in using technology (Duraku & Hoxha, 2020). The marked change in learning also increases the stress and anxiety levels of teachers (UNESCO, 2020). In addition, students are also prone to boredom and are less motivated to take part in the learning. They also experience unpreparedness in understanding the use of LMS (Parkes et al., 2015). On the other hand, parents also feel unprepared to help their children with online learning (Duraku & Hoxha, 2020). Another challenge comes from family economic difficulties, lack of access to technology and the internet, and the weak technology-based learning formats that are used for both regular students and those with disabilities (SWD) (UNESCO, 2020).

Not only for teachers from regular schools, online learning also presents particular challenges for special education teachers (SETs). They have difficulties in implementing learning materials to match students' disabilities in this form of learning (Young, 2008). They also do not fully understand how to apply the principles of inclusiveness in online learning (Center on Online Learning and Students with Disabilities, 2016). Several studies have also shown problems in the implementation of online learning for SWD. Students show a lack of willingness to complete work online, mainly due to low learning motivation, technology-related problems, the distance from teachers and lack of time with them, and the lack of parental support (de la Varre et al., 2014). On the other hand, a high level of parental involvement is needed to assist online learning in SWD (Smith et al., 2016). However, it is not certain if parents fully understand their role as teachers, their responsibilities, and the level of involvement in assisting SWD in online learning (Borup, 2016). This situation can also affect family dynamics, which frustrates parents and SWD (Smith et al., 2016) and conflicts often occur (Borup, 2016).

In light of these various problems, it is necessary to map the challenges experienced by SETs when providing online learning for SWD. The purpose of the study is to identify the challenges and needs of SETs in providing online learning for SWD during the Covid-19 pandemic. Mapping the challenges and needs of teachers can be used to provide propositions for schools, teachers, and parents regarding alternative solutions related to online learning.

2. METHOD

This study used a survey method involving SET (in special and inclusive schools), who provided online learning to SWD during the Covid-19 pandemic. Scheuren (2004) states that a survey is a method for collecting data from a research sample. Pinsonneault and Kraemer (1993) explain that a survey collects information about the characteristics, actions, or opinions of a large group of people. The data collection method was carried out using a Google Form open-ended questionnaire. The questionnaire excavates the experiences of SET during online learning, including the implementation of online learning and the challenges faced by SET. A total of 226 participants (140 special school teachers and 86 inclusive school teachers) from various regions in Indonesia filled out the questionnaire. The demographic data of participants can be seen in Table 1.

Table 1 Demographic Data of Participants

		n	Percentage
Gender	Male	47	20.8%
	Female	179	79.2%
Age range	< 25 years	25	11.1%
	25 – 30 years	64	28.3%
	31 – 40 years	66	29.2%
	41 – 50 years	39	15.9%
	51 – 60 years	32	14.1%
Type of school	Special school	140	61.9%
	Inclusive school	86	38.1%

3. RESULTS

1. Implementation of Distance Learning

The data collected on the implementation of distance learning included the types of student disabilities, the online media used, teaching methods, parental participation, and support provided by schools.

Types of student disabilities

The participants were teaching students with various types of special needs, including those with (1) visual impairments; (2) hearing impairments; (3) intellectual disabilities, (4) physical disabilities, (5) emotional or behavioural disorders, (6) attention deficit hyperactivity disorders (ADHD), (7) autism spectrum disorders (ASD), and (8) other disabilities. The distribution of the data regarding the types of special needs can be seen in Figure 1.

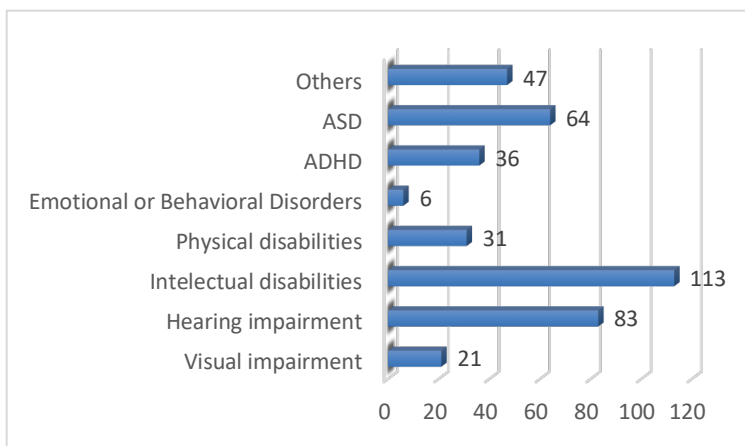


Figure. 1: Types of Student Disabilities

Figure 1 shows that the special education teachers handled 113 students with intellectual disabilities (28.17%), 83 with visual impairment (20.70%), 64 with ASD (15.96%), 36 with ADHD (8.9%), 31 with physical disabilities (7.73%), 21 with visual impairment (5.23%), and six with emotional or behavioural disorders (1,5%). In addition, 47 students (11.8%) had other disabilities, such as being slow learners.

Online media used

During online learning, the SETs used several types of applications, including WhatsApp, Line, Google Classroom, and Zoom. The distribution of the data regarding the types of applications used by participants can be seen in Figure 2.

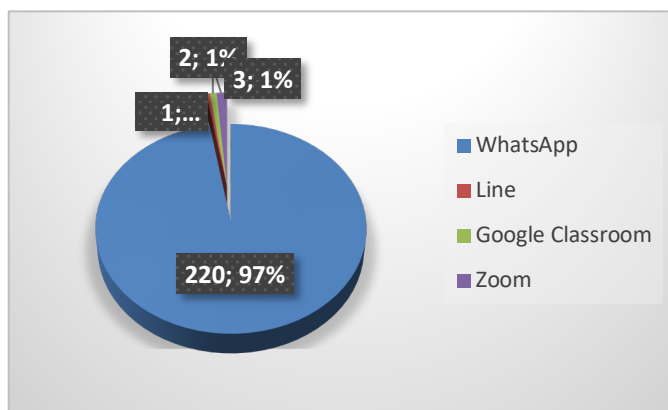


Figure. 2: Online Media Used

Figure 2 shows that almost all participants ($n = 220$; 97%) used WhatsApp to provide online learning. Line was used by one participant (1%), Google Classroom by two participants (1%), and Zoom by three participants (1%). All those who used WhatsApp stated that the operation of the application was the easiest of the four and was owned by the majority of parents.

Teaching methods

The teaching methods used in the online learning included the uploading of materials (images), reading materials, videos, voice recording, assignments, and video conferences, amongst others. The distribution of the data regarding these methods is shown in Figure 3.

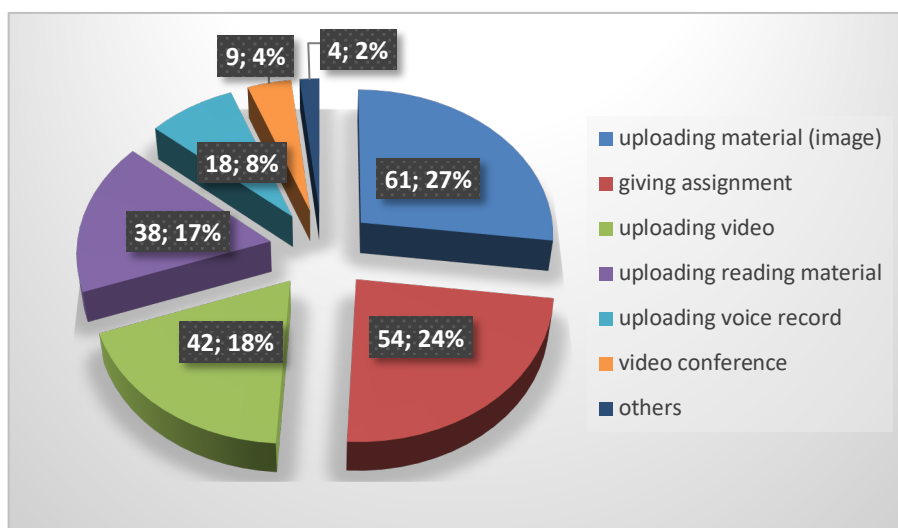


Figure 3: Teaching methods

Based on Figure 3, it can be seen that the main teaching method used was the uploading of images (61 participants; 27%). In addition, 54 participants (24%) taught by giving assignments; 42 (18%) uploaded learning videos; 38 (17%) uploaded reading materials; 18 (8%) uploaded voice recordings; nine (4%) used video conferences, and four participants (2%) used other learning methods (for example, watching TV).

Parental participation

In the survey, questions were also asked about teachers' perceptions of the level of parental participation with the SWD. The data distribution can be seen in Figure 4.

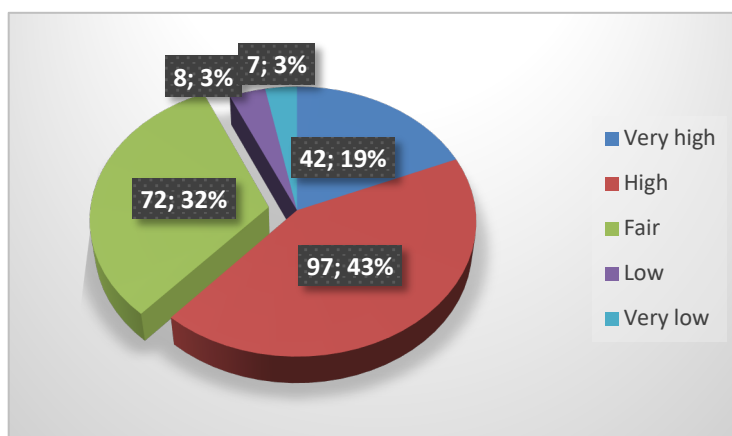


Figure 4: Parent participation

Based on the survey results, 42 participants (18.6%) answered that parental participation was very high; 97 (43%) considered that it was high; 72 (32%) believed that it was sufficient, while eight (3.5%) answered that it

was low. The remaining seven participants (3%) replied that parental participation in the online learning was very low.

Support provided by schools

During the online learning, several schools provided assistance to the teachers in various forms, such as mobile data, online learning training, money, and technicians. However, there were also schools that provided no assistance. The data distribution is shown in Figure 5.

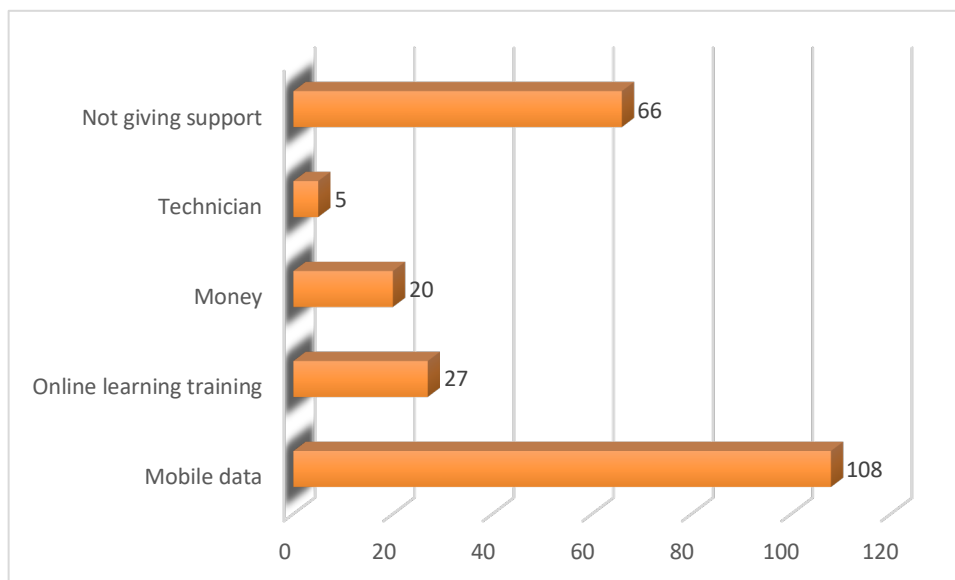


Figure 5: Support provided by schools

Based on the survey results, it can be seen that the most common form of school support provided was mobile data (108 responses, 47.7%), followed by the provision of online learning training (27 responses, 11.9%), assistance in the form of money (20 responses, 8.8%), and assistance provided by technicians (5 responses, 2.2%). However, quite a high number of schools provided no support, namely 66 responses (29.2%).

2. Challenges Faced by Teachers

Based on the survey results, the various challenges faced by the SETs (223 participants, 98.7%) can be seen. However, three participants (1.3%) answered that there were no obstacles to conducting online learning. The challenges faced can be divided into four categories, related to parents, students, teachers, and other technical barriers. These challenges are listed in Table 2.

4. DISCUSSION

The sudden change from face-to-face learning to distance learning has forced teachers to use technology in learning. This situation is becoming increasingly challenging, as the use of distance learning has not been widely practised in Indonesia (Putri et al., 2020). Most learning is traditionally done face-to-face, so online distance learning is not part of Indonesian education. In addition, the special needs of students make online learning even more challenging. One study found that that the condition of student disability is one of the predictors of low academic online learning (Rice & Carter, 2016). In addition, distance learning, especially for SWD, has not been well established in Indonesia.

The research data show that SETs prefer to use WhatsApp for providing online learning. In addition, the school has not used LMS yet. These findings are in line with other research that has shown that in online learning during the Covid-19 pandemic, teachers have had difficulty in adapting to the use of information and communication technology (ICT) quickly (Putri et al., 2020). It was also found that more senior teachers struggled more than younger ones. Research has also found that teachers need to improve their competency in ICT in order to adapt to online teaching during the Covid-19 pandemic (König et al., 2020).

Table 2. Challenges Faced by Teachers

Category	Challenges
1. Parents	<ul style="list-style-type: none"> a. Lack of coordination and communication with parents. b. Parents' limitations in using technological media (unable to use WhatsApp or to operate applications for online learning). c. Limited mobile data packages. d. Limited parental facilities (no mobile phone, or only one in the family) e. Limitations in translating learning instructions. f. Limited time for parents to accompany children.
2. Students	<ul style="list-style-type: none"> a. Boredom of children and need to adjust to the child's mood. b. Poor children's abilities.
3. Teachers	<ul style="list-style-type: none"> a. Difficulties in adapting material for online learning. b. Difficulties in monitoring children's development directly. c. Evaluation of learning difficult. d. No quota assistance from schools (either for teachers or students). e. No direction or coordination from the school. f. Difficulties in operating online learning media. g. Limited quota.
4. Technical constraints	<ul style="list-style-type: none"> a. Electricity often goes off. b. Problems with internet signal.

Online learning for SWD requires assistance and involvement from parents, especially for students at the primary school level. The results show that challenges from the parents' side occur due to the lack of coordination between teachers and parents, the limited understanding of parents of learning instructions, limited facilities (mobile phones) owned by parents, and lack of time to accompany learning. Most parents not involved in the learning process of their students believe that their participation will not help the school (Al-Dababneh, 2018) and that it is the school's responsibility to regulate children's behaviour and education (Rogers et al., 2009).

Online learning requires a strong commitment and a good level of understanding from parents in order to support their child's education process, but most parents do not possess these (Currie-Rubin, 2019). When parents have difficulty handling their children, they tend to have low motivation to accompany them in studying (Grolnick et al., 2015). The results also found that the limited facilities and income levels of parents, and parents' perceptions of the importance of educational values, are also important factors affecting parental involvement in assisting children in their learning (Hoover et al., 2014). Furthermore, the attitudes, skills, knowledge, and willingness of teachers to encourage parents to be involved in learning, especially in planning individualised educational plans (IEP), are also thought to influence parental involvement in children's education (Al-Dababneh, 2018).

Teachers need to make adjustments in terms of implementing the curriculum or their teaching methods. The development of learning strategies needed for teaching and learning online requires an understanding of learning styles and how teachers can deal with problems that arise in the online environment (Lewis et al., 2011). A successful teaching and learning process in an online environment depends on teachers and students. Further research is needed to find alternative learning methods that can be employed to overcome the challenges in distance learning for SWD. In addition, it is also necessary to conduct further research on the competence and mastery of information technology, teachers' communication, and their pedagogical competence in teaching.

5. CONCLUSION

The Covid-19 pandemic has brought about drastic changes to the world of education, both in the way teachers teach and the way students learn. Overall, the implementation of online learning by SETs is provided to SWD with various types of specialties. The most widely used application is WhatsApp because it is easy to use and almost all parents have it. The online learning process is conducted by the teachers mainly by uploading materials (pictures, videos, voice notes, reading materials), giving assignments, and conducting video conferences. During online learning, the participation level of parents is good and they are willing to assist their children to learn. Several schools also provide support for their teachers, mostly in the form of mobile data packages. However, a relatively high number of schools do not provide support for teachers or students.

Teachers face several challenges to online learning during the Covid-19 pandemic, which come from students, parents, the teachers themselves, and come from technical conditions.

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