

# THE ROLE OF TECHNOLOGY IN ONLINE LEARNING: AN EXAMINATION TOWARDS ENGLISH TEACHERS' PERCEPTION AND PRACTICES

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## Abstract

Information technology is well developed today. This is shown by several applications that support online activities, social activities, commerce, services, and learning. In this pandemic situation (covid-19), several institutions provided policies to carry out online learning to prevent and minimize the spread of the Covid-19 virus. In this case, the institution committees ask the teachers and lecturers to provide online learning to students, especially in learning English. The purpose of this study was to determine the teachers' perceptions in online language learning. Researchers used a questionnaire instrument to conduct surveys and interviews to obtain qualitative data. This is aimed to observe the teachers' perception towards online language teaching practices and changes in teaching to online teaching. The things encountered during learning, as well as obstacles faced by the English teacher. In online learning, teachers must be able to involve students so that the situation runs like face-to-face learning. The final results of this study will be useful for online language teachers, institutions, and all aspects involved in education.

**Keywords:** Language Learning, Online Teaching, Perception, Practices

## INTRODUCTION

The pandemic of corona virus disease has presented challenges and opportunity in the same time in many aspects of today's life, including the aspect of education system. As stated by (Toquero, 2020) Corona virus disease 19 (COVID-19) outbreak ravaging the globe has shaken the world's educational system. Pandemic is a disease that is spreading in multiple countries around the world at the same time (Roxby, 2020) also in Indonesia till now on. Because of this pandemic, the government has the rule for all the citizens to achieve social distancing in the society. It urged the study or learning, public to work, and conduct religious practices from home to avoid the distancing from one to another. For the sake of all members' safety during the pandemic, the Indonesian minister of education and culture has to respond which is better for educational system. For the result with all the consequences, teaching and learning are changed to online learning, it's virtually undertake on digital platform. Hence, teaching and learning activities can be conducted from their own home through e-learning by taking advantage of today's technology.

Learning from home is kind of something new for Indonesian school members, while in another country like Michigan in 2006 became the first state to mandate that before graduating from high school, the students should complete an online learning experience (DiPietro, M., Ferdig, R. E., Black, E. W., & Preston, 2008). Nowadays online learning becomes one of the most potential and current issues accordance with covid-19 pandemic. For conducting the virtual learning which is to avoid physical distancing, the internet becomes the main requirement. The finding of the study by Antonius (2020) the perceptions of the students of the English Language

Education Study Program on the online learning, it places of interest that online learning needs a friendly platform to gain the students' participation because not all areas in Indonesia has a stabile internet. It means that accessibility is the major factor influencing the success of learning virtually. There are many virtual platforms that can be used for teachers and lectures to encourage the lesson, especially in language learning. Here are some various online teaching platforms such as WhatsApp, Edmodo, Quizizz, Rumah Belajar, Quipper School, Ruang Guru, Google Classroom, Kahoot, Zoom, and so on. Nowadays, those platforms achieve popularity because they are widely used and installed.

There are some advantages in online learning. Mohammadi, Neda., Ghorbani, Varid., Hamidi, (2010) stated that the main advantage of e-learning is that it increases the engagement; attendance and motivation of students which are requisite for learning. By advent of Web and internet; English learning (EL) improved because internet had its own language and logic and was not limited to one culture. Indeed, learning English via internet challenges traditional from learning. Internet is a virtual English environment. People become autonomous by using internet and they can independent from books and teacher such as chartrooms and mass media which increase the oral proficiencies of learners. The use of mass media such as books and manuscripts and internet media (like blogs; message boards; podcasts; and video sharing ) are another faces of e-learning .Although using mass media and internet media are challenging and time consuming. They provide teacher and students with creative and practical ideas.

Based on some previous studies, Soko (2017) found that there was a positive respond towards online language learning. He also examined the teachers understanding about online language learning. It also showed high score, it was 80-100 from the maximum score 100. Another study toward the perception of online came from Moralista, Rome,. & Oducado (2020) showed that the faculty examines to embrace the educational challenges and they have to improve skill through training and development. The research findings showed that the majority of faculty had intermediate computer competency and had no training in online teaching with only a few having a good internet connection. Faculty measured that online education will answer in more academic dishonesty, will be impersonal and lack feeling compared to face-to-face classes, and will be difficult to manage in terms of technology. In short, both perception of the faculty and students toward online learning, the technology has crucial role in online teaching which is based on the stability of the internet or whether the competency of the teachers in operating the technology.

Furthermore, Aparicio, M., Bacao, F., & Olivera (2016) divided online learning into two main areas in delivering the scope of digital learning. They were learning and technology which both areas have their own role, the role of learning as the cognitive process for achieving knowledge, and technology is the tool for supporting the process of achieving it. That was why both learning and technology could not be separated, and they can make students achieve knowledge better in the aspect of online learning which is different from face to face learning or traditional learning.

Then, Hammond ( 2000) stated that in traditional classroom, the most important thing of face to face learning is the quality of the teacher, how the teacher can transfer the knowledge to students easily and understandable, while with the growing of online learning popularity, the primary concern for teachers and all school members is the quality of the teachers' online learning, the new teaching skills. Increasingly, they need to design online course materials and to engage students for using technologies(Davis, N.E., & Roblyer, 2005) and (Kennedy, K., &

Archambault, 2012). Because of the changing of virtual learning, the interaction and communication become the crucial things of language learning for today.

Moreover, teacher should play the role in adapting the technology in teaching and learning process especially in language learning. The concern of language learning is how the students acquire the target language appropriately. There are many factors that influence the process of adapting. Schiler (2003) showed personal characteristics such as educational level, gender, age, and experience with the computer for educational purpose and attitude towards computers can influence the adoption of a technology. Research found that male teachers have got positive attitudes toward technology and the usage of technology in education process is more frequent than female teachers. Among the factors that influence successful integration of technology into teaching are teachers' attitudes and beliefs towards technology. While in this study the researchers focused on English teachers' perception and practices in terms of the technology's role in online teaching.

According to Rakhmat (2000) perception is the experience of event, object, and relationship acquired by resuming information and predicting message. He also added, it gives a meaning toward stimulus-response in resuming information and interpreting message which involves motivation, attention, hope, and memory. Moreover Michotte (2019) developed perception as a phase of the total process of action which allows us to adjust our activities to the world. Therefore the research questions specifically were :

1. How did the teachers practice English in online setting?
2. How did the teachers' perceptions towards English in online setting?
3. What are the obstacles that faced by teachers in implementing online language setting?

## METHOD

This study involves the analysis of the survey on the English teachers' perception and practices of the role of technology in online teaching during the pandemic covid-19. Those English teachers' perceptions were described narratively. The population of this analysis was obtained from 50 English teachers in senior and university level in East Java. They are qualified as teachers with bachelor's degree or magister.

The data of this study was collected through the analysis of English teachers' perceptions and practices based on their personal experience in implementing online learning during the pandemic. The questionnaire was designed based on the construct of perception theory that was focused on the role of technology. It is focusing on online teaching platform which is matched and suited with the needs and conditions. The questionnaire was distributed and collected in the form of Google Form with a combination of close and open-ended questions. Close-ended questions were used to obtain the percentage of the analysed topics. Meanwhile, open-ended questions are used to gain the teachers' perception regarding the topics on the implementation of online learning.

The next step was the validity test. According to Ary (2010) validity is the most important consideration in developing and evaluating the instruments. He defines validity as the extent to which an instrument measured what it claims to measure. To determine the validity of the instrument, the researcher used construct validity. The formula used to test the validity of the instrument was product moment correlation. This formula was discovered by Karl Pearson in Winarsunu (2009). The validity was drawn by comparing value in *Corrected Item-Total Correlation* with *r* table. Each item of instrument was valid when the value of Corrected Item-Total Correlation is higher than *r* table ( $r_t$ ). with the value of significant level was 5% and the

numbers of respondents were 20 from previous pilot study. Pilot study was important to hold because it was for knowing the validity and reliability in constructing instrument,  $r_t$  became .4438. From 40 item, there were 35 item were valid. The un-valid questions revised, because one of the reasons of un-valid item was the unclear statement.

The reliability of a measuring instrument is the degree of consistency with which it measures whatever it is measuring. This quality is essential in any kind of measurement (Ary, 2010). Reliability is needed because the researcher should ensure that the instrument used is reliable to measure the variable. In this research, the researcher used internal consistency reliability. Internal reliability is used when the researcher tried to know whether the items on a test are consistent with one another in that way they represent one, and only one, dimension, construct, or area of interest throughout the test (Salkind, 2006).

According to Salkind (2006), one way of computing internal consistency test is Cronbach's Alpha, also referred to as coefficient alpha. This computing is especially useful when the researcher tries to find at the reliability of a test that does not have right or wrong answers. The researcher used SPSS (*statistical package for the social science*) ver. 19.0 for windows. The result of reliability testing by using SPSS is drawn in this table below:

<b>Table 1. Result of Reliability Testing</b>	
<b>Cronbach's Alpha</b>	<b>N of Items</b>
<b>.961</b>	<b>40</b>

The items are reliable, if the Cronbach's Alpha  $\geq r$  table (sig 0.05;df = 38). The df got from N-2. N means the subjects, so 40-2 is 38. The Cronbach's alpha from the reliability computation was .961. It means that the items were reliable, because the score of Cronbach alpha is higher than r table (.961  $\geq$  .443, see r table appendix). The strength of reliability also was very strong. Here is the classification of reliability interpretation (Ghozali, 2009):

<b>Cronbach's alpha coefficient</b>	<b>Interpretation</b>
<b>0,00-0,20</b>	Very weak
<b>0,20-0,40</b>	Weak
<b>0,40-0,60</b>	Average
<b>0,60-0,80</b>	Strong
<b>0,80-1,00</b>	Very Strong

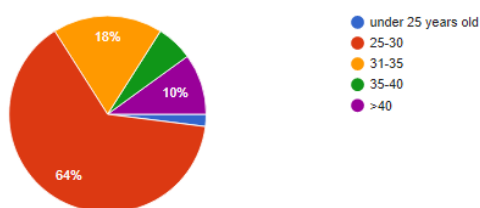
The data gathered from the provided instrument were processed and analysed to answer the research questions. The data of this study divided into two groups, there were main data. It covered the questioner. Then additional data were obtained from interview. The result of data analysis guided for drawing the conclusion.

## RESULTS AND DISCUSSION

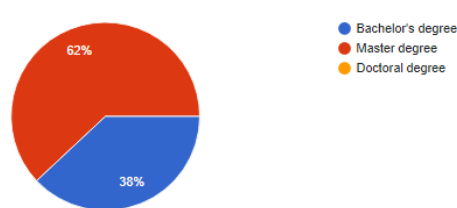
### Results

This part discussed about the findings of the study. It covered the teachers' practice and teachers' perception about online language learning. The data gained from 50 English teachers

and lecturers. It covered 32 teachers (25-30 years old), 9 teachers (31-25 years old), 5 teachers (>40 years old), 3 teachers (35-40 years old), and 1 teachers (under 25 years old).



**Figure 1.** research subject age 1.



**Figure 2.** Educational background

The English teachers should have qualification. They have to graduate from educational field of study. There were 31 teachers who are graduated from master degree and 19 teachers from bachelor's degree. In addition they have different experiences. There are 21 teachers who have less than five years teaching experiences, 19 teachers (5-10 years), and 10 teachers (more than 10 years).

#### English Teachers' Practice

The teachers' practice analysis was found from the questionnaire. There were some aspects that examined, such as effective communication, guiding students' knowledge construction, individual learning, engaging students with content, content accessibility, academic integrity, and keeping the course, meeting students' need, scaffolding, instructional self-efficacy, and technological self-efficacy.

**Table 3.** Mean score each aspect

No	Aspect	Mean score	Min score/ max score
1	Effective communication	21.1	5/25
2	Guiding students' knowledge construction	19.22	4/20
3	Individual learning	11.94	3/15
4	Engaging students with context	17.8	4/20
5	Content accessibility	8.36	2/10
6	Academic integrity	8.56	2/10
7	Keeping the course a safe place	15.94	4/20
8	Meeting students' need	12.90	3/15
9	Scaffolding	12.14	3/15
10	Instructional self-efficacy	24	6/30
11	Technological self-efficacy	17.32	4/20

First, in effective communication means the teachers should have a good way in communicate. They have to deliver the materials properly. The important thing was that the students could receive the materials comprehensively. In this aspect got 21.1 mean score, it means that the teachers had good ability (see appendix 1 for knowing the score classification) in communication in the online language classroom. It proved by DiPietro (2010) it written three to six survey items relating to each of the following nine teaching practices: communicating effectively, guiding students' knowledge, promoting individual learning, engaging students with content, ensuring content accessibility, maintaining academic integrity, keeping the course

a safe place, meeting students' needs, and scaffolding (Black, DiPietro, Ferdig, & Polling, 2009).

In addition, the teacher said that they tried to encourage the students by giving questions actively in the online classroom setting. Second is guiding students' knowledge. In this part, the teacher could encourage and attract their students to guide them in learning process, such as how to construct a question, lead discussion in online classroom setting, also guide discussion on online setting, provide, and give students opportunities to use English both spoken and written. In this part got 19.22 mean score. It almost got perfect and maximum score. It means the teachers have excellent ability in guiding the students' knowledge. Next the teacher should have proper way in individual learning. It covered the way giving instructions, being source for the students, and practices based on the students' needs. Individual learning, the teachers got 11.94 means score. It means they have good ability in this aspect. Then engaging students with context covered engaging students in producing the English both orally and written, motivating students, integrating technology, and facilitating acquisition by using online technology. It got 17.8, means that they have good skill in this aspect.

After that is content accessibility. It covered form assessment and teaching strategies. It got 8.36 mean score from 10 maximum score. It showed that the teachers also have good ability in doing assessment and implementing learning strategies in online language setting. In academic integrity got 8.56 mean score. It showed that the teachers also have good capability in academic integrity. It covered honest policy and monitoring for cheating students. It is important for having this skill, because the students should have good attitude in doing online learning. Then the teachers should have good aspect in keeping the course from a safe place. It means that the teachers should monitor the students' public communication, as a model for the students' communication, facilitate and guide the students for better communication and interactions. It got 15.94 mean score. It means the teachers also have good ability in keeping the course from the safe place.

Next, in meeting students' need and scaffolding got 12.90 and 12.14. It also mean that the teacher have good ability in those aspect. Those covered accommodating students' self-pacing, encouraging students to share resources, establishing in group learning, supporting each other, fostering the students' responsibility, and creating organized environment. After that in instructional self-efficacy got 24 mean score and technological self-efficacy got 17.32 mean score. In instructional efficacy covered feeling confident in promoting language acquisition, keeping students on difficult task, increasing students' retention of language, encouraging the students in practicing English, and motivate the students in doing the homework. Then in technological self-efficacy were confident in teaching relevant language content using appropriate technology, motivating students to participate in technology based-project to support the language acquisition, inviting the students in using appropriate technology, and developing creative ways to cope with the constraints of the learning management system and continuing to teach effectively by using technology.

## **Discussion**

### **English Teachers' Perceptions**

Considering results from survey instruments, teachers show a noticeable shift in comfort level with integrating online learning tools throughout implementation. It proved by the significant number or high number of score that the teachers got (see appendix 2). The highest score was 198. It means that the teachers had good perceptions in English online setting. Then the lowest

score was 135. It also still included in average area. Finally they had good and positive perceptions on online language setting.

**Table 4.** Score classification

Score	Classification	Description
<b>40-93</b>	weak area	These scores are much higher than average and indicate a noteworthy strength. These strengths probably come naturally to the research subject or exist because they have worked hard.
<b>94-146</b>	Average area	This is an average area score. The research subjects are aware of some of the aspect for which they received this score and they are doing well with them
<b>147-200</b>	Strength area	This skill area is either a problem for the research subject. They don't value it, or they didn't know it was important.

Based on the results above, it indicated teachers are willing to use online learning tools in their classroom, at least in the format introduced during this study, for a variety of reasons. Hoffman (2008), suggested that a primary goal of perception is to recover, or estimate, objective properties of the physical world. It means that, the main purpose of giving perception is to appraise or presume the physical object in the environment. In order to receive information from the environment the people are equipped with sense organs, eye, ear, and nose. Each sense organ is part of a sensory system which receives sensory inputs and transmits sensory information to the brain.

In certain interview session virtually, teachers were willing to integrate online learning setting on their English class. They also gave suggestion for the implementation process has been compiled into the following process: (1) The first implementation and demonstration was being used in classroom format with teachers only; (2) Experts might attend the classroom a minimum of two times to help teachers and students get comfortable with system use while technical support is handy; (3) A student aid needed to be in place to key student answers into the machine; (4) Finally, teachers requested training to create their own worksheets and homework sets.

### **Teachers' obstacles in implementing online learning**

In implementing teaching strategies and technique in online classroom setting was different with face-to-face setting. In online setting the teachers could not have direct meeting and instructions. It means that, online learning setting need proper media and tool. Based on the short and virtual interview, some of the teachers faced crucial same problems. Additionally, some teachers feel challenging to apply it while they hope the learning process could run effectively. There were some obstacles faced by the teachers.

First, in implementing online language learning, both of teachers and students should have proper and updated devices to support the teaching and learning process. It needs a device to encourage the process of learning can run effectively. In this case, devices mean smartphone, laptop, PC, or another medias that support and compatible with the application or software that used in online language learning. Those devices should compatible with some popular application for online learning, such as Microsoft teams, Zoom meetings, Google Classroom, Whatsapp, Telegram, and many more. In other word, software accessibility should be provided

in the device. The enormous ambition was distributed with by incomplete asset in the foundation and technical support Reeder,K.,Macfadyen, L.P, Roche,J.,Chase (2004). It could be summarized that the device should have software that available to support the learning process. If the software was unavailable, the application could not be downloaded. It would influence the learning process or the online learning could not run well.

Next obstacle was the internet connection. The main advantage of the online learning process is that students can learn where they want, when they want and at their own pace (Solc, M.,Legemza,J.,Sutoova,A.,Girmanova, 2012). Online learning did not require investments in infrastructure on the user's side if a computer and internet access is available. In this case, some of the teachers stated that internet connections were one of the obstacles that should fix. Some of their students also said that, the lived in rural and margin area. Then it was impossible to have good internet connection. It was really happened, especially in online setting that used webinar or video conference, because it was commonly know that video conferences need good internet connection. In conclusion, every place has different strength of internet connection. Feldman,R., Zucker (2002) explained that online teaching and learning as a new program sent doctrine through the internet network. It related to the findings that the learning process needs a secure connection. If there were some problems with an internet connection, the students were busy to handle their device. On other hand, internet connection has a crucial role and it would effect to the learning process.

The third obstacle was the students' ability in operating the Device. It was needed to know by the teacher. Wong,L.H., Looi (2011) investigated the influence of mobile devices on continuous learning. Continuous learning refers to a learning model that students could learn whenever they want to learn in a variety of scenarios and that they could switch from one setting to another easily and quickly (Chen et al., 2006,Wong and Looi, 2011). Certain students who are more than 40 years old (it happened in certain university who had working students) were could not operate the devices properly, especially in downloading or uploading a task in online platform. They had difficulties on it. It was important to give them guidance or training before having an online class. Macharia & Pelsner (2012) also added that learning materials by using technology in the high level complete extraordinary intuition about the causes which affect students' acknowledgment about online language learning.

Fourthly, in implementing online language learning, every teacher has different skill, ability, and background of knowledge. They should have good knowledge and understanding. Teachers' perceptions form a significant component to describe the environment of the learning (Lee,T.S, Tsai, 2005). It means that the assumption of the teachers toward the online language learning was necessary. In fact, a few teachers still had a problem with it. Based on the findings, the teacher thought that online language learning was still something new, and they still had low awareness of the technology.

Fifthly, time management was one of the teachers' obstacles that should be overcome. Covey, (1990) stated that possibly the best-known context of this term is "Personal time management" referring to the set of habits, rules and recommendations on how to manage one's personal time effectively and do as much work as possible within the given amount of time. The teachers should be able to divide time based on students need. The new method of online language learning becomes more suitable than direct learning, the level of communication and the time to comment was excellent, along the best planning of the course be able to clarify the physical conditions to the development of knowledge (Chen,C.C.,Wu,J., Yang, 2006). It means that the teachers should have an anticipation way in managing the time. In direct or face-to-face setting, both teachers and students did not need time for operating the devices, setting the internet

connection, uploading task or material, etc. In online language setting, the teachers should divide the time for setting devices, asking, presenting, answering, and many more activities in detail. Some of teachers shared that they had limited time because they focused on devices and internet connection setting. In conclusion, they should be able to divide the time both of studying English and operating online language learning application.

Lastly, Wlodkwoski (2005) claimed that learners would learn more using computer-based instruction in comparison to traditional classroom methods. The motivation of the students can appear from the way of the learning process. The way of teaching by technology could increase the students' motivation and decrease the students' motivation. Another finding of the study, the students operated the application, and they faced some problems. When they tried to solve the problems, they could not face it. They felt that it was not important. So, students' motivation could be influenced by where they study and the tools that they used. The teachers were just facilitators to guide the students in using the tools. The ability of the students also can influence in operating the tools. In the beginning, the students would feel interested, but if they have some problems, their motivation would decrease.

## CONCLUSION

The purposes of this study were to know the teachers' practice, perceptions, and obstacles in online language learning. It also added to the body of evidence supporting best teaching practices for online instruction in online language learning. In addition, findings support that instructors' perception of best practices and quality outcomes. Based on the finding, teachers' practices found that the teachers involved several aspects on teaching practices. They also got good score on each aspect. The aspects were effective communication, guiding students' knowledge construction, individual learning, engaging students with content, content accessibility, academic integrity, keeping the course a safe place, meeting students' need, scaffolding, instructional self-efficacy, and technological self-efficacy. In teachers' perception, the highest score was 198. It means that the teachers had good perceptions in English online setting. Then the lowest score was 135. It also still included in average area. In other words, they had good and positive perceptions on online language setting.

In implementing online language learning, the teachers faced five obstacles. They were updated devices, internet connection, students' ability in operating the devices, teachers' skill in delivering the material virtually, and time management. There were some suggestions in facing those obstacles. Wilson and Cooney (2001) investigated that as the 1980s context has been increasingly known as suitable to learn the teaching process and learning process and that the teacher's perceptions in fact from where the activity happened. It was important that doing training or guiding both of teachers and students before having an online class. It could help both teachers and students effectively. The training was not only share about how to apply online language learning, but also learn about the technique or teaching method in online setting. The students also need fast responses of the solution from the teacher. It also could help them to explain the materials if the students feel confused. Training also made the teachers keep their attitude and encourage the students' active in online language setting.

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