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The Use of Emerging Technologies by EFL Teachers in Primary Schools

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Although the use of emerging technologies in education is rapidly increasing, several studies have proved that teacher's personal and technology-related characteristics that most affects young language learners performance. This study investigates the level of emerging technologies use in teaching English as a foreign language for primary school settings. English language learning, especially as a foreign language, is not limited to any particular age group. However, the focus could be different for primary school students as they are in the critical period of language acquisition. Twenty full time-teachers participated in the study and filled out questionnaires provided and developed to measure the use of emerging technologies in supporting oral skill, developing young learner's literacy and digital game-based learning. The questionnaire was mainly focused on the frequency, quality and diversity of emerging technologies use in teaching English language. The results of data analysis revealed that teachers tend to use ICT for supporting students' oral skill instead of developing students' literacy. It was also found that teachers with better computer literacy seem to use ICT in the classroom than teacher's with low computer literacy.

Keywords: emerging technologies, language learning, young learners, primary school.

1. INTRODUCTION

Today's children have become a net generation which means they use internet simultaneously and learn how to use it naturally. It is an inevitable consequence as for the growth of technology has been transforming and increasing rapidly for the past decades. The rapid technology growth has both positive and negative effects for its current usage on daily life. It has infiltrated every aspects of life including educational system. Although the use of technology in the world of education hasn't met its potential, especially among older people, it has been a good feature of language education since the invention of its digital tool called computer assisted language learning (CALL) in 1960s (Motteram, 2015). Since then, a great number of emerging technologies have been being developed to help language learners getting an easy access of knowledge in a rapidly evolving information society. However, the use of emerging technologies in primary school settings hasn't related to the language development of middle until late childhood.

The definition of emerging technologies is still being discussed among the scientists to meet the precise definition of the term. Nevertheless, emerging technologies were believed as those arising or undergoing fundamental transformation that likely to have a large

impact on diverse educational settings in the last five to ten years (Warschauer & Liaw, 2010; Veletsianos, 2010). Therefore, the characteristic of emerging technologies are tend to be a technology that is not yet fully understood either researched, potentially disruptive, and more importantly it has an ability to evolve organism (Ng'ambi, 2012).

This paper analyzes the use of new technologies in transforming language learning practices on primary sector. In carrying this analysis, we recognize the needs of basic theory of the key developmental milestones in language development of middle and late childhood period and what kind of emerging technologies can be used for helping to expand language learning opportunities. We first review the language development and the appropriate approaches for teaching language on primary school settings, and we then analyze emerging technologies for literacy and language education development.

2. LITERATURE REVIEW

2.1 The Language Development of Middle and Late Childhood

Based on the periods of development, primary students are classified as middle and late childhood (sometimes

called the “elementary school years”) which extends from about 6 to 11 years old (Santrock, 2009). The fundamental skills of reading, writing, math, and achievement are being mastered on this period. However, for learning English as a foreign language, especially for young learners, the goal focuses on oral competency and vocabulary enrichment by introducing phonetic using songs, rhymes, and traditional stories. (Pan & Uccelli, 2009; Pim, 2015). Therefore, emerging technologies used and developed for primary students mostly concern about the improvement of oral competency and vocabulary development.

2.2 Use of Emerging Technologies

2.2.1 Technologies to Support Oral Skill

The range of technologies used for oral competency and vocabulary enrichment are varied from recorded songs, talking electronic books, educational television, and video conferencing (Pim, 2015). Most of which can be found and downloaded easily in the internet and used to help improving learners’ pronunciation, acquisition, and vocabularies building. Those digital tools have been used for years to help children learning the alphabet, to know the use of words in different context, and to expand their vocabularies by classifying it based on a theme.

1) Talking Texts

One of the latest technology used for improving oral competency as well as enriching english vocabularies is talking texts or talking books. A well-produced talking books can make reading as a fun activity even for the children whose current reading ability is still lagging by bringing text alive through the voice characterisation. At the same time, children will also learn about vocabularies, pronunciation, and intonation by hearing how the speakers say the language (Pim, 2015). The effectiveness of talking books for learning new vocabulary was also perceived by teachers at Terrakki Foundation Schools, Istanbul after having been done a one year story writing project adopting the audio-enabled talking book. The result showed that the well-created talking book has helped the children to consolidate their learning of a new vocabulary.

2) Video Conferencing

The advantage of emerging technologies is not only for the students to learn new vocabularies but also significantly helps teachers when they are not confident enough with their english pronunciation. In some Asian countries such as Japan and Taiwan, video conferencing has been used to facilitate students learning with appropriate resources since many teachers don’t have an adequate oral competency to deliver lessons (Pim, 2015). Drawing on theories of middle and late childhood language learning, collaborative learning and emerging technologies in transforming learning, a four-year international school linking project involved Japanese students and peers from schools in Australia to develop the japaneses’ oral competency and share cultural experiences as well. The video conferencing whiteboard

was used to show a PowerPoint and the discussion was conducted in both japanese and english with the help of an interpreter. By the end of the project, the japanese teachers reported that their students were motivated to pay special attention to their oral english presentations in the future.

2.2.2 Technologies to Develop Young Learners’ Literacy

Learning literacy, how to write and read, could be a challenging and threatening activity for early readers. At the same time, teaching literacy could be a relentless taskmaster for the teacher since literacy isn’t gained naturally. Fortunately, several technologies have been developed to help both the students and teachers to face the challenge.

Nowadays, children are exposed to many kinds of digital texts such as the online social networking, computer games, and even their favourite English speaking movies and songs. This circumstance gives a significant role in developing their english literacy. In addition, if the digital texts are provided on an awesome mobile technologies, it can boost their mood to read.

1) Reading Practice

Reading promotes vocabulary development. Therefore, it is important for softwares that promote vocabulary development to motivate students to extend their learning through reading (Santrock, 2009). TextHelp’s Fluency Tutor (www.texthelp.com/UK) is a reading practice tool that enables the user to record their reading text and give an immediate quiz to evaluate their understanding. For the teacher, this system enables them to give a score for the students’ reading. Meanwhile, Wordle (www.wordle.net), a web-based tool for developing young learners’ literacy, helps the users (primary students) to get information about vocabularies used in a particular topic and the grammar rules in English writing (Pim, 2015).

2) Writing Skill Development

Although young learners do not deal with written assignments as much as the adult, it is still important to increase their understanding on the use of grammar rules in writing. Multi modal digital narratives like cartoons, storyboards, blogs, websites, and extended prose are now available for students to embark their own personal writing. It is also possible for the students in grade 5-6 to create their own talking books using a presentation software like 2Simples’s create-a story (www.2simple.com) (Pim, 2015).

2.2.3 Digital Game-Based Learning

The use of video games to support teaching and learning, which also best known as Digital Game-Based Learning (DGBL), is still debatable as it is traditionally believed that games are related to an unproductive activity (Ang & Zaphiris, 2008; Perotta, Featherstone, Aston, & Houghton, 2013). Even so, in this digital age many researches have proved the positive impacts of DGBL in improving students-teachers engagement and

motivation (activity (Ang & Zaphiris, 2008; Perotta, Featherstone, Aston, & Houghton, 2013).

A study of the computer games impact on young learners' vocabulary learning conducted in Mersin, Turkey, found that the DGBL motivated them to learn unknown words and encouraged them to listen well to the character's speech in order to win the game. The students could learn new vocabularies while playing the DGBL by putting on some ways to find out the meaning of the unknown words. However, the kind of DGBL should be well selected and monitored since some games may teach profanity.

2.3 Teacher's Personal and Technology-Related Characteristics.

Several studies have been carried out to determine the relationship of teacher's characteristics and the use of ICT (Robinson, 2003; van Braak, Tondeur, & Valcke, 2004; Rahimi and Yadollahi, 2011). The studies of teachers personal characteristics focused on observing the gender gap (Cooper, 2006), age (Van Braak et al., 2004), confidence (Robinson, 2003), and attitudes towards technology (Van Braak et al., 2004; Rahimi & Yadollahi, 2011 and Safitry et al. 2015). The general findings mostly stated that female teachers have lower level of computer use and the more experienced teachers or older teachers tend to use computer less frequently.

In line with this, technology-related characteristics are also believed to have a great contribution in the use of ICT in education. According to Pamuk & Peker (2009) teachers' computer skills and knowledge can create major barriers to ICT use.

2.4 Computer Literacy.

Computer literacy is defined as the ability to use computers at an adequate level for creation, communication, and collaboration in a literate society. In language teacher education, it involves the development of knowledge and skills for using general computer applications, language-specific software programs and internet tools confidently and competently (Son & Robb, 2011).

3. METHODOLOGY

3.1 Participants

The participants were 20 English teachers selected to stratified random sampling from primary schools in the capital city of Indonesia. All of the selected teachers are under 30 year old female and have been teaching in any school for about 1 up to 10 years.

3.2 Instruments for data collection

3.2.1 Personal information form

Teacher's personal characteristics were collected by using a personal background information questionnaire. The participants were asked to provide information about the following variables: age, gender, average number of students per class, teaching hours per week, and years of experience. Experience with emerging technologies for teaching was assessed by asking the years of experience and giving the following options: never, rarely, sometimes, often, and all the times.

3.2.2 Computer literacy questionnaire

To assess teacher's computer literacy, several questions about the obstacles to the use of emerging technologies in teaching and the use of various technologies for supporting oral skill and developing student's literacy were designed and used. The English teachers of primary schools were asked yes or no questions regarding their knowledge and experience with several emerging technologies for supporting oral skill, developing student's literacy, and using digital game-based learning. The obstacles and teacher's computer literacy were assessed by giving the following options: not at all, a little, partially, and a lot.

4. RESULTS

4.1 Experience with Emerging Technologies for Teaching

All of the participants use computers and/or the internet for both preparing lesson and class teaching in front of/with the students. As presented in Figure 1, teachers used computers and/or internet for preparing lesson all the times (100%). On the other hand, the answers for the frequency of using the technologies for class teaching are varied from sometimes, often, and all the times (90%).

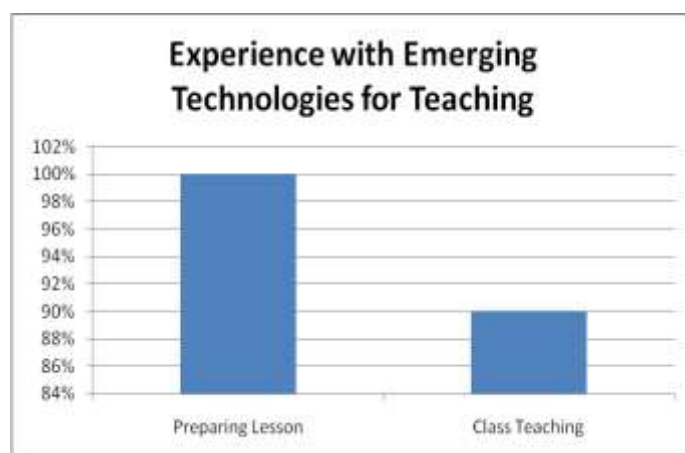


Fig. 1. Experience with Emerging Technologies for Teaching

4.2 ICT Use and Primary School Teachers' Personal

Characteristics

Since all of the samples are female under 30 years old there is no information about the relationship of age and gender in the use of ICT for teaching.

4.3 ICT Use and Primary School Teachers' Technology-Related Characteristics

The results show that teachers with better computer literacy seem to use ICT in the classroom than teacher's with low computer literacy. Besides that, teachers who have better access to technology such as, sufficient numbers of computers, internet connected computers, internet bandwidth or speed, interactive whiteboards, laptop or notebooks more likely to use ICT in the classroom than teachers' with insufficient number of technology.

4.4 ICT Use for Promoting Primary Students' Language Development.

Table 1 Shows the the frequency of ICT use of EFL Primary School Teachers in language teaching.

YES	%	Activities
Preparing Lesson	100	Browse/search the internet to collect information to prepare lessons
Delivering Lesson	90	Browse/search the internet to collect resources to be used during lessons
Presentation	75	Use applications to prepare presentation for lessons
Creating Material	35	Create your own digital learning materials for students
Preparing assignments	90	Prepare exercises and tasks for students
Student home work	20	Post home work for students on the school website
Self upgrading	55	Look for online professional development opportunities

The result of the study revealed that Primary school EF teachers used ICT mostly in supporting oral skill. The teachers

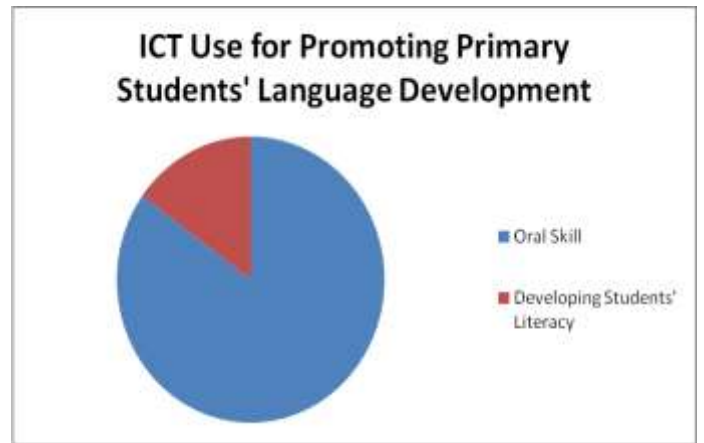


Fig. 2. ICT Use for Promoting Language Development

Recorded songs and YouTube are the most used technologies for supporting primary students' oral skill. While video conferencing was only used by 9 teachers who have more than 10 years of experience.

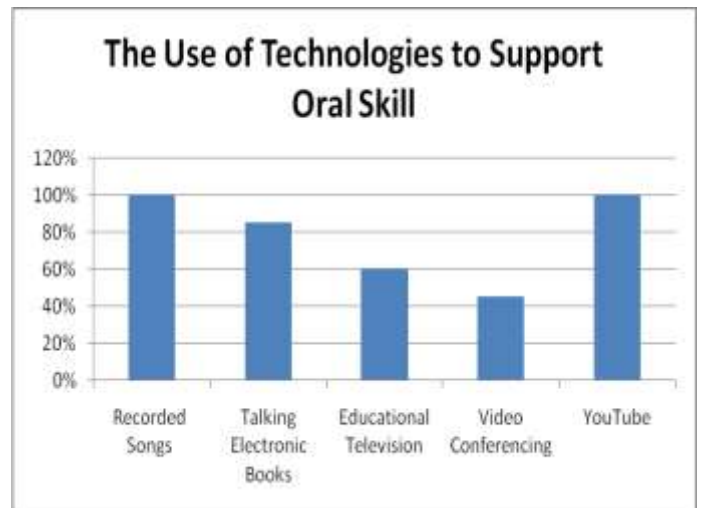


Fig. 3. The use of technologies to support oral skill

The result in Figure 4 shows that Wordle is less popular than self- authored book among primary school EFL teachers' for developing students' literacy.

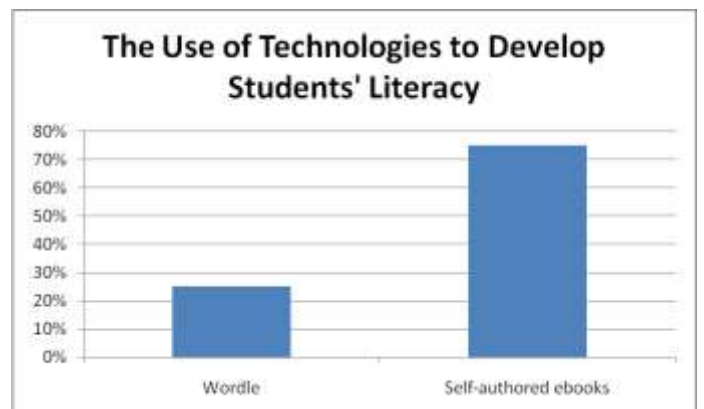


Fig. 4 The Use of Technologies to Develop Students' Literacy

5. DISCUSSION AND CONCLUSION

The result of the study revealed that Primary school EFL teachers used ICT mostly in supporting oral skill. The finding is consistent with Rahimi and Yadolahi (2011) study which reported that EFL teachers in Iran used technology most often in speaking and vocabulary enrichment. Besides that, teacher's personal and technology related characteristics play a great role in the use of ICT in education. The fact was reflected by the result which showed that teachers with better computer literacy seem to use ICT in the classroom than teacher's with low computer literacy.

The rapid growth of technology has inevitably infiltrated in every aspects of human life including the educational system. During this digital era, many emerging technologies have been being developed to support and transform English language learning. Based on language development theory, oral competency and vocabulary development are the main developed skill for middle to late childhood period. Therefore, the emerging technologies for primary school settings are mostly built to enhance those skills. However, further research should be done to evaluate the potential contribution of technologies in English language learning.

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