



English Teachers' Perception and Use of Technology During The COVID-19 Pandemic

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ABSTRACT

Keywords:

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The inclusion of information and communication technology is a requirement in today's education. During the COVID-19 outbreak, this necessity becomes more significant since we need to move from face-to-face to online classrooms. This article aims to explore English teachers' perception and use of technology during the COVID-19 pandemic. Twenty-two English teachers in South Kalimantan voluntarily joined this research. Questionnaire and interview are two main instruments to collect the data. The questionnaire explored their perceptions on how technology helped them in improving the learning quality during remote teaching. Then, the interview is intended to deepen the data regarding the information given by the participants. The findings reveal that most English teacher's had positive attitudes toward the use of technology to improve the quality of learning. In addition, the condition of COVID-19 made them learn to use various digital tools to teach English. Some challenges and recommendations are discussed.

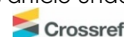


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A. INTRODUCTION

Pandemic COVID-19, which has infected people all over the world since 2019, has undeniably significant impacts on all aspects of life including economic and educational sectors. Several policies have been implemented by the government to stop the spread of the virus. One of the policies is "5M jargon", which stands for washing hands, wearing a mask, physical distance, social distance, and travel restriction. In certain regions, the local governments have even enforced a large-scale social restriction (PSBB) policy which later was changed to the Restriction on Community Activity (PPKM) with levels 1 to 4 depending on the level of the spread of COVID-19.

The spread of COVID-19 in Indonesia has been started in March 2020 (The Jakarta Post, 2020). In accordance with the ministerial regulation of the Indonesian Minister of Education Number 4 Year 2020 (2020) regarding the implementation of the educational policy during Coronavirus Disease (COVID-19). In particular, the study from home policy, it is stated that teaching and learning activities at schools, colleges and universities and other educational institutions should be delivered online. No face-to-face meetings are allowed.

The shift in learning modes from offline to online has become a new era for teachers even

though this mode has been deployed by schools before this pandemic. This situation has forced teachers to be able to adapt to the disruption of technology in education along with all its possible changes. Despite that, teachers are also required to be technologically literate in using the technology in education (König et al., 2020).

Mastery of technology is inseparable from the internet. Fry (2001) in (Adedoyin & Soykan, 2020) explains that online learning is the use of the internet and some other important technologies to develop materials for educational purposes, course delivery and the management of programs. Thus, the government is very supportive to expand internet access across the regions.

Furthermore, the integration of technology and media in education is also in line with the demands of the 21st century. Pacific Policy Research Center (2010) reports that one of the skills teachers and students should possess in this 21st century is technological literacy and information literacy. This is based on the fact that students are required to be able to understand and sort out information from any resources outside their classroom. In addition, the need to master technology is also based on the fact that the internet, social media, and digital technology have become the centre of life for children today. With the introduction of educational technology and media, it is expected that to narrow down the knowledge between teachers and students as well as to provide students with learning outcomes that suit the 21st-century demand.

The massive evolvement of information and communication technology (ICT), however, has not fully transformed all the learning process into a digital learning environment. The first problem, not all educators are able to use and integrate ICT media in delivering subject matter. Research conducted by (Cahyani, H. & Cahyono, 2009) found that among 37 teachers who responded to their survey, only four teachers stated that they used internet-based materials for teaching English. At the university level, based on a survey conducted by (Purnawan & Linawati, 2011), it was found that only 35% of the 413 respondents used the internet for learning purposes. (Salehi & Salehi, 2012) researched 30 high school teachers in Iran about the challenges they face in integrating ICT in learning. He found that teachers actually have a strong drive to apply ICT but some technical problems, lack of support from schools, and limited internet access are the main obstacles to this activity. In the same vein (Zare-ee, 2011) has also surveyed 115 lecturers at Iranian universities. The findings indicated that teachers have a positive perception of ICT media but they cannot implement it due to limited access and facilities. The results of the analysis convey that the main problem in the application of ICT media is the expertise, confidence, and expectations of the school which are too high for novice teachers.

In the Indonesian context, Purnawan & Linawati (2011) investigated the attitudes and perceptions of Udayana University lecturers towards the use of ICT media in learning. The data show that the attitudes and perceptions of the participants towards ICT media were quite good although there were only 35% of the lecturers used the internet as an ICT component in the learning process. Roni Hamdani & Priatna (2020) argue that teachers' readiness toward the deployment of ICT for teaching was still low. This is because the majority of teachers are technologically illiterate as well as they lack of supporting facilities. Thus, it is crucial to delve into this phenomenon more deeply to look at the effectiveness of ICT in EFL classrooms and all positive and negative evaluations on its uses. The findings are expected to shed some light on the implementation of ICT in the EFL classroom during the COVID-19 Pandemic.

B. METHODS

The present study uses exploratory research design. It allows researchers to investigate new condition or situation which does not or received little empirical scrutiny (Stebbins, 2011). Using this type of research, a phenomenon can be described and visualized as it is (Lassoued et al., 2020). The research participants are 22 English teachers from South Kalimantan. Those participants came from various cities. They got the information to join the research from a flyer shared via Local Teacher Forums WhatsApp groups. Participants who agreed to voluntarily participate in this research were asked to fill the online questionnaire. At the end of the questionnaire, they were asked whether they wanted to join the interview session or not. Those who said yes would fill in the data about their contact.

The research participants were selected by using purposive sampling technique. They were invited based on their possessions of the characteristics being sought (Cohen et al., 2007), such as 1) willing to join the research, 2) living in South Kalimantan, 3) Teaching English at a junior/senior high school. Most of the participants are females (72.7%) and the rest are males (27.3%). They teach English in the senior high schools; some are from public and others are from private schools. Their age ranges from 30 up to 50 years old, with the range between 30-35 is the majority (61%). They had various teaching experiences, starting from 1-5 years (9.1%) and above 5 years (90.9%). These data tell that the participants mostly are considered as experienced English language teachers.

The data instruments consisted of two: questionnaire and interview. The questionnaire is intended to gather data about participants' perceptions. The perception covers three sub-variables, including the ease of technology use in teaching, their positive perceptions, and their negative perceptions on the use of technology in the online classroom. Those variables, then, are disseminated into twenty-three questionnaire items. Each item is followed with four scales to express the participants' opinions, such as Strongly Disagree (SD), Disagree (D), Agree (A), and Strongly Agree (SA). The instruction to fill the questionnaire was given in the questionnaire's description and the participants were required to read it before moving to the question items.

To deepen the data, the interview was conducted with participants who agreed to be contacted via telephone or WhatsApp call. Among twenty-two participants, only six teachers were available for the interview. Before recording the calls, the participants were informed about the recording so they could give their consent. The questions in the interview were based on their answer to the questionnaire, but with a more detailed explanation. It also explored types of digital tools and how the teachers used them during online learning. By using the combination of these two instruments, it was expected that the data can be more comprehensive. The interview was conducted in Bahasa Indonesia to ease communication and to make participants feel free in expressing their thoughts. To keep their privacy, all the participants' names in this report are pseudonyms.

Next, the data from the questionnaire were analysed quantitatively to get the description of the teachers' perceptions. The data from the interview were transcribed and coded so it could be understood to support the data from the questionnaire.

C. RESULT AND DISCUSSION

1. The Teachers' Perceptions on the Ease of Technology Use

Understanding teachers' perceptions on the ease of technology use are important. In the previous research, Purnawan and Linawati (2011) conclude that human attitude change should come first before expecting human behaviour change. It means that to successfully

implementing technology in the classroom, teachers should have positive attitudes towards technology before they can utilize it in the classroom. To have positive attitudes, according to the theory of Technology Acceptance Model (TAM), there are two determining factors, including perceived of usefulness and perceived ease of use. Therefore, we should measure teachers' perceptions of the ease of technology to determine their acceptance of using technology in their lessons. Table 1 describes the participants' opinions.

Table 1. Teachers' Perceptions on the Ease of Technology Use

Items	Teachers' Perceptions (%)			
	SD	D	A	SA
I have no difficulty in using technology for teaching	0	22.7	50	27.3
I am very good at using technology	0	4.5	59.1	36.4
Making digital tools is easy for me	0	13.6	54.5	31.8
I know how to use online classroom/ e-learning	0	9.1	59.1	31.8
I don't know how to use the internet and its features	54.5	45.5	0	0

Seeing Table 1, it is quite clear that all positive items receive positive perceptions from the participants. Most of them (A=50% & SA= 27.3%) admitted that having no difficulty operating technology in the classroom. This perception is supported with their other statements. The majority said that they were good at using technology and could make digital teaching media. To strengthen this data, the interview excerpt from AN could help us to better understand this finding.

"If technology here includes Powerpoint and video, I think that I am familiar with those things. I have no difficulty creating my own PowerPoint. I also sometimes use videos from YouTube even before the pandemic. So, I think I have no problem. For an online class, I use Google Classroom and it is not really complicated for me to operate." (AN Interview data, Excerpt #1)

AN's explanation shows us that the participants in the present research do not have a big problem in using technology for their online classroom. Andien's opinion represents the majority of the participants. There are 50% and 27.3% of the participants who agreed and strongly agreed that they did not encounter any difficulties during the use of technology. In the TAM theory, it is a good condition because it will help the teachers to eventually accept the inclusion of technology in the classroom as a part of their teaching. This acceptance is important because, in the future, the digital transformation in education is getting more massive so teachers should be ready for this change. Regarding the teachers' ability to use online classrooms, it is showed that 59.1% and 31.8% of the participants chose to agree and to strongly agree and only 9.1% chose to disagree. Meanwhile, the negative statements about the inability of the participants to use the internet got negative responses too. It means that most of them have been familiar with the internet and know to use it. This finding relates to participants' age, which is mostly between 30-35. People in that age, nowadays, are good internet users. Asfihana & Yansyah (2016) found that age became a significant variable, which affecting teachers' attitudes towards technology. Younger people usually tend to be more tech-savvy compared to older people, because they use technology daily for communication, entertainment, and work.

2. Teacher's Positive and Negative Perceptions on the Use of Technology

Measuring teachers' positive perceptions is critical if we want to successfully incorporate technology in the classroom. Teachers should see technology as an opportunity

to enhance the learning quality so they can easily accept them (Skenderi & Skenderi, 2017). Table 2 lists teachers' perceptions regarding this sub-variable.

Table 2. Teachers' Positive/Negative Perceptions on the Use of Technology

Items	Teachers' Perceptions (%)			
	SD	D	A	SA
The use of technology helps me to deliver lessons	4.5	0	27.3	68.2
Using online learning, I feel my lesson become more flexible and accessible	4.5	18.2	45.5	31.8
Using e-mail, I can easily communicate with my students	9.1	31.8	54.5	4.5
I feel comfortable integrating technology into my lesson	0	4.5	59.1	36.4
Using technology, I feel it is easier to search teaching materials	0	9.1	40.9	50
I believe that the use of technology can motivate my students to learn	0	4.5	63.6	31.8
I believe that the use of technology can ease the process of learning acquisition	0	4.5	68.2	27.3
I believe that teaching by using technology can provide better learning results than the traditional approach	0	9.1	72.7	18.2
I believe that the use of technology can increase learners' satisfaction in learning	0	9.1	72.7	18.2
I always motivate my students to use technology as a learning source	0	4.5	68.2	27.3
I don't think that the use of technology can provide better learning result	45.5	31.8	22.7	0
I don't like when my students use online resources for learning	28.6	61.9	4.8	4.8
I prefer to use traditional learning methods, such as lecturing and discussing	13.6	45.5	40.9	0

Among those 13 items in Table 2, it can be observed that most of the positive statements regarding the use of technology also got positive responses from the participants. It means that most of the participants has no problem to integrate technology in their classroom, even some feels that it benefitted their students. They also agreed that the use of technology facilitated them to deliver their English lesson. AL expressed his thought regarding this finding in the following excerpt.

"In my opinion, technology helped us in doing our works. For example, I have WhatsApp and then I combine it with ICT skills, it became WhatsApp Auto Replay (AutoWA). This AutoWA really helped me in teaching. The classroom interaction became more interactive and I could set some quizzes too." (AL, Interview data, Excerpt #2)

From AL's answer, it can be noticed that he is quite good at managing his class by using AutoWA. His positive attitude toward technology encouraged him to develop a better lesson during the COVID-19 pandemic. According to Sepulveda-Escobar & Morrison (2020), interaction is one of the crucial aspects that should be maintained between teachers and students during this online learning to make the learning atmosphere stay positive. This good result of technology incorporation in learning made participants also believe that using technology can prove better learning results than the traditional approach only. Therefore, in practice, some teachers optimized their online classrooms by adding some additional sources from the internet. ES told her experience in the following narration.

"I cannot use Zoom or other virtual meeting apps for every meeting. I know my students should save their internet data to learn other lessons or they do not every time connected"

to the internet. Thus, I provide some additional explanations through videos from YouTube, for example. I believe that when students can listen and watch, it will be better than just read the materials I shared in the Google Classroom." (ES, interview data, Excerpt #3)

ES's narration expressed that technology helped her to search for additional materials, which was intended to help her learners to learn at home. From her thought, it could be described that she had a good perception of usefulness on the use of technology. Informed by the TAM theory, it could be concluded that because of her beliefs that videos could benefit her students, then she used them in her classroom. This finding becomes a shred of evidence that positive perceptions of the teachers do affect their decision to choose or not to choose technology to support students' learning.

However, in Table 2, it also could be noticed that some participants (31.8%) disagree regarding the statement that the use of email facilitates them to easily communicate with their students. When confirming this statement in the interview, NN said that it was because of the question. She claimed that she could communicate actively with her students during the COVID-19 through the help of technology. She said that if the statement about the use of social media, such as WhatsApp, she would choose to agree or strongly agree. According to her, during the online classroom, the WhatsApp group became an effective tool for her to deliver lessons, to give instruction, and to discuss with the students. This finding support Djamdjuri and Kamilah's (2020) findings that in the Indonesian context, the use of WhatsApp was widely used in online learning compared to Learning Management System (LMS). It is because teachers and students in Indonesia have better familiarity with WhatsApp than with other LMS tools.

At the end of the item lists in Table 2, three negative perceptions regarding the use of technology are presented. Most of the participants chose strongly disagree and disagree with those items. It means that teaching through technology is more favourable for the teachers than teaching using the traditional approach only. This is quite different from previous research conducted by Cahyani & Cahyono (2009). It can be concluded that along with time, today's teachers have become more aware of the necessity to include technology in their lessons. In addition, the COVID-19 condition makes them realize that the transformation of education into more digital-based is inevitable.

3. The Use of Technology in Online Classroom

The last sub-variable investigated in the present study is the kinds of digital tools used by the teachers and how they utilized them in their online learning. This kind of data can be used to better understand whether their positive perception on the use of technology also was also followed with the implementation of technology inclusion in their classroom. Table 3 reveals the findings from the questionnaire.

Table 3. The Use of Technology in Online Classroom

Items	Teachers' Perceptions (%)			
	SD	D	A	SA
I frequently integrate technology in my classroom	0	9.1	45.5	45.5
I use materials from the internet to teach my students	4.5	0	27.3	68.2
I frequently ask my students to submit the assignments online	0	13.6	54.5	31.8
I ask my students to get up-to-date references from the internet	0	9.1	59.1	31.8

Items	Teachers' Perceptions (%)			
	SD	D	A	SA
I use various digital tools in my classes	0	20	65	15

It can be observed in Table 3 that most of the teachers had implemented technology integrated lessons in the classroom. They frequently use technology for teaching, getting the materials from the internet, as well as asking the students to search for the most updated learning resources too. KR listed twelve digital tools that she had utilized during the online learning such as Rumah Belajar, Kipin School 4.0, Icando, Google for Education, Brainly, Microsoft Office 365, Quipper School, Sekolahmu, Zenius, Cisco Webex, Ruang Kelas, and Pahamify. SR also mentioned some apps, including Google Classroom, Kahoot, Quizziz, Zoom, Google Meet, WhatsApp, and Instagram. There are more tools to mention if each participant's answer is written in this article. In other words, during the COVID-19 pandemic, teachers had experimented with many digital tools to maximize their learning. Related to how they used those tools in the classroom, AN gave examples in the following Except.

"For Example, I teach about greeting cards. I can combine some tools such as WhatsApp, YouTube, and Instagram. After giving some explanations in the WhatsApp group, I gave them additional video explanations from YouTube videos by sending the link in our WhatsApp group. The assignment to evaluate their understanding is through Instagram. I ask them to create their own greeting card and then post it in the student's IG."

AN's example of her lesson provides information that she attempted to vary the learning platforms to maximize the learning process. The present findings related to Cutri's et al., (2020) findings that during the COVID-19 pandemic, it seems that teachers have the willingness to try new things. This willingness is a result of the sudden transition from offline to online learning. Some teachers are not ready and well-prepared so some of them need to experiment in their teaching and learning process. In addition, according to AN, before the pandemic, she got little opportunity to join training that focuses on preparing teachers to use digital tools in the classroom. Therefore, when she needs to teach online, trying various apps she got from recent training during the COVID-19 is such an opportunity to improve her teaching. However, not all teachers had the same opinion with AN. Some teachers (20%) prefer to use particular tools for one semester. According to them, using various tools could make their students get confused. In addition, it also required them to learn how to use those tools, which needs more time and energy. Although they have different opinions, it does not mean that they had negative perceptions of the use of digital tools for teaching. This kind of attitude is critical for the current condition because teachers are expected to have knowledge, skills, and ethics to conduct online teaching (Asfihana & Yansyah, 2016; Zhu & Liu, 2020). In the post-pandemic era, it is possible that teaching and learning will remain online or blended learning.

D. CONCLUSION AND SUGGESTIONS

The findings show that most teachers had positive perceptions on the inclusion of technology in teaching. They had no problem integrating technology into their lessons. Eventually, these positive perspectives encourage them to utilize various digital tools. These findings support the Technology Acceptance Model theory that people will easily implement technology in their classroom if they think that using technology is easy and benefitting them. The condition caused by the COVID-19 pandemic made teachers should experiment with

teaching online. Although they were not well-prepared, they tried their best to optimize the learning outcomes.

Based on those findings, some recommendations are offered. First, teachers should be prepared for the digital transformation of education. In the future, the inclusion of technology is inevitable so teachers should be trained to be familiar with digital teaching media and digital classroom. It should be supported with the policy to prepare both pre-service and in-service teachers. Pre-service teachers' curriculum should be designed to deal with this issue. Digital literacy knowledge and skills should be incorporated in pre-service teacher education. Meanwhile, training that focuses on the use and creation of digital teaching media and skills should be offered to in-service teachers. They need more kinds of these trainings to shape their technological pedagogical skills.

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