

## Investigating The NTT Teachers in Facing The Online Teaching Challenges

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### ABSTRACT

*This study explored the challenges and the way how the teachers cope with their challenges. This study is a qualitative study which employed a narrative inquiry. Six participants from two different schools in NTT were participated in this study. They were English teachers, German teacher, mathematics teacher, history teacher and Geography teacher. In gathering the data, the researcher did a deep interview with the participants through Whatsapp voice note. In analyzing the data, the researcher did an interview transcript to note the participants' responses. The researcher found that the participants had some difficulties in doing online learning such as their own ability about technology, students' participation, students' devices and ineffective learning. From those difficulties, they have a good self regulation to make a management time in order to make an effective learning and motivate the students to ignore their boredom. However, there was still a teacher who still had lack self efficacy since she had low ability in applying the technology devices in online learning. She had less confidence in doing online learning.*

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### 1. Introduction

Lockdowns caused by corona virus 19 have impacted education around the world and it affects all schools closure. Lockdown is an emergency procedure that prohibits individuals from leaving a specific location or forces them to stay in. The COVID 19 pandemic is a global corona virus disease pandemic that began in December 2019 in Wuhan, China and it is caused by the severe acute respiratory syndrome Corona virus 2 (SARS-Cov-2) (Christensen & Senthilingam, 2020). Because of this condition, schools must quickly adapt their traditional learning methodologies to online teaching and learning.

COVID 19 has given schools and instructors the opportunity to put in more effort into fostering strong bonds between children and their families. Parents are in frequent contact with their children's teachers, seeking advice on digital learning and performance. During the pandemic and school closures, the teachers need to master the use of technology because it has an essential role in improving the various online learning tasks (D. Ahmadi & Reza, 2018). It also helps teachers in improving their pedagogic skill, especially in online teaching. In addition, Mutambik (2018) declares that the use of technology in the field of education has grown in popularity, particularly since the emergency of the world. Facilitating E-learning is one of the ways that the teachers can do in currently situation since it boosted teachers' connection with students and their attention to students with special needs. E-learning has also given students more flexibility in juggling their professions and schoolwork since they are not bound by a set schedule. Otherwise, doing online learning has some disadvantages for the teachers and learners. Cheating using various techniques remains one of the most serious drawbacks of online learning. The students can cheat on examinations more easily on campus students since they take them in their own surroundings and their own computers. Cheat detection during online assessments is more difficult than traditional testing processes since the students cannot be actively observed during exams without a video feed.

Furthermore, online learning needs computers or other devices. Students, who do not have access to computers or cell phones, whether for financial or logistical reasons, will be unable to participate in the course. This is a major problem in rural and lower socioeconomic areas. Moreover, as teachers and students in rural area with the limitation access of technology, doing the online learning is a challenge since it requires a stronger internet connection. On the other hand, living in this technology era does not mean that the people around the world master how to use of

technology (Bennett et al., 2008). Many teachers and students in NTT are still struggling and have lack ability in using technology, especially in teaching process. Thus, meaningful growth of technology based knowledge is crucial for all the students to maximize their learning (Fisher, 2010). Another opinion comes from Ahmadi (2018), teachers still need support and training in order to improve their skill in implementing technology.

Some studies have been conducted in the same field. Simamora, (2020) states that the challenges for the educators in doing online learning are they must explain which modes, methods, activities and learning media are the most successful and efficient in developing and disseminating high-quality online learning programs. However, other challenges are also felt by the teachers in rural area. Teachers in NTT have difficulties in doing online learning because they have not trained in how to use ICT and also have no experiences in using ICT in teaching process Tamah et al., (2020). The challenges during online learning are also encountered by the lecturers. Zainuddin, (2020) states that many lecturers experience the challenges in some ways, such as change in science and technology, as well as lecturers' adjustment, shifts in education system and the instructional staff's mode. As we know, many researchers have conducted the study related to this study, yet few emphasized the detailed challenges and how to cope this problem during online learning. Hence, this study is going to investigate how the teachers cope with the challenges and factors facilitate to cope with the challenges.

## **2. Literature Review**

### **2.1 The concept of TPACK**

Many ways are used to improve teachers' performance. One of them is by using TPCK for developing their competencies. According to Margerum-Leys & Marx (2002), TPCK was proposed as the interconnection of content, pedagogy and technology. The acronym of TPCK was changed to TPACK over time to refocus emphasis on the complete set of teaching requirements that integrates technology, pedagogy, and content knowledge (Thompson & Mishra, 2007). TPACK is a framework that accommodates technological knowledge, pedagogical knowledge, and content knowledge in learning context. It focuses on how those elements can be put in teaching process in order to make it effective and successful. On the other hand, TPACK is a dynamic framework that describes the teachers' knowledge to design and implement curriculum while directing students' thinking in using technology during teaching learning process (Margaret L. Niess, 2011).

Another opinion also comes from Surahman et al. (2020), TPACK is a proposed framework that might help teachers find innovative ways to solve the problems in incorporating ICT into classroom teaching and learning activities. There are seven elements in TPACK, namely (1) Technological Knowledge (TK) is an understanding of how to operate the application, device or relevant software, (2) Pedagogical knowledge (PK) refers to the capability to guide students' learning, (3) Content knowledge (CK) is the topic of knowledge, for instance language course, mathematics, and natural science, (4) Pedagogical content knowledge (PCK), refers to the ability in implementing technology to teach the course, (5) Technology pedagogical knowledge (TPK), refers to the capability to use technology by applying the instructional strategies, (6) Technological content knowledge (TCK); the teachers' ability in explaining the materials through technology, and the last element is (7) Technological, pedagogical, and content knowledge (TPACK); teachers' knowledge in promoting students' learning in a specific content by using the appropriate pedagogy and technology (Koh et al., 2015).

TPACK is crucial in teaching learning process. Each of the TPACK representations has played a significant role in the development of a comprehensive understanding among the educational and scientific communities, especially in this pandemic situation. It is constructed to guide students learning with technology. According to Harris & Hofer (2009), the increasing technological abilities in isolation improves teachers' ability on how to use technology effectively in the classroom activity. On the other hand, Doering et al. (2009) states that the relevance of assessing changes in teachers' TPACK as a result of professional development and educational experiences in order to more correctly assess the impact of those events. TPACK also has an important role in assessing teachers' knowledge, such as the teachers participate in activities that lead to a decision on whether or not to use acceptable technology to teach and study specific academic themes and by using TPACK, teachers also actively integrate technology into teaching and learning specific academic topic (M L Niess et al., 2007).

### **2.2 How the teachers cope with the challenges**

Although there are obvious drawbacks to online learning, we cannot overlook its value in this time. These issues can be addressed in a variety ways. The content of online learning should be self-motivating, exciting and collaborative.

Zoom conference software, Skype and social media can be really useful to communicating with students. Moreover, the quality of content must be continually improved, and the educators must strive to offer their best. Students-centered online learning must be innovative, collaborative and relevant to the course's topic.

The teachers must devote a significance amount of work to developing active ways to the online learning experience (Lange & Costley, 2020). Furthermore, teachers in remote areas are still struggling with this condition. They find some difficulties in doing online learning, such as technical problems. It is such a difficult thing since their students do not have internet quota and do not have wi-fi in their home. On the other hand, the students are also late to submit the assignments due to help their parents cleaning their house. In facing those problems, teachers allocate *Bantuan Operasional Sekolah (BOS)* to buy internet quota for the students and giving the unlimited time for submitting the assignments (Rinekso et al., 2021). On the other hand, economic factor is also one of the challenges that must be faced by the teachers during online learning, hence the teachers need to be creative in making learning method and also giving motivation to the students in teaching process (Atmojo & Nugroho, 2020).

### 2.3 Facilitating factors to cope with the challenges

#### a. Self regulation

The words "self-regulation" refers to the control of one's thoughts and activities (Schunk & Zimmerman, 2011). For instance, the teachers think about how they teach and the strategies that they need to achieve in teaching learning process. To reach a given learning and performance goal, the self-regulated person employs metacognitive, motivational and behavioral process. On the other hand, Sanderse (2013) states that self regulation is a person's ability to think in a way that allows the, to manipulate and change their surroundings. A person has control over his/her actions. Self-regulation is defined as person's ability to adjust his or her responses in such a way that they can control impulse behavior, resists temptation, control their thoughts and change their emotions. On the other words, self-regulation is the ability of humans to adapt to their surroundings by controlling and manipulating their behavior using their minds (Sumantri et al., 2018). Individuals with self-regulation are able to adjust their surroundings in order to reach their objectives (Hoops & Artrip, 2016). It entails mastering one's own ideas and actions. Self-regulation is the ability to use specific physical, cognitive, motivational, emotional, and social methods to control, manage, plan, direct and monitor behavior in order to attain a goal.

#### b. Self efficacy

The concept of self-efficacy emphasizes the idea that people are active agents in determining career paths (Sáinz & Eccles, 2012). Self-efficacy refers to a person's belief in their capacity to finish a task or reach a goal. The idea is that if people are confident in their ability to complete a task, they will be more inclined to focus their attention and preserve (Bandura, 2006). Teachers' self-efficacy in teaching process is a good predictor of teachers' attitudes toward education. Teachers' self-efficacy in education refers to their opinions about how they can impact or accommodate diverse types of students' demands while still achieving the best possible results in classroom (Kurniawati et al., 2014). Teachers' self-efficacy beliefs are their assessments of their ability to teach, use instructional methodologies, manage a classroom effectively, and ensure students' engagement (Tschannen-Moran & Hoy, 2001).

Teachers who have a high level of self-efficacy are more enthusiastic about the learning-teaching process and also they are better at classroom management. Moreover, teachers' confidence in their own efficacy increases students' willingness to study and improve their self-perception (Midgley et al., 1989). Teachers' self efficacy is also linked to the approach they use and the amount of time they devote to teaching. Teachers' strong self efficacy beliefs directly improve the quality of their instruction. Furthermore, a strong feeling of self-efficacy can assist a teacher to accomplish their job with greater satisfaction and in a healthy manner (Cakiroglu & Isiksal, 2009). In addition, Armstrong-Coppins (2003) states that teachers' self efficacy is associated with multitude of issues, including school environment, interpersonal interaction, drawbacks to effective teaching, teacher empowerment, and leadership behavior of school administrators.

### 3. Methodology

This study employed a narrative inquiry, as its research design is focused on investigating of how the challenges encountered by the teachers and how they cope those challenges in implementing online learning. The participants of this study were the senior high school teachers in NTT, one of 3T areas. The teachers from two different schools were participated in this study. They were English teacher, mathematics teacher, Geography teacher, German teacher, and history teacher. In collecting the data, the researcher interviewed the participants, and the researcher adopted the interview questions from Daar & Nasar (2021). An interview is organized based on the availability and convenience of

the participants. WhatsApp voice note communication is used for the real one on one, in depth interview, which takes several times. The questions are open-ended so that the participants can respond in their own terms. The recorded interviews are verbatim transcribed and the analysis includes remarks, phrases and sentences from the participants that are related to the observed phenomena.

#### 4. Result and Discussion

In gathering the data for the purpose of answering the research problems, some guideline questions were used by the researcher during the interview process. They were used to develop teachers' issues and strategies used in online teaching learning process. Some indicators used in teaching and learning activity were media and learning sources used in teaching and learning activity, challenges that affected teaching and learning activity, strategy implemented and teachers' recommendation. **A brief interview result indicated in the following table;**

**Table 1.** The challenges and teachers' strategies during online learning

Participants	Challenges	Solutions
English teacher	- Ineffective learning - Students' engagement - Teaching method	- Time management - Giving recommended books
English teacher	- Ineffective learning - Teachers' ability	- Asynchronous learning - Giving training
Geography teacher	- Students' participation - Economic factor	- Giving assignment - Giving motivation
German teacher	Students' participation	Contact the students
Mathematics teacher	- Students' engagement - Teaching duration	Re-explaining the materials Giving advice
History teacher	- Internet connection - Students' devices - Students' ability - Teaching duration	- Synchronous - Asynchronous learning

##### 4.1 How the teachers dealing with the challenges

Doing an online learning such a new experience for the teachers. In this way, the teachers especially in NTT have several challenges or problems in online teaching. To explore the coping strategies in doing online learning, the participants were asked related to the challenges that faced by the teachers and how they cope with its challenges.

Participant 1 (English teacher):

*Not all the students understand about the materials that I given, because some students will easy to understand in offline teaching. On the other hand, the students are easily bored because I use the same method in every meeting. Related to the effectiveness of the online learning, it is not effective enough if compared to the offline learning, since during the online learning the teachers only have one hour to give the material, and in offline learning, the teachers spend three until four hours for a meeting. The possible solution to cope the challenges, I try to manage the time in doing online teaching. Hence, it will be effective even though only one hour. Furthermore, the teacher also gives some recommended books related to the materials for the students. It helps the students to get more knowledge.*

This result in line with the previous study from Fauzi & Khusuma (2020), the online learning is not effective related to the implementation and the evaluation of learning. The teachers just only create the teaching method visually. On the other hand, the teaching material content does not use object in a concrete way. Hence, to deal with those challenges, the teacher sometimes creates a fascinating method. In contrast to the first participant, the second participant faces the challenges related to the students' ability in using technology.

Participant 2 (English teacher):

*The teaching learning process is not effective because I still have lack ability in applying the technology in online learning. In my age, I feel difficult to use modern technology. To cope with this challenge, I ask ICT*

*teacher to give me training how to use technology during online learning, for instance how to use Google classroom, how to send file through email or WhatsApp and how to use zoom.*

The finding was similar to the study of D. Ahmadi & Reza (2018). Technology is a significant thing in teaching learning environment, thus the teachers need support or training for incorporating the technology in online teaching. In addition, mastering technology can help both teachers and students in solving learning problems and to make an effective learning environment. Technology also allows teachers and students to interact, provides comprehensible input and output, assists learners in developing thinking skill, makes learning, promotes learners' confidence, and increases learners' motivation to learn a foreign language effectively.

Participant 3 (Geography teacher):

*I found some difficulties in doing this online learning, for instance the students usually join and leave the zoom as they want since they are not being controlled by the teacher directly. On the other hand, economic factor is also a challenge for me. Their parents still have low economic, so it is difficult for them to buy internet quota. To encounter these challenges, I give them hard copy of the materials and it is used to guide the students in doing their homework. After doing the assignment, the students need to take their assignment to my house. Furthermore, while teaching them, I also give motivation and explain how important this course for the students, so that they will be active to participate the learning activity.*

This result related to the previous study from Atmojo & Nugroho (2020), one of some challenges in doing online learning is economic factor. The students unable to join the teaching learning process because their parents cannot buy internet quota for them. They can only afford a limited amount of internet access, which is insufficient to comfortably participate in online learning. This issue comes since the income is not allocated equitably among all residents. Not every student comes from a well-off or middle-class family who can support themselves. In this case, the students' parents must be alerted so that they can monitor and sustain their children's participation and engagement in online learning. In addition, a good communication between the teachers and parents are needed to find a good way or solution in order to make the students can get enough knowledge in this pandemic situation. To cope with the challenges, the teacher provides asynchronous learning for students and always giving motivation for the students.

Participant 4 (German teacher):

*For my class, so many students absence during teaching learning activity, since I only use Google classroom in online learning. I can see that from the responses related to the materials. Only few students respond to the material that I upload to the Google classroom. For instance, I put a link video into Google classroom and ask the students to respond or give their opinion related to the video, and I ask them to do it in two hours. But, I just get 10 responses in Google Classroom. To encounter this challenge, I contact the students by phone and asking them why they do not active in today's activity, and some students say that their home is very noisy so it is difficult for them to focus on the lesson. After knowing the reason, I send the assignment through whatsapp group and give enough time to them to do the assignment. In this case, I do not force the students to submit the assignment in a short time.*

This result in line with the previous study from Aliyyah et al., (2020). Students' participation is a crucial challenge for teacher in doing online teaching. The issue arises from the students' home environment, such as family members interfering. This factor causes students to lose focus during learning activity. Home learning environment is not conducive in which family members' activities produce distractions, reducing the concentration required to comprehend the subject matter. Hence, the teacher needs to give additional assignments to make effective learning.

Participant 5 (Mathematics teacher)

*I have some problems while teaching the students during this pandemic situation, such as I do not know the students in personal because I teach the first grade in the school. On the other hand, I also cannot explain the material in detail since the school regulation only enforce one hour for zoom meeting. Furthermore, in doing a test or assignment, the students easily search the answer on the internet and they do not know the way how to get the answer. To cope with these problems, I ask the students to send their assignment and ask the students to explain how to solve the task, so that I can know how far they understand the material. After hearing the students' explanation, I try to explain again related to the material that the students do not really understand and also I give them a video link related to the material*

*through WAG. On the other hand, I also give the explanation to them related to their confidence, to make them more confidence in doing their assignment*

This finding related to the previous study from Almanthari et al., (2020). In this pandemic situation, the mathematics teacher encounters several barriers, for instance the lack of technical support and access to the computer. On the other hand, teachers' time in preparing the online learning's materials. Because of pandemic situation, the school's regulation should be changed include the teaching duration for each teacher. Thus, for the teacher who has not ready or prepare the material, the teaching learning process will be ineffective. To cope with this kind of situation, the teacher should have to find the strategies, such as make a video about the material and upload to the Google classroom to make online learning effective (Mishra et al., 2020). So that, even though teachers have limitation time, but they can still give effective learning to the students.

Participant 6 (History teacher):

*I find some difficulties during online learning, for instance the internet connection depends on the weather. NTT has bad weather at this time; hence it is difficult for them to do online learning. In this school, there are so many students who are coming from the village which has no electricity, and they live in boarding house when they are in senior high school. Thus, they back home after the enforcement of online learning and cannot join Zoom meeting. On the other hand, the students do not have a personal Hand phone or supported device to do online learning. Besides, there are many students who still have lack in using the application, for instance email and Google classroom. Related to the material, the teacher is allowed to do online learning in 15 minutes using Google meet, thus I just explain the material in short.*

This finding in line with the study from (Chun et al., 2016). Teachers must consider on how students might innovatively in using new technologies for language learning task that go beyond the default mode and help students increase the particular types of communicative competence. During online learning, teachers battle with many challenges, for instance related to the supported device, students' ability about knowledge and students' boredom. Thus, to cope with all these challenges, the teacher needs to combine with asynchronous mode to teach the students.

#### **4.2 Factors facilitate to cope with the challenges**

Self regulation is proved to increase individual performance in online learning. Considering that, teacher profession has to deal with creativity and problem solving. Besides, to create successful teachers, they must reflective and analytical about their own beliefs and practices. They also need to acquire a comprehensive understanding of cognitive and motivational principal of learning and teaching. Furthermore, another crucial thing that the teacher should have is self efficacy, since it represents teachers' ability to facilitate the development of students' knowledge, abilities and values. This section explored how the teachers cope with the challenges during online learning. Based on the findings, there were some teachers that have good self regulation in encountering their difficulties during online learning. The English teacher has a good time management to make effective learning in this pandemic situation. On the other hand, Geography teacher always gave motivation to the students to ignore students' boredom.

Teachers with a good time management and motivation can make the teaching learning process running fluently since self regulation is crucial for the human to achieve goals (Zimmerman, 2000). On the other hand, some participants have a good self efficacy, since they have good confidence in facing their difficulties during online learning. In this pandemic situation, they fight with so many difficulties, but they still believe in themselves that they can face those problems. Mathematics teacher had a good self efficacy since she always support the students to be confidence. Moreover, there was an English teacher who still had less confidence in applying technology. She did not believe in herself that she can face the difficulties by herself because of her ability. This finding related to the previous study from (Lee & Ogawa, 2021), there was one participant who still unfamiliar with technology, for example He cannot Zoom classes and how to make breakout rooms.

#### **5. Conclusion**

Online learning during covid-19 has a tremendous impact in educational systems in all countries throughout the world. Countries have responded to the problem by implementing various laws and strategies for coping with changes in educational system, for instance all the teachers should be teaching through online. It is absolutely new for the teachers, especially the NTT teachers since they have to deal with technology. This study found that some teachers have difficulties during online learning. Some of them have a good self regulation and efficacy to cope the challenges such as giving motivation and a good time management to make an effective learning.

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