The Integration of ICT in the Classroom: Pre-Service EFL Teachers Experiences

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ABSTRACT

The use of ICT in teaching develops more important in present times because teachers also have to be able to keep up with the technological knowledge of their students. This study aims to analyze the pre-service teachers’ use of ICT in their classrooms during the practice teaching experience. This study employed both quantitative and qualitative data collection tools. The data were obtained from 86 pre-service teachers at senior high school and Junior High School. The data were collected qualitatively through observation and semi-structured interviews and quantitatively using a questionnaire. The qualitative results were mapped in tabular form. The researchers analyzed qualitatively to explain why pre-service teachers do not use ICT tools. The data were also made in tabular form and were described. The results showed that the practicum schools were not very rich in the technological devices offered to the pre-service teachers for their EFL classes. The pre-service teachers were not helped by ICT available to them in their teaching practice at a not satisfying level. Insufficient training, lack of basic facilities in the practicum schools, and pre-service teachers’ selections were the main reasons for teachers to utilize ICT in teaching practice. The study’s findings discovered a mismatch between teacher training programs and real-world classrooms in ICT integration. Pedagogical inferences of the study consist of the need for better integration of ICT in EFL teacher training and a more vital link between the schools and the university.

1. INTRODUCTION

The use of ICT in teaching develops more important in present times because teachers also have to be able to keep up with the technological knowledge of their students to come across the opportunities of today’s digital era, who are pretty competent, and in a way, reliant on to computers and other online instruments (Prensky, 2001; Robertson & Al-Zahrani, 2012). Furthermore, using ICT for teaching, learning, practicing and assessing foreign languages has many benefits, mainly in English as a Foreign Language (EFL) backgrounds where learners have minimal occasions to practice and evaluate their language skills (Alsied & Pathan, 2013; Guunc & Kuzu, 2015). ICT in instructional activities also plays a crucial role in attracting students to learn. With the developments in ICT and its practice in EFL classrooms, the roles of EFL teachers are also changing. Within this transformation, the knowledge of ICT use is essential for foreign language teacher candidates in many teacher training programs and the pedagogical consciousness of both in-service teachers and teacher educators (Moradkhani et al., 2013; Williams et al., 2009). It is even mentioned as one of the EFL teaching practice assessment criteria (Canh, 2014; Zhu & Wang, 2006). Language teachers’ accessibility to use ICT is also mentioned, surrounded by effective...
teacher characteristics in higher education. Besides, the aim of qualified development is seen as helping teachers make meaning of ICT integration in teaching to control its effect on education (Kourieos & Evripidou, 2013; Sağlam & Sert, 2012).

As for the details of mixing ICT in foreign language classrooms, previous study advocates that language teachers use ICT because it submits an altered manner of demonstration and offers a kind of eagerness for students, not because of a shortage of knowledge about teaching with ICT, but due to a lack of interaction with ICT (Lam, 2000). As one of the most dominant technological aids in the classroom, the use of PowerPoint presentations can recommend chances for adding “colorful texts, photographs, illustrations, drawings, tables, graphs, movies, and transition from one to another through a Slide Show” (Alkash & Al-Dersi, 2013; Çelik, 2014). Interactive White Board use is also proposed in foreign language teacher education programs to assist student engagement.

As a substance of fact, EFL teachers seeming ICT use is very appreciated in many research and teaching situations. For example, teachers had positive attitudes toward using ICT to teach language learning through computer-oriented instruction. In the same vein, there was a positive correlation between a teacher’s attendance during computer use and Computer Assisted Language Learning (CALL) training and an optimistic attitude toward the use of Information and Communication Technologies (ICT) methodologies in learning in Saudi classrooms (Alshumaimeri, 2008; Kessler, 2007). Furthermore, a single-subject study documented that Papua EFL teachers had very few instructional problems adapting and implementing ICT (ai et al., 2020; Mollaet & Riasati, 2013).

Although teachers had positive attitudes towards integrating ICT in teaching EFL students, a number of challenges have also been quoted. For example, Chinese EFL teachers used ICT chiefly for teacher-centered drives, such as instructional supply, and rarely applied ICT for student-centered tasks. Reasons limiting student-centered technological use in first EFL instruction were teacher-centered educational experiences and lack of professional growth that highlighted instructional planning and ICT integration (Li & Ni, 2011; Park & Son, 2009). Similarly, most Libyan teachers confronted difficulties regarding time restrictions and the need for managerial support (Emhamed & Krishnan, 2011; Shin & Son, 2007). Papua EFL teachers were also found to be grief from some problems in employing CALL in English classrooms because of the teachers themselves, facilities to use, learners lack of online services and resources, lack of interface in online teaching, cultural oppositions to online teaching, teachers’ inadequate knowledge of online teaching, incorporating ICT in their teaching successfully because of instructors’ self-confidence to apply technological assistances, seeing them as a waste of time, suffering from technophobia, and lack of technological strategies that can be used for teaching (Dashtestani, 2014; Hedayat & Marandi, 2014; Kazemi & Narafshan, 2014). Finally, using the Internet in EFL classes also brought some weaknesses as it essential time to get the correct information, and it was not easy to assess the Internet resources for the EFL classes (Chong, 2001; Dias & Bocorny, 2014).

Previous study found that teachers had favorable opinions about the role of enlightening ICT in improving language teaching (Sağlam & Sert, 2012). However, they are also familiar with the problems experienced called for the essential of using ICT integration in training for both teachers and students. It is determined that EFL teachers’ advantage from ICT for teaching academic and linguistic skills, exciting students to figure knowledge, exposing them to life-long learning skills and methods, teaching students with numerous learning styles, encountering and producing teaching materials, raising skills via the online sources, and creating an attractive context for learning. Another study found that Papua EFL teachers lack knowledge about online learning resources and have problems with using software programs. They also disapproved of the absence of technical and instructional sustenance, even if they had favorable opinions about integrating ICT into foreign language instruction (Aydin, 2013). In a very current inquiry, there is study investigated the ICT integration practices of an EFL teachers in Papua (Uluuysal et al., 2014). The findings revealed that the EFL teachers had positive views about carrying out professional development; they were interested in the process and was conscious about their responsibilities in the process; and they managed the process along the lines of their speed to achieve their tasks. Moreover, it was observed that a flexible teaching process was created, the teacher had a positive attitude towards the process, and they successfully finished creating the instructional materials according to the objective of the professional development task (Eristi et al., 2012; Rahimi & Yadollahi, 2011).

Although there were numerous studies regarding the use of ICT in foreign language teaching, studies concerning the pre-service teachers’ experiences with ICT integration are somewhat limited. In one attempt previous study with Taiwanese EFL teacher candidates showed that most EFL pre-service teachers had positive experiences and attitudes toward using Internet-assisted language instruction and saw ICT as a vital method in their future teaching careers (Kuo, 2008). However, approximately one-fourth of EFL pre-service teachers did not possess sufficient confidence levels and were unsure whether they had the skills and knowledge of ICT to integrate ICT into their future EFL classrooms. In a similar point of view after analyzing the qualitative data from both pre-service and in-service teachers, recommended that the field experiences accompanied by systematic directed reflection helped pre-service teachers gain experience in implementing CALL in their teaching (Schmid & Hegelheimer, 2014). According to the researchers, pre-service teachers reported that school-based experiences
helped them in those three ways: using ICT in authentic language teaching contexts, assessing the effect of ICT on language teaching and learning, and achieving honest mastery experiences (Başaran, 2013; Çelik, 2014).

In addition to the teacher training contexts being universal, there have been some but inadequate attempts to look closer at the ICT integration in pre-service EFL teaching in the Papua settings recently. In one study listed the benefits of using digital video recording in micro-teaching practices as being a self-evaluation and self-correction tool, growing pre-service teachers’ self-confidence, purifying their English speaking skills, providing a better analysis of the lesson plans, and grasping collaboration with peers and modifying open-minded share of the workload (Savas, 2012). It is also enforced by other study who stated that pre-service teachers used videos of their microteaching performances to enhance their reflective teaching (Payant, 2014). On the other hand, the challenges were cited as a waste of time for making videos, the anxiety of video recording, and trouble speaking in English in prep videos. In a similar vein itemized the positive and negative views of student EFL teachers about CALL (Başoz & Çubukçu, 2014). As the pluses, they believe that CALL creates a more accessible and stress-free air; it is appreciated as traditional language learning; it gives flexibility to language learning; it is a reasonable delay of classical learning methods. Pre-service teachers also believe that using computers to learn a foreign language can improve their vocabulary knowledge and listening skills and augment their intelligence (Kartchava & Chung, 2015; Savas, 2014; Yüksel & Kavanoz, 2011). As the minuses, on the other hand, pre-service teachers think that CALL does not help them develop their writing skills; computer use is not as valuable as oral practice, and computers need to be accompanied by other methods in foreign language learning.

There some studies examined the concept from a distance education perspective (Hismanoglu, 2012; Hismanoglu & Hismanoglu, 2011). While the general ICT attitudes of pre-service EFL teachers in the face-to-face higher education context were positive, most of those pre-service EFL teachers in the distance higher education context showed more negative attitudes toward ICT integration in teaching (Hismanoglu & Hismanoglu, 2011). Furthermore, pre-service teachers at the Distant English Language Teaching Program in Papua specified three complications for ICT integration in their foreign language teaching experiences: the lack of exposure to lessons fully designed with ICT integration, an exam-based system, and exam-oriented study habits (Arsal, 2014; Hismanoglu, 2012).

Several studies reviewed in both the Papua context and other contexts focus on the views and perceptions of in-service and pre-service teachers regarding ICT use in EFL classrooms. On the other hand, this study concentrates on the actual practices of the pre-service teachers in their practicum experiences in teaching English as a foreign language. Therefore, considering the related literature and the existing teaching practice context, this study aimed to analyze pre-service teachers’ use of ICT in their classrooms during their teaching practicum. It aimed explicitly, first of all, to document the availability of the technological facilities in practicum schools and their frequency of use by pre-service teachers. Second, whether or not pre-service teachers benefited from ICT at the desired level they focus.

2. METHOD

This study employed both quantitative and qualitative data collection tools. The researchers initially made direct observations when the pre-service teachers were teaching. The researchers collected the data quantitatively to determine the frequency of using ICT devices using a questionnaire. The researchers collected the data through semi-structured interviews with pre-service teachers as a source of qualitative data, primarily to support quantitative data and for data triangulation. Semi-structured interviews were conducted to determine why pre-service teachers do not use ICT tools. The data were collected at the end of the practicum when the pre-service teachers completed their teaching practicum. First, the questionnaires were given; semi-structured interviews were conducted one week later. Additional data were also obtained from the schools (cooperating teachers and other teachers) to obtain ICT equipment inventory data available in each school. The research data were obtained from 86 pre-service teachers. The researcher initially made direct observations when the pre-service teacher taught. Furthermore, researchers collected data quantitatively to determine the frequency of using ICT devices using a questionnaire. Researchers collected data through semi-structured interviews with pre-service teachers as a source of qualitative data, primarily to support quantitative data and for data triangulation. Semi-structured interviews were conducted to determine why pre-service teachers do not use ICT tools. The data were collected at the end of the practicum process when the pre-service teachers completed their teaching practicum. First, the questionnaires were given; semi-structured interviews were conducted one week later. Additional data were also obtained from the schools (cooperating teachers and other teachers) to obtain ICT tools inventory data in each school.

The questionnaire consists of two parts. In the first part, the participants' demographic features, such as their age, gender, and others, were changing. In the second part, the researchers implemented both Likert-type and open-ended questions to inquire and provide the basis for answering the research questions. On the other hand, semi-structured interviews were aimed at intricate pre-service teachers' opinions on the survey items. The processes were tape-recorded with the permission of the interviewees for future transcription. Each interview lasts
7 to 11 minutes, depending on each interviewee’s opinions and explanations. The researchers analyzed quantitative data to determine how many times and the percentage of using each ICT device in schools. The results of the quantitative analysis are then mapped in tabular form. The researchers analyzed qualitatively to explain why pre-service teachers do not use ICT tools. Qualitative data is also made in tabular form, and the meaning of the numbers in the table is described.

3. RESULT AND DISCUSSION

Result

The findings are presented following the questions in the survey and the findings obtained from the interview data. In response to the first research question, first of all, pre-service teachers’ opinions about the usefulness of utilizing technological aids in foreign language teaching were questioned to understand their practices better. According to the pre-service teachers, it was necessary (33.7%) and even essential (66.3%) to integrate ICT into foreign language classrooms. Second, the technological tools available to pre-service teachers in the practicum schools were elicited. The results indicated that the practicum schools were not very rich in the technological devices available to the pre-service teachers for use in their English classes as shown in Table 1.

Table 1. Availability of Technological Tools in Practicum Schools

<table>
<thead>
<tr>
<th>Technological Tools</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language Lab</td>
<td>98</td>
<td>2</td>
</tr>
<tr>
<td>TV-Video Player</td>
<td>95</td>
<td>5</td>
</tr>
<tr>
<td>LCD Projector</td>
<td>88</td>
<td>12</td>
</tr>
<tr>
<td>Tape Recorder</td>
<td>82.5</td>
<td>17.5</td>
</tr>
<tr>
<td>Radio-Cassette/CD Player</td>
<td>79</td>
<td>21</td>
</tr>
<tr>
<td>Computer (With Internet Connection)</td>
<td>57</td>
<td>43</td>
</tr>
<tr>
<td>Computer (Without Internet Connection)</td>
<td>76</td>
<td>24</td>
</tr>
<tr>
<td>Overhead Projector</td>
<td>30</td>
<td>70</td>
</tr>
</tbody>
</table>

Base on Table 1 almost none of the practicum schools had a language lab (98%), a TV-Video player (95%), or an LCD Projector (88%), while more than half lacked a tape recorder (82.5%), a radio-cassette player (79%), or a computer with or without Internet connection (57% and 76% respectively). On the other hand, pre-service teachers indicated that most schools (70%) had Overhead Projector in the classrooms available for use. For a better understanding of the accessibility of the technological facilities, the pre-service teachers were asked about their opinions related to the sufficiency of those tools. Here, there was an inconsistency among the answers: while 44.2% of the pre-service teachers thought the facilities in the schools were insufficient (low = 25.6%; deficient = 18.6%), the rest (55.8%) found those facilities sufficient (40.7%) or very sufficient (15.1%). Hence, more than half of the pre-service teachers thought the practicum schools had enough technological devices to use. The qualitative data supported the survey results regarding the inadequacy of technological devices. Most of the pre-service teachers interviewed complained about the lack and or inadequacy of the technological tools in their practicum schools. Moreover, they generally recognized that they could use those facilities if given a chance effectively. Some of the ideas from pre-service teachers about how they would benefit from those facilities.

In order to find out the existence of the use of the technological devices existing to the pre-service teachers, a straightforward question was asked: ‘How often have you used the technological facilities throughout your teaching practicum?’ The answers to the question produced the following results: While few of the pre-service teachers indicated that they never used ICT (14%), some mentioned that they seldom (20.9%) or sometimes (22.1%) benefited from technological facilities. On the other hand, almost half of the pre-service teachers reported using ICT quite frequently (24.4%) or at all times (18.6%). In order to have a more robust picture of the issue, pre-service teachers were asked to mention the type of ICT they used together with their frequency of use. Frequency of use of the technological tools throughout the practicum is shown in Table 2.

Table 2. Frequency of Use of the Technological Tools Throughout the Practicum

<table>
<thead>
<tr>
<th>Technological Facilities</th>
<th>Never</th>
<th>1-2 Times</th>
<th>3-4 Times</th>
<th>5 Times +</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>LCD Projector</td>
<td>85</td>
<td>98.8</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>Language Lab</td>
<td>84</td>
<td>97.7</td>
<td>2</td>
<td>2.3</td>
</tr>
<tr>
<td>Radio-Cassette/CD Player</td>
<td>73</td>
<td>84.9</td>
<td>10</td>
<td>11.6</td>
</tr>
<tr>
<td>TV-Video Player</td>
<td>77</td>
<td>89.6</td>
<td>4</td>
<td>4.6</td>
</tr>
</tbody>
</table>
As Table 2 shows, pre-service teachers indicated no use of LCDs (98.8%), a language lab (97.7%), a TV-Video Player (89.6%), a Radio-Cassette/CD Player (84.9%), or a Tape recorder (82.5%), which were already not present in their practicum schools, throughout their teaching practicum process. Among the present devices, the Overhead Projector was never (48.8%) used or occasionally used (15.1%) by the pre-service teachers. Computers available to the pre-service teachers in the classrooms with or without the Internet connection were either never used (59.3% and 60.6%, respectively) or used sparingly (18.6% and 23.2%, respectively) in teaching practice. It signposted that pre-service teachers were not benefiting from the ICT either because they were not present or because they did not use it for any reason.

Although the numbers in Table 2 indicated a low frequency of use, pre-service teachers were still asked to indicate if they benefited from technological facilities at the desired level during their teaching practicum. While 38.4% of them said they did, 12.8% were unsure about it, and almost half (48.8%) confessed that they did not benefit from them at a satisfying level. As for the reasons for not profiting from ICT, 53 of the 86 pre-service teachers, who mentioned not using the ICT enough, checked some reasons on the questionnaire by checking more than one item if possible as shown in Table 3.

Table 3. The Reasons for Pre-Service Teachers’ Not Benefiting from Technological Devices at a Satisfying Level

<table>
<thead>
<tr>
<th>Reasons</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shortage of basic facilities in the practicum school</td>
<td>41</td>
<td>59.5</td>
</tr>
<tr>
<td>My choice</td>
<td>22</td>
<td>31.9</td>
</tr>
<tr>
<td>Inadequate Training</td>
<td>4</td>
<td>5.8</td>
</tr>
<tr>
<td>Students’ dissatisfaction</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td>Cooperating teacher’s choice</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td>University supervisor’s choice</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>69</td>
<td>100</td>
</tr>
</tbody>
</table>

According to the survey results, most students feel pain from lacking basic facilities in the practicum school. At the same time, very few mentioned inadequate training about ICT use, students’ not desiring it, or their cooperating teachers’ unwillingness. None specified it as their supervisor’s choice, whereas one-third reported the reason as their own choice. Differing from the majority, some pre-service teachers believed they were excellently using ICT in their teaching. As a challenge for a deeper understanding of the reasons for not benefiting from ICT at a sufficient level for teaching English in teaching practicum, pre-service teachers’ answers to some questions in the survey were analyzed. The interview data, similar to the survey results, recommended some reasons for pre-service teachers’ not benefiting from technological devices in their classrooms at a satisfying level.

First of all, pre-service teachers’ ideas about their training at the university about using the technological facilities in foreign language classrooms were elicited. The results indicated that most of the pre-service teachers supposed their training was sufficient (55.8%) or very sufficient (15.1%). On the other hand, some pre-service teachers found the training insufficient (23.3%) or very insufficient (15.1%). The qualitative data also supported these findings. Pre-service teachers were not very reliable about the adequacy of the training they got during their teacher training education. For example, one pre-service teacher was complaining about the inadequate training on integrating ICT into foreign language teaching. Some other pre-service teachers stated that they had to discover other ways to progress their skills in ICT use for foreign language teaching purposes as they found the training not enough.

Second, they were questioned about the use of ICT by their cooperating teachers, who were made up to mentor them over their practice process. The analysis showed that 34.9% of the cooperating teachers needed to be using ICT in their classrooms. Some of them were reported rarely (25.6%) and sometimes (19.8%) benefiting from ICT, while 14% were found to be using ICT in teaching English quite often. Only 5.8% of them were always applying technological tools in their teaching. One pre-service teacher clarified the reasons for working together teachers’ not using ICT as not having the facilities in the schools.
Discussion

As this study’s first finding, pre-service teachers reported the usefulness of using ICT in teaching English as a foreign language. Pre-service teachers consider the use of ICT compulsory. The findings are in line with the former research in various in-service and pre-service contexts worldwide (Kartchava & Chung, 2015; Kim et al., 2013). The findings also agree with the previous research on in-service and pre-service teachers in Papua (Yüksel & Kavanoz, 2011). The study has not revealed unexpected results as ICT is now on the agenda of all teachers in order to keep up with modern practices. Teachers also know that they need ICT to serve those digital netizens in a more expressive and widespread way.

Other findings were obtained from quantitative and qualitative data sources; the practicum schools were found to need improvement in case pre-service teachers have the essential technological equipment for use in foreign language instruction. In previous recent studies, student and in-service teachers also criticized the lack of these tools (Aydin, 2013; Kazemi & Narafshan, 2014). It is easy to assume that this absence and or deficiency of those facilities was the critical resolution for the problem of pre-service teachers and their work-organized teachers not advancing from ICT in their EFL classes at a satisfying level. One point should be made clear in this argument that those pre-service teachers were commonly motivated to device ICT-based classroom activities if they had the chance to do so (Hsiao et al., 2022; Islam et al., 2022). During the interviews, the common pre-service teachers said they would incorporate ICT into their classroom practices. They would gain experience in the how-to-use perspective and support their teaching with several ICT-aided classroom tasks. It is now known that ICT integration enhances student learning and increases pre-service teachers’ self-assurance, and helps them cultivate their skills in English as a foreign language (Fatimah & Santiana, 2017; Savas, 2012).

This study also showed that pre-service teachers were not benefiting from ICT available to them in their teaching practice at a desired level. The cooperating teachers were also inferior in terms of benefiting from technological aids in the EFL classrooms. As all parties in teacher training would accept, the cooperating teachers are supposed to be good role models for pre-service teachers. Pre-service teachers expect support and positive role modeling from their mentors for integrating ICT into their teaching and a communicative approach to their language teaching practices (Fearnley & Amora, 2020; Hudson & Nguyen, 2009). Therefore, cooperating teachers should work as mentors to the pre-service teachers in teaching skills and strategies and as influential ICT users.

Cooperating teacher effect is not the only reason. According to previous study teachers prefer lecturing to using more constructivist practices with ICT despite many favoring learner-centered instruction (Liu, 2011). Undoubtedly, an open and caring milieu is necessary to exploit pre-service teachers’ practices during the teaching practicum to alter their beliefs and endorse their cognitive development (Sulianta et al., 2019; Yuan & Lee, 2014). Furthermore, having a high level of language proficiency as well as a certain level of technological knowledge is a need for the use of ICT in the EFL classroom. Therefore, teacher education programs should offer English language teachers more opportunities for refining their language competence with a specific focus on their oral skills. Pre-service teachers should not be criticized a lot as they are only at the beginning of their career as teachers because they could develop a more positive attitude toward ICT use in EFL teaching as they expand their experience in using the instructional tools (Kourieos & Evripidou, 2013; Savas, 2012).

As the pre-service teacher explained, all schools will possess the necessary technological aids in the future. However, those teachers will not be ready to integrate that ICT into their classrooms as they need to know the different aspects of ICT, CALL, mobile learning, and others. The missing part of ELT departments training English language teachers is practical knowledge about material development for online courses. In agreement with this idea, this study was sufficient to document the existing mismatch between teacher training and the needs of the real world.

4. CONCLUSION

Pre-service teachers were not utilizing technological aids for particular reasons. Not being familiar with specific technological devices or not possessing the necessary knowledge about teaching English via ICT were among those reasons. Although a certain proportion of the pre-service teachers found their training at the university about using the technological facilities in foreign language classrooms sufficient, within an ambition to reach a 100% satisfaction level, the training pre-service teachers are provided with on the use of ICT in EFL teaching is worth discussing. As one pre-service teacher explains during the interviews, foreign language teacher training programs must have courses tailored to the needs of the EFL learners, in which they could learn the theoretical background of ICT in English classrooms as well as practice opportunities for developing materials, presenting language items such as vocabulary and grammar, and practicing language skills, especially listening comprehension ski.
5. REFERENCES


