Innovation Inclusion in Distance Learning: Exploratory Study of Teacher Innovation for Student with Disabilities

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Abstract — Distance learning has become increasingly popular in recent years, with the COVID-19 pandemic forcing many educational institutions to shift to online learning. However, students with disabilities may face unique challenges when learning remotely. In this exploratory study, we explore the role of teacher innovation in promoting inclusion for students with disabilities in distance learning. Using a qualitative approach, we conducted interviews with teachers who had experience teaching students with disabilities in a distance learning environment. Our findings suggest that teacher innovation plays a critical role in promoting inclusion for these students. Teachers who were innovative in their approaches to teaching were better able to engage students with disabilities and create a more inclusive learning environment. We also identified several key factors that contribute to teacher innovation in distance learning. These factors include the use of technology, collaboration with other teachers and professionals, and a willingness to try new approaches to teaching. Furthermore, this study highlights the importance of innovation inclusion in distance learning for students with disabilities. By being innovative in their approaches to teaching, teachers can help to ensure that students with disabilities are able to learn effectively and achieve their academic goals. This has important implications for the future of distance learning and the inclusion of students with disabilities in online education.
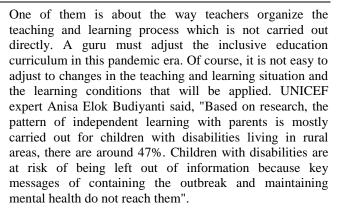
Keywords — *Teacher Innovation; Distance Learning; Student with disabilities.*

1. Introduction

Throughout the anxiety over the impact of the Covid-19 pandemic, it has had an impact on the health, economic, political, educational, and other sectors of life. Many countries decide to close schools, colleges and universities. The United Nations (UN) has caught up that education is one of the most affected sectors. (Coil, 2020) In its situation, education is facing great challenges by the impact of the spread of Covid-19, which forces the government to shutdown schools and implement distance learning at home. Information technology can also be accepted as a medium in carrying out the educational process, including helping the teaching and learning process, which also involves finding references and sources of information (Cornali, 2012).

In the era of the Covid-19 pandemic, learning cannot be applied normally. Curriculum targets cannot be met as usual. In limited conditions, teachers also began to selectively choose the things to be taught to their students. Especially student with disabilities who have certain obstacles in the learning process. The focus on inclusive education is adjusted to the existing situation. The need for modifications and changes in learning is very necessary so that learning continues (Purwanto, 2021).

There are many challenges in learning inclusive education in the pandemic era for student with disabilities. One of them is about the way teachers organize the teaching and learning process which is not carried out directly. A guru must adjust the inclusive education curriculum in this pandemic era. Of course, it is not easy to adjust to changes in the teaching and learning situation and the learning conditions that will be applied. UNICEF expert Anisa Elok Budiyanti said, "Based on research, the pattern of independent learning with parents is mostly carried out for children with disabilities living in rural areas, there are around 47%. Children with disabilities are at risk of being left out of information because key messages of containing the outbreak and maintaining mental health do not reach them".

2. Literature Review

Learning patterns during the pandemic demand the creativity of teachers. Especially for inclusive education and student with disabilities (Sulvi, 2020). The need for educational innovation has become very important, essential for educators in developing the learning design of student with disabilities so that they are able to receive knowledge, understanding, and experience in education in an appropriate way. Learning needs to be developed according to their respective characters and abilities (Maftuhin, A. Jauhar, 2018).

For this reason, innovation in education is very important, because education plays an important role in creating a sustainable future. Not only does education

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require new ideas and discoveries that destroy expectations of current status quo performance, to make a meaningful impact, these new solutions must also have a scale to reference, to serve millions of students and teachers or a significant portion of a particular underserved population. (Hoffman, 2012) According to Rusdiana, teacher innovation is the ability of educators who hold subjects to express and realize the potential of their thinking power, so as to produce something new and the unit combines something that already exists into something more dance (Rusdiana, 2015).

In the midst of limitations to carry out in-person learning activities in this pandemic era, technological advances have a major impact on the development of education. Educators use it to facilitate the teaching and learning process and improve the quality of education. Information technology can be accepted as a medium in carrying out the educational process, including helping the teaching and learning process, which also involves finding references and sources of information.

The implementation of distance learning is one of the strategies that can be carried out in several forms, including: 1) Self-education programs; 2) Face-to-face programs are held in several places at a predetermined time.; 3) The program is not tied to a meeting schedule in one place; 4) e-learning, which is online learning based on information technology via the internet (Munir, 2015).

During this pandemic, Bina Insani inclusion schools have indeed carried out the process of distance learning from home online (online) and offline (outside the network). Offline learning with home visits is carried out because the condition of the students does not allow for online learning that utilizes technology. The evaluation that has been carried out shows that learning outcomes during this pandemic have decreased but some have also increased (Miftah, 2021).

The learning process is simulated according to a developed approach to teaching with virtual reality. The needs of students with special needs need to be considered with the development of existing technology. The learning media is tailored to make it accessible to students with special needs. Learning cannot be applied normally,

making curriculum targets cannot be met as a whole. In limited conditions, teachers also began to make several innovations in order to continue the implementation of the learning process. Therefore, it is necessary to conduct research to find out the process and effectiveness in its application.

3. Method

This research includes descriptive qualitative research with exploratory case studies. Then the data obtained from the sources are analysed in order to get the validity of the data to get information on teacher innovations applied in distance learning for student with disabilities at Bina Insani inclusion school.

In this study, observations, interviews, and documentation were the methods applied. The stages start from the acquisition of cases, the process takes place inductively, the theory is used as a tool to guide researchers to understand existing phenomena, emphasizes more depth than the breadth of studies, and ends with the existence of new theories.

The quality of qualitative research is at least determined by several principles thus qualitative researchers can produce high-quality research that is credible, transferable, dependable, and confirmable. Case studies are intended to conduct complete and in-depth data collection based on the data collection procedures used (John, 2017). Sample size is based on achieving depth and richness of description, not sample size. The main data sources in qualitative research are words and actions, additional data such as documents, photos, and supporting data.

In the study, researchers took respondents as many as 3 GPK, 2 Shadow Teachers, 1 inclusion school coordinator, and an inclusion school superintendent. To obtain valid and interesting and comprehensive data related to this research, GPK and accompanying teachers at the Bina Insani Inclusion School were used as interview objects. In addition, teacher innovations that are used as objects are also taken from the scientific literature. The Table 1 shows the summary of the data collection.

Table 1. Interview Data Collection Flow Related to Teacher Innovation in Distance Learning for student with disabilities.

Data	Informant	Sum	Information
Teacher Innovation in distance learning for Student with disabilities	Special Accompanying Teacher	3	1. Teacher Innovation in distance learning 2. Learning Model 3. Supporting and inhibiting factors of distance learning
	Shadow Teacher	2	1. The principal's policy towards

			distance learning 2. Supporting Teacher innovation 3. Supporting and inhibiting factors of distance learning
	Inclusion School Coordinator	1	1. Syllabus planning flow, and RPP. 2. Policies related to curriculum and learning targets. 3. Determination of subject matter in ongoing Learning 4. Evaluation related to teacher innovation in distance learning in student with disabilities. 5. Student with disabilities program learning outcomes

Furthermore, the focus of the research is to be addressing the research questions (RQs). Why the concepts of teacher innovation in distance learning are important? (RQ1). How is the implementation of teacher innovation in the application of distance learning to student with disabilities? (RQ2). How to evaluate teacher innovation in distance learning for student with disabilities? (RQ3).

Data interpretation analysis is the most critical part of qualitative research. The thematic data analysis guidelines used, are considered the most appropriate for any study to explore some existing interpretations. In thematic analysis all possibilities on interpretation are possible. The reason for choosing thematic analysis is that a rigorous thematic approach can result in an in-depth analysis of answering questions from a particular study (Alhojailan, M, 2012). After rigorous analysis, the researcher describes a finding, according to the focus of the study to explore and obtain information.

Data collection techniques with interviews, observations, and documentation. This research was conducted at the Bina Insani Lirboyo Inclusion School in Kediri City. Data in the form of descriptive data collected through interview techniques, non-participatory observations, and documentation. Data collection, data reduction, data presentation, and conclusion-making are all parts of data analysis. To check the validity of the data by using source triangulation, engineering triangulation, and time triangulation. The stages in this study include the orientation stage, the exploration stage, and the checking stage. To determine the validity of the data using tests of credibility, transferability, dependability, and confirmability (Creswell, 2013).

4. Findings

The results of the study describe the concept of teacher innovation in distance learning for student with disabilities, explain the application of distance learning, and also identify the evaluation of teacher innovation in distance learning for student with disabilities in the Bina Insani Kediri Inclusion school.

"Innovation in learning through online media can also be a learning medium," the first respondent stated. Because not all students with special needs are used to interacting with video calls or voice notes, some at the beginning are completely unwilling. Turned a deaf ear, did not want to see, and wanted to turn off the cellphone. Sometimes teachers must call up to a dozen times so that children want to do learning. The preparation from the teacher is also more detailed, for example, making a video must explain the initial preparation dr. such as motivating students, explaining learning, to evaluation and giving appreciation."

The second respondent added that, "This Pandemic period seems to have made teachers have to move rapidly because we also don't know when the pandemic will end. The work that must be done directly by the teacher, must be done parents. Thus, we as teachers have to adjust the needs of students, the conditions of parents and the environment where students live."

The third respondent gave a statement that, "The responsibility of the GPK has more duties. Among them are creating individual learning programs, making lesson plans, giving assignments, providing consultations with parents, conducting evaluations".

The fourth respondent gave a statement that, "The obstacle may be that a lot of students' focus has decreased so that many abilities have decreased/forgotten such as studying and the busyness of parents who have not been able to optimally accompany but some are just the opposite and can improve learning outcomes".

The fifth respondent gave an additional statement that, "Distance learning is focused on the completion of independence and self-building skills. Other innovations

have also made picture cards, for example, teaching bathing independently.

"Learning is typically carried out according to the needs of students; some can join the class," the sixth respondent said. Some are individual learning, some are per cluster with 2 children and 1 teacher. With a curriculum tailored to the needs of students. The media used has been shared once a week, video calls, voice calls, quizziz, learning videos, media2 for motor activities, flashcards, and so on.

Tasks for student with disabilities are usually with sequence image media, bathing tasks, sequence drawings of receiving guests, and so on. Meanwhile, there are face-to-face learning 2x per week and also home visits. Assignments are given face-to-face. The number of students with special needs children classified into several groups: Autistic: 3, Slow learner: 5, Mildly impaired: 2, Dyslexia: 3, Emotional disorders: 1, Communication disorders: 1, Gifted: 1."
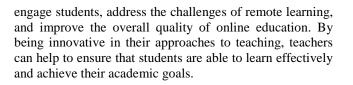
5. Discussion

5.1 The Concepts of Teacher Innovation in Distance Learning Are Important (RQ1)

Firstly, distance learning has become increasingly popular in recent years, especially with the COVID-19 pandemic forcing many educational institutions to shift to online learning. As a result, it is important for teachers to be innovative in their approaches to teaching in order to engage students and ensure that they are receiving a high-quality education.

Secondly, teacher innovation in distance learning can help to address some of the challenges that students may face when learning remotely. For example, students may struggle with staying motivated or may have difficulty understanding complex concepts without the support of a teacher in a physical classroom. By using innovative teaching methods, teachers can help to overcome these challenges and create a more engaging and effective learning experience for their students.

Thirdly, teacher innovation in distance learning can help to improve the overall quality of online education. As more and more students turn to distance learning, it is important that the quality of education they receive is on par with traditional classroom learning. By using innovative teaching methods, teachers can help to ensure that students are receiving a high-quality education that is on par with what they would receive in a physical classroom. Furthermore, the concepts of teacher innovation in distance learning are important because they can help to

engage students, address the challenges of remote learning, and improve the overall quality of online education. By being innovative in their approaches to teaching, teachers can help to ensure that students are able to learn effectively and achieve their academic goals.

Teacher innovation in distance learning is tailored to the needs of students and its various forms can be through video calls, zoom, learning videos, or through direct parents. For autistic children, teachers mainly target or prioritize independence in daily activities such as making beds, sweeping, washing dishes, and so on. For children who have learning difficulties, there is still subject matter but not much.

According to Darwin's Theory, "It is not the strongest who is able to survive, but rather the most adaptive in responding to change." The world is always changing and dynamic, there will always be new problems that cannot be solved with the old mindset and ways. That is the importance of creativity and innovation in response to various changes (Rose, D. H., & Meyer, A., 2002). Creativity by teachers is usually conveyed to their students through the WhatsApp and Zoom applications with the support of interesting learning videos. Children get material on strengthening basic theories, such as learning to read counting, studying, and also independence material.

The theoretical basis for teachers in distance learning is constructivist theory, because in the learning model there is a nature of building the activeness of students. According to the Minister of Education and Culture, the abilities of teachers also vary. There are teachers who are faster to adapt to technology, some are slow. For this reason, the Minister of Education and Culture invites teachers to share information with each other. "This will boost the morale of the teachers. Between teachers, parents and children must interact well with each other. Because the conditions of each house also affect the learning of children (Compass, 2020).

5.2 Application of Distance Learning to Student with Disabilities (RQ2)

In the implementation of distance learning at the Bina Insani Kediri inclusion school, teachers and students conduct online and offline learning. Online system learning is assisted by several applications, such as Google Classroom, Google Meet, Edmodo and Zoom or by *online conference* through the WhatsApp application, or Google Hangout. Meanwhile, if you do offline *conferences* by meeting in person without using the internet, it is an example of offline activities, for example using media, and direct visits by teachers to students' homes. The Ministry of Education and Culture and TVRI work together to produce

educational but also interesting guidance to be used as a spectacle for all family members. Content for students with disabilities is also accommodated content for student with disabilities, this is very helpful because education must be accessible to all circles and all conditions of students. The implementation of distance learning in Bina Insani Inclusion schools with online learning using video calls, lesson plans and face-to-face, or if there is anything that can usually use zoom and learning videos. If it is not possible, usually use assignments through parents or visiting teachers (teachers to the student's home to give lessons). In general, there is a lot of decline in terms of behavior, such as focus, eye contact, and learning endurance, especially many who forget letters. There are several times project assignments, but not all students are awarded, depending on the level of student needs, with simple projects. Where the task is done for 3 days.

5.3 Evaluation of Teacher Innovation in Distance Learning for Student with Disabilities (RQ3)

The success of a learning can be seen through the output (students), because of work, both in the understanding of the material and its realization in everyday life. In order for the learning process to run well, there are several learning factors that need to be considered, namely: 1) Students are learning objects, the success or failure of learning can be seen from the level of change of students towards better 2) Learning instruments, namely curriculum methodology, teacher resources, facilities and evaluation systems; and 3) Instruments and supports, namely school culture, laboratory, and extracurricular cultures that are complementary (Surya Habibi, 2018).

Evaluation of teacher innovations in distance learning for student with disabilities includes evaluation of programs and learning outcomes. Then this distance learning supervision is with daily journaling and supervision from parents. Lesson plans are given to parents every week, daily activity reports are carried out daily by gpk to parents, control of the implementation of lesson plans at home is carried out online. At the evaluation stage, teacher innovation is adjusted to different children's conditions, namely: productivity independence to fill free time. There are those who have quite good abilities, both in terms of thinking, social, emotional communication, and soon. While others there are oriented only to independence. Then it may require fairly strict assistance, and different handling according to the condition of the child with the orientation of each need.

6. Conclusion

Based on the discussion, it can be concluded that several things: (1) The innovation of teachers in distance

learning at the Bina Insani Inclusion School in Kediri City is to prepare online programs, learning resources, information technology tools, design curriculum and also choose a learning model. (2) The implementation of distance learning for student with disabilities at the Bina Insani Inclusion School in Kediri City includes credibility, flexibility, connections, and, strengthening for children with the implementation of online programs and other books using information technology devices. (3) Evaluation of teacher innovation in distance learning for student with disabilities at the Bina Insani Inclusion School in Kediri City includes evaluation of programs and learning outcomes. Then this distance learning supervision is with daily journaling and supervision from parents.

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