Integrating The Technology in Teaching and Learning Process Through Digital Media Creation as A Way to Improve Indonesian EYL Teachers' Competence

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ARTICLE INFO	ABSTRACT
	Abstract: Now that the spread of Covid 19 is still high and the teaching and learning process should be continued to be conducted at homes, but it seems that some teachers – in this case EYL teachers– are not ready to integrate various digital platforms. It is necessary for us to respond to the need of investigating technology readiness of English for young learners teachers in teaching during this Covid 19 pandemic. It is strongly important to reveal the teachers' technology readiness as it plays vital role, especially during this pandemic —when the only thing that the teachers and the students can do is interacting online. Without having adequate literacy in technological thing, it is impossible to create teaching and learning process which can facilitate both the teachers and the students. Based on the result of initial survey, it could be stated that some teachers might not be ready in integrating the technology in their virtual classrooms; ending up in either providing lots of assignments or creating monotonous activities, which of course break the nature of teaching English for young learners. Hence, it is expected that by conducting this study, the researchers could assist some of the teachers to be more aware with their technology readiness, so that they could serve the students better, and the students could also learn the material more interesting and meaningful.

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Teaching English for young learners is challenging, as the characteristics of young learners are quite different from the adult ones. Some of the characteristics are they have short attention span, they like movement activity, and they are imaginative (Nurefendi, 2015). Consequently, EYL teachers are required to have certain skills so that the goal of teaching and learning process could be achieved. Dealing with short attention span, for example, it is clear that young learners cannot simply sit and listen to the teacher's explanation for a long time as adults do. This of course challenge the teachers to be more creative in designing a number of activities in the classrooms with the expectation that the students will not get bored easily. Moreover, some experts have also mentioned that young learners do like to be active in the classroom; thus, teachers are encouraged to use songs, games, or competitions which make the students move. Another important characteristic of young learners is they are imaginative. In this case, the teachers may need to prepare some pictures, flash cards, or videos, which can boost their students' imagination.

The context of "technology readiness" in this project is related to distance learning stakeholders' readiness in integrating technology into teaching and learning activities, especially during the Novel Coronavirus (Covid-19) pandemic. The Covid-19 pandemic that began in Wuhan (China) at the end of 2019 and which spread around the world immediately has transformed all primary, secondary and tertiary level teaching and learning activities globally. For example, Indonesian government has instructed the application of distance learning to replace conventional learning which employed face-to-face classroom meeting and since then several forms of education programs have been introduced. Some regional governments also applied large-scale social restriction (PSBB). The Indonesian COVID-19 Handling Task Force reported that as of January 14, 2021, there were 869.600 confirmed cases of Covid-19, with a death rate of 2.9% (n=25.246) (*Satgas Covid 19*, 2021). This situation unfortunately happened globally. World Health Organization (WHO) and the open-access data from the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University reported that per 17 of January 2021, there have been a total of 94.4 million confirmed cases globally, with estimated 2.02 million deaths (*COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University*, 2021).

Internet-based distance learning is seen as an alternative instrument to support new ways of teaching-learning process during pandemic. Information, tools, and its features then being integrated into the teaching-learning process so that teacher and learners could operate meaningful learning. Successful integration of technology in teaching learning process is not only rely on the technology, but also dependent on the preparation of teachers (teachers readiness).

Internet-based distance learning can generally be divided into (a) synchronous learning, where teachers and students meet directly on the internet (real time) via online chat, and audio/video conferencing, and (b) asynchronous learning, where the two parties do not communicate directly, but indirectly through Learning Management Systems (LMS) such as Google Classroom, Moodle, Canvas, Blackboard, and so on (Ko & Rossen, 2017; Ogbonna et al., 2019; Papachristos et al., 2010; Sturm & Quaynor, 2020; Tarman, 2020). Technology readiness is generally related to education stakeholders' knowledge and experience in using technology as a learning media and the extent to which they benefit from the use of their technology in the learning process (Orhan & Beyhan, 2020). Distance education is more complex than conventional learning because the former requires careful planning regarding of what is learned, who is learning and teaching, how the learning process is carried out, where and when learning is carried out, and why certain learning models/techniques/systems are used, as well as good collaboration between teachers, students, and other stakeholders (Andrade & Williams, 2009).

Rationale of The Study

All primary, secondary, and tertiary educational institutions globally are adapting to the new condition by implementing various distance learning models. Most institutions operated distance learning using internet access although there are many institutions which could not afford or employ learning through internet due to physical and geographical limitations, wars, and other barriers. Many big universities (e.g. Massachusetts Institute of Technology, Harvard University, etc.) and other non- and semi-formal educational institutions (e.g. internet-based Coursera, edX, Khan Academy, etc.) have been actively promoting massive open online courses (MOOCs) and even more during the pandemic. Many offered free audit while some offer free or cheap certificates of accomplishment. Distance learning through internet has become the best alternative to ensure the safety and health of students, teachers, school staff, and the general public (Rasmitadila, et al., 2020).

A huge body of studies have investigated the integration of technology in second language teaching (see e.g., (Arifah, 2014; Costley, 2014; Keser et al., 2011; Pourhosein Gilakjani & Banou Sabouri, 2017)) as well as the benefits of integrating technology in second language teaching (see e.g., (Alsaleem, 2013; Baytak et al., 2011; Drayton et al., 2010; Eaton, 2010; Rodinadze & Zarbazoia, 2012). These studies have uniformly encouraged the integration of technology in teaching as it benefits teachers, students, and advances the learning process. There have been fewer studies exploring challenges of the integration of technology in second language teaching.

Although distance learning make teachers' efforts to integrate various technologies into teaching and learning activities become increasingly relevant, not all teachers have the same level of readiness. Some teachers have been ready and are able to optimize the use of technology, while others may have problems in using technology. Hence, the researcher concerned on the teacher readiness in integrating technology in online education, especially on the creation of digital media.

Statement of The Problem

Previous studies have reported some challenges which teachers often encountered in the integration of technology in teaching English, including available infrastructure and supporting technology (e.g., (Arifah, 2014; Costley, 2014)]), teachers' quality and skills (e.g., (Orhan & Beyhan, 2020)), and students' skills. Available technology has been a crucial focus of previous research in the field of distance learning, including infrastructure in educational institutions, electronic devices available for teachers and students (e.g., (Pourhosein Gilakjani & Banou Sabouri, 2017)), and internet connection (e.g., (Rasmitadila et al., 2020)]). Bakalar (in (Pourhosein Gilakjani & Banou Sabouri, 2017)) stated that not all educational institutions have the same supporting infrastructure (for example: internet connection and technology devices), so that the integration of technology among different institutions may differ. Even though the Indonesian government distributed internet quotas to students and teachers to support distance learning during the pandemic, not all students and teachers could use it due to poor internet connection and other problems such as sudden power outage (Rasmitadila et al., 2020). Previous studies also reported some problems regarding teachers' quality, for example the ability to prepare quality material, create a comfortable and appropriate environment, communication, and presentation, as well as teachers' lack of technology skills (Orhan & Beyhan, 2020; Rasmitadila et al., 2020). Regarding students, Rasmitadila (Rasmitadila et al., 2020) reported that excessive parental involvement in students' learning as well as parents' lack of ability to facilitate learning or to operate electronic devices (learning media) also hamper distance learning process. Of these three challenges, teachers' skills in integrating technology in teaching English for young learner (EYL) in Indonesian context should receive more attention because teachers play central roles in facilitating and leading learning activities. Many primary-level education institutions in Indonesia are teacher-centered. Thus, one of urgent actions necessary for EYL distance learning is to equip EYL teachers with skills to integrate technology.

Objective of The Study

Considering all the issues previously mentioned, this study is intended to explore teachers' readiness in integrating the technology in online teaching and learning process, especially in teaching English for young learners. This study is further aimed at exploring teachers readiness from the aspects of technology literacy, the creation of digital media, and the ability to integrate the use of various digital media towards virtual classroom.

The integrated technology in teaching and learning process creates wider, interactive, and flexible learning, so that it allows students to access learning materials anytime and anywhere. The results of this study are expected to make contributions in education, especially in terms of teachers' readiness, technology literacy, and development of monographs, so that will not only create joyful and meaningful learning although it is conducted online, but also improving Indonesian EYL teachers competence.

Review of Related Literature

Current development in technology changes the way students learn and teachers teach as students and teachers can easily acquire new knowledge and skills through the use of technology. Moreover, technology literacy and technology integration influences teaching competency (Santoso & Lestari, 2019). In accordance to that, Williams (Williams, 2006) stated ten principles in teaching English for young learners. Those are (i) start where the child is; (ii) encourage social interaction; (iii) learner exchange ideas and opinions as well as facts; (iv) learners are encouraged to think and contribute; (v) activities are cognitively and linguistically challenging; (vi) language is in appropriate contexts; (vii) activities are meaningful and purposeful for learners, (viii) activities help learners to develop independence, (ix) learning environment is supportive, non-threatening and enjoyable, and (x) assessment should reflect teaching. By considering the principles, teaching English in elementary school requires teachers to choose and develop interesting, effective and suitable media wisely. So that, it would follow the principles on teaching EYL. Young learners like activities which are visually appealing, fun voices such as songs, and meaningful (Nurefendi, 2015).

In reference to Williams (Williams, 2006), the teacher should know the children's characteristic, emotional aspect, and interest in their cognitive, which is different from adult learners because it will be an important role in how the young student certainly involved in the learning process, how they respond and how they achieve the objective lesson. Musthafa (2010) as cited in Mutiah et al. (Mutiah et al., 2020) mentioned that children have a short attention span. It means that, unlike adult learners who can focus longer on their study, the children could only pay attention for about twenty minutes in their study. This means the teacher should have various teaching techniques and media for their activity in class (both face-to-face and online) to avoid students' boredom. Another characteristic of young learners is the difficulty to distinguish concrete and abstract, meaning that teachers should be creative and innovative in visualizing concrete and abstract things. Moreover, it would be meaningful if the activities in distinguishing concrete and abstract are related into their daily lives.

Furthermore, young learners, in general, are very active and imaginative (Mutiah et al., 2020; Nurefendi, 2015). Based on ten principles in TEYL, participatory activities, such as drawing, storytelling, listening to music will attract students to contribute. Thus, in online learning, elementary school teachers should avoid monotonous activities. In this era, digital learning media are mushrooming in various forms, features, and characteristics. The common application that can be used in this situations are video, WhatsApp, Google Forms, Worksheets, YouTube, and Zoom (Rasmitadila et al., 2020). Those are served as media in delivering learning material. Remember, it would be better if their parents assist the students (see the importance on (Nurefendi, 2015; Sulistyawikan, 2014; Taman et al., 2021). Instead of having full attention during online learning, parents could motivate students to keep focus on the learning process.

The first digital media that would be observed in this study is WhatsApp Group. WhatsApp is an application available on the new generation of smart phones that allows users to send text messages to each other free. This is because WhatsApp send messages through internet data connection. WhatsApp supports many different message types, from simple text to pictures to audio files, documents, and videos (Alsaleem, 2013). WhatsApp Group and WhatsApp Web are the newest features that can benefit in learning. By knowing the nature of WhatsApp group, then this app could cover the four language skills: listening and speaking using audio and video, while reading and writing through the simple text (Justina & Phil, 2016). For young learners, reflecting the use of technology into their daily activities is interesting.

The second digital media is Google Classroom. Google Classroom is very helpful and effective and presents newer challenges in continuing education in different ways for both teachers and learners. It is available for anyone around the world with tools and applications that support education. Besides, Google Classroom is known for its ease of use and for the ease of organizing work and saving time. However, teachers should vary the activities to avoid students boredom. Even this application could be learned by ourselves, but those who joined training program would perform better than those who did not (Aditya, 2021; Liza & Andriyanti, 2020; Singh, 2014).

The third is Zoom or Google Meet application. Both are applications that best described as realization of synchronous learning. Zoom is an online audio and web conferencing platform. People use it to make phone calls or to participate in video conference meetings. By referencing to the functions, it can be inferred that zoom makes the teaching process easier and gives the opportunity to teachers and learners to expand their knowledge better (Ramadani & Xhaferi, 2020). It is similar to Google Meet (Taman et al., 2021). Aside from its nature that highlighted the speaking and listening skills, Zoom and/or Google Meet can

be implemented in teaching reading and writing. There are some features that allow students to actively contributed in screen sharing. For instance, the use of annotation tools and whiteboard to interact in reading and writing.

The last is video. The use of video in teaching English for young learners is not a new thing. This pandemic situation brought the teachers to be more creative and innovative in creating the learning video (Laksmi et al., 2021). We can make animation videos to attract students' attention, put some songs, and add colorful pictures. This second to the principles in teaching English for young learners. In addition, the idea of streaming video and audio can offer exciting opportunities for online teaching and learning. In the creation of video, the teachers could make the video by themselves. It is a bit difficult and time consuming, but the result must be the suitable for the students. Teachers also could do collaboration in making the videos, such as collaborating with the team-teaching. The other way to teach using video is by sharing the existed videos from YouTube that are related to the topic that will be learned.

Research Context and Methodology

The present study employed a survey design in which there were two research instruments used by the researchers, i.e., questionnaire and interview guide. The former was initially distributed to obtained the data from the bigger respondents, while the later was conducted to dig up deeper information related to the data. The subjects of the present study were the English teachers of elementary schools in Malang. Officially, there were 5 districts in Malang, namely Klojen, Blimbing, Kedungkandang, Lowokwaru, and Sukun (see Figure 1).
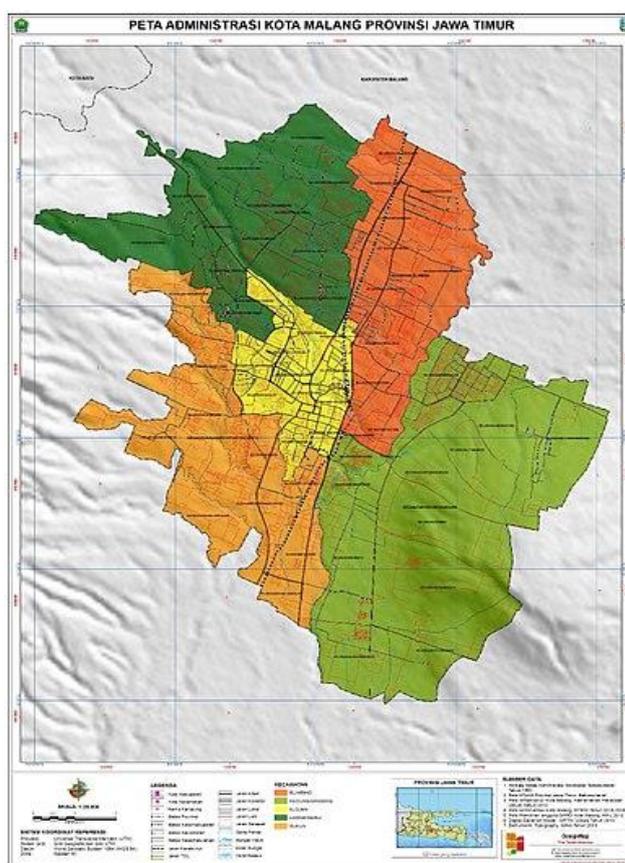

Figure 1. Five Districts in Malang

Instruments

To obtain the data on teachers' readiness in integrating technology in online teaching and learning process, the researcher distributed questionnaire to 19 English teacher of Elementary School in Malang as the subject of the study. The questionnaire consisted of five sections in which section 1 was aimed to figure out teachers' profiles and background to know whether the participants were met the criteria of the subject of this study; section 2 was made to investigate teaching techniques used during online learning; section 3 comprised questions related to kinds of digital media used in online learning, as well as its usage, prospects, and challenges from respondents' views; section 4 to know what are teacher training that were expected by the respondents; section 5 consisted of question on what kinds of modules do the teacher expected in this online learning.

Data Collection and Analysis

The obtained data were listed per section to make the researcher easier to analyze. Before data analysis, the listed data were narrated and ranged from the most to the least preference answers of the respondents. By this step, we can see the differences easier than when the data were still raw.

The analytical method used in this research is descriptive statistical analysis. The measurement stage in this study is expected to determine the level of teacher readiness for technology to solve problems in class, especially learning English for young learners.

FINDINGS AND DISCUSSION

The findings of the study are elaborated under four headings, namely the teachers readiness in integrating technology in online teaching and learning process; teachers' perceptions on the use, the prospects, and the challenges of four chosen digital media (WhatsApp Group, Google Classroom, Zoom or Google Meet, and Video); kinds of teacher training that were expected to be held in this pandemic situation, and kinds of module that the teachers' expected to have in current online teaching and learning mode. The findings of this study may help to overcome aforementioned points and create successful technology adopters in the future.

The first is teachers' readiness in integrating technology during online education. The teachers claimed that most of them (73.7%) were 'very ready' to integrate technology in online teaching and learning, and the rest responded 'ready' (26.3%). This means that all the teachers were having good self-confidence in conducting the distance learning. The teachers might have experienced in integrating technology in teaching English for elementary school before the pandemic, or they have followed several pre-distance learning programs initiating by the central and local governments. This study results have similar findings from Aditya's study (2021) which concluded that teacher readiness was interpreted from their technological, pedagogical, and psychological readiness. Most of teachers were trained how to operate digital platforms for teaching. Moreover, majority of the teachers had self-initiative and positive perception to integrate technologies in teaching. On this point, teachers need to get appreciation due to their effort to adapt with the system (Setiani, et al., 2020). To sum up, the teachers' preparation and trainings before beginning the online teaching and learning process is essential.

Second, most of the teachers were balancing the use of synchronous and asynchronous techniques (47%) to get optimum output in distance learning. The blending of both asynchronous and synchronous online learning means that students can participate in anytime, anywhere learning during the asynchronous parts of the course, but then participate in real-time activities for the synchronous sessions (Martin et al., 2020). The amount of the online learning blend varies by the skills and activities included in the English subject. This considered effective to be implemented for elementary school students.

The third research findings showed that teachers knew various digital media that can be used in teaching. Those are Zoom or Google Meet, WhatsApp Group, Google Classroom, Video, LMS Microsoft 365, email, Google Form, liveworksheet.com, Quizwhizzer, That Quiz, Wordwall, Educandy, Quizziz, Filmora, and Nearpod. This indicates that elementary school teachers were well-equipped to run the distance learning. Other than that, there were 4 digital media that would explored further. Those were WhatsApp Group, Google Classroom, Zoom or Google Meet, and Video. Each of them was explored in terms of the use, the prospects, and the challenges.

From the frequency, WhatsApp Group (68.4%), Google Classroom (58.8%), Zoom/Google Meet (52.7%) were 'always' being used by the teachers. Whilst the use of video was balance between 'always' and 'sometimes' (47.4%). It indicates the teachers need the features for teaching, not merely giving video to the students. Using video was not only recording the lessons in attractive way, it was also containing instructions and interesting way in learning. But, it cannot be done two-way. So, the teachers still need to use other digital media to help them interact with the students. From the gained data, the teachers stated that those four digital media shared two same usages in common; the use of it to deliver learning materials and share daily task. The three digital media (WhatsApp Group, Google Classroom, Zoom/Google Meet) could have same function as the discussion place between teacher and students. They also could be the medium whenever the students felt the materials were difficult since they facilitated virtual meetings. From the other side, teacher mostly take the advantages of those three applications to share information, announcement, greeting students, and giving motivation. While video was able to back up the materials, just in case students missed the class or unable to join the virtual meeting. Google Classroom and Zoom/Google Meet can do more since they have features which providing assignment and quizzes tools.

The prospects shared by the respondents could be concluded as follows. All four digital media are the fastest way to share information in this situation. Those could be the place to do discussion, except for video. So, they were considered as effective and efficient in terms of information delivery. Google Classroom had two prospects that were differ from others. Those included the existed features that let students to see their scores and mistakes directly; further, students can learn anytime by opening the posted materials. While Zoom/Google Meet have two different prospects from others. They were able to be used in real-time teaching, yet could show the media while teachers explaining —just like in the face-to-face teaching mode. Zoom is also interesting for young learners since it has appealing features. For instance, a polling system to test students or get input, annotation tools, a chat box, and whiteboard. This results in line with (Lee, 2021) which stated that Zoom can be particularly beneficial for English language learners. The last but not the least, the video which is more attractive and interesting display for young learners and also the chance to replay the video whenever the students felt confused by the lessons.

In accordance to the use and the prospects, this study also explored the challenges of using WhatsApp Group, Google Classroom, Zoom/ Google Meet, and Video in online learning. All the applications were viewed to have same challenges. Most of the respondents stated that unstable internet connection, teacher and students should be technical literate, and needed extra time for teachers to collect and give feedback were three most challenging points. While others were based on each application, such as in WhatsApp Group which having big potential of parents who did the tasks, file size is limited, and the risk of unread messages. Further, Google Classroom has challenge on the negative attitude of students, such as students might caught cheating and mostly passive. Then, the respondents mentioned that the challenges on Zoom/Google Meet were related to the uncomfortable feeling to speak to a screen during virtual meeting class (Zhang, 2020). Also, time consuming and technical problems might arise. Similarly, in using video, the respondents mentioned time consuming in preparing the video as the challenge. Also, the teachers should mind the duration of in the creation of the video.

After knowing the use, the prospects, and the challenges of aforementioned digital media, this study also found the skills that might get positive and negative impact from the questionnaire. The gained data showed that WhatsApp Group might bring positive impact for writing skill, but negative for listening, speaking, and writing. This is congruent with previous studies mentioned that WhatsApp Group could can motivate students to develop their writing skills (Justina & Phil, 2016). It is due to the nature of the application that allows users to exchange information through chat (writing) (Sari & Putri, 2019) and it can be used as a tool to test students' reading skill as well. Yet, this application also provides audio files feature that enable students to improve their speaking and listening skills. Then, take a look on other media. Google Classroom might be more positive in writing skill, but negative in speaking; Zoom/Google Meet was assumed giving positive impact to speaking, and negative impact to writing; while Video assumed to bring positive impact toward listening skill, but negative impact to writing. Actually, by knowing the nature of the application, the teacher could maximizing the use of it in integration to improve the skills. The integration should notice on the principles in teaching English for young learners too, so that would make effective and meaningful learning. However, from the teachers' responses can be inferred that English teachers in elementary school have not made the most of digital media, especially in terms of improving language skills.

In teacher readiness, the abundance of technology presents a challenge in terms of decision-making and choice as to which technologies to integrate into their lessons (Aditya, 2021). If the teachers did not make the optimum function of the media, then the transfer knowledge would be time consuming considering that some forms of technology take more time to set up than their perceived value. For that reason, teachers still need intensive training and module in the use digital media and its creation related to teaching English for young learners in this pandemic situation.

The fourth heading of the findings is, from the questionnaire, teachers voiced their expectations to have kinds of teacher training and modules. After experiencing one-year online teaching, the respondents confessed that they felt more comfortable to have face-to-face class. Unluckily, we cannot predict the future. Thus, we should be able to adapt quickly and improve the digital technology mastery. The result on the expected teacher training expected by the teachers were emphasizing on the use of technology for teaching. The teachers expected to have implementation of online teaching media, how to design online materials, and how to make use of technology in online learning as the training topics to be carried out. It is obvious that to facilitate its integration into classroom activities would enhance thinking and creativity (Singh, 2014). By having teacher training, it is expected that the teachers would be more comfortable with the adoption of technology in their lesson design and delivery, being able to use and design application, creating attractive slides, creating games and quiz, creating digital media such as pictures, videos, and animation (Liza & Andriyanti, 2020; Singh, 2014).

To carry out the training, the existence of a good monograph or module should be pinpointing. Aside from the expected training, the teachers were also expecting to have module that would guide them in integrating technology in teaching young learners. They were expecting to get modules on strategy, learning models during pandemic that would cover four language skills, especially to be implemented in teaching young learners. The existence of module in integrating technology in teaching English for young learners is importance due to the questionnaire results and also previous studies stated that students' perception of online learning is negative (Astuti & Indriani, 2020; Taman et al., 2021). Thus, it leads the researcher to develop monograph or module which consists of digital media and its implementation to be used in teaching English, particularly for young learners and covers the four language skills and their components as well.

CONCLUSIONS

This study investigates the readiness of elementary school English teachers on integrating technology in teaching learning process through digital media creation during pandemic. This study results embracing on teacher readiness, teaching technique, digital media used, expected training, and expected module. Since the pandemic, the learning system in Indonesia changes into online learning. To anticipate the lack of opportunities for students to learn English, the teachers must select appropriate digital media to increase students' chance of learning English even though in online classes. Since teaching English for young learners is different from adult learners, thus teacher should be more creative and innovative in choosing and creating the learning media. From the findings, it can be concluded that the teachers were not ready yet in integrating the technology with teaching and learning process. They still did not make the most of the existing digital media to enhance four language skills in teaching English for young learners. Therefore, the development of monograph or module is needed as the output of this study. The module is expected to guide teachers with the various digital media learning and their steps in teaching and learning process.

By this study, the researcher attempts to give some recommendations related to the integration of technology in teaching and learning process. Pinpointing on the future situation, the use of technology cannot be set aside from education. Hence, the for the teacher, it is suggested to follow several teacher training programs, —especially in digital literacy, thus would improve the ability in adapting and integrating technology with education. Future researcher is recommended to explore the use of other various applications in the English teaching learning process, especially concerning on other proficiency levels. It is also suggested to broaden the research's subject and object to provide more comprehensive insight.

REFERENCES

Aditya, D. S. (2021). Embarking Digital Learning Due to COVID-19: Are Teachers Ready? *Journal of Technology and Science Education*, *11*(1), 104–116. https://doi.org/10.3926/jotse.1109

Alsaleem, B. I. A. (2013). The Effect of "WhatsApp" Electronic Dialogue Journaling on Improving Writing Vocabulary Word Choice and Voice of EFL Undergraduate Saudi Students. *Arab World English Journal*, *4*(3), 13.

Andrade, M., & Williams, K. (2009). Foreign Language Learning Anxiety in Japanese EFL University Classes: Physical, Emotional, Expressive, and Verbal Reactions. *Sophia Junior College Faculty Journal*, *29*, 1–24.

Arifah, A. (2014). *Study on the Use of Technology in ELT Classroom: Teachers' Perspective*. Unpublished Thesis.

Astuti, T., & Indriani, L. (2020). The Efl Students' Perceptions in Using Google Classroom for English Learning during Pandemic. *Jurnal Review Pendidikan dan Pengajaran*, *3*(2), 328–335. https://doi.org/10.31004/jrpp.v3i2.1333

Baytak, A., Tarman, B., & Ayas, C. (2011). Experiencing Technology Integration in Education: Children"S Perceptions. *International Electronic Journal of Elementary Education, 3*(2), 139-151.

Costley, K. C. (2014). *The Positive Effects of Technology on Teaching and Student Learning* (Non-Journal ERIC Number: ED554557; p. 11).

COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University. (2021). https://github.com/CSSEGISandData/COVID-19

Drayton, B., Falk, J. K., Stroud, R., Hobbs, K., & Hammerman, J. (2010). After Installation: Ubiquitous Computing and High School Science in Three Experienced, High-Technology Schools. *The Journal of Technology, Learning and Assessment*, *9*(3), 58.

Justina, M., & Phil, M. (2016). *Use of Whatsapp to Enhance Reading and Writing Skills at Undergraduate College Level*. 14.

Keser, H., Uzunboylu, H., & Ozdamli, F. (2011). The Trends in Technology Supported Collaborative Learning Studies in 21st Century. *World Journal on Educational Technology, 3*(2), 103-119.

Laksmi, N. K. P., Yasa, I. K. A., & Mirayani, K. A. M. (2021). The Use of Animation Video as Learning Media for Young Learner to Improve Efl Students' Motivationin Learning English. *LINGUA: Jurnal Pendidikan Bahasa, 17*(1).

Lee, A. R. (2021). Breaking through Digital Barriers: Exploring EFL Students' Views of Zoom Breakout Room Experiences. *Korean Journal of English Language and Linguistics*, *21*, 510–524. https://doi.org/10.15738/KJELL.21.202106.510

Liza, K., & Andriyanti, E. (2020). Digital Literacy Scale of English Pre-Service Teachers and their Perceived Readiness Toward the Application of Digital Technologies. *Journal of Education and Learning (EduLearn)*, *14*(1), 74–79. https://doi.org/10.11591/edulearn.v14i1.13925

Martin, F., Polly, D., & Ritzhaupt, A. (2020, September). *Bichronous Online Learning: Blending Asynchronous and Synchronous Online Learning*.

Mutiah, S. D., Nakhriyah, M., Hr, N. H., Hidayat, D. N., & Hamid, F. (2020). The Readiness of Teaching English to Young Learners in Indonesia. *Jurnal Basicedu*, *4*(4), 1370–1387. https://doi.org/10.31004/basicedu.v4i4.541

Nurefendi, E. A. (2015). *Media in Teaching English to Young Learners*. Unpublished Thesis. Universitas Negeri Malang.

Ogbonna, C. G., Ibezim, N. E., & Obi, C. A. Synchronous Versus Asynchronous E-Learning in Teaching Word Processing: An Experimental Approach. *South African Journal of Education*, *39*(2), 1–15. https://doi.org/10.15700/saje.v39n2a1383

Orhan, G., & Beyhan, Ö. (2020). Teachers' Perceptions and Teaching Experiences on Distance Education Through Synchronous Video Conferencing During Covid-19 Pandemic. *Social Sciences and Education Research Review*, *7*(1), 8–44.

Papachristos, D., Alafodimos, N., Arvanitis, K., Vassilakis, K., Kalogiannakis, M., Kikilias, P., & Zafeiri, E. (2010). An Educational Model for Asynchronous E-Learning. A Case Study in a Higher Technology Education. *International Journal of Advanced Corporate Learning (IJAC)*, *3*(1), 32. https://doi.org/10.3991/ijac.v3i1.987

Pourhosein Gilakjani, A., & Banou Sabouri, N. (2017). A Detailed Analysis over Iranian EFL Teachers' Beliefs towards Using Pronunciation Software in Teaching English Pronunciation. *International Journal of Applied Linguistics and English Literature*, *6*(7), 227. https://doi.org/10.7575/aiac.ijalel.v.6n.7p.227

Ramadani, A., & Xhaferi, B. (2020). Teachers' Experiences with Online Teaching Using the Zoom Platform with EFL Teachers in High Schools in Kumanova. *SEEU Review*, *15*(1), 142–155. https://doi.org/10.2478/seeur-2020-0009

Rasmitadila, R., Aliyyah, R. R., Rachmadtullah, R., Samsudin, A., Syaodih, E., Nurtanto, M., & Tambunan, A. R. S. (2020). The Perceptions of Primary School Teachers of Online Learning during the COVID-19 Pandemic Period: A Case Study in Indonesia. *Journal of Ethnic and Cultural Studies*, *7*(2), 90. https://doi.org/10.29333/ejecs/388

Rodinadze, S., & Zarbazoia, K. (2012). *The Advantages of Information Technology in Teaching English Language*. *3*, 5.

Santoso, A., & Lestari, S. (2019). The Roles of Technology Literacy and Technology Integration to Improve Students' Teaching Competencies. *KnE Social Sciences*, *3*(11), 243. https://doi.org/10.18502/kss.v3i11.4010

Setiani, F., Fath, M. S. A., Putri, N. S. E., Sistiarini, R. D., Saputra, A., Hidayati, H., & Fatchurahman, M. (2020). *Shift-learning: Suburban Teachers' Perspectives Towards Readiness and Media Learning Application During Pandemic Period:* The 5th Progressive and Fun Education International Conference (PFEIC 2020), Surakarta, Indonesia. https://doi.org/10.2991/assehr.k.201015.010

Singh, T. K. R. (2014). Teacher Readiness on ICT Integration in Teaching-Learning: A Malaysian Case Study. *International Journal of Asian Social Science*, 12.

Sturm, E., & Quaynor, L. (2020). A Window, Mirror, and Wall: How Educators Use Twitter for Professional Learning. *Research in Social Sciences and Technology*, *5*(1), 22–44. https://doi.org/10.46303/ressat.05.01.2

Sulistyawikan, F. (2014). *A Descriptive Study on Teaching English for Young Learner at SD 1 Posong in 2013/2014 Academic Year*. Unpublished Thesis. Universitas Muhammadiyah Surakarta.

Taman, P., Nasution, S. S., Hastomo, T., Sukmawati, N. N., & Kusumoriny, L. A. (2021). The Young Learners' Perception Towards English Instructional Practices Using Virtual Platforms. *JOALL (Journal of Applied Linguistics and Literature)*, *6*(2), 181–193. https://doi.org/10.33369/joall.v6i2.15369

Tarman, B. (2020). Editorial: Reflecting in The Shade of Pandemic. *Research in Social Sciences and Technology*, *5*(2), 1-6. https://doi.org/10.46303/ressat.05.02.ed

Zhang, M. (2020). When at Home: A Phenomenological Study of Zoom Class Experience. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3671805