Practices on Technology Integration in ELT: A Review on Existing Researches

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Abstrak: The education 4.0 phenomenon is getting stronger day by day which makes the technology integration in ELT stands in a spotlight. For this reason, this paper aims to show and to describe some techniques or teaching procedures taken from the documented research articles; and to offer some suggestions for educators in Indonesia to integrate technology in their classrooms. This paper is done as a response to the increase need to integrate technology in teaching learning process, specifically, in English language teaching. This is a qualitative research in nature through searching, taking, reading, analyzing and concluding the results from the documented researches regarding to the topic. An empirical-based research was a focus for this research; thus, there are 11 researches in total within the year 2016-2020. This paper is hoped to be able to present, to describe, and to inspire scholars, researchers, teachers, and even decision-makers to apply more teaching learning process which tends to the education 4.0 atmospheres.

INTRODUCTION

In the past years until today, the phenomenon of integrating technology in education has received considerable critical attention, including the field of language teaching. This getting famous phenomenon gradually brings the trend called as education 4.0 that, nowadays, has become one of high concern in education worldwide as well as Indonesia. The notion of education 4.0 that emerged originally from the new paradigm called industry 4.0 is considered as the core issue to be taken care of since in this digital-based era, the human resources especially in Indonesia are expected to be able to compete in the global competition in the future.

Looking back at the emergence of the term Industry 4.0, Sadiyoko (2017) claimed in his oration that the revolution industry 4.0 was implicitly first begun in 2002 along with the term called *Ínternet of Things* (IoT) introduced by Kevin Ashton (p.6). Then, in 2011, cited in Hermann, Otto, & Pentek (2015), Kagermenn, Lukas & Wahlster introduced the term Industrial 4.0 to public as an approach to reinforcing the competiveness of the manufacturing industry in German. Furthermore, as time goes by, there are four key features that has been mostly used in industry 4.0 described by Erboz (2017); the key features are: *Cyber-Physical System* (CPS)*, Internet of Things* (IoT), Smart Factory, and

Internet of Services (IoS). Those key features enable wireless communication and data sharing around the world. Moreover, there are six design principles in the Industrial Revolution 4.0 (IR 4.0) described by Hermann, Otto, & Pentek (2015): 1) Interoperability; 2) Virtualization; 3) Decentralized decision; 4) Real-time capability; 5) Service orientation, 6) Modularity. Those six design principles of IR 4.0 in the context of Smart Factory as a key feature of Industry 4.0, are elaborated as follow: 1) Interoperability means that through *Internet of Things* (IoT), *Internet of Services (IoS)*, *cyber physical-system* or CPS and human within the context of smart factory are able to communicate with each other; 2) Virtualization means the CPSs able to stimulate the virtual copy of the real world, data and information; 3) Decentralization focuses on the CPSs in working on its own in terms of problem solving and tailored productions; 4) Real-time capability in a smart factory enable in collecting, storing and analyzing data; 5) Service-orientation means the production must be suitable to customers' needs, this focuses on the use of IoS; 6) Modularity in smart factory enables the companies to analyze the trends in a market.

The key features and designs in the industry 4.0 gradually change some aspects of life including in the field of education which made the platform called as education 4.0 emerged; and it was introduced by Fisk in 2017. Supporting this claim, Sadiyoko (2017) also noted that the technology-based in industry 4.0 unconsciously affect the sectors of life, including education in Indonesia (p.28). The notion of Education 4.0 brings a new direction in education to involving the technology and digital-based atmospheres in teaching students. As a response to this paradigm, the Minister of Research, Technologies and Higher Education of Indonesia, Nasir (2018), in his presentation of Education World Forum in January 2018 described the ten focus areas including education in which the needs of emerging the IR 4.0 mostly emphasized in the higher education level to prepare graduates to have skills needed in the IR 4.0 era in forms of data literacy, technology literacy and human literacy. The graduates are hoped to be able to use the technology in designing and communicating, to analyze the data and to be able to work in a team. Thus, in order to meet those expectations, in the era of education 4.0, students are guided to be more active, innovative and independent in their learning process within the technology-based and interned-based environments (Hussin, 2018). As a result, using or involving the technology into the classroom becomes an urgent concern to be addressed, to be improved, and to be developed. Although, the use of technology in teaching itself is not an original new paradigm in teaching field, the era of IR 4.0 makes it more needed and necessary in order to help students preparing themselves to face the era as the graduates in the future. In addition, Sadiyoko (2017, p. 33-34) listed the nine characteristics of education 4.0: anywhere-anytime, personal, flexible delivery, peers and mentors, why/where not what/how, practical application, modular & project, student ownership, evaluated not examined.

As a consequence, in relation to the use of technology and digital learning embedded in the characteristics of education 4.0, a number of studies on the integration of technology under the topic of CALL and ICT within its use in the field of ELT has been increased such as Arnesen (2010), Sharndama (2013), and Mafuraga & Moremi (2017). As we know, being a lingua franca; English is widely used in the applications of IoT and also the instructions in digitalization

teaching and learning process. Therefore, the skills of using English and the increase need in the IR 4.0 become one of important matter to be taken care of. Thus, the issue of involving technology in the English language teaching (ELT) has been also becoming a major attention for the English teachers/lecturers. Moreover, Bull and Ma (2001) claimed that technology offer limitless a great opportunity for learners in their language learning.

In this case, the writers are interested in identifying and analyzing the documented research articles on the topic of the use of technology in ELT worldwide. Some of previous research such as (Ürün, 2016; Ammade *et al.*, 2018; Halim and Hashim, 2019; Shadiev and Yang, 2020). These previous research took a chronological research on technology integration based on its' year published. It is between 1996-2014, 2012-2017, 2008-2014, and 2014-2019 respectively. Furthermore, those research describe various aspects of the technology integration regarding its' factor affecting it in language learning, the barriers in ESL learning, the technology types used in ELT, and it's benefits in ELT. However, there is no one of the previous research mentioned that described about how the technology found used in teaching learning process; and no one of them related the issue of technology information with the notion of education 4.0 as well. Hence, taken this opportunity, and refer to available empirical-based research on technology integration in ELT in published year between 2016-2020, this paper tries to fulfill the gap to describe technology types found in the existing research in more detailed, and to describe the steps of how the technology used in teaching learning process. The description and implication also relate to the issue of education 4.0, and briefly describe the perspective of teachers and learners on their experiences toward the topic.

Therefore, from the results, this paper is significant as a contribution of theory or issue of technology integration in ELT as well as the education 4.0. Moreover, it serves as an inspiration and motivation for teachers in West Kalimantan specifically and Indonesia or even in global to also employ the web 2.0 tools in their own teaching learning process more often and more creative.

METHOD

This paper aims to describe, to identify and to derive the results from the documented research-based articles on the topic of the integration of technology and / or digital learning in English language teaching. This research is a qualitative in nature using a library-research design in collecting the object materials. Finding the articles through search-engine were a little bit difficult for the writers because some criteria that suitable with the aims of this paper must be set up before findings / collecting the materials. Therefore, adapting some specific criteria from Ammade *et al.* (2018), it was designed to avoid misleading in finding the materials, which as follow: 1. The articles must be an empirical research in which such technology used in the English language teaching and learning was explicitly described in the article; 2. The articles must be full-length articles/thesis within the publication year 2016-2020; 3. The keywords used are technology integration, ELT, EFL, digital era, digital English, CALL, ICT, education 4.0; 4. The settings are both international and national; 5. The subject /the participants were taken from all levels.

The writers focused the selection process on the published research articles in the publication year 2016 until 2020 because the writers want to take or to derive the results from the last five years settings in the applications using the topic instead of taking the settings from the older years. Furthermore, by referring to those criteria, some articles that have similar discussed topic which were only focused on the terms of describing and analysing the perspectives of teachers or learners without implementing a certain technology such as Alqasham (2018); Nuraeni (2018); Ibrahim and Kadiri (2018); Putri (2019); Hamat and Hassan, (2019) as well as ones were not focused on English learning such as Santoso (2019) and Saifudin (2018) , were eliminated as well.

FINDINGS
The Exist Studies on Technology Integration in ELT
Accordingly, there are eleven documented-research articles that had met the said criteria. Those articles are further summarized as follow: firstly, there are 3 researches found in 2016, 2018 and 2019; and one research in 2017 and 2020 respectively. Moreover, most of the studies found took place in Indonesia, one research in Japan, 2 researches located in Malaysia, and 1 research located in Columbia and China. Secondly, even though the selecting process has been set on the publication year within 2016-2020, the writers could only find one research article in the 2020 that had met the criteria. Thirdly, six out of eleven researches focused on speaking skills. Fourthly, the higher education level is the most education level chosen by those researchers, which there are eight out of eleven researches. Looking at the findings, it reflects the goal of education 4.0, in which it mostly emphasizes its application for the higher education level students. In order to achieve the goal of this review paper, deriving from those existing research articles, the writers categorized the findings into two main themes: 1) The technologies; 2) The procedures. Those themes will be elaborated in the following sections below.

The Technologies
In the past decades, even though technology integration in education, particularly in English teaching is not a new paradigm; the influence of globalization brings the paradigm called education 4.0 emerges. It makes the role of technology integration in teaching as one of the important matter for teachers to be prepared, to face and to apply their classroom into more fit in the new era. The integration of technology takes many forms especially in English language teaching which causes many of researchers interested in this topic (Ammade, Mahmud, Jabu, & Tahmir, 2018, p. 107). Furthermore, Zhang (2006), as cited in Alsulami, 2016, p. 2), explained that the sounds and the image in the multimedia and network technology offers friendly and attractive environment for students to learn English. The urgency of English mastery in this era is divided into two reasons, which are: To prepare the examination of IELTS or TOEFL, and to find a job in which English is used as worldwide language. In addition, Ahmadi, 2018, p. 116) noted that the technology integration can facilitate learners in their language learning. Hence, deriving from the nine existing research articles listed in the previous section, the technologies used are elaborated as follow.

Social Media platforms and applications

WhatsApp, Instagram, Podcast, DST, Edmodo, Ms. Photo Story and Orai are the applications and software used in the existing researches within the publication year 2016-2020. WhatsApp and Instagram are two popular social-media platforms where people can share his or her story of life and connect to each other worldwide. WhatsApp was firstly introduced in 2009 by its founders, Brian Acton and Jan Koum. It offers the users to not limited text messaging, group chatting and location sharing. This cross-platform messaging application is available for users' mobile phone such as iPhone, Android, Nokia, and Windows to share and exchange text, image, video, an audio (Rouse, 2013). Instagram is another social networking service built around 2010 for ioS, and then it became available for android users in 2012; later, in the same year Facebook bought its service and own Instagram since then (Stegner, 2019). Instagram allow its users to share video, photos, story and direct message for the users to chat privately (Rouse, 2017). Furthermore, derived from *help.instagram.com*, Instagram allows the users to view, like, and comment the photos or video shared by his or her friends (help.instagram.com, n.d)

Turning now to the next technology web-based and mobile-phone friendly: Podcast, it is online audio files or downloadable audio/video files that can be listened to anywhere, anytime. In ELT, teachers use this device to provide authentic materials in encouraging the students' listening, writing, speaking skills (Meyer, 2018). This radio program also available for mobile phones which makes this application is very convenient to be adopted in teaching learning process. Next, another technology network device is called DST for digital storytelling; it is simple, creative and computer-based application to tell story. The storytellers create the story through traditional ways by selecting a topic, conducting some research, writing a script, and developing an story along with adding the audio, images, video clips, etc (Robin, 2008, p. 222). In relation to DST, a Microsoft Photo Story is one of digital story software that can be used to create the story along with the audio or recorded voice, images, etc (Charisma & Khomarudin, 2019, p. 78).

The next found application is Edmodo. Cauley (2014) says that "Edmodo is an educational website that takes the ideas of a social network and refines them and makes it appropriate for a classroom". In its official website, Edmodo is "a global education network that helps connects all learners with the people and resources needed to reach their full potential" (Edmodo.com, 2019). By signing up into this education network, teachers and learners around worldwide are able to share, create and learn their teaching and/ or learning process. Another we-based platform namely Wordpress is found as well. Wordpres is first emerged in 2001, and then developed in 2003 (Wilson, 2013 in https://winningwp.com/a-brief-history-of-wordpress). The blog now has more than 1.7 million users including scholars such as Thornburry and Harmer.

The last application used that had been identified is called Orai application. The idea of creating this application was initiated by its founders: Danish Damani and Paritosh Gupta in 2013. Danish Damani who came to US in 2013 had difficulties in speaking English especially to go public speaking using the language; along with his co-founder, Paritosh Gupta, they created a paid downloadable application to help themselves and any other non-English speakers

around the world to develop their public speaking skills (Takahashi, 2017). Fastcompany.com describes, "Orai is an app that provides you with instant feedback. It gives a report on your clarity, use of filler words, pace, and vocal energy". It has many good features such as Micro-lessons on public speaking, detailed performance tracking, audio recording and playback, accurate transcript of what you say, save your previous recordings, ability to share your recording and transcript with friends/colleagues, freestyle mode to practice anytime, anywhere (Playgoogle.com, 2019).

Audio-Clip, Vlog and Mobile Phone

It has been known since many years ago that the technology integration in the field of English teaching learning holds important role even before the emergence of the latest paradigm, education 4.0 (Mannan, 2005 in Athawadi, 2019, p. 68); it makes the role of the technology; internet-based and digital learning getting more famous in the field. Despite of the growth application usage and network technology in supporting the teaching and learning English, more traditional technology devices such as audio, video and recorder still able to attract scholars, or teachers' attention to use it in their teaching classrooms. It is proved by a number of researches that had been conducted in teaching English using such technology devices as has been found in the existing researches, one of them is Shian & Yunus (2016) mentioned above. Audio-clips are designed materials using audio files or recording sounds in teaching learning process. It is different with the audio-visual in which using both hearing and sight, meanwhile audio-clip is reproduced sound that can be used as materials in teaching (Meriam-Webster.com, n.d).

Next, the use of Vlog found in Ong, Swanto and Alsaqqaf (2020). Refer to *theartsdevelopmentcompany.org.uk,* it says, "Vlog stands for a video blog or video log, and refers to a type of blog where most or all of the content is in a video format. Vlog posts consist of creating a video of yourself where you talk on a particular subject such as reporting or reviewing a product or an event". The last technology found is mobile phone. Mobile phone is considered as premier need for people that come to its benefit for language learning. Taken from this, the next topic of how the researchers applied those found technologies will be elaborated more in the following section below.

The Procedures

This section describes about the steps done by the researchers in integrating their teaching process using those technology devices or tools mentioned before. Firstly, there is one research in 2018 used both WhatsApp and Instagram (Anggraeni, 2018) in their teaching process. Integrating WhatsApp and Instagram into the speaking class in one of Universities in Indonesia, 2 lecturers and 30 students of the said class participated in the research. In the implementation, the lecturers used the application to encourage students in doing their assignments in spoken forms. The students posted their assignments to WhatssApp (audio-files) and Instagram (video-file) discussed about certain topic that had been assigned by the lecturer beforehand; and then their friend could give them some comments.

Turning now to the integrating podcast in the English writing skill to a freshman student situated in Colombia, Noriega (2016) focused his/her research on finding about is the podcast can help to improve a student' writing. For this purpose, the participant was asked to write a recount text, autobiography and short story before getting any explanation about the said text types. Next, after giving the treatment by explaining the materials; the researcher gave him a mobile phone with the podcast installed in it. The podcast contained the materials about the text types. The participant brought the mobile device for two weeks; so that, he could use the podcast in their learning outside the classroom. In the third week, he was asked to rewrite the texts to analyze which parts (steps of genre structure, text unit, graphology and spelling) had improved (p. 186). As a result, the researcher reported that there was an improvement of student' writing in comparing between before and after checking the materials in podcast.

Lestariyana & Widodo (2018) conducted a research by using a digital-story telling project, particularly used Microsoft Photo Story 3 software to elementary school grade 4 until 6. There were 30 students in total who were wished to participate in the project. In its implementation, it took about 14 class periods to finish the project. The students firstly were taught some vocabularies, grammar, pronunciation, and English daily expressions (four weeks). In week 5, the students were divided into group of 5 or 6 members which they had their own roles such as a story narrator, photographer, script writer, language editor and digital story creator. After brainstorming and deciding the topic, the students were guided to the real location (fruit farms) to take some pictures by themselves (week 7). In the next weeks (week 8-10), the students were guided to select their own captured photos and to write some captions in order to generate ideas for the story. The next step was, the researcher taught them about the rhetorical structure of a story, and asked them to collaboratively narrate a story from their selected pictures in 100-150 words. In week 11, the students were introduced how to operate the Microsoft Photo Story 3 software to create their digital story. This process took 4 weeks, and in this 14th week, they created their digital story using the said software in groups and shared it to each other groups. From this project implementation, the researchers claimed that bringing the students into doing a project by using DST; it can engage them in their learning in which they can actively involve in the process.

It is in contrast with a research done by Lestariyana & Widodo (2018), Charisma & Khomarudin in 2019 had conducted an experimental research-based to the university students in Cirebon by using Microsoft Photo Story 3 in their speaking class. Aiming at increasing students' speaking achievement, the researchers used one pretest and posttest design. The utilization of the application took place for 4 weeks after the pre-test. The treatment was given based on the steps in using the application, they are: 1) Choosing "begin a new story" to create a story, 2) Selecting and arranging the pictures and then import it to the film strip, 3) Adding a title in one of the picture, 4) Recording the narration for the story by clicking the "record" button, 5) Customizing the motion of the film strip by clicking the "customize motion", 6) Inserting the background music by clicking "select music" or "create music", and the last step, 7) is saving the story (p. 81).

Looking back in the year of 2016, Okumura conducted a project-based research in his/her class in one of women university in Japan. Edmodo was chosen

by the researcher in the project in order to increase the students' communicative competence proposed by Hymes (1972). There were 69 students from 2 different classes who participated in the project. In the implementation, the students were asked to sign up to the Edmodo. Then, the lecture asked them to give simple self-introduction writing (6 sentences) in English through Edmodo. They had to give comments under their friends' posting. The researcher, then, encourage students to write any additional information about themselves which it can expand the text-conversation among them. In the same vein with Noriega, Gay and Sofyan (2017) had chosen Edmodo in teaching writing as well. In their implementation, students were asked to post an essay in the platform and required to comment on their friends posting as well. Then as the final assignment, they were asked to write a research proposal (p. 5). Halimah, Ibrahim, & Lustyantie (2018) used Orai application in their classroom action research in order to see the students' learning process in their speaking regarding to fluency. In the first attempt, the students were asked to utter the words to the application and then waited for the device analyzing their utterances covering their pronunciation, tone, and energy. Then, they discussed about their analyzing results from the application with the teacher and their friends, and then made some correction in uttering the words. The next step was, asked them to keep repeating the steps. Lastly, they might submit their final result along with the transcript texts if they already felt confident with the result they had (p.79-80).

Moving to the next integration of technology used in English teaching learning process, audio-clip was used by Shian & Yunus, (2016) in listening task activities for primary ESL learners in Malaysia. The procedures were done with developing the listening materials and the task items using the textbook used in the school. It was four-week activity in which the students were given some initials vocabularies and expression in English for them to do the listening tasks. The audio-clip were played through mobile phone and speakers while the students answered the task sheet given which consisted of four types of questions: 1) True-false, 2) listen and circle, 3) listen and fill-in the gaps, and 4) listen and sequence the stories. Going back to the year 2019, the use of Photovoice method via Mobile phones was done by Hidayat, Rofiudin and Sulistianingsih (2019). Using two classes: one class taken as control group while another class taken as experimental group, the mobile phone was used to take photos in an implementation of a method called Photovoice. There were seven meetings in total, in which students were assigned in groups of 5 until 6 to take picture outside the classroom in meeting four. In meeting five and six, students worked on their assignment which was writing a text based on the pictures they have taken and selected. Finally, in seventh meeting, they presented their text in turn in front of the class.

It is still in 2019, Wordpress platform was used by Pei and Suwanthep (2019). Using web-based learning to teach listening skills to students, the researchers created two Wordpress platforms for a control group class and an experimental group class. Furthermore, traditional listening instruction was given to control group; whereas web-based metacognitive instructions cycle by Vandergrift through wordpress was given to experimental group. In experimental group, ttudents logged in into the platform, listened to the audio, answering questions and then summarized their listening; as final step they must gave a report on their learning each week. In contrast, the control group basically had the

same drill; however, they did not need to make a reflective journal about their learning as the experimental were asked to do. Then, the last is the use of vlog or video blogs in 2020 by Ong, Swanto and Alsaqqaf (2020). Taken from their research report, they spent 12 weeks in conducting the research. It included introducing what the vlog is and the reflective model to the subjects. Then, they were asked to record themselves reflecting about their teaching for 2 videos. After that, they posted their vlogs in Facebook group that already created by researcher beforehand. In this platform, Facebook, they were required to comment and ask questions to one another.

DISCUSSION

It has been mentioned in previous section that there are seven applications, namely: Podcast (2016); Edmodo (2016; 2017); WhatsApp (2018); Instagram (2018); Orai (2018); Digital Story telling using Ms. Photo Story 3(2018); and, Ms Photo Story 3 (2019) used for teaching in the researches. In addition, audio-clip was found as well in both researches in the publication of 2016, Mobile phone (2019), Wordpress (2019) and vlog (2020) also found in the researches. All researches claimed that the integration of technology indeed helps students in increasing their performances and motivation. This result reflects the statement of (Tutkun, 2011) and (Bennett, 2014) who claimed that technology-based learning atmospheres encourage students to be more independent in their learning; in which, it triggers them to be more active and confidence. This also accords with Altun (2015) who noted that the use of cell phones, internet, smart board and video games in the process of learning can increase students' language awareness which it also creates natural environment for students (p. 23). In addition, the usage of those applications cannot be separated from mobile phone integration as well. As Rezaei, Mai, & Pesaranghader (2014) also reported that the use of mobile applications enhanced students' learning of vocabularies, confidence and class participation. Furthermore, they also reported that this research claimed that the students had positive attitude.

Internet as a must tool to integrate technology or web-based language learning in the classroom brings it as an integral part of students' life (Marco, 2013, p. 259). The use of internet-based class instructions as had been done by some researchers are becoming more on the spotlight such as Sharadgah (2013) and Shyamlee and Phil (2012). Sharadgah took place in Saudi Arabia; the researcher reported that by utilizing internet-based instruction program, it can increase students' autonomous learning (p. 265).

The next implication is concerned with the result reported by Noriega (2016). Podcast is the technology device used in the research. Reporting the successful of the Podcast integration in a writing classroom for university students; it can be denoted that the use of podcast in teaching writing helps student to be more attentive and attracted to learn the text types in their mobile phones. In line with the researches that had been described in the previous paragraphs, incorporating podcast in teaching writing encourage the students' awareness in their own learning to become more independent and attentive. In addition, Elaish, Shuib, Abdul Ghani, Yadegaridehkordi, & Alaa (2017) noted that mobile learning is holding a portability and handiness that nowadays more prefer by users because they can use it anywhere, anytime, and it is available in their

daily life activities in which spontaneous and natural environment learning can be achieved (p. 8).

Looking at the next technology web-based used in teaching English, Edmodo; Okumura (2016) reported that the incorporation of Edmodo in his outside teaching activity enhanced the students' communicative competences. The result implies that writing self-introduction and commenting to each other, the students learned to be aware of their grammar, choosing language (structure, word choice, etc), constructing an effective discourse, and keep going a conversation. In the same vein, Gay & Sofyan (2017, p. 9-10) based on his research results found that students felt motivated while using Edmodo. Furthermore, their communication skills improved as well; they felt engaged in their communication by posting and commenting among them in the Edmodo platform.

Moving on to technology integration in ELT regarding to the use of audio clip that was reported by Shian & Yunus (2016), this research implies that using audio in teaching listening in particular can increase the engagement in students' learning. It was taken from the students' perception, hearing the native voices motivated them more in paying attention and be more attentive. Situated in a rural area, the availability to use the multimedia is one of challenges faced by teachers. Nevertheless, from this finding, it can be noted that teachers hold a crucial role in the teaching and learning process regarding to bring, to integrate, and to incorporate technology as often as possible to prepare the students to face the global pace (p. 426-427). It can be related to Renandya and Widodo (2016, p. 17) statement that teacher's role in collaborative learning is as a guide since using technology in ELT mostly requires students to work in pairs or small groups. Despite the gap that had been pointed out in this research, the positive result and perception of the audio-clip integration in a learning activity is supported by Shyamlee & Phil (2012) who describes that multimedia technology provides an authentic sense in which it can grow students' concern, encouragement and participation in the learning activities (p. 152).

Turning now to Instagram and WhatsApp integration in an English speaking class situated in one of cities in Indonesia, the research done by Anggraeni (2018) implies that the activity urges students to be more active and motivated in developing their speaking skills, as well as their communication skills in which they had to give comments under their friends' postings. In accordance with the present results, previous research also demonstrated that integrating WhatsApp and Instagram provide them chance to do self-evaluation by listening to their own voice recording (Han & Keskin, 2018, p. 19), and it can also widen their skills in using vocabularies and other language skills (Shazali, 2019, p. 96). However, three main challenges are exposed in the present research regarding to teacher's techniques, students' proficiency and facilities (p. 18). Nonetheless, those obstacles should not hinder teachers to incorporate technology into their classroom. It is because by integrating technology, it helps students to become autonomous learners which are meant that they are encouraged to develop their own strategies in learning, they can reflect their own learning progress, and increases their involvement in learning process (Richards, n.d).

The next technology review is the integration of Orai application reported by Halimah et al. (2018). From this research, it can be implied that Orai application can help students' in developing their speaking skills regarding to their

pronunciation, and energy level. As Simon-Lewis (2017) stated that Orai helps us in choosing words and give feedback to the filler words, pacing and word clarity (wired.co.uk). Moreover, Halimah et al (2018) also pointed out that learning to speak using the application makes students feel less anxious and it also promotes self-study during learning process.

On the use of another technology-based classroom, Digital Story Telling (DST) project using Microsoft Photo Story 3 was used by Lestariyana & Widodo (2018) to a primary school graders. Reflecting to the process of doing the project, this research implies that during the process of creating the story which was started from taking pictures, field observing, interviewing, selecting and sorting out the pictures, drafting and narrating the story, and importing music in the Ms. Photo Story 3 software; three areas of language skills had been covered by the students, that is pronunciation, vocabulary, and grammar. Furthermore, they authentically used the target language during the project. Collaboratively doing the project, they were engaged in their learning supporting by the technology itself and less-pressured in their speaking using English. As Johnson (1989) and Pantiz (1999) cited in Laal & Ghodsi, 2012, p. 487) summarized the benefits of collaborative learning, for instance; it increases students' self-esteem, it reduces anxiety, it improves students' active participations, and it promotes critical thinking. In the same way, integrating the same software, Mirosoft Photo Story 3; Charisma & Khomarudin (2019) also reported the success of this software integration in creating a digital story. It implies that the software integration promotes and motivates students to become independent learners.

The results of the investigation shows that integrating technology in English language teaching gives positive effects in terms of students' achievement, students' behavior, students' motivation, and students' language awareness. Some obstacles also can be inferred from this investigation, for instance; firstly, the availability to access the technology either it is online or offline; it happens for settings that is located in more secluded or limited internet access area. Secondly, teachers', instructors or lecturers capability in applying or integrating the technology-based teaching into their classroom which is also deals with their lack of internet or computer know-how. Thirdly, learners' anxiety, low motivation, and low English proficiency level that become hindrance for them to be brave in developing their English skills. Fourthly, when the technology itself can be a disruption in learning process, hence, teacher guidance and students' self-efficacy play an important role to avoid giving the teaching and learning process bigger disruptions. For this reason, despite the obstacles mentioned before, some big steps need to be done. In Indonesia, for instance, the education 4.0 cannot be fully embraced by teachers who work in no internet, low electricity and limited facilities areas, thus decision makers needs to solve this issue.

However, looking at the results from those researches, it already reflect that the competition to introduce and to push learners; particularly Indonesian learners in the atmosphere of learning English in Education 4.0 era. It is teachers' duty to bring learners to become compatibility in order to be ready to compete in work field in the future. As Riyandi (2019) claimed that the rapid development of industry 4.0 affects other sectors of life which consequently Indonesian must prepare themselves to take chances with self-development, especially in technology (ayobandung.com, 2019).

CONCLUSION

This paper is set out to review, to describe, to offer the available information on integrating technology in ELT from existing research published in 2016-2020. Accordingly, among the eleven researches described above, it is found that there are two web-based platforms (Wordpress, Edmodo) and two social media (WhatsApp and Instagram), one application (Orai), two software (DST and Ms.Photo Story 3) one audio-clip, one video blog along with the use of Facebook and one hardware (mobile phone) used by the researchers in their ELT practices. Furthermore, the procedures and the implications of integrating those technology had been described which hopefully can attract and inspire more teachers worldwide in general and Indonesian teachers in particular to participate in experimenting technologies available into the classroom as an effort to help learners widen their capability in this digital era as well; especially in using English whether in spoken or written form.

SUGGESTION

Considering from the findings and discussion section above, there are some suggestions can be offered: firstly, to provide some training for teachers using technology-based in ELT; secondly, to experiment to use the technology in other settings or in other materials or skills; thirdly in accordance with the notion of education 4.0, technology or web –based integration ELT class using Dogme language approach can take into consideration to be applied; fourthly, this research is not able to scope all exist researches, may future research can cover this gap to provide more experiences and deeper analysis on the topic, and lastly, sharing the experiences to others worldwide.

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