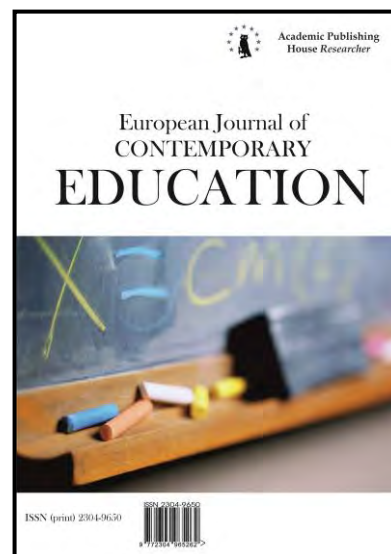




Copyright © 2021 by Academic Publishing House Researcher s.r.o.
All rights reserved.
Published in the Slovak Republic
European Journal of Contemporary Education
E-ISSN 2305-6746
2021. 10(3): 697-710
DOI: 10.13187/ejced.2021.3.697
www.ejournal1.com

IMPORTANT NOTICE! Any copying, reproduction, distribution, republication (in whole or in part), or otherwise commercial use of this work in violation of the author(s) rights will be prosecuted in accordance with international law. The use of hyperlinks to the work will not be considered copyright infringement.



Teachers' Perception of ICT Integration in English Language Teaching at Vietnamese Tertiary Level

Lan Thi Huong Nguyen ^{a, *}

^aHanoi Law University, Hanoi city, Vietnam

Abstract

The ICT integration has a far-reaching consequence to the socio-economic development worldwide. **This study contributes to the scientific researches on the teachers' perceptions towards the impact of ICT use on English language teaching.** The study used a mixed method approach with primary sources – a researcher-made questionnaire and semi-structured interviews. The sample population consisted of 357 selective teachers using Slovin formula with the judgemental sample technique ($p = 95\%$; $r = \pm 5\%$) out of 5.000 teachers of English from 3 national and regional universities in Vietnam, namely the north – Vietnam National University, Hanoi; the centre – Hue university; the south – Vietnam National University, Ho Chi Minh city in different parts in Vietnam **during the school year of 2020–2021. The results reveal that teachers were fully aware of the importance of ICT implementation and showed their positive perceptions when using ICT for teaching English. They were dissatisfied with the ICT facilities and training instruction on ICT use. Dedicated ICT network and exclusive educational software for English language teaching should be specifically invested. Teachers' training program on ICT use is necessary to be updated periodically.** The study results would be served as a useful resource for educational administrators and stakeholders in reforming educational policies on teaching English with ICT integration.

Keywords: ICT integration, perception, dedicated, exclusive, English language teaching.

1. Introduction

The global adoption of Information and communications technology (ICT) into the educational field has been attracted a great deal of concerns. This trend is especially influenced by the luminescence of the fourth industrial revolution (commonly stated “**Industry 4.0**”) (Schwab, 2016). The exploitation of ICT in the educational context requires the potential of revolutionizing the outmoded educational system. Although teachers are more familiar with and confident in the use of ICT, their active utilization of it is still modest and peripheral (Liu et al., 2017; Fraillon et al.,

* Corresponding author

E-mail addresses: bihuonglan@gmail.com (L. Thi Huong Nguyen)

2014). The impact of ICT on an educational system, especially in developing countries such as Vietnam, has been drawn the considerable attention of many scholars (e.g. Pham, 2018; Pham, 2019; Al-Munawwarah, 2014; Liu et al., 2017; Nikian et al., 2013). When taking the adaptation of ICT into account, while some scholars (e.g. Lin et al., 2017; Budiman et al., 2018; Katemba, 2020; Pham, 2018) have carried out technology-adoption models to rectify possible reasons for the reluctance of applying ICT into their teaching, especially English language teaching and learning (ELT), others (e.g. Salehi, Salehi, 2012; Pham, 2019; Almalki, 2020; Lin et al., 2014) have investigated specific **potential barriers to teachers' practices of ICT implementation in the classroom**. In order to meet the requirement of ICT integration in school premises, technology infrastructure and ICT-based tools for instruction and learning have been updated with the rationalization that better ICT at schools would result in remarkable educational and pedagogical consequences, which is beneficial for both teachers and students in terms of ELT (Budiman et al., 2018; Hafifah, 2020; Zhelezovskaia, 2016). However, the excessive optimism about the ICT integration into education would lead to some disappointments about an overall improvement in the field of teaching and learning English. So, it is necessary to find out the reasons and in which circumstances ICT integration serves as a good device for educational contexts.

The implementation of ICT in learning and teaching practices actually demands many **changes such as the adaptation of teachers' pedagogical and professional knowledge, students' willingness, and school supports**. For teachers, they have to reform their teaching styles, and redesign the instruction basing on the appropriate theories of learning and development. Furthermore, the stakeholders or university administrators consider the construction of ICT tools for teaching purposes which are state-of-the-art according to changes involving perspectives on teaching and learning requirement. Students, moreover, have to be ready and competent with **adequate knowledge about hybrid learning. The lack of students' incompetent ICT understanding** might lead to the failure of exploiting ICT tools for studying, particularly for English acquisition (Silviyanti, Yusuf, 2015; Soto et al., 2011; Isnani, 2019).

At present, the ubiquity and availability of ICT have enabled teachers to easily adopt ICT as an integral part of their daily teaching practices and ICT integration has been regarded as a major priority in an educational field. In comparison with teachers of other subjects, English language teachers are not eager to exploit technology and their technology adoption is seemed unwilling and unproductive (Mohammed, Almekhlaji, 2017; Gilakjani, Leong, 2012; Burston, 2014). Regarding Vietnamese long-standing cultural teaching and learning, teachers play as key dominants in the classroom. Although a shift from teacher-centered to learner-centered approach (Schreurs, Dumbraveanu, 2014) has taken place in Vietnamese educational system, the role of teachers in the classroom is very influential (Pham, 2018; Hoang, 2010b). In addition, the blended learning has already been implemented, which emphasizes the autonomous English language learning at a tertiary level (Thu, 2017). **A few studies, however, have investigated the influence of teachers' perception towards ICT use in ELT**. To address this knowledge gap, the present study investigated the beliefs of teachers of English as a foreign language (EFL) towards the ICT integration concerning the factors and obstacles that deter teachers from comfortable use of ICT to enhance **students' English competence**.

Literature review

Many studies (e.g. Abbasova, Mamadova, 2019; Almalki, 2020; Avisteva, 2020; Hafifah, 2020; Katemba, 2020; Pham, 2019) **conducting about teachers' perspective on ICT integration** towards its impact and results have been discussed extensively in the field of educational contexts. Previously, second language acquisition introduced the term relating to the manipulation of computing devices – computer assisted language learning (CALL), which is defined as the use of a computer in the teaching or learning of a second or foreign language (Richards, Schmidt, 2010). In contrast, ICT refers broadly to the study of the use of computers, the Internet, video, and other technology as a subject at school (OALD, 2020). Hence, ICT has a broader meaning which comprises the meaning of CALL in its boundary. As a result, ICT is popularly used in ELT instead of CALL (Ahmadi, 2018). The implementation of ICT has currently been a beneficial aspect of teaching and learning, especially in ELT. Since ICT integration was introduced into a language **teaching sector, it has caused many controversial debates relating to teachers' perceptions and factors concerning ICT integration**.

Teachers' perceptions about ICT integration in ELT

Teachers' behavior is considered as one of the most important factors determining the success of technological integrations (Ertmer, Ottenbreit-Leftwich, 2013; Alkhawaldeh, Menchaca, 2014; Lin et al., 2014). In general, teachers' perceptions of ICT in education have a great impact on ICT integration and adopted attitudes in the classroom. The aforementioned scholars state that teachers find it resourceful to constitute ICT collaborating teaching and learning activities as a valuable tool and they are positive about students' achievement of ICT knowledge and skills. They, however, do not acknowledge the extensive use of ICT in the classroom as well as sound uncertain about its potential to improve teaching. Besides, teachers are eager and motivated to get to know about ICT, but they only take advantage of some basic ICT applications and a limited range of software, particularly for personal purposes. In practice, teachers use their computing devices for low-level supplemental work either word processing such as lesson plan preparation, registration of students' grades, and designing English tests or surfing the Internet to get relevant information for lesson plans (e.g. Juniana, Muslem, 2017; Pham, 2019; Almadi, 2018). Unfortunately, a few EFL teachers exploit the capacity of implementing ICT for instructional purposes and collaborating ICT with subject teaching in order to reform their teaching styles to arouse students' autonomous English language learning which is considered as a remarkable imprint of the learner-centered approach (Shreurs, Dumbraveanu, 2014) in educational purposes, to activate students, to motivate learning activities, and to stimulate high-level thinking and reasoning skills (Malagon, Perez, 2017; Pham, 2018). Moreover, although some studies (Ahmadi, 2018; Budiman et al., 2018; Hafifah, 2020; Sabiri, 2020) have pointed out that many teachers have positive viewpoints on contemporary educational technologies, they do not feel confident in effectively integrating ICT into their teaching instruction. This hesitancy might be accounted for the inadequate training and experience which explain for teachers' negative attitudes towards the implementation of educational technologies. Thus, teachers' level of competence with ICT greatly impacts how they exploit ICT and how they encourage themselves to implement ICT tools during their teaching and learning processes. Recent researches (e.g. Avisteva, 2020; Abbasova, Mammadova, 2019; Katemba, 2020) have acknowledged teachers' beliefs about ICT usefulness and their intentions to apply ICT in their instruction. They also reckon that most effective teachers who possess not only positive opinions on ICT, but also good ICT skills consider ICT integration as a part of a stimulating platform, supporting their teaching practices as well as their students' involvement in active learning environment.

Factors influencing teacher use of ICT

In reality, factors influencing teachers' use of ICT appear to encompass several aspects such as rationale for ICT integration, perceived usefulness of ICT in EFL, perceived ease of ICT implementation, modes of teaching with ICT intervention, experiences of ICT use in EFL, access to equipment supporting ICT application, and support for ICT utilization. These perspectives would be exploited thoroughly in this study instrument to shed light on the research findings.

Rationale for ICT integration. Some studies (e.g. Malagon, Perez, 2017; Juniana, Muslem, 2017; Isnani, 2019; Sabiri, 2020) have discussed the reasons for taking advantage of ICT integration into EFL. They mostly agree that educational reforms and the influence of Industry 4.0 (Schwab, 2016) require teachers to change their teaching practices. For example, cross-cultural communication could take place either verbal or non-verbal forms, in which the latter is hard to explain by means of utterance, but effective and easy to understand by using ICT denotation. Besides, thanks to the development of ICT resources, hybrid or blended learning mode could be backed up without the limitation of geographical boundaries. Similarly, the essence of one curriculum might be franchised to different educational places in terms of English as a medium of instruction (EMI) (Ducker, 2020; Agai-Lochi, 2015), which meets the requirement of learners' expectations in the expanding circle as well as inner circle to be able to master their English competence as speakers in the inner circle (Kachru, 1985). Therefore, external influences have a great impact on teachers' internal motivation to reform their pedagogical methods to keep up with the fast development and innovation of EFL contexts.

Perceived usefulness of ICT in EFL. When collaborating the availability of sophisticated educational software in EFL, some researches (Liu et al., 2017; Shinghavi, Basargeka, 2019) have indicated the effectiveness of the ICT implementation. For example, Liu et al. (2017) carried out a survey with 202 Chinese EFL teachers on their technology acceptance model (TAM), they

concluded that TAM was positively acknowledged on one condition that teachers integrated technology effectively, so a shift from traditional transmissive pedagogy to constructivist one would necessarily take place. Similarly, Shinghavi and Basargeka (2019) conducted a research involving 515 teachers in the implementation of ICT in the classroom contexts in India. They claimed the decisive role of ICT in education, which drove the learning theory from teacher-centric process to more learner-centric one. This finding is somehow in line with the earlier result of the study conducted by Shreurs and Dumbraveanu (2014), emphasizing the vital role of learner-centered teaching approach in autonomous language learning.

Perceived ease of use of ICT: As a matter of fact, computing devices for the purpose of supporting ELT such as laptops, tablets, smart phones are ubiquitous. Together with the development and revolution of ICT infrastructure, there has been a few studies mentioned the difficulties of use of ICT (Juniana, Muslem, 2017; Katemba, 2020). Juniana and Muslem (2017) blamed the insufficient equipment and poor internet connections for hindering the implementation of ICT use in ELT. This is the same result in the study done by Katemba (2020) with 30 teachers in the rural area in Indonesia, the scholar arrived at the conclusion that the most challenges were the limitation of ICT tools and the low internet connection. In comparison with Vietnamese circumstance, the studies (e.g. Hoang, 2010b; Pham, 2018; Pham, 2019) have revealed that the availability of ICT tools ascertains Vietnamese EFL teachers to exploit ICT facilities up to their expectations.

Modes of teaching: They refer to the pedagogic practices teachers select in ELT collaborated with ICT use. Some researches (e.g. Ghavifekr et al., 2014; Sahin-Kizil, 2011; Zhelezovskaia, 2016; Ali, 2018) have investigated the effect of using ICT integration as a pedagogic reform in modes of teaching. Sahin-Kizil (2011) stated that the implementation of ICT into classroom instruction yielded as positive attitudes which brought about an advantageous perspective over conventional method of instruction. The use of ICT for educational purposes would benefit learning outcomes as it facilitates and instructs students to self-direction and self-control in the learning processes (Ghavifekr et al., 2014). Teachers felt very enthusiastic about classroom instruction when integrating ICT use during their lessons. This is considered as pedagogic reform in the study carried out by Ali (2018) which concluded that ICT integrated with classroom instruction had a positive learning outputs.

Experiences of ICT in teaching: In this aspect, experiences in teachers' knowledge about ICT integration (e.g. Avisteva, 2020; Ghavifekr et al., 2014), in pedagogic performance (Al-Munawwarah, 2014; Avisteva, 2020; Liu et al., 2017; Sahin-Kizil, 2011), and ICT infrastructure (Juliana, Muslem, 2017; Salehi, Salehi, 2012) would be taken into account. In general, teachers understand the worth and value of using ICT in their teaching career, they believe that in order to put ICT into practice successfully, favourable conditions for ICT integration should be given as a priority such as classroom infrastructure and supportive educational policies (Avisteva, 2020). Besides, teachers also have to be well-trained to use ICT for teaching, especially ELT, not much for their own work. **Thus, teachers' attitudes play a vital role in using ICT in the instruction.** Experiences of ICT use in teaching also have affected the choice of pedagogical performance. Al-Munawwarah (2014) claimed that the benefit of using ICT in ELT enabled teachers to create **enjoyable learning activities, promoting learners' interactive involvement during learning processes. In addition, the influence of ICT implementation causes teachers' pedagogical beliefs to be more constructivist-oriented than transmissive-oriented (Liu et al., 2017), and teachers assume that the implementation of ICT is more advantageous than the traditional methods of instruction (Sahi-Kizil, 2011).** Besides, ICT experiences require its infrastructure in a good condition. Insufficient equipment coupled with poor internet connection is commonly found in many studies (e.g. Juliana, Muslem, 2017; Nikian et al., 2013; Salehi, Salehi, 2012; Mahdum, 2019).

Access to equipment: For this matter, it refers to the exploitation of ICT hardware and software for the purpose of ELT. Some researches (e.g. Ungar, Baruch, 2016; Mahdum et al., 2019; Pham et al., 2019; Nikian et al., 2013; Abbasova, Mammadova, 2019) have discussed at length the availability of ICT equipment for ELT. Thanks to the development and innovation under the impact of Industry 4.0 (Schwab, 2016), the access to utilize ICT infrastructure does not have much obstacles. In fact, educational entertainment, virtual classrooms, and e-learning programs have made themselves available to serve educational purposes, especially ELT.

Support for ICT use: This mentions the assistance of supportive factors concerning the implementation of ICT for educational purposes. Technical helps, pedagogical sharing experience, or facilitated educational policies are major contributions in view of supportive ICT integration in ELT. Liu et al. (2017) conducted a research with 202 Chinese EFL teachers and proposed to retrain them for better preparation for updating contemporary ICT knowledge in ELT. This study did not investigate ICT technological assistance or educational policy reforms. Another study conducted by Avisteva (2019) examined the integration of ICT in language teaching. The scholar somehow shared similarity with the finding in Liu et al. (2017), and indicated that teachers had limited confidence in applying technological skills to support their creativity. This study only concentrated on the role of teachers towards the ICT integration. On the contrary, Almalki (2020) recommended that EFL teachers were supposed to be supported with professional development and ICT technological resources. Thus, the focal point of the study strengthened the role of policymakers in terms of providing assistance for teachers to implement ICT in ELT. With the support from the above theoretical framework, this study was conducted in order to answer the following questions:

1. What is the perception of Vietnamese tertiary teachers towards ICT in English language teaching?
2. What is the perceptual differences between male and female teachers in ICT integration in English language teaching?

2. Methodology

Research Design

The study was basically designed to examine the perceptions of 357 Vietnamese teachers of English, who were selected out of the estimated 5,000 lecturers from 3 main universities in Vietnam by stratified sampling method ($p = 95\%$; $r = \pm 5\%$), **they were treated as the study population for eliciting their opinions on the implementation of ICT in ELT.** Initial contact with 3 university administrators was made via email with the permission requested for conducting surveys. The study employed quantitative and qualitative approaches via the questionnaire and the semi-structured interview. The questionnaire was conducted with the active link of Google form, together with a request to participate in the follow-up, semi-structured interview over the telephone. The raw collected feedback was screened before encoding with IBM SPSS program for the data treatment.

Participants

As it was impossible for the researcher, with the constraint of money and time, to collect information about 5,000 estimated teachers of English from 3 main faraway universities, particularly Vietnam national university, Hanoi – in the north of Vietnam, Hue university – in the central part, and Vietnam national university, Ho Chi Minh city – in the south of Vietnam. **the judgemental sampling technique was employed as a matter of uncertain respondents' involvement. The researcher used Slovin's formula with the confidence level 95 % and the margin of error $\pm 5\%$** to determine 357 sample population. Specifically, the participants included 158 male teachers (44.3 %), and 199 female ones (55.7 %). Their professional experience consisted of 42 teachers under 5 years (11.8 %), 65 under 10 years (18.5 %), 82 under 15 years (23 %), 53 under 20 years (14.8 %), 60 under 25 years (16.8%), 29 under 30 years (8.1 %), and 26 over 30 years (7.3 %). 132 teachers (37 %) taught English major students, 77 teachers (21.6 %) lectured non-English major students, and 148 lecturers (41.5 %) taught both types of students. their academic degrees comprised 89 doctors (24.9 %), 222 masters (62.2 %), and 46 bachelors (12.9 %). Of 357 respondents, 68 participants agreed to participate in the follow-up, semi-structured interview over the telephone.

Research Instrument

The study utilized the researcher-made questionnaire which featured in factual and behavioral criteria (Dörnyei, Taguchi, 2010), and 8 semi-structured interview questions concerning internal and external factors. The questionnaire was addressed by 3 experts on educational assessment and accreditation for content validation. After that, a pilot study with a batch of 45 teachers was conducted to validate the strength and weakness of the instrument to fine-tune the **final version with the acceptable scale ($0.9 > \alpha \geq 0.8$) (Cronbach, 1951).** The respondents were asked to answer the list of 8 close questions. For the last question, the participants expressed their

opinions according to Likert scale, i.e. (1) strongly agree, (2) agree, (3) neutral, (4) agree, and (5) strongly agree. If they accepted to join a tele-conversation, the researcher focused on 8 aspects.

Procedure

Having a proper instrument tool and the initial contact with 3 main universities in 3 regions to explain the purpose and to request their assistance for permission to float the questionnaire, the **researcher's email with active link of Google form was sent to teachers' email address availed by the concerned university administrators. The questionnaire, which was included the researcher's** instruction, explained the objectives and relevance of the study, guaranteed the anonymity, told them the choice of refusal if they did not want, and requested them if they were willing to participate in the tele-conversation. The participants were expected to reply the questionnaire after one week since the email received. In the case of a low response rate (less than 25 %), another email was sent to the participants as a courtesy reminder politely asking them to respond to the survey. A thanking email was sent back to the respondents as the confirmation of reception.

The researcher cooperated with another educational expert to evaluate the recording to analyze the perceptions of the participants separately, then the researcher compared the two sources of assessment for the final version. Finally, the raw data was classified, encoding the screened data with SPSS program for the data treatment.

Statistical tools

Frequency statistics was employed to address the demographic information, the choice of ICT integration, the level of confidence, and the self-evaluation of teachers' **ICT competence**. Descriptive statistics was used to analyze the factors affecting ICT implementation in ELT with the quantitative explanation such as (1.0-1.79) very low, (1.8-2.59) low, (2.6-3.39) neutral, (3.4-4.19) high, and (4.2-5.0) very high. Independent T-test was utilized to find out the discrepancy between male and female teachers towards the ICT integration in ELT, which should be the basis for proposing the implications for innovating and reforming the training program of ICT.

For interview questions, frequency statistics was also used to address the collected data for internal and external factors.

3. Results

When investigating the frequent use of ICT in ELT, all teacher participants claimed that they exploited ICT integration during their English teaching process. 43 teachers (12 %) confessed that they had a little confidence in using ICT while the majority of them, i.e. 252 teachers (70.6 %) revealed that they were confident in their ability to utilize ICT in ELT, and 62 respondents (17.4 %) felt very confident about their exploitation of ICT for the purpose of ELT. In addition, the participants were also expected to self-evaluate their ICT competence in their teaching practices. The results showed that most of the respondents, i.e. 247 teachers, equivalent to 69.2 %, expressed their competence in the exploitation of ICT in ELT. 64 teachers, accounting for 17.9 % claimed to be very competent in using ELT, and 46 teachers (12.9 %) thought that they had a little competence in applying ICT for ELT.

The rationales that teacher participants reflected were somehow similar in their choice as the standard deviations were lower than 1.0%, but the results were not the same. Specifically, they highly recognized the tremendous benefits for using ICT in ELT ($M = 4.13$; $SD = .56$ %), personally preferred teaching English with ICT ($M = 4.17$; $SD = .55$ %), and followed the directives from their superiors ($M = 3.53$; $SD = .78$ %). Besides, they had neutral opinions on the pressure from both students ($M = 3.15$; $SD = .59$ %) and teachers ($M = 2.97$; $SD = .45$ %).

Concerning the perceived usefulness of ICT integration, teachers generally had high perceptions for it. In particular, they believed that using ICT improved their productivity very highly ($M = 4.37$; $SD = .71$ %). They were, however, uncertain about the better results in their **students' studies with regard to ICT integration** ($M = 3.18$; $SD = .63$ %). They were also unsure **about the possibility of enhancing students' employability in the future** ($M = 3.22$; $SD = .65$ %). Teacher respondents agreed quite highly that ICT integration was helpful for ELT ($M=4.13$; $SD = .61$ %), improved their teaching performance ($M = 4.17$; $SD = .60$ %), and helped students practice language skills ubiquitously ($M = 4.10$; $SD = .64$ %). Furthermore, teachers believed that ICT-enhanced lessons could be re-used ($M = 4.08$; $SD = .59$ %). They also reckoned that ICT helped them access extensive teaching resources on the Internet ($M = 4.04$; $SD = .57$ %). Besides, the participants highly remarked that utilizing ICT improved their expertise in their subject areas

($M = 3.44$; $SD = .70\%$), facilitated them to share teaching experiences ($M=3.82$; $SD = .74 \%$), enhanced their lesson preparation ($M = 3.85$; $SD = .78 \%$), increased study motivations for students ($M = 3.62$; $SD = .88 \%$), helped students understand subjects more deeply ($M = 3.90$; $SD = .66 \%$), and promoted autonomous learning ($M = 3.77$; $SD = .93 \%$). In addition, they concluded that email was a useful tool for them to communicate with colleagues and students ($M = 3.52$; $SD = .69 \%$).

In terms of perceived ease of ICT use, teachers found it easy to use the Internet ($M = 4.24$; $SD = .84 \%$), which was considered very high according to Likert scale. They highly claimed to use computers ($M = 3.91$; $SD = .70 \%$), to exploit ICT in lesson preparation ($M = 3.52$; $SD = 70 \%$), and to implement ICT in language teaching in the classroom ($M = 3.82$; $SD = .72 \%$). Besides, the participants held neutral opinions for sharing their teaching experiences with others ($M = 3.04$; $SD = .69 \%$). They also had very low viewpoints about training themselves how to use ICT in language teaching ($M = 2.48$; $SD = .59 \%$).

As regards modes of teaching, the respondents gave very high remark on the fact that face-to-face teaching blended with online teaching was an appropriate for their university ($M = 4.31$; $SD = .47 \%$). They highly believed that teaching with ICT was more enjoyable than teaching without ICT ($M = 4.06$; $SD = .65 \%$). In addition, they had low personal standpoint when expressing that they felt comfortable with the face-to-face teaching mode and did not want ICT in their teaching ($M = 2.12$; $SD = .70 \%$), and teaching languages totally online was appropriate for their university ($M = 2.20$; $SD = .81 \%$).

Considering experiences of ICT use in ELT, teachers had low perspectives when confirming that they could not control the content of materials downloaded from the Internet ($M = 2.29$; $SD = .82 \%$), assessment and testing practices at their university were still not ICT-based ($M = 2.04$; $SD = .55 \%$), and the Internet easily distracted students from their studies ($M = 2.12$; $SD = .62\%$). Furthermore, they had neutral stance on the following aspects. That is, they had no time to learn how to use ICT ($M = 2.77$; $SD = .80 \%$), it was expensive to use ICT in teaching ($M = 3.17$; $SD = .58 \%$), they had difficulty in classroom management when using ICT ($M = 3.01$; $SD = .54 \%$), they had had negative experiences with using ICT in classrooms before ($M = 3.09$; $SD = .59 \%$), they had succeeded in using ICT in teaching ($M = 3.11$; $SD = .65 \%$), and ICT would **facilitate students' violation of intellectual property rights** ($M = 3.11$; $SD = .59 \%$). In addition, the participants also had high opinions on the following viewpoints. In particular, it was very time-consuming to use ICT in lesson preparation ($M = 4.00$; $SD = .53 \%$), they believed that ICT increased workloads for teachers ($M = 3.79$; $SD = .71 \%$), technical problems often happened and wasted a lot of time in lessons ($M = 3.56$; $SD = .64 \%$), the speed of Internet connection at their university discouraged teachers from using ICT ($M = 3.64$; $SD = .69 \%$), and ICT had been integrated into the current curriculum at the department all level at their university ($M = 3.50$; $SD = .73 \%$).

Evaluating the access to equipment, teachers expressed low assessment when thinking that they had limited **access to university's computers** ($M = 2.10$; $SD = .75 \%$), they had to share **university's computers with others** ($M = 2.15$; $SD = .72 \%$), and **university's computers rarely had** technical problems ($M = 1.88$; $SD = .65 \%$). Besides, they had neutral attitudes towards the judgement that computer software was updated by their university on a regular basis ($M = 3.23$; $SD = .42\%$). Additionally, the results indicated high standpoint that only some classrooms at university are equipped with computers and Internet connection ($M = 3.60$; $SD = .68 \%$), **university's computers were mainly installed in computer labs and in the library** ($M = 3.88$; $SD = .62 \%$), and **most university's computers had software that they could use for language teaching** ($M = 3.83$; $SD = .70 \%$).

Addressing the support for ICT use, teachers provided very low assessment of the content of ICT training courses at their university which met their need ($M = 1.57$; $SD = .66 \%$). They also made low remarks that ICT training was customized according to the level of ICT skills of their university teachers ($M = 2.08$; $SD = .66 \%$), the frequency of ICT training courses at their university met their need ($M = 1.92$; $SD = .63 \%$), technical problems in using ICT in classroom at their university were often solved fast ($M = 2.07$; $SD = .59 \%$), their university had an official document guiding the use of ICT in teaching and learning ($M = 2.13$; $SD = .66 \%$), and the official ICT guidelines had been well disseminated to all staff in their university ($M = 2.15$; $SD = .36 \%$). Moreover, teachers had neutral ideas when reckoning that there was a culture of sharing experiences in ICT use in language teaching at their university ($M = 3.15$; $SD = .36 \%$), they could

not resolve technical problems ($M = 2.91$; $SD = .56$ %), they received strong support for ICT use from either university's leaders ($M = 2.79$; $SD = .68$ %) or the leaders of their department/centre ($M = 3.03$; $SD = .60$ %).

Table 1 presents the internal and external factors which influence teachers' pedagogical practices in ELT. The outcomes are resulted from the semi-structured interviews with 68 teachers with the permission of recording the interviews. The recordings were separately assessed by the researcher and an educational expert. As glimpsed from Table 1, all participants acknowledged the role of ICT integration in ELT.

Table 1. Factors relating to the decision of ICT use in ELT

<i>Internal factors</i>		<i>Frequency</i>	<i>Percent</i>	<i>Related factor</i>
The role of ICT in your English teaching is crucial.	No	14	20.6	
	Yes	54	79.4	Teacher
Some teachers of English say their English knowledge does have an influence on their integration of ICT in their teaching.	No	7	10.3	
	Yes	61	89.7	Teacher
Your knowledge/skills affect the way you use ICT in your English teaching.	No	8	11.8	
	Yes	60	88.2	Teacher
Your profession develops when it comes to ICT integration in your English teaching?	No	14	20.6	
	Yes	54	79.4	Profession
	Total	68	100.0	
<i>External factors</i>		<i>Frequency</i>	<i>Percent</i>	<i>Related factor</i>
Some teachers say their students' technical knowledge and skills affect their ICT integration in classroom teaching.	No	11	16.2	
	Yes	57	83.8	Student
Your colleagues affect your ICT use in classroom instruction.	No	10	14.7	
	Yes	58	85.3	Peer
Is there technical support from technicians? During class hour? Or out of class hours?	No	19	27.9	
	Yes	49	72.1	Technician
The university and department policies influence the way you integrate ICT in your teaching.	No	20	29.4	
	Yes	48	70.6	Administrator
	Total	68	100.0	

Table 2 points out the contrastive comparison among male and female teachers in regard with the implementation of ICT in ELT in terms of 7 perspectives.

Table 2. Perceptual differences between male and female teachers in ICT integration

	Levene's Test for Equality of Variances		t-test for Equality of Means							
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95 % Confidence Interval of the Difference		
								Lower	Upper	
Rationale for ICT use	Equal variances assumed	.101	.751	1.15	355	.250	.16993	.1475	-.120	.46008
	Equal variances not assumed			1.15	333.4	.251	.16993	.1479	-.121	.46092

Perceived usefulness of ICT	Equal variances assumed	.158	.691	.07	355	.945	.01921	.2780	-.528	.56591
	Equal variances not assumed			.07	332.0	.945	.01921	.2790	-.530	.56805
Perceived ease of use of ICT	Equal variances assumed	1.02	.314	-1.4	355	.163	-.25593	.1829	-.616	.10380
	Equal variances not assumed			-1.39	330.8	.165	-.25593	.1837	-.617	.10550
Modes of teaching	Equal variances assumed	.305	.581	1.22	355	.224	.15734	.1293	-.097	.41162
	Equal variances not assumed			1.22	337.0	.224	.15734	.1293	-.097	.41164
Experiences of ICT use in teaching	Equal variances assumed	.00	.986	-.73	355	.463	-.19019	.2590	-.700	.31919
	Equal variances not assumed			-.73	334.1	.464	-.19019	.2596	-.701	.32036
Access to equipment	Equal variances assumed	.01	.936	.44	355	.664	.08072	.1854	-.284	.44541
	Equal variances not assumed			.44	336.0	.664	.08072	.1856	-.284	.44573
Support for ICT use	Equal variances assumed	.161	.689	.07	355	.941	.01504	.2036	-.385	.41553
	Equal variances not assumed			.07	327.7	.942	.01504	.2050	-.388	.41830

The finding concludes that *Sig.* and *Sig.* (2-tailed) figures are bigger than .05 %, that is, there is no difference among the teachers towards the practices of using ICT in ELT. Thus, it is unnecessary to formulate the distinct educational policies, regulations or directives to promote the implementation of ICT for the success of teaching English at the tertiary level.

4. Discussion

The teachers are well experienced and qualified, they mostly have good academic status, which is very necessary as they almost teach English major students and non-English major ones. **In addition, teachers' belief towards ICT implementation has generally recognized as a necessary determinant for the success of technological integration in ELT** (Albirini, 2006; Ali, 2018; Isnani, 2019). Findings from this study indicate that the respondents are confident in teaching English mediated by ICT intervention, this is because they feel competent to apply the technological advances during their pedagogical practices (Soto et al., 2011; Sashin-Kizil, 2011; Katemba, 2020). Besides, the results from the semi-structured interview reveal that teachers have to take the responsibility of deciding what and how ICT integration should be exploited for ELT.

In fact, the majority of English language teachers in Vietnam has positive reasons for the integration of ICT in ELT, they believe that ICT use plays an essential part in supporting ELT process at the tertiary level. Teachers also express their willingness to use ICT in ELT, they do not seem to be influenced by external factors such as their colleagues or school administrators. These results are in line with the studies which presented the rationales accounting for the use of ICT in ELT (e.g. Avisteva, 2020; Isnani, 2019; Sabiri, 2020). Technologically educational innovations

require teachers to develop their self-efficacy to catch up with the speed of the fast-track changes in the world of e-learning capabilities. Teachers must update themselves with the full arm of ICT knowledge then advocate their understanding about ICT with ELT to provide the best efficiency to support their learners thanks to the promotion of their autonomous language learning.

The findings of ICT usefulness reveal that teachers need to do their lesson plans basing on the core ideas mixed between traditional teaching methods and state-of-the-art approach. Currently, the relationship between teachers, students, and stakeholders are constructed with the **connectedness of ICT implementation. Concerning teachers' aspect, ICT integration helps them** easily carry out their teaching performance which is supported by the authentic resources, verbal or non-verbal denotations. Actually, some cross-cultural communications such as handshakes, diplomatic kiss exchange, or facial expressions are hard to demonstrate by teachers. Moreover, take phonetics and phonology for example, this subject is very challenging for teachers to feel satisfied, and for students to visualize and mimic the correct sounds. ICT use, therefore, could be the best solution to address the difficult circumstances. Teachers simultaneously have chances to improve their knowledge as well as experiences thanks to ICT. They could exchange teaching resources, effective teaching tactics, or even classroom management (Liu et al., 2017; Shreurs, Dumbraveanu, 2014; Shinghavi, Basargeka, 2019). Currently, many edutainments keep **introducing to assist English teachers, reduce teachers' workload**, and promote learner autonomy. With the development and innovation of artificial intelligence (AI), teachers can instruct their students to self-study with the reduction time of face-to-face class. In order to implement effectively ICT use in ELT, teachers also exploit ICT resources, that is, teachers need to update themselves with authentic materials, learn how to deal with unexpected technological errors, and how to control their students during the teaching process (Soto et al., 2011; Pham et al., 2019; Lin et al., 2014). **Regarding students' role in ICT use, they have to be trained how to learn as a blended learning approach**, so they can take advantage of using ICT integration for promoting their autonomous language learning (Alkhawaldeh, Menchaca, 2014; Ungar, Baruch, 2016).

The results regarding teachers' experiences of ICT use present that they acknowledge the benefits of hybrid learning and teaching modes, i.e. students should acquire English with face-to-face classes and the support of ICT during learning process. Teaching English in Vietnam has recently utilized some basic ICT uses (Hoang, 2010b; Pham et al., 2018). Nowadays, global integration, especially in the age of Industry 4.0 focusing on AI (Schwab, 2016), encourages the international educational exchanges using English as an effective, communicative medium. This movement requires ELT educators to innovate the pedagogical approaches (Schreurs, Dumbraveanu, 2014). Teaching process and testing assessment are two vital components in educational context, especially in ELT. With the intervention of ICT use, the effectiveness of its integration has contributed to the success of EFL students (Ahmadi, 2018; Sabiri, 2020; Silviyanti, Yusuf, 2015). As such, the majority of the participants claimed during the semi-structured interviews that the contribution of ICT integration in ELT is very necessary. Recognizing the essential impact of ICT use in ELT, recent curriculum has been reformed to include the role of ICT as part of English teaching program (Ghaviferk et al., 2014; Liu et al., 2017; Ali, 2018). The debates have risen whether AI robot teachers should be replaced human instructors in terms of teaching English.

Overviewing the findings, external factors such as the access to equipment or support for ICT use have got some unfavourable conditions. Although ICT infrastructure is, to some extent, well-equipped, some elements, for example, educational software for teaching English, technical helpdesk, or teacher training programs for using ICT in ELT have not given adequate attention. In fact, basic ICT manipulation such as using some software applications for lesson plans is not considered as barriers for most of teachers. Monitoring ICT for teaching English requires many skilled and on-the-job training tactics which have been discussed in many studies so far (e.g. Alkhawaldeh, Menchaca, 2014; Lin et al., 2014; Shinghavi, Basargekar, 2019). External factors might easily put under control such as Internet connection, technological problems or computers crash but an effective and tailored software applications for ELT could be the biggest obstacles when implementing the blended learning and teaching English. Besides, the results indicate there is a mismatch between school administrators and teachers' **expectations in regard with ICT policies** for ELT. On the one hand, educational policies promote teachers to incorporate ICT in order to **draw students' attention to help them get the best English learning outcomes. On the other hand,** necessary activities to enable teachers to exploit the best fruits of ICT use for ELT have not been

specified (Ertmer, Ottenbreit-Leftwich, 2013; Pham et al., 2019; Singhavi, Basargeka, 2019). In practice, school administrators take charge of investing in ICT infrastructure and software applications, arranging short courses to introduce the system and how to use it for the purpose of teaching English. Expert supervision and supportive schemes are not given attention. ELT software needs to be tailored and fine-tuned to meet the requirement of different groups of students, which is often neglected. As a result, the utilization of ICT for ELT often leads to the failure.

The synchronized analysis in the semi-structured interviews also confirms the roles of internal and external factors that involve 6 aspects, namely teacher, profession, student, peer, technician, and administrator. These factors reveal that ICT use is favored and supported at Vietnamese tertiary level, the solution is expected to find out how to combine them to make a united effort to take advantage of ICT integration for the purpose of successful English teaching practice.

For the convenience of ICT use, teachers do not have many difficulties in utilizing the ICT facilities but they have problems in managing how to use ICT in ELT. The findings relating to equipment show that ICT infrastructure is well-equipped to serve the educational purposes, but not specify ELT. That is, ICT equipment is supplied for all subjects and majors that universities are in charge of training (Merillo, Domingo, 2019; Pham, 2019). Thus, there should be an exclusive ICT infrastructure such as dedicated software and network to meet the requirement for ELT. As the findings concerning the support for ICT use, lack of coaching and technological assistance has been accounted for the fact that although teachers prefer face-to-face teaching blended with online mode to conventional teaching method, teachers of English have received a little attention from the favor of educational policies (Hoang, 2010b; Thu, 2017; Pham, 2018). The results reveal the current situation that teachers of English seemingly have to get to know the ICT devices and its software by themselves. Besides, dedicated software for teaching English is not efficient and customized to **meet the teachers' expectations. When teachers seeking for help from technological helpdesks in case of problem occurrence are not effective, this situation can be found similar in other studies (e.g. Avisteva, 2019; Liu et al., 2017; Almalki, 2020).**

5. Conclusion

The aforementioned information supports the conclusion that teachers are willing and get ready to implement ICT into ELT, which shares the similarities in the concluded remarks in the previous studies (e.g. Ahmadi, 2018; Budiman et al., 2018; Avisteva, 2010; Abbasova, Mammadova, 2019). All participants claim that they have already integrated ICT infrastructure into ELT. Most of them show their confidence and feel competent to apply ICT use for the intention of delivering their lessons. The respondents reckon that they recognize the benefits of using ICT in **ELT so they themselves choose to implement it for the sake of students' achievement in English** acquisition. Teachers also acknowledge the usefulness of ICT integration because they feel highly demanding and worthy when utilizing ICT for teaching English (Silviyanti, Yusuf, 2015; Malagon, Perez, 2017; Liu et al., 2017). As far as the demanding aspect concerned, teachers need to get used to the blended learning. That is, they should provide learning opportunities through a combination of several different forms of learning especially that of technology-based resources and conventional teachers, or book-based learning (Richards, Schmidt, 2014). As a result, teachers devote more time to prepare carefully for their lesson, they have to try their best to select a variety **of the learning materials to satisfy students' expectations. Teachers need to self-study many technological applications to make their lessons more interesting. For example, their lectures are not only based on a simple Powerpoint-assisted application, but teachers also have to embed real-time movie clips from a website and their lectures should run on the Internet platforms.**

Limitation of the study

Due to the constraints of time and finance, this study is bound to the limited sample population – teachers of English, and one subject – English language teaching. In order to guarantee the overall assessment of ICT integration in the educational setting, it is advisable that more researches would be conducted on the implementation of ICT for other subjects to ensure the liability of the ICT influences, especially in the age of the fourth industry revolution (Schwab, 2016). **In addition, the investigation of students' perception towards the practices of teachers' ICT integration when teaching English should be done using a quasi-experimental method to ensure the unbiased results.**

References

- Abbasova, Mammadova, 2019 – Abbasova, M., Mammadova, N. (2019). The Role of Digital Technology in English Language Teaching in Azerbaijan. *International Journal of English Linguistics*. 9(2): 364-372. DOI: <https://doi.org/10.5539/ijel.v9n2p364>
- Agai-Lochi, 2015 – Agai-Lochi, E. (2015). English as Medium of Instruction in University Education. *Procedia – Social and Behavioral Sciences*. 199(1): 340-347. DOI: <https://doi.org/10.1016/j.sbspro.2015.07.557>
- Ahmadi, 2018 – Ahmadi, R.M. (2018). The use of technology in English language learning. A literature review. *International Journal of Research in English Education*. 3(2): 115-125. DOI: <http://dx.doi.org/10.29252/ijree.3.2.115>
- Al-Munawwarah, 2014 – Al-Munawwarah, S.F. (2014). Teachers' perceptions on the use of ICT in Indonesian EFL learning context. *English Review: Journal of English Education*. 3(1): 70-80. [Electronic resource]. URL: <https://journal.uniku.ac.id/index.php/ERJEE/article/view/116>
- Albirini, 2006 – Albirini, A. (2006). Teachers' attitudes toward information and communication technologies: The case of Syrian EFL teachers. *Computers & Education*. 47(4): 373-398. DOI: <https://doi.org/10.1016/j.compedu.2004.10.013>
- Alkhawaldeh, Menchaca, 2014 – Alkhawaldeh, N., Menchaca, M. (2014). Barriers to utilizing ICT in education in Jordan. *International Journal on E-learning*. 13(2): 127-155. [Electronic resource]. URL: <https://www.learntechlib.org/p/39525/>
- Alshumaimeri, 2008 – Alshumaimeri, Y.A. (2008). Perceptions and attitudes towards using CALL in English classrooms among Saudi secondary EFL teachers. *The JALT CALL Journal*. 4(2): 29-46. DOI: <https://doi.org/10.29140/jaltcall.v4n2.61>
- Ali, 2018 – Ali, W. (2018). Teachers' perceptions of ICT integration as a pedagogic reform in classroom instruction. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*. 23(10): 14-31. DOI: <https://doi.org/10.9790/0837-2310091431>
- Almalki, 2020 – Almalki, A. (2020). Integration of Technology among Saudi EFL Teachers. *English Language Teaching*. 13(8): 160-167. DOI: <https://doi.org/10.5539/elt.v13n8p160>
- Avisteva, 2020 – Avisteva, T.R. (2020). Teachers' Perspectives on the Implementation of Information and Communication Technology in Language Teaching. *Advances in Social Science, Education and Humanities Research*. 424: 19-23. DOI: <https://doi.org/10.2991/assehr.k.200325.046>
- Budiman et al., 2018 – Budiman, A., Rahmawati, R., Ulfa, A.R. (2018). EFL teacher's belief and practice on integrating ICT in the classroom: A case study on the implementation of SAMR model in teaching reading descriptive text at Maassalam, Sukoharjo. *Junal Penelitian Humaniora*. 19(2): 39-51. [Electronic resource]. URL: <http://journals.ums.ac.id/index.php/humaniora/article/view/6809>
- Burston, 2014 – Burston, J. (2014). The reality of MALL: Still on the fringes. *CALICO Journal*. 31(1): 103-125. DOI: <https://doi.org/10.11139/cj.31.1.103-125>
- Chamorro, Rey, 2013 – Chamorro, G.M., Rey, L. (2013). Teachers' Beliefs and the Integration of Technology in the EFL Class. *HOW Journal*. 20(1): 51-72. [Electronic resource]. URL: <https://www.howjournalcolombia.org/index.php/how/article/view/23>
- Cronbach, 1951 – Cronbach, L.J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*. 16(1): 297-334. DOI: <https://doi.org/10.1007/BF02310555>
- Dörnyei, Taguchi, 2010 – Dörnyei, Z., Taguchi, T. (2010). Questionnaires in Second Language Research: Construction, Administration and Processing" (2nd ed.). New York: Routledge. DOI: <https://doi.org/10.1111/j.1540-4781.2011.01252.x>
- Ducker, 2020 – Ducker, N. (2020). English as a Medium of Instruction. In the TESOL Encyclopedia of English Language Teaching (eds J.I. Liantas, T. International Association and M. Dell'Caripini). DOI: <https://doi.org/10.1002/9781118784235.eelt0968>
- Ertmer, Ottenbreit-Leftwich, 2013 – Ertmer, P.A., Ottenbreit-Leftwich, A. (2013). Removing obstacles to the pedagogical changes required by Jonassen's vision of authentic technology-enabled learning. *Computers & Education*. 64(1): 175-182. DOI: <https://doi.org/10.1016/j.compedu.2012.10.008>
- Frailon et al., 2014 – Frailon, J., Ainley, J., Schulz, W., Friedman, T., Gebhardt, E. (2014). Preparing for life in a digital age: The IEA international computer and information literacy study international report ICILS 2013, IEA, and Springer Open. Cham: Springer International Publishing.

- Gilakjani, , 2012 – *Gilakjani, P.A., Leong, L.* (2012). EFL Teachers' Attitudes toward Using Computer Technology in English Language Teaching. *Theory and Practice in Language Studies*. 2(3): 630-636. DOI: <https://doi.org/10.4304/tpls.2.3.630-636>
- Ghavifekr et al., 2014 – *Ghavifekr, S., Razak, A.Z.A., Ghani, M.F.A., Ran, N.Y., Meixi, Y., Tengyue, Z.* (2014). ICT Integration in Education: Incorporation for Teaching & Learning Improvement. *Malaysian Online Journal of Educational Technology*. 2(2): 24-45. [Electronic resource]. URL: <https://files.eric.ed.gov/fulltext/EJ1086419.pdf>
- Hafifah, 2020 – *Hafifah, G.N.* (2020). Teachers Perspectives of ICT Integration in English Language Teaching: A Review of Literature. *Journal of English Educators Society*. 5(1): 9-15. DOI: <https://doi.org/10.21070/jees.v5i1.205>
- Hoang, 2010b – *Hoang, V.V.* (2010). The Current Situation and Issues of the Teaching of English in Vietnam. *Ritsumeikan Studies in Language and Culture*. 22(1): 7-18. Retrieved from [Electronic resource]. URL: http://www.ritsumei.ac.jp/acd/re/k-rsc/lcs/kiyou/pdf_22-1/RitsIILCS_22.1pp.7-18_HOANG.pdf
- Isnani, 2019 – *Isnani, K.* (2019). A study among English teachers' perceptions: Investigating the roles of ICT in Indonesian EFL classroom. *Eternal (English, Teaching, Learning and Research Journal)*. 5(2): 247-253. DOI: <https://doi.org/10.24252/Eternal.V52.2019.A6>
- Juliana, Muslem, 2017 – *Juliana, R., Muslem, A.* (2017). The Use of Information and Communication Technology (ICT) Amongst EFL Teachers: Perceptions and Challenges. *English Education Journal (EEJ)*. 8(4): 469-487. [Electronic resource]. URL: <http://www.jurnal.unsyiah.ac.id/EEJ/article/view/9211>
- Kachru, 1985 – *Kachru, B.* (1985). Standards, codification and sociolinguistic realism: The English language in the outer circle. In R. Quirk & H. G. Widdowson (Eds.). *English in the world: Teaching and learning the language and literatures* (pp. 11-30). Cambridge: Cambridge University Press.
- Katamba, 2020 – *Katamba, V.C.* (2020). Teachers' Perceptions in Implementing Technologies in Language Teaching and Learning. *Acuity Journal of English Language Pedagogy Literature and Culture*. 5(2): 38-51. DOI: <https://doi.org/10.35974/acuity.v5i2.2299>
- Liu et al., 2017 – *Liu, H., Lin, C., Zhang, D.* (2017). Pedagogical beliefs and attitudes toward information and communication technology: A survey of teachers of English as a foreign language in China. *Computer Assisted Language Learning*. 30(8). DOI: <http://dx.doi.org/10.1080/09588221.2017.1347572>
- Lin, Md. Yunus, 2012 – *Lin, P.C., Md. Yunus, M.* (2012). ESL Teacher and ICT: Teachers' Perception. *Advances in Language and Literacy Studies*. 3(1): 119-128. DOI: <https://doi.org/10.7575/aiac.all.v.3n.1p.119>
- Lin et al., 2014 – *Lin, C., Huang, C., Chen, C.* (2014). Barriers to the adoption of ICT in teaching Chinese as a foreign language in US universities. *ReCALL*. 26(1): 100-116. DOI: <http://dx.doi.org/10.1017/S0958344013000268>
- Mahdum et al., 2019 – *Mahdum, M., Hadriana, H., Safriyanti, M.* (2019). Exploring teacher perceptions and motivations to ICT use in learning activities in Indonesia. *Journal of Information Technology Education: Research*. 18(1): 293-317. DOI: <https://doi.org/10.28945/4366>
- Malagon, Perez, 2017 – *Malagon, G C., Perez, L.M.* (2017). ICT in the English Classroom. Qualitative Analysis of the Attitudes of Teachers of English Towards its Implementation in Secondary Schools. *Procedia – Social and Behavioral Sciences*. 237: 268-273. DOI: <https://doi.org/10.1016/j.sbspro.2017.02.074>
- Merillo, Domingo, 2019 – *Merillo, G.J., Domingo, C.P.* (2019). Technology in Pedagogy: Teachers' Perception Towards the Effectiveness of ICT Integration in Language Teaching. DOI: <http://dx.doi.org/10.2139/ssrn.3442432>
- Mollaei, Riasati, 2013 – *Mollaei, F., Riasati, J.M.* (2013). Teachers' Perceptions of Using Technology in Teaching EFL. *International Journal of Applied Linguistics & English Literature*. 2(1), 13-22. DOI: <http://dx.doi.org/10.7575/ijalel.v.2n.1p.13>
- Mohammed, Almekhlafi, 2017 – *Mohammed, H.A., Almekhlafi, G.A.* (2017). English Language Teachers' Perceptions of Using ICT in Teaching in Cycle Three in the United Arab Emirates. *US-China Foreign Language*. 15(6): 349-366. DOI: <https://doi.org/10.17265/1539-8080/2017.06.001>

Nikian et al., 2013 – **Nikian, S., Nor, M.F., Aziz, A.M. (2013).** Malaysian Teachers' Perception of Applying Technology in the Classroom. *Social and Behavioral Sciences*. 103: 621-627. DOI: <https://doi.org/10.1016/j.sbspro.2013.10.380>

Pham et al., 2018 – **Pham, T.T.N., Tan, C.K., Lee, K.W. (2018).** Exploring Teaching English Using ICT In Vietnam: The Lens of Activity Theory. *International Journal of Modern Trends in Social Sciences*. 1(3): 15-29. [Electronic resource]. URL: <http://www.ijmtss.com/PDF/IJMTSS-2018-03-09-02.pdf>

Pham et al., 2019 – **Pham, T.T.N., Tan, C.K., Lee, K.W. (2019).** Issues and Challenges in Using ICT for Teaching English in Vietnam. *Computer Assisted Language Learning-Electronic Journal*. 20(3): 140-155. [Electronic resource]. URL: <http://callej.org/journal/20-3/Pham-Tan-Lee2019.pdf>

OALD, 2020 – OALD (2020). Oxford Advanced Learner's Dictionary 10th edition © Oxford University Press.

Richards, Schmidt, 2014 – **Richards, J.C., Schmidt, R.W. (2014).** Longman dictionary of language teaching and applied linguistics (4th ed., p. 110). London: Routledge, Taylor & Francis Group.

Sabiri, 2020 – **Sabiri, K.A. (2020).** ICT in EFL Teaching and Learning: A Systematic Literature Review. *Contemporary Educational Technology*. 11(2): 177-195. DOI: <https://doi.org/10.30935/cet.665350>

Sahin-Kizil, 2011 – **Sahin-Kizil, A. (2011).** EFL Teachers' attitudes towards information and communication technologies (ICT). *5th International Computer & Instructional Technologies Symposium*. Firat University, Erzurum. [Electronic resource]. URL: https://www.researchgate.net/publication/258519110_EFL_teachers_attitudes_towards_Information_and_Communication_technologies_ICT

Salehi, Salehi, 2012 – **Salehi, H., Salehi, Z. (2012).** Integration of ICT in language teaching: Challenges and barriers. *Proceedings of the 3rd International Conference on e-Education, e-Business, e-Management and e-Learning (IC4E, 2012), IPEDR* 27. 215-219. [Electronic resource]. URL: <http://www.ipedr.com/vol27/40-IC4E%202012-F10037.pdf>

Schwab, 2016 – **Schwab, K. (2016).** The Fourth Industrial Revolution. Geneva: World Economic Forum.

Shreurs, Dumbraveanu, 2014 – **Shreurs, J., Dumbraveanu, R. (2014).** A Shift from Teacher Centered to Learner Centered Approach. *International Journal of Engineering Pedagogy*. 4(3): 36-41. DOI: <http://dx.doi.org/10.3991/ijep.v4i3.3395>

Singhavi, Basargekar, 2019 – **Singhavi, C., Basargekar, P. (2019).** Barriers Perceived by Teachers for use of Information and Communication Technology (ICT) in the Classroom in Maharashtra, India. *International Journal of Education and Development using Information and Communication Technology*. 15(2): 62-78. [Electronic resource]. URL: <http://ijedict.dec.uwi.edu/viewarticle.php?id=2582>

Silviyanti, Yusuf, 2015 – **Silviyanti, M.T., Yusuf, Q.Y. (2015).** EFL teachers' perceptions on using ICT in their teaching: To use or reject? *Teaching English with Technology*. 15(4): 29-43. [Electronic resource]. URL: <https://files.eric.ed.gov/fulltext/EJ1138430.pdf>

Soto et al., 2011 – **Soto, A.D.L., Escobar, B.R.Z., Baez, P.C. (2011).** ICT in the professional development of EFL teachers: perceptions and challenges. *Folios*. 33: 25-42. [Electronic resource]. URL: http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0123-48702011000100002

Thu, 2017 – **Thu, T.H.D. (2017).** An Overview of Research on Foreign Language Learning Autonomy in Vietnam. *VNU Journal of Foreign Studies*. 33(5). DOI: <https://doi.org/10.25073/2525-2445/vnufs.4194>

Ungar, Baruch, 2016 – **Ungar, O.A., Baruch, A.F. (2016).** Perceptions of teacher educators regarding ICT implementation. *Interdisciplinary Journal of e-Skills and Life Long Learning*, 12(1): 279-296. [Electronic resource]. URL: <http://www.informingscience.org/Publications/3606>

Zhelezovskaia, 2016 – **Zhelezovskaia, I. (2016).** A Case Study of the English Language Teachers' Attitudes toward Use of Information and Communication Technology (ICT) in Finland. [Electronic resource]. URL: <http://urn.fi/URN:NBN:fi-fe201608242295>