# Teachers' Readiness to Accommodate Diverse Students Through Distance Learning in an Inclusive Setting

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Abstract: Learning must be accessible to all students. Therefore, significant challenges face developing distance learning that can meet the learning needs of every student diversity, including the student with special needs. Therefore, this study aims to describe the teacher readiness to meet the student learning needs through distance learning in schools by providing inclusive education. The research method used a questionnaire in 173 teachers from elementary schools in five districts in the Special Region of Yogyakarta (DIY) by asking them the questions such as the ease of internet networks, learning tools and equipment used, the selected learning management system (LMS) and provides the open-ended questions in the form of advantages and difficulties in distance learning. Indeed, the study results indicate that to increase teacher readiness, such as the efforts are needed and a positive atmosphere that can form self-development and self-efficacy culture.

Keywords: inclusive education, distance learning, diverse students.

## INTRODUCTION

The paradigm that must be built the learning designed is for all students (Salamanca, 1994). Learning must be accessible to any student include a student with special needs. Hence, it realizes the active participation of all students, and it can help each student reach their achievements according to their potential. That statement is a fundamental principle of inclusive education that highly upholds equality and social justice (Andini, 2014; Lisdiana et al., 2019; Salamanca, 1994; Sunanto, 2016; Tomlinson, 2000). However, one of the current problems facing the education field is studying at home by implementing distance learning. This issue has become a big challenge for the education field, especially for teachers (Al Hakim, 2021; Putra, 2021; Waruwu, 2020). Teachers should develop their accessible learning innovations to all student diversity and meet diverse learning needs (Dickinson & Gronseth, 2020; Zati, 2020). The learning design must generate interest, curiosity, critical thinking skills, and active involvement in communication and interaction (Blaine, 2019).

The challenge is big enough to provide distance learning that can meet student diversity and maintain education quality. It requires flexible solutions in solving problems and changes that arise quickly. In those implementations, the teacher often faces students with special needs. The diverse characteristics that arise and require various methods. It also needs innovative media that can meet these various student needs, such as teacher creativity and confidence (Gheyssens et al.,

2021; Henry & Namhla, 2020; Scherer et al., 2021). Also, many areas have difficulty accessing the internet network and technological devices, both teacher and student, caused by the various parents' backgrounds. This challenge is underlined to be solved immediately (Wari et al., 2020).

Several studies show the implementation of distance learning. Most teachers use social media applications such as WhatsApp, Telegram, Instagram, email, video recordings, television, and various method. It is used to meet the needs of developing modules as an alternative for areas that have not yet reached networks (Putra, 2021). It is also not many innovative media such as AR (Deb et al., 2018; Idrus, 2016), smartphonebased media development, animation, and various technology to meet diverse needs (Vie, 2018). There are many alternative ways for the student to access distance learning. One example is when the teacher is giving assignments related to emerging and trending news. The student is expected to analyze in purpose to develop students' critical thinking (Dickinson & Gronseth, 2020; Gheyssens et al., 2021)

However, many teachers also succeed in solving the problems faced during the implementation of distance learning. One of them is related to teacher perception and readiness (Scherer et al., 2021). Teacher readiness in conducting distance online learning is influenced by teacher characteristics, contextual experience, and cultural factors. In addition, there needs to support from the affiliated institution, both in supporting facilities, resources, and teacher professional development.

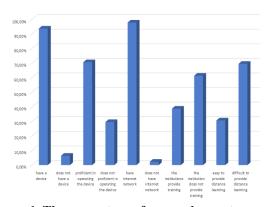


Figure 1. The percentage of assessed aspects

Therefore, it can be concluded that teacher readiness can be influenced by three dimensions, namely 1) technology mastery and teacher pedagogic competence, 2) self-efficacy or teacher confidence in doing something, and 3) institutional support (Sailer, Schultz-Pernice, & Fischer, 2021).

Based on the results of research that revealed the teacher readiness in universities in developing online learning, there is no relationship between institutional support and teacher competence. However, teacher readiness will improve if built an environmental culture that supports self-development and makes learning innovations (Scherer et al., 2021). Meanwhile, the results of another analysis related to data obtained from distance learning outcomes in elementary schools showed an increase in knowledge, skills, technology mastery, autonomy, creativity, and increased institutional readiness in providing facilities (Bao, 2020). However, it had little impact on the student knowledge mastery, character development, the effectiveness of learning interactions, and motivation that focuses on a set of examples (Scherer et al., 2021; Waruwu, 2020; Wulandari & Purwanta, 2020). Therefore, it is necessary to know how far elementary school teachers are prepared to meet and accommodate student diversity during distance learning in inclusive classes.

#### **METHOD**

This research used qualitative research with the descriptive format and online survey method. Data collection techniques used in this study were closed and open questionnaires. A questionnaire contained open-ended questions to reveal the teacher readiness to meet the student diversity during distance learning at schools, especially the advantages and difficulties in providing inclusive education. While the closed questions related to providing yes and no answers relate to the ease of the internet network, the learning tools and equipment used, and the selected learning management system (LMS). The period for filling

out the questionnaire was the agreement between the researcher and the teachers who were the samples of this research at a specific time limit. The questionnaires made on Google Forms were sent via WhatsApp group and responded to by the teacher. This study involved 173 teachers from elementary schools in five districts in the Special Region of Yogyakarta (DIY).

## FINDING AND DISCUSSION

## Finding(s)

Figure 1 shows that more than 90% of teachers have devices and internet access, but the teachers still find difficulty and feel that distance learning is difficult for teachers. At the same time, the institution provides resource support in giving a teacher training program. Therefore, it impacts the convenience of teachers in providing distance learning, although there are still many who find the difficulties.

Based on the data obtained, 93.6% of teachers have laptops or computers at home, and 97.7% have an internet network. Although 53.2% of the network in the area is weak and not all networks can be accessed optimally. The majority of 70.5% of teachers are pretty proficient in operating computers. Institutional support improved competence by providing training using technology. 38.7% answered that there had been trained, and 61.3% said no training had been conducted. While the responses related to the ease of delivering distance learning in the data obtained by 69.4% answered, distance learning is troublesome for teachers.

## Discussion(s)

The data depicted that although teachers have facilities and access to self-development, experience in operating laptops/computers, but it does not necessarily support teachers in improving their competencies. Institutional support related to improving skills in mastering technology also does not necessarily increase the teacher's desire to achieve and enhance self-competence. The data results support what was stated earlier that the institutional support, individual characteristics have not affected the teacher readiness in increasing knowledge and mastery of technology. However, the culture created by building a passion for innovating can encourage teachers to build self-competence and self-efficacy (Scherer et al., 2021).

However, there are findings state that good institutional support will also affect teacher readiness. This statement is obtained from Bao's research (2020) that the lack of weak institutional support in providing knowledge and the development of learning innovations is one of the main weaknesses of teachers in improving self-competence and self-efficacy (Bao, 2020).

The technology application that teachers often use is WhatsApp, with 86.7% of data, 12.1% of teachers use the google classroom application, and 1.2% take advantage of the availability of websites developed by schools/institutions. The reason why the teacher uses WhatsApp is the ease of sending assignments or learning materials. That statement is comparable to the technological tools used by teachers, namely mobile phones with 76.3% data and 22.5% using laptops/ computers.

Moreover, the most significant obstacles experienced by teachers were no supporting facilities, where many parents did not have the technology equipment, and sometimes the technology equipment they had was unsupported. When parents work, the student cannot access the learning material at home, so that the learning can only start when parents come home from work. The busyness of parents and internet access are also part of the obstacles faced by teachers. However, behind the challenges experienced by teachers, there are conveniences and advantages that teachers feel, namely related to efforts to collaborate between teachers and parents in more intensive communication. The role of parents is more visible by assisting their students, and the material is quickly resolved because wherever the teacher can provide the material.

Many teachers said that the Institute must provide training and preparation tools to support distance learning in dealing with problems and obstacles. Training is provided to both teachers and parents. The implementation that has been implemented must be continued and monitored so that evaluation and improvement can be carried out.

## **CONCLUSION**

Distance learning brings polemics in the educational field. It takes the teacher's readiness to carry out learning innovations so that the learning need of all students can be met. Improving teacher readiness requires efforts and a positive atmosphere to form a self-development and self-efficacy culture for teachers. Despite the supporting facilities, procurement of increased resources and training cannot solve the distance learning problem, especially in developing competence and teacher readiness

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