Digital Technology Use of Teachers and Students and Their Perceptions of Technology Integration into English Curriculum in Thailand

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Abstract
In this digital age, many CALL scholars have affirmed the leverage of digital technologies and social media to access a multitude of authentic online resources. Moreover, technologies can increase students' motivation, their learning outcomes and make teaching and learning more constructive and engaging. However, no research to date has explored digital technology use of students and teachers and their perceptions about technology integration in Thai education. In response to a widespread call for teachers to incorporate digital technologies into curricula, this descriptive study investigated how English language in-service teachers and students at a Thai private university use digital technologies for academic and non-academic purposes. The study also explored their perceptions of technology incorporation into English curriculum. The study's objective is to raise the awareness of practitioners, researchers and policy-makers to create innovative technology-enhanced language learning activities to develop students' digital literacies. It is widely accepted that digital literacies are essential skills to survive in the age of emerging digital technologies. For data triangulation, the findings derived from five sources including teacher and student surveys, teacher interviews, student focus group discussions, class observations and artifact review. The findings revealed that teachers and students felt positive with technology integration into the classrooms, but some hurdles and discrepancies were discovered. The students were more skillful in using more and various types of digital technologies and social media than the teachers. Overall, this study will fill a gap of literature on digital literacies, teacher education and technology-enhanced language teaching and learning in Thailand.

Keywords: digital technologies, teachers' and students' perceptions, Thailand

Introduction

The leverage of Web 2.0 digital technologies is widely accepted, and many scholars have called for new literacy teaching and learning approaches. Digital technologies have exposed students to a broad range of authentic online resources and have empowered them to create digitally mediated texts (Paesani, Willis Allen & Dupuy, 2015) in a gigantic globalized community. In response to evolving digital technologies and new definitions of literacies in an era of digitalized globalization, a plethora of new literacy studies (Dudeney et al., 2013; Eshet-Alkalai, 2004; Kessler, 2013; Kramsch, 2014; Lotherington & Jenson, 2011; Prensky, 2001, 2010; Willis Allen & Paesani, 2010) have argued for a paradigm shift from teacher-centered approaches, grammar-translation methods and communicative approaches to a pedagogy of new literacies. Prensky (2001) urges teachers to change their old teaching methods and incorporate digital tools to match with new learning patterns of digital natives. Many scholars (Baker & Jarunthawatchai, 2017; Chun, Kern & Smith, 2016; Erstad, Eickelmann & Eichhorn, 2015; Khamkhien, 2012; White, 2015) also agree that preparing teachers to teach digital literacies is urgent and crucial. Bates (2015) and Erstad et al. (2015) maintain that teachers in the cyber age require innovative teaching approaches to cope with advancing educational technologies.

In Thailand, too, social media and digital technologies play an important role in enhancing teaching and learning. Kitchakarn (2013) found that students significantly improve their writing when using blogs and peer feedback, claiming that the students develop critical thinking and autonomous learning. Moreover, Van De Bogart (2014) discovered that the LINE chat application facilitates English as a foreign language (EFL) class discussions and collaboration, and it creates a motivating and comfortable learning environment for Thai undergraduates.

However, challenges in technology integration into pedagogy are prevalent. Khamkhien's (2012) study reveals the "failure of integrating (computer-assisted language learning (CALL) in English classrooms" (p. 59), caused by teachers' insufficient information and communication technologies (ICTs) knowledge to select appropriate technological tools, large class sizes, and teaching overloads. An OECD/UNESCO (2016) study further indicates many problematic issues of Thai education, such as inadequate teacher education, lack of holistic strategies for teachers' professional development, teachers' administrative pressures, the poor infrastructure of ICTs, and teachers' lack of confidence and skills in using ICTs.

Thus, It is crucial that English language teachers should offer students an opportunity in using digital tools to enhance new literacies. Hongprayoon (2016) recommends that to address the demand of being a digital citizen following a new digital policy of Thailand called "Thailand 4.0", there is a need to raise awareness of English language teachers towards the value of integrating digital technology into their curricula. Thai educational institutions should provide work-related knowledge and technological skills for future members of the workforce. Thus, it seems necessary that future research should explore strategies that develop teachers' technological skills in applying digital technology effectively in teaching. It is also essential to spark the interest of practitioners, researchers and policy-makers in finding strategies to improve the digital literacies of Thai citizens to fulfill the goals of the Thailand 4.0 policy.

This study, which is part of the author's dissertation research, responds to a call for teachers to incorporate digital technologies into curricula. The findings are expected to raise awareness of teachers to find the value in technology integration to increase students' motivation and improve their digital literacy skills in the age of digital learning.

Purpose of the study

The purpose of this study aims at examining the problem that many Thai teachers are reluctant to incorporate technology into their curricula in spite of policy mandates that all teachers integrate new technologies into their classrooms to enhance students' digital literacies. Thus, the study's objective is to explore digital technology use of English language teachers and students and to investigate their perceptions of technology integration into English curricula. Two research questions are employed to guide the study as follows:

1. What digital technologies do teachers and students use for academic and non-academic purposes?

2. What are teachers' and students' perceptions of technology integration into English curriculum?

Literature Review

Potential benefits of digital technology integration into curricula

A number of studies have proven the affordances of social media and Web 2.0 technologies for teaching and learning. Siricharoen and Siricharoen's (2012) findings indicate that social media are the most popular media in comparison with print, television and radio for Thai youths. The authors argue that the social media have a good, powerful impact on learning of the young Thai generation. Van De Bogart (2014) integrates the LINE mobile app in English language teaching by creating a LINE group for his class as an alternative communication tool. The results reveal that the students are very responsive to LINE discussions, so they use English more.

Facebook has also been found to be beneficial in increasing writing quantity (Wang & Vasquez, 2014), enhancing class discussions (Roblyer, McDaniel, Webb, Herman & Witty, 2010), developing writing skills (Suthiwartnarueput & Wasanasomsithi, 2012), and in improving identity and peer interaction (Reinhardt & Zander, 2011). Hafner (2013) and Kessler (2013) maintain that it is crucial to incorporate technologies for pedagogical potentials in a world of social media to enhance interaction and negotiation of meaning. Roblyer et al.'s (2010) study reveals that students feel comfortable with Facebook in supporting learning communication, while the faculty members preferred emails. Wang and Vasquez (2014) report that Chinese learners improve their writing quantity on Facebook. They also have a positive attitude towards using Facebook as it offers good opportunities to retain Chinese characters, expand vocabulary and practice syntactic structures. Khamkhien (2012) found, after implementing blogs and a peer feedback activity, that Thai students significantly

improve their English language writing. Khamkhien makes further claims about the students' development of critical thinking and autonomous learning.

The leverage of iPads as mobile technology has been acknowledged in many ways, such as creating satisfactory learning outcome (Cochrane, Narayan & Oldfield, 2013; Kinash, Brand & Mathew, 2012), increasing motivation and student satisfaction (Perez, Gonzalez, Pitcher & Golding, 2012; Theerathean & Srikulwong, 2015), enhancing creativity (Cochrane et al., 2013; Kim, Park, Yoo & Kim, 2016), improving interaction and collaborative work (Cochrane et al., 2013; Hargis, Cavanaugh, Kamali & Soto, 2014), and offering authentic teaching materials (Riley, 2013). Chen and Tsai (2009) argue that an interactive location-based game could support English vocabulary learning efficacy and increase motivation of students in learning English. Elias (2011) states that mobile technologies support "continuous and situated learning" and facilitate "ongoing learning to occur in multiple locations" (p. 146).

Challenges of digital technology integration into curricula

There are a few challenges of integrating digital technologies into classrooms. First, using technology can be frustrating. Tan and McWilliam (2009) found that teachers think it is difficult to integrate technology into their classes. The teachers feel frustrated when dealing with technology literacy over print literacy. Nguyen et al. (2015) add that teachers did not know how to incorporate iPads to align with the curriculum in higher education. Van De Bogart (2012) found that Thai primary school teachers lack technological skills in using a tablet computer. The study suggests that the teachers require a certain level of digital technology familiarity to teach students new literacy skills and behavioral patterns on multi-tasking competence.

Second, technical problems of technology use and its novelty hinder technology integration into instruction. Culén and Gasparini (2011) raise problematic issues about iPad use regarding note-taking features, waste of time loading webpages, and lack of Flash support. Hutchison, Beschorner and Schmidt-Crawford (2012) add that it is difficult to resize texts and images and control the sensitive touchscreen of iPads.

In addition, a plethora of scholars have reported the recurring problem of teachers' inadequate technological skills and their need for additional technology training and support (Dudeney et al., 2013; Hague & Payton, 2010; Hutchison & Reinking, 2011; Kessler, 2013; Nguyen, Barton & Nguyen, 2015; Pang, Reinking, Hutchison & Ramey, 2015; Prensky, 2001, 2010; Strickland & O'Brien, 2013; Tan & McWilliam, 2009; Van De Bogart, 2012). Hargis et al. (2014) assert that students and teachers at a college in the United Arab Emirates would like technological training because "some faculty members are not technologically inclined" (p. 52). Hutchison and Reinking (2011) call for professional development workshops for teachers to increase technology integration into pedagogy. In addition, Nguyen et al. (2015) suggests that policymakers and administrative boards should provide technological support to teaching faculties, staff and students towards mobile technologies. These findings align with Prensky's (2001) statement that teachers are "digital immigrants".

In order to teach and study with technologies, open-mindedness and a positive attitude are vital. Pang et al. (2015) raise the notion that "teachers' beliefs are an important

factor" (p. 11). They reported that although South Korean teachers encounter less technical support, such as lack of Internet access than their USA counterparts, the Korean teachers have higher ICT integration into literacy pedagogy more often. The authors argue for more studies on beliefs about the importance and the objectives of technology use. Lakarnchua and Wasanasomsithi (2013) found that 26 Thai EFL students feel negative about using blogs because of technical problems, and lack of understanding towards blogging. Lee, Cerreto and Lee (2010) use the theory of planned behavior (TPB) to explore Korean teachers' intentions to use computers to design and deliver teaching. They conclude that attitude toward behaviors (i.e., the better quality of teaching and student achievement) impacts teachers' intentions to use technology much more than either subjective norm (i.e., school administration) or perceived behavioral control (i.e., reliable hardware and software, skills and training and support.

Regarding technology use of students, some research has shown that new generation students are familiar with technology use, but they still need digital literacy training. Dudeney et al. (2013) reconfirm Tan and McWilliam's (2009) findings that students are comfortable with technology use and can use the technology much better than teachers. Dudeney et al. (2013) suggest that teachers can learn new technologies from their students. However, the authors found that many young people from the Net generation still require teachers' guidance in using technologies. This is supported by the study of Williams, Abraham and Bostelmann (2014) who found that 50 percent of 800 undergraduates at an American university are young students do not consider themselves as "digital natives" with expertise in digital innovations.

Overall, it can be surmised that technology integration into curricula is valuable in promoting teaching and learning outcomes and in improving students' digital literacies as well as teachers'. However, despite the challenges of integrating technologies and digital literacy into the classroom, it is also important that teachers be more open-minded and take additional technological training for their professional development in order to deliver constructive and engaging lessons with emerging digital technologies.

Methodology

The research design of the study is descriptive, using mixed methods. The data collection consumed nine weeks starting from January 8th to March 7th, 2018, during the Spring 2018 semester. The data collection started with a pilot study of the teacher questionnaire. The data were collected from five sources: 1) two attitudinal surveys of in-service English language teachers and EFL Thai university students; 2) class observations of three focal teachers; 3) teacher interviews; 4) student focus group discussions; and 5) a review of artifacts of the three English courses and the researcher's reflective journals.

Setting

This study was conducted at a non-profit private university in the center part of Bangkok, Thailand. The university, founded in 1984, offers bachelor's, master's and doctoral degree programs and has an undergraduate enrollment of about 6,000 students each year. Since 2011, the university has established an innovative iHybrid

learning system, iPad 1:1. The university has provided iPads to 17,000 students and 450 faculty members. At the university, teaching and learning are afforded by a well-established and well-integrated information technological infrastructure, including a comprehensive IT department, student and staff support and help desks, modern and technologically equipped classroom facilities, and professional development training from Apple Distinguished Educators.

Participants

The participants were 37 English language in-service teachers, both Thai and native speakers of English, and 58 EFL Thai university students from various years and programs of study. In addition to general aggregate data, the study focuses on the cases of three teachers by exploring in-depth their digital literacy skills, digital technology use, and perceptions of technology integration into English curricula. The three instructors were selected based on dissimilar characteristics in terms of age, gender, teaching expertise, teaching styles and technology skills. Moreover, five students from each class were recruited to participate in focus group discussions.

Data collection

Crucially, prior to data collection, all prospective participants were asked to sign an Institutional Review Board (IRB) consent form of the University of Arizona. The surveys were developed and adapted from the studies of Ertmer, Ottenbreit-Leftwich, Sadik, Sendurur and Sendurur (2012), Hargis et al. (2014), Karabulut, Levelle, Li and Suvorov (2012), Pang et al. (2015), Reinhardt and Nelson (2004), and Williams, Abraham and Bostelmann (2014). A pseudonym was assigned to each participant for the use of reference. In addition, the participants' identities were anonymous. The quantitative data from the surveys were analyzed by descriptive statistics: mean score and percentage.

In addition, 16-hour class observations were conducted to explore the three teachers' use of digital technologies for teaching and the researcher's role was as a non-participant observer (Marshall & Rossman, 2015). Some short videos and photos were taken with the participants' permission. Based on Marshall and Rossman's (2015) topic approach, six sessions of individual semi-structured interviews with three teachers took place. Each teacher was interviewed twice around the first two weeks and the week before the midterm exam. The semi-structured interview approach was appropriate to elicit responses from the teachers. Due to busy teaching loads, each interview session took 40-60 minutes, adapted from Seidman's (2013) 90-minute length recommendation. Besides the student questionnaire, three student focus group discussions with five students per group were administered in Week 6 of the semester. Moreover, the secondary data of three courses – course syllabi, teaching materials uploaded to iTunes U, and the students' finished assignments related to technology-enhanced language learning and teaching – were collected and analyzed. An open coding strategy was used to interpret the open-ended responses in the surveys, teacher interviews and student group discussions. In addition, content analysis was utilized for the artifact review.

Results and Interpretation

Prior to presenting the main findings, it is helpful to describe the background information of teacher and student participants in this study for better understanding of the findings analysis. The student participants (*n* = 58) are 38 female and 20 male. About 70 percent of the students were 19-21 years old. The students were from three programs of study: English (29), Japanese (28) and Logistics (1). About 50 percent of the students were freshmen and the rest were juniors and seniors.

The teacher participants (*n* = 37) are 31Thais (84 percent) and six native speakers from the United States and Great Britain. There are 25 female and 12 male teachers. It is interesting to note that all six foreign teachers are male. About half of teachers are senior teachers whose age was above 50. Almost all teachers (92 percent) have had more than ten years of teaching experience. About half of the teachers taught 15-19 hours per week. This implies they must be busy and work hard, which may contribute to having little time for additional learning about and training in use of new technologies, not to mention integrating them into the classroom.

The results of the study will be divided into two topics based on the two research questions.

1. Digital technology use of teachers and students for academic and non-academic purposes

The following findings will answer the first research question: "What digital technologies do teachers and students use for academic and non-academic purposes?"

Teachers' and students' digital technology use for academic purposes

In this study, both teachers and students used digital technologies and social media for academic purposes less than for non-academic purposes. The survey findings showed that students in generation Z who were brought up with access to technology were more comfortable with digital devices and used various technological tools and social media more than the teachers. The student discussion results indicated that students were also better at multitasking on digital devices. The students admitted that they were very addicted to social digital platforms and devices; one remarked, "I can't live without it [smartphone]". The teachers mainly used websites and YouTube videos as resources for teaching, while students learned English from broader and more various sources, such as YouTube, mobile apps, iTunes U courses and Facebook.

Table 1: Teachers' digital technology use for academic purposes
(Teacher Survey, Item 7, mean = 2.37)

Rank	Technology type	Mean	Rank	Technology type	Mean
1	Websites	4.14	9	Facebook	2.30
2	Emails	3.62	10	Social Network Sites for Language Teaching	2.22
3	YouTube	3.49	11	Web blogs	1.62
4	iTunes U	3.30	12	Online games	1.27
5	Mobile apps	3.24	13	Pinterest	1.22
6	iPads	3.00	14	Skype	1.14
7	LINE	2.73	15	Twitter	1.11
8	Wikis	2.38	16	Instagram	1.11

The teacher survey results in Table 1 show that the average group score for teachers' use of digital technology for academic purposes is 2.30. The top three ranked digital tools were websites (4.14), emails (3.62), and YouTube (3.49).

Table 2: Students' digital technology use for academic purposes
(Student Survey, Item 12, mean = 3.04)

Rank	Technology Type	Mean	Rank	Technology type	Mean
1	YouTube	4.10	9	Instagram	2.88
2	Mobile apps	4.05	10	LINE chat app	2.81
3	iTunes U course	3.84	11	Twitter	2.78
4	Websites	3.66	12	Wikis	2.62
5	iPads	3.60	13	Blogs	2.48
6	Facebook	3.33	14	Emails	2.43
7	Social Network Sites for Language Learning	3.04	15	Pinterest	2.38
8	Online games	2.95	16	Skype	1.74

The student survey results in Table 2 show that the average group score for students' technology use for academic purposes is 3.04. The students always used YouTube (4.10), then mobile apps (4.05), and iTunes U (3.84) for learning English.

Teachers' and students' digital technology use for non-academic purposes

For non-academic purposes, the teachers and students in general shared the same preference of technology use. Both groups enjoyed surfing websites the most and watching YouTube videos for pleasure. Students also frequently used mobile apps and played online games. The focus group discussion findings revealed that students became more interested in Instagram and Twitter. The students found Skype the least popular technology for both learning and entertainment. On the other hand, the teachers were not interested in using Instagram and Twitter or online games both for academic and non-academic purposes. Interestingly, teachers mostly relied on Facebook and LINE, and it is surprising that they used LINE more often than students. This may be because the students are more interested in using Instagram and Twitter.

Table 3: Teachers' digital technology use for non-academic purposes
(Teacher Survey, Item 10, mean = 2.85)

Rank	Technology type	Mean	Rank	Technology type	Mean
1	Websites	4.62	9	Skype	1.95
2	LINE	4.51	10	Pinterest	1.86
3	YouTube	4.32	11	Instagram	1.84
4	Emails	4.05	12	Web blogs	1.78
5	Facebook	4.05	13	iTunes U	1.68
6	iPads	3.68	14	Twitter	1.46
7	Mobile apps	3.43	15	Online games	1.38
8	Wikis	2.11			

The teacher survey results in Table 3 show that the average group score for teachers in using digital technology for non-academic purposes is 2.85. The teachers often surfed websites (4.62) for fun, then used LINE (4.51) and watched YouTube videos (4.32). On the other hand, playing online games was not their favorite choice (1.38).

Students' digital technology use for non-academic purposes

Table 4: Students' digital technology use for non-academic purposes
(Student Survey, Item 13, mean = 3.44)

Rank	Technology type	Mean	Rank	Technology type	Mean
1	Websites	4.86	8	Twitter	3.47
2	YouTube	4.70	9	iTunes U	2.74
3	Mobile apps	4.47	10	Web blogs	2.60
4	LINE	4.37	11	Wikis	2.52
5	Facebook	4.21	12	Pinterest	2.48
6	Online games	4.02	13	Email	2.16
7	Instagram	3.91	14	Skype	1.63

The student survey results in Table 4 reveal that students' average score for digital technology use for non-academic purposes is 3.44, which is higher than the use for academic purposes (Q12 = 3.04). The students most enjoyed searching for news and information on websites (4.86) for pleasure. They also watched YouTube videos (4.70) very often. They liked to watch series and movies, read novels and listen to international songs.

2. Perceptions of technology integration into English curriculum

This section will answer the second research question: "What are teachers' and students' perceptions of technology integration into English curriculum?" It will be divided into two sub-sections: teachers' perceptions and students' perceptions.

Teachers' perceptions of technology integration into English curriculum

Based on the teacher survey and interviews, digital technology was primarily integrated as a tool for communicating, facilitating learning and teaching, and

searching for learning resources. Many teachers valued technology that could increase students' motivation, improve their learning proficiency, and make the class fun and interesting. However, some teachers were highly concerned with students' distraction caused by technology and the unreliability of technology if they would integrate technology into teaching. It appeared that some teachers were aware of their limited digital technology skills and their negative attitude towards technology integration into curriculum. The teachers reported that the biggest obstacles that impeded them from incorporating technology were their low technological skills, lack of sufficient time for class preparation, students' low English proficiency skills, and students' motivation. However, most teachers were willing to receive more technological training. As presented, these issues are worth serious consideration by teachers, teacher educators and policymakers to find practical and accommodating solutions for effective technology integration in the future.

Students' perceptions of technology integration into English curriculum

100 percent of students (*n* = 58) believed that digital technology should be integrated into English curriculum because technology facilitated their learning and made the class more enjoyable and engaging. The students showed a positive attitude towards emerging technologies. About 31 percent of students believed technology was easy to use and convenient to access a rich variety of online information and up-to-date resources. Twenty-nine percent of students found technology to be useful for them to expand their new knowledge and make learning easy and ubiquitous. However, the students reported their frustration of the unreliability of WiFi connectivity in the campus. The students were also worried about losing their finished work on iPads before submission because of dead battery. They were also afraid of losing their iPad because they must pay its depreciation to the university. Furthermore, the students said that using iPads for learning could give trouble to some students who use a Samsung smartphone. They must learn new technology skills in order to operate the IOS on an iPad. This suggests, however, that students have learned to solve technical problems by themselves.

In addition, students believed they had more expertise and confidence in web-searching skills and their technical skills for using digital tools and social media than their teachers. The students reported that they took a course about operating ICTs. The students found many teachers still lacked adequate technological skills when they used technology, such as computers and iTunes U courses in the class. A student complained that it was a waste of class time when some senior teachers did not know how to solve basic technical problems in the class. The students then requested teachers to take a course on technology use to better integrate technology into teaching and learning. Nevertheless, the students showed positive attitude about the teachers' effort of using technology. They realized that teachers from an older generation may not be familiar with digital technologies as much as themselves. Additionally, the students acknowledged that teachers could teach them critical thinking skills and they knew a number of useful digital tools for learning development. Thus, most of them expected teachers to guide them to use technologies productively for self-development in learning and living in the age of enormous digital information and ubiquitous social media.

Discussion

Digital technology use of teachers and students

This study's findings have confirmed Roblyer et al.'s (2010) findings that teachers preferred emails to Facebook. This study has revealed that the teachers used emails most, then LINE and Facebook for communication for academic purposes. Moreover, this study supports Roblyer et al. (2010) that students liked to use Facebook to learn and communicate with teachers. However, they also used LINE, Instagram and Twitter for academic purposes. The students also felt positive towards Facebook, as confirmed in the findings of Reinhardt and Zander (2011) and Wang and Vasquez (2014). This study also supports the potential of LINE use, such as in Van De Bogart's (2014) study that it afforded collaboration between teachers and students.

In contrast to Reinhardt and Zander's (2011) results, however, the students did not like a traditional teaching style anymore. They preferred teachers to incorporate engaging technology-enhanced learning activities in the classroom. It is worth noting that the student findings in this study support Dudeney et al.'s (2013) argument that students still need teachers' guidance about technology use. However, this study slightly differs in that students in generation Z or iGeneration can research and teach themselves about using technology.

Teachers' and students' hurdles of technology integration into English curriculum

This study's results that the teachers encountered many difficulties in applying technologies and they needed additional technology training align with other studies (Blake, 2016; Dudeney et al., 2013; Hague & Payton, 2010; Hutchison & Reinking, 2011; Nguyen et al., 2015; Pang et al., 2015; Tan & McWilliam, 2009). Even though this study was conducted in 2018, well into the age of digital technologies, some teachers still preferred print literacy as reported in the study of Tan and McWilliam (2009). The study's findings imply that many Thai teachers were not confident to integrate technology into the class, and they thought digital technologies were too difficult and overwhelming. These common obstacles coexist in the studies of Hutchison and Reinking (2011), Prensky (2001) and Tan and McWilliam (2009).

The results that most Thai teachers in this study claimed technical problems, such as the technology unreliability and Internet inaccessibility were their big barriers for technology use, are similarly presented in the studies of Lakarnchua and Wasanasomsithi (2013). However, this argument counters Pang et al.'s (2015) study. They found Korean teachers do not think lack of technical support is a barrier to integrate technologies into their teaching. This implies that teachers' willingness and open-mindedness are crucial. Moreover, the findings of this study regarding teachers' complaint of limited class preparation time align with Khamkhien's (2012) findings that teaching overload was a major obstacle for technology integration into instruction in Thailand.

Conclusions and Suggestions for Future Research

This qualitative study provides insights of teachers' and students' digital technology use and their perceptions of technology integration into English curriculum. The

study's objective is to raise awareness of teachers to embrace digital technology-based learning and teaching to improve students' digital literacy skills and their autonomous learning in the era of emerging digital technologies and ICTs. Despite the earnest effort of developing the well-designed research, it took only a nine-week period of data collection, which might not have provided a complete investigation of the teachers' and students' technology use and their perceptions of technology integration into pedagogy. Hence, future research should conduct a longitudinal study of a whole semester. For triangulation of reliability, it would be productive that future research includes policy-makers as participants besides teachers and students to explore their perceptions about language policies of promoting technology integration across the university.

Overall, this study may be helpful for teachers who aspire to integrate digital technologies in their classrooms that they can be aware of technological potentials and limitations. In addition, this study's findings may spark an interest for a future research on examining the use of popular learning apps among students and their potential in language development.

Acknowledgements

References

Baker, W., & Jarunthawatchai, W. (2017). English language policy in Thailand. *European Journal of Language Policy*, *9*(1), 27-44.

Bates, T. (2015). *Teaching in a digital age: Guidelines for designing teaching and learning for a digital age*. Tony Bates Associates.

Blake, R. (2016). Technology and the four skills. *Language Learning & Technology*, *20*(2), 129-142. Retrieved from http://llt.msu.edu/issues/june2016/blake.pdf.

Chen, C. M., & Tsai, Y. N. (2009, July). Interactive location-based game for supporting effective English learning. In *Environmental Science and Information Application Technology, 2009. ESIAT 2009. International Conference, 3*, 523-526. IEEE.

Chun, D., Kern, R., & Smith, B. (2016). Technology in language use, language teaching, and language learning. *Modern Language Journal*, *100*, 64-80.

Cochrane, T., Narayan, V., & Oldfield, J. (2013). iPadagogy: Appropriating the iPad within pedagogical contexts. *International Journal of Mobile Learning and Organisation*, *7*(1), 48-65.

Culén, A. L., & Gasparini, A. (2011). iPad: A new classroom technology? A report from two pilot studies. *INFuture Proceedings*, 199-208.

Ducate, L. C., & Lomicka, L. L. (2008). Adventures in the blogosphere: From blog readers to blog writers. *Computer Assisted Language Learning*, *21*(1), 9-28.

Dudeney, G., Hockly, N., & Pegrum, M. (2013). *Digital literacies: Research and resources in language teaching*. NJ: Pearson.

Elias, T. (2011). Universal instructional design principles for mobile learning. *The International Review of Research in Open and Distributed Learning*, *12*(2), 143-156.

Erstad, O., Eickelmann, B., & Eichhorn, K. (2015). Preparing teachers for schooling in the digital age: A meta-perspective on existing strategies and future challenges. *Education and Information Technologies*, *20*(4), 641-654.

Ertmer, P. A., Ottenbreit-Leftwich, A. T., Sadik, O., Sendurur, E., & Sendurur, P. (2012). Teacher beliefs and technology integration practices: A critical relationship. *Computers & Education*, *59*(2), 423-435.

Eshet-Alkalai, Y. (2004). Digital literacy: A conceptual framework for survival skills in the digital era. *Journal of Educational Multimedia and Hypermedia*, *13*(1), 93.

Hafner, C. A. (2013). Digital composition in a second or foreign language. *TESOL Quarterly*, *47*(4), 830-834.

Hague, C., & Payton, S. (2010). *Digital literacy across the curriculum*. Futurelab.

Hargis, J., Cavanaugh, C., Kamali, T., & Soto, M. (2014). A federal higher education iPad mobile learning initiative: Triangulation of data to determine early effectiveness. *Innovative Higher Education*, *39*(1), 45-57.

Hongprayoon, K. (2016). *Industry 4.0: Is Thailand ready for it?* Retrieved from http://www.bangkokpost.com/opinion/opinion/1130517/industry-4-0-is-thailand-ready-for-it.

Hutchison, A., Beschorner, B., & Schmidt-Crawford, D. (2012). Exploring the use of the iPad for literacy learning. *The Reading Teacher, 66*(1), 15-23. Retrieved from http://www.jstor.org.ezproxy3.library.arizona.edu/stable/23321264

Hutchison, A., & Reinking, D. (2011). Teachers' perceptions of integrating information and communication technologies into literacy instruction: A national survey in the United States. *Reading Research Quarterly*, *46*(4), 312-333.

Karabulut, A., Levelle, K., Li, J., & Suvorov, R. (2012). Technology for French learning: A mismatch between expectations and reality. *CALICO Journal*, *29*(2), 341-366.

Kessler, G. (2013). Teaching ESL/EFL in a world of social media, mash-ups, and hyper-collaboration. *TESOL Journal*, *4*(4), 615-632.

Khamkhien, A. (2012). Computer assisted language learning and English language teaching in Thailand: Overview. *Mediterranean Journal of Social Sciences*, *3*(1), 55-64.

Kim, H. J., Park, J. H., Yoo, S., & Kim, H. (2016). Fostering creativity in tablet-based interactive classrooms. *Educational Technology & Society, 19*(3), 207-220.

Kinash, S., Brand, J., & Mathew, T. (2012). Challenging mobile learning discourse through research: Student perceptions of Blackboard Mobile Learn and iPads. *Australasian Journal of Educational Technology*, *28*(4).

Kitchakarn, O. (2013). Peer feedback through blogs: An effective tool for improving students' writing abilities. *Turkish Online Journal of Distance Education*, *14*(3).

Kramsch, C. (2014). Teaching foreign languages in an era of globalization: Introduction. *The Modern Language Journal*, *98*(1), 296-311.

Lakarnchua, O., & Wasanasomsithi, P. (2013). WHAT IS SAID AND WHAT IS DONE: EFL Student Writers' Perceptions of Peer Feedback Through Blogs and Their Actual Use. *Turkish Online Journal of Distance Education*, *14*(4).

Lee, J., Cerreto, F. A., & Lee, J. (2010). Theory of planned behavior and teachers' decisions regarding use of educational technology. *Educational Technology & Society*, *13*(1), 152-164.

Lotherington, H., & Jenson, J. (2011). Teaching multimodal and digital literacy in L2 settings New literacies, new basics, new pedagogies. *Annual Review of Applied Linguistics 31*, 226-246.

Marshall, C., & Rossman, G. B. (2015). *Designing Qualitative Research*, 6th ed. Los Angeles: Sage.

Nguyen, L., Barton, S. M., & Nguyen, L. T. (2015). iPads in higher education—hype and hope. *British Journal of Educational Technology*, *46*(1), 190-203.

OECD/UNESCO. (2016). *Education in Thailand: An OECD-UNESCO Perspective.* Reviews of National Policies for Education. OECD Publishing, Paris. Retrieved from http://dx.doi.org/10.1787/9789264259119-en

Paesani, K., Willis Allen, H. Dupuy, B. (2015). *A multiliteracies framework for collegiate foreign language teaching.* Saddle River, NJ: Pearson.

Pang, S., Reinking, D., Hutchison, A., & Ramey, D. (2015). South Korean teachers' perceptions of integrating information and communication technologies into literacy instruction. *Education Research International, 2015*, 1-13. doi:10.1155/2015/783593.

Perez, O. A., Gonzalez, V., Pitcher, M. T., & Golding, P. (2012). Work in progress: Analysis of mobile technology impact on STEM based courses; specifically introduction to engineering in the era of the iPad. In *American Society for Engineering Education*. American Society for Engineering Education.

Prensky, M. (2001). Digital natives, digital immigrants part 1. *On the horizon*, *9*(5), 1-6.

Prensky, M. (2010). *Teaching digital natives: Partnering for real learning*. Corwin Press.

Reinhardt, J., & Nelson, B. K. (2004). Instructor use on online language learning resources: A survey of socio-institutional and motivational factors. *ReCALL*, *16*(2), 292-307.

Reinhardt, J., & Zander, V. (2011). Social networking in an intensive English program classroom: A language socialization perspective. *CALICO Journal*, *28*(2), 326-344.

Riley, P. (2013). Teaching, learning, and living with iPads. *Music Educators Journal*, *100*(1), 81-86. Retrieved from http://www.jstor.org.ezproxy3.library.arizona.edu/stable/43288776

Roblyer, M. D., McDaniel, M., Webb, M., Herman, J., & Witty, J. V. (2010). Findings on Facebook in higher education: A comparison of college faculty and student uses and perceptions of social networking sites. *The Internet and Higher Education*, *13*(3), 134-140.

Seidman, I. (2013). *Interviewing as qualitative research*. New York: Teachers College Press.

Siricharoen, W. V., & Siricharoen, N. (2012). Media and information literacy (MIL) for Thai youths. *World Academy of Science, Engineering and Technology, International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, *6*(7), 1897-1901.

Strickland, B., & O'Brien, M. G. (2013). A review of the literature on technology in second and foreign language learning. *The Language Research Centre at the University of Calgary*.

Tan, J. P. L., & McWilliam, E. (2009). From literacy to multiliteracies: Diverse learners and pedagogical practice. *Pedagogies: An International Journal*, *4*(3), 213-225.

Theerathean, T., & Srikulwong, M. (2015). Pedagogy enhancement with mobile learning: A case study of the university of the Thai Chamber of Commerce. *The Second International Conference on Education Technologies and Computers (ICRTC 2015).*

Van De Bogart, W. G. (2014). Evaluating digital literacy skills of EFL Thai students' using LINE chat application. *Executive Journal*, *34*(1), 166-176.

Wang, S., & Vasquez, C. (2014). The effect of target language use in social media on intermediate-level Chinese language learners' writing performance. *CALICO Journal*, *31*(1), 78+.

White, J. (2015). *Digital literacy skills for FE teachers*. Thousand Oaks, California: SAGE/Learning Matters.

Williams., L., Abraham, L., & Bostelmann, E. D. (2014). A survey-driven study of the use of digital tools for language learning and teaching. *Digital Literacies in Foreign and Second Language Education*, *29*(12), 42-67.

Willis Allen, H. W., & Paesani, K. (2010). Exploring the feasibility of a pedagogy of multiliteracies in introductory foreign language courses. *L2 Journal*, *2*(1).

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TEACHER SURVEY
Digital Literacies and Perceptions on Technology-enhanced Language Teaching
This survey should take you about 20 minutes to complete. Thank you very much for providing information that will be used to improve digital literacy education.
BACKGROUND INFORMATION
Email address: _____
Please **circle** your responses.
1. What is your gender?   Female   Male
2. How old are you?   25-29   30-39   40-49   Above 50
3. What is the highest degree you have completed? (Indicate the name of your program)

_____

4. How many years of English teaching experience have you had?
      1-4 years   5-9 years   10-14 years
      15-19   years   20-25 years   More than 25 years
5. How many hours a week do you teach?
      5-9 Hours   10-14 hours   15-19 hours   More than 19 hours
6. Please write the course name(s) you are teaching.

_____

7. Please **circle** the position on the continuum that best describes your technology use **for academic purposes.**

      Never (1)   Seldom (2)   Sometimes (3)   Frequently (4)   Always (5)

      a)   I use Websites as sources to teach English.   1 2 3 4 5

      b)   I use iPads to teach English.   1 2 3 4 5

      c)   I use ITunes U to teach English.   1 2 3 4 5

      d)   I use mobile apps / software for teaching (e.g., online dictionary).   1 2 3 4 5

      e)   I use social network sites for language teaching (e.g., Duolingo).   1 2 3 4 5

      f)   I use Wikis to teach English.   1 2 3 4 5

      g)   I use blogs to develop my writing.   1 2 3 4 5

      h)   I use emails to communicate with students.   1 2 3 4 5

      i)   I use Twitter to teach English.   1 2 3 4 5

      j)   I use Instagram to teach English.   1 2 3 4 5

      k)   I use Skype to communicate with students.   1 2 3 4 5

      l)   I use LINE to teach English.   1 2 3 4 5

      m)   I use Facebook to teach English and communicate with students.   1 2 3 4 5

      n)   I use virtual games (e.g., Second Life, World of Warcraft) to teach English.
           1 2 3 4 5

o)   I use Pinterest to teach English.   1 2 3 4 5
   p)   I use YouTube videos to teach English.   1 2 3 4 5
   q)   I use Clickers to teach English.   1 2 3 4 5

8. What is the **most frequent technology** you use for teaching? (e.g., ITunes U course management, Facebook, YouTube, Dictionary app, Line, Google (Safari), Mail, Game apps)

_____
__

9. How do you apply the technology you mentioned to teaching?

_____
_____
_____
_____
_____
_____

10. Please circle the position on the continuum that best describes your technology use for **NON- academic purposes.**

   Never (1)   Seldom (2)   Sometimes (3)   Frequently (4)   Always (5)

   a) I surf websites for fun to read interesting things.   1 2 3 4 5
   b) I use iPads for fun.   1 2 3 4 5
   c) I use iTunes U course to read for fun.   1 2 3 4 5
   d) I use mobile apps for living and fun.   1 2 3 4 5
   e) I use emails to communicate with family and friends.   1 2 3 4 5
   f) I read and write on the Wikis for fun.   1 2 3 4 5
   g) I read and write blogs for fun.   1 2 3 4 5
   h) I use Twitter for fun.   1 2 3 4 5
   i) I use Instagram for fun.   1 2 3 4 5
   j) I use Skype for fun and communication with family and friends.   1 2 3 4 5
   k) I use LINE chat app for fun and communication with family and friends.   1 2 3 4 5
   l) I use Facebook for fun and communication with family and friends.   1 2 3 4 5
   m) I play virtual games (e.g., Second Life, World of Warcraft).   1 2 3 4 5
   n) I use Pinterest for fun.   1 2 3 4 5
   o) I watch YouTube videos for fun.   1 2 3 4 5

11. What is the **most frequent technology** you use for fun? (e.g., Facebook, YouTube, Dictionary app, Line, Google (Safari), Mail, Game apps)

_____
_____

12. How do you use technology you mentioned for fun?

_____
_____
_____
_____
_____
_____

13. What are **your assumptions on how your STUDENTS** use technology in learning English?

Never (1)   Seldom (2)   Sometimes (3)   Frequently (4)   Always (5)

a)	They use Websites to learn English.	1 2 3 4 5
b)	They use iPads to help them learn English.	1 2 3 4 5
c)	They use iTunes U course to learn English.	1 2 3 4 5
d)	They use mobile apps to learn English (e.g., online dictionary)	1 2 3 4 5
e)	They use social network sites for language learning (Duolingo)	1 2 3 4 5
f)	They use Wikis to learn English.	1 2 3 4 5
g)	They use blogs to learn English.	1 2 3 4 5
h)	They use emails to communicate with teachers.	1 2 3 4 5
i)	They use Twitter to learn English.	1 2 3 4 5
j)	They use Instagram to learn English.	1 2 3 4 5
k)	They use Skype to communicate with teachers and classmates.	1 2 3 4 5
l)	They use LINE to learn English.	1 2 3 4 5
m)	They use Facebook to learn English.	1 2 3 4 5
n)	They play virtual games (e.g., Second Life) to learn English.	1 2 3 4 5
o)	They use Pinterest to learn English.	1 2 3 4 5
p)	They watch YouTube videos to learn English.	1 2 3 4 5

14. What are **your assumptions on how your STUDENTS** use technologies for fun?

Never (1)   Seldom (2)   Sometimes (3)   Frequently (4)   Always (5)

a)	They surf webs to read interesting information for fun.	1 2 3 4 5
b)	They use iPads for fun.	1 2 3 4 5
c)	They use iTunes U course to read for fun.	1 2 3 4 5

    d)   They use mobile apps for fun.   1 2 3 4 5

    e)   They use Wikis for fun.   1 2 3 4 5

    f)   They use blogs for fun.   1 2 3 4 5

    g)   They use emails to communicate with family and friends.   1 2 3 4 5

    h)   They use Twitter for fun.   1 2 3 4 5

    i)   They use Instagram for fun.   1 2 3 4 5

    j)   They use Skype to communicate with family and friends for fun. 1 2 3 4 5

    k)   They use LINE for fun.   1 2 3 4 5

    l)   They use Facebook for fun.   1 2 3 4 5

    m)   They play virtual games (e.g., Second Life, World of Warcraft). 1 2 3 4 5

    n)   They use Pinterest for fun.   1 2 3 4 5

    o)   They watch YouTube videos for fun.   1 2 3 4 5

DIGITAL PARTICIPATION

15. How many **hours per day** do you participate in the digital community?

    0 = Never   1 = less than 1 hour   2 = 1-2 hours
    3 = 2-3 hours   4 = 3-4 hours   5 = more than 4 hours

    a)   Facebook   0 1 2 3 4 5

    b)   Twitter   0 1 2 3 4 5

    c)   YouTube   0 1 2 3 4 5

    d)   Instagram   0 1 2 3 4 5

    e)   Line   0 1 2 3 4 5

    f)   Web blog   0 1 2 3 4 5

    g)   Online news and updates   0 1 2 3 4 5

    h)   Online games   0 1 2 3 4 5

    i)   Other online communities (e.g., Pantip)   0 1 2 3 4 5

ENGAGEMENT & COMFORT WITH TECHNOLOGY

16. How do you engage and feel about the following?

    Never / Very Low (1)   Low (2)   Medium (3) High (4)   Very High (5)

    a) I took college courses devoted to technology-enhanced language teaching. 1 2 3 4 5

    b) I have had sufficient training with technology usage from the university. 1 2 3 4 5

    c) I collaborate with other teachers to design technology -enhanced language

teaching activities.
1 2 3 4 5

d) I am interested in learning more about technology -enhanced language teaching.

1 2
3 4
5

e) I prefer to develop my technology skills by doing.   1 2 3 4 5

f) I prefer to receive technological trainings and support.   1 2 3 4 5

g) I am comfortable with using digital technologies for teaching.   1 2 3 4 5

h) I am comfortable with using digital technologies for fun.   1 2 3 4 5

i) I am confident about choosing appropriate digital tools to support teaching. 1 2 3 4 5

j) I am confident about designing innovative teaching materials with digital technologies.   1 2 3 4 5

17. What are your perceptions on different **barriers** to integrate technology into curriculum?

A Very High Barrier (1)   High (2)   Medium (3)   Low (4)   A Very Low Barrier (5)

a) Personal Motivation	1 2 3 4 5
b) Collaboration with other teachers	1 2 3 4 5
c) Technological training and support	1 2 3 4 5
d) University infrastructures and facilities	1 2 3 4 5
e) Budgeting for new technologies (apps)	1 2 3 4 5
f) Technology and Internet access	1 2 3 4 5
g) Time for teaching preparation	1 2 3 4 5
h) Classroom management	1 2 3 4 5
i) Assessment aligned with technology use	1 2 3 4 5
j) Technical problems in the classroom	1 2 3 4 5
k) Institutional policies and administration	1 2 3 4 5
l) Subject content	1 2 3 4 5
m) Teaching methods and styles	1 2 3 4 5
n) Teaching loads and responsibilities	1 2 3 4 5
o) Technological skills of my own	1 2 3 4 5

p) Technological skills of students	1 2 3 4 5
q) English proficiency of students	1 2 3 4 5
r) Motivation of students	1 2 3 4 5
s) Learning styles of students	1 2 3 4 5

18. What might be the biggest obstacle that impede your technology integration into curriculum?

_____
—
_____
—
_____
—

19. What are your perceptions on **your institution** related to technology integration into teaching?

Very Low (1)   Low (2)   Medium (3)   High (4)   Very High (5)

a) I am satisfied with the university's technological support and training.

1 2 3 4 5

b) I am satisfied with the university's technological infrastructure. 1 2 3 4 5

c) I am satisfied with the university's policy about increasing technology integration.

1 2 3 4 5

d) I am satisfied with the university's policy about taking online exams on iPads.

1 2 3 4 5

e) I am satisfied with the university's policy about creating iTunes U courses.

1 2 3 4 5

f) I am satisfied with the university's policy about encouraging the use of iPads and other technologies.
1 2 3 4 5

20. What are your perceptions on these technology-enhanced language teaching activities aimed to **promote your digital literacies**?
Strongly disagree (1)   Disagree (2)   Neither Agree or Disagree (3)
Agree (4)   Strongly Agree (5)

a) Having a technology mentor/ tutor.   1 2 3 4 5

b) Creating an e-teaching portfolio.   1 2 3 4 5

c) Creating a YouTube video project.   1 2 3 4 5

d) Creating a digital storytelling project.   1 2 3 4 5
   e) Creating a teacher blog.   1 2 3 4 5
   f) Creating a Twitter.   1 2 3 4 5
   g) Creating a Facebook page for teachers who are interested in technology.   1 2 3 4 5
   h) Creating a teacher website.   1 2 3 4 5
   i) Creating a LINE group to discuss technology use.   1 2 3 4 5

DIGITAL LITERACIES

21. In your own words, how would you define **digital literacies**?

_____
—
_____
—
_____
—

22. What is your level of **digital literacies** (according to your own understanding of this term)?

   Very Low (1)   Low (2)   Medium (3)   High (4)   Very High (5)

23. Generally, what is your **digital literacies** compared to **typical undergraduate students?**
       Much Lower (1)   Lower (2)   Medium (3)   Higher (4)   Much Higher (5)

24. Generally, what is your **digital literacies** compared to people **around your age?**
       Much Lower (1)   Lower (2)   Medium (3)   Higher (4)   Much Higher (5)

25. In your opinion, are **digital literacies** necessary to be taught in your course? Why or why not?

_____
—
_____
—
_____
—

26. What factors influence you to select particular technology in teaching? (e.g., students' need, students' motivation, your interest, your expertise, your institutional policy)

_____
—
_____
—
_____
—

27. How do you apply **iTunes U course** management to your teaching?

_____

—
_____
—
_____

28. How do you apply **iPads** to your teaching?
_____
—
_____
—
_____
—

29. What are the **benefits and drawbacks** of technology-enhanced language teaching?

_____
—
_____
—
_____
—

30. What do you think can help you become more confident and comfortable with technology integration into English teaching?
_____
—
_____
—
_____
—

Would you like to participate in an in-depth interview session? If yes, please write your contact information below:

Phone number: _____*Name:* _____

Thank you very much for your participation in this survey!

APPENDIX B
STUDENT SURVEY
Digital Technology use and Perceptions of Technology-enhanced Language Learning
This survey should take you about 20 minutes to complete. Thank you for providing information that will be used to improve digital literacy education.
BACKGROUND INFORMATION
1. Please write your course code or course name: _____
2. Gender (circle one):   Female   Male
3. How old are you? _____
4. What is your program/ major of study? _____
5. What is your academic level? (circle one) Freshman / Sophomore / Junior / Senior
   TECHNOLOGY PROFICIENCY
6. Generally, what is your skill level as a user of **desktop /laptop computers**
compared to typical undergraduate students? (circle one)
   Much Lower (1)   Lower (2)   Average (3)   Higher (4)   Much Higher (5)

7. Generally, what is your skill level as a user of **desktop/laptop computers**
compared to people around the age of 50? (circle one)
   Much Lower (1)   Lower (2)   Average (3)   Higher (4)   Much Higher (5)
8. How often do you access iTunes U courses? (circle one)
   Never   Once a week   2-3 times per week   4-5 times per week   Every day
9. What do you usually do on iTunes U? (Please specify)
_____
10. What is the **most frequent thing** (app / tool) you use your mobile device for when learning a language? Please DO NOT include ITunes U.
_____
11. What is the **most frequent thing** (app / tool) you use your mobile device to do for fun? Please DO NOT include "talking on the phone".
_____

   Technology use for academic purposes
12. Please circle the position on the continuum that best describes your technology use in learning English

Never (1)   Seldom (2)   Sometimes (3)   Frequently (4)   Always (5)

     a)   I use the Internet to get access to news and videos in English.   1 2 3 4 5
     b)   I use iPads to help me learn English.   1 2 3 4 5
     c)   I use iTunes U course to read materials, do assignments and view the test scores.
           1 2 3 4 5
     d)   I use mobile apps for learning (e.g., online dictionary)   1 2 3 4 5
     e)   I use social network sites for language learning (e.g., Duolingo)   1 2 3 4 5
     f)   I use Wikis in learning English.   1 2 3 4 5
     g)   I use blogs to improve my writing in English.   1 2 3 4 5
     h)   I use emails to communicate with teachers in English.   1 2 3 4 5
     i)   I use Twitter to learn English.   1 2 3 4 5

j) I use Instagram to learn English.   1 2 3 4 5

k) I use Skype to communicate with teachers and classmates in English.

                                                                               1 2 3 4 5

l) I use LINE chat app for learning (e.g., communicate with teachers and participate in group discussions)   1 2 3 4 5

m) I use Facebook to learn English and communicate with teachers.   1 2 3 4 5

n) I use virtual games (e.g., Second Life, World of Warcraft) to improve my English.   1 2 3 4 5

o) I use Pinterest to learn English.   1 2 3 4 5

p) I watch YouTube videos to learn English.   1 2 3 4 5

Technology use for non- academic purposes

13. Please circle the position on the continuum that best describes your technology use for fun.

Never (1)   Seldom (2)   Sometimes (3)   Frequently (4)   Always (5)

a) I surf the web for fun to find interesting things to read and watch videos and listen to music.
       1 2 3 4 5

b) I use iTunes U course to find books to read for fun.   1 2 3 4 5

c) I use mobile apps for living and fun.   1 2 3 4 5

d) I use emails to communicate with family and friends.   1 2 3 4 5

e) I read and write on the Wikis for fun.   1 2 3 4 5

f) I use blogs for fun.   1 2 3 4 5

g) I use Twitter for fun.   1 2 3 4 5

h) I use Instagram for fun with family and friends.   1 2 3 4 5

i) I use Skype for fun and communication with family and friends.   1 2 3 4 5

j) I use LINE chat app for fun and communication with family and friends.

                                                                               1 2 3 4 5

k) I use Facebook for fun and communication with family and friends.1 2 3 4 5

l) I play virtual games (e.g., Second Life, World of Warcraft).   1 2 3 4 5

m) I use Pinterest for fun.   1 2 3 4 5

n) I watch YouTube videos for fun.   1 2 3 4 5

14. Explain in detail in the space below how you would define **digital literacy**.
_____
_____
_____
_____
_____
_____

15. Please indicate your level of **digital literacy** (according to your own understanding of this term).
Very low (1)   Low (2)   Medium (3)   High (4)   Very High (5)

16. Please indicate your ability to do the following. (Circle your response)
On a scale of 1 to 5 to indicate how difficult or easy it is
very difficult (1)   difficult (2)   average (3)   easy (4)   very easy (5)

a.	Type English texts	1 2 3 4 5
b.	Create a multimedia presentation.	1 2 3 4 5
c.	Upload a video to YouTube.	1 2 3 4 5
d.	Use the main features of Facebook.	1 2 3 4 5
e.	Use the main features of Twitter.	1 2 3 4 5
f.	Use the main features of Line Chat.	1 2 3 4 5
g.	Use the main features of Instagram.	1 2 3 4 5
h.	Use a search engine (Google, Safari).	1 2 3 4 5
i.	Create/ send / receive phone text messages.	1 2 3 4 5
j.	Take photos and record videos with smartphones.	1 2 3 4 5
k.	Download and use mobile phone apps.	1 2 3 4 5
l.	Use computer programming to create software.	1 2 3 4 5
m.	Decide if online information is accurate.	1 2 3 4 5
n.	Identify the original source of online information.	1 2 3 4 5
o.	Determine the viewpoint/bias of online information	1 2 3 4 5

17. In your opinion, should **social media or technology** be integrated into English language curriculum? Why or why not?
YES because _____
NO because _____
18. Is it important for you to receive digital literacy instruction for learning English?
YES because
_____
NO because _____
19. How often do you create projects that use videos, music, images for school and work?
_____

Never (1)   Seldom (2)   Sometimes (3)   Frequently (4)
          Always (5)

20. How often do you create projects that use videos, music, images for fun in your
free time?
    Never (1)   Seldom (2)   Sometimes (3)   Frequently (4)
          Always (5)

21. Would you like to participate in a focus group discussion session?   Yes
          No
If yes, please write your contact information below:

Phone number: _____
Email: _____

Thank you very much for your participation in this survey!