CHAPTER 1

INTRODUCTION

This chapter presents the broad idea of the study. The discussion coverage in this chapter includes the background of the study, the research questions, the aims of the study, the scope of the study, the significance of the study, the research method, the clarification of terms, and the organization of the paper.

1.1. Background of Study

The increasingly advancement of information and technologies (ICTs) has brought the potential to fundamentally change the teaching and learning process in the 21st century (Brian, 2000; Koehler, Mishra, Kereluik, Shin, & Graham, 2013). Teaching and learning process in educational field is no longer seen as an activity of transferring knowledge only, but also an activity in which knowledge, skills, and exposure of the recent information and technologies collaborate cooperatively to support the learners' needs for facing the demands of 21st century life (Houcine, 2013; Trilling & Fadel, 2009). It can be said that the integration of ICTs into instructional activities for promoting meaningful teaching and learning activities, providing learners with lifelong learning skills, and equipping learners with survival skills for the more advance era has been viewed as an unavoidable demand in this current era (Aktaruzzaman, Shamim, & Clement, 2011; Buabeng-Andoh, 2012, Edutopia Staff, 2008; Rwanda Development Gateway, 2009).

When ICT is integrated into teaching and learning activities, the teachers come into multifaceted roles (Cebrian, 2008; Edutopia Staff, 2008). In detail, Cebrian (2003) argued that the teachers in ICT-integrated class play roles as a designer of new technology-rich learning environments, a producer of new pedagogical materials in ICT-based settings, an adapter of different materials, a facilitator of the autonomous learning process, and an assessor of various technology-assisted learning activities. These complex roles of teacher in ICT-integrated class indicate that teaching with technology is not merely meant to

teach students how to operate computers or other ICT-based stuffs, but to assist the teachers to use technology as a teaching and learning tool (Sheinggold, 1990). In line with this issue, Mishra and Koehler (2006) admitted that "integrating technology into teaching is not easy" (p.2). Mishra and Koehler's (2006) statement implies that the teachers do not only need to equip them with ICT literacy but also the technological pedagogical skills for promoting meaningful ICT integration into classroom activities, so that the improvement of students' learning outcomes and competences can be optimally reached (Buabeng-Andoh, 2012).

Furthermore, Rosen and Weil (1995) stated that teaching with technology requires the teachers to expand their knowledge of pedagogical practices across multiple aspects of the planning, implementation, and evaluation process. Lack of these technology-related management skills can hinder technology integration. That is why teaching with technology is definitely considered as a challenge for the majority of teachers, especially in their first years of teaching time (Al-Mulhim, 2013; Stoel & Thant, 2002; Ingersoll, 2002; Karsenti & Collin, 2012; Wepner, Tao, and Ziomek, 2002).

The first three years of teaching time is identified as a "survival" period (Karsenti & Collin, 2012), when the novice teachers try to struggle with various complexities related to teaching as their profession (Farrel, 2008). Other scholars call the first three years of teaching as "the practice shock" (Achinstein & Barret, 2004) or "reality shock" (Farrel, 2008), where the novices confront a lot of difficulties in applying the theories they have learned in the college into real teaching practices (Lindgren, 2006). That is why the first three years of teaching is called as a critical period because more than 40% of teachers around the world are reported quit their teaching job in their first three years of teaching (Stoel & Thant, 2002). As a result, teaching has one of the highest drop-out rates of all professions (Ingersoll, 2002).

The 'reality shock' is also found in the practice of novice teachers in integrating ICT into teaching activities where the novices discover mismatches between their expectation and their real performances of teaching with

technology. Some literatures inform that novice teachers are generally keen to integrate ICT into their instructional activities and excited to take the advantages of ICT for helping their teaching performance better in facilitating students' learning needs (Ertmer; 2003; Hargrave & Huse, 2000; Al-Mulhim, 2013; Wentworth, 1996). Moreover, most of beginning teachers are reported that they are highly ICT literate and skilled with using technology (Bauer & Kenton, 2005; Ertmer et al, 2003). However, the beginning teachers tend to have insufficient knowledge on how to integrate ICT into teaching and learning (Al-Mulhim, 2013; Bauer & Kenton, 2005; Ertmer et al, 2003). Consequently, a great gap between the novice teachers' perceived technological knowledge and basic technical ICT skills and their pedagogical skills of incorporating ICT into instructional practices is clearly seen (Al-Mulhim, 2013; Buabeng-Andoh, 2012).

Concerning with the matter of the novice teachers' gap between their ICT skills and pedagogical practices of ICT integration into classroom activities, especially in English class, Hannesey et al. (2005, p. 156) stated that:

> … A major English evaluation indicates that relatively few teachers are integrating ICT into subject teaching in a way that motivates pupils and enriches learning or stimulates higher-level thinking and reasoning'. As other studies have found, these few tend to be teachers with an innovative pedagogic outlook already.

Moreover, Meskill et al. (2002) also reported that novice teachers addressed learning to the technology which they used for teaching, not attributed the technology to the learning. It indicates that the focus of the teachers when teaching with technology is not on the students' learning, but on themselves as the teacher and the technology they utilize for teaching. In this case, the novices did not take ICT as a means for creating more interactive classroom atmosphere. They just treated the ICT only as a means of learning materials delivery. The view of Meskill et al. (2002) is supported by the study of Palacio-Cayetano et al. (2002). Using case-based simulation to identify and assess how novice teachers and expert teachers make decision about integrating ICT in the classroom, it is detected that the novices applied lesser key principles of ICT integration and implementation

into the teaching planning, the process of teaching and learning activities, and even the professional development than the veteran teachers did.

Another scholar also affirmed that ICT integration into teaching practices is not a 'one size fits all' which means the teachers should be adaptable with the learning goals, the students' learning style, and the requirements of the curriculum when attempting to integrate ICT into teaching (Wepner, Tao, and Ziomek, 2002). In this case, the teachers are extremely suggested to possess the sense of 'what', 'when', 'how', and 'why' to incorporate ICT into instructional practices for gaining meaningful ways of ICT integration in the process of teaching and learning (Wepner, Tao, and Ziomek, 2002). Corresponding to this issue, Watson (2010) noted that teachers always face challenge and conflict in meeting the ideal practices of ICT integration into teaching and learning activities. He stated that:

> "Teachers may face a conflict of teaching and learning styles. ……teachers generally teach face to face and proceed in a logical or step-by-step basis. In contrast, younger students tend to jump around from one idea or thought to another and expect sensory-laden environments as a matter of course. They also want instant results and frequent rewards, whereas many teachers regard learning as a slower and serious and consider that students should just keep quiet and listen". (p. 15)

The challenge and conflict found in the practice of ICT integration is generally due to the students who are more native in using technology than the teachers who are generally a digital immigrant (Prensky, 2001; Watson, 2010). Therefore, the novice teachers who have lack of teaching experience tend to be less comfortable when teaching with technology (Meskill, et all, 2002).

Apart from the teaching experience, the teachers' understanding about the teaching content, pedagogical approach, and savvy use of educational technologies is the other factor which contributes to the successful technology integration into instructional practices (Harris & Hoffer, 2009; Mishra & Koehler, 2006). According to Mishra & Koehler (2006), the meaningful integration of technology can only be reached if the three bases of knowledge of ICT integration are well developed and intertwined in the practice of teaching and learning

activities. Mishra & Koehler (2006), in further, explained that those three bases of knowledge of ICT integration are content, pedagogy, and technology. It means the teachers who integrate technology into teaching and learning activities are highly suggested to have well understanding on the teaching content, pedagogy, and technology in order to be able to interplay those three bases of knowledge of technology integration, so that the development of good teaching contents and strategies with technologies can be orchestrated in the classroom.

To help the educators understand the principles of ICT integration for instructional purposes, a technological pedagogical content knowledge (TPACK) framework was developed by Mishra and Koehler in 2006. The development of this framework is basically inspired from Shulman's construct of pedagogical content knowledge (1986). The TPACK framework includes three core parts of knowledge such as content (CK), pedagogy (PK), and technology (TK) and their intersections formulated as pedagogical content knowledge (PCK), technological content knowledge (TCK), technological pedagogical knowledge (TPK), and technological pedagogical content knowledge (TPACK).

The TPACK framework really suggests that the meaningful technology integration into teaching and learning activities cannot be separated from the teachers' ability to use technology for teaching effectively and to reflect their understanding of how technology can be utilized to fulfill the intended pedagogical purposes (Koehler & Mishra, 2009). According to Koehler & Mishra (2009), effective teaching with technology requires the teachers' awareness to occupy appropriate pedagogical techniques to use technology in productive ways to present the teaching content, to facilitate classroom learning, and to expand and enrich their students' construction of knowledge through classroom learning activities. Therefore, the potentiality of having successful technology integration into teaching and learning context can only be reached when the teachers' knowledge of the content, pedagogy, and technology are comprehensively aligned as the indicator that the teachers are competent in those three areas (Voogt et al, 2012).

In relation to the practice ICT integration into teaching practices performed by the novice teachers, studies have indicated that the novice teachers cannot be free of problems dealing with the attempt to reach ideal ICT integration into instructional practices. In 2013, Al Mulhim investigated the current use of ICT by novice female teachers in Saudi primary schools. This study was mainly intended to portrait the current use of ICT in the novice teachers' classroom and what factors influence the teachers' decision in selecting a particular ICT tool for their teaching. Adopting a survey method as its research design, 135 primary teachers who possessed five or less than five years of teaching experience participated this study. To collect the needed data, a questionnaire was distributed to 135 research participants, and a semi-structured interview was delivered to 20 of 135 research participants. The finding of this study revealed that there was a huge gap in even basic ICT knowledge and skills. This gap was indicated by the low percentages with experience in using Word, PowerPoint, and the internet although more than half had some experience of using a computer either PC or laptop. The result of this study also highlighted a low level of ICT usage by the participants. This low level of ICT usage was reported because of some possible reasons such as lack of training, lack of time, and/or lack of access to technology. Moreover, this study reported that the teachers' current use of technology was teacher-centered. They dealt with the technology as a carrier of knowledge and a more interesting method of presenting the lesson. This finding suggested an urgent need to train teachers in the pedagogical aspects of the use of ICT as well as the technical ones.

A similar study was also carried out by Wright and Wilson in 2005. They studied how pre-service teachers use pedagogical and technological applications and skills which they learned in their teacher education program into their real classroom practice. Employing case study as its research design, three first-year teachers were involved in this study. Questionnaire, interview, and observation were applied to gather the required data. The finding of this study revealed that all the research respondents showed a great positive attitude about the worth and the importance of using technology for the teaching activities. However, the reality of teaching activities had led to the "career shock" in which they felt that there was a gap between the theory learned in the university and the real practice of teaching.

All the respondents perceived that they possessed adequate readiness, skills, and knowledge regarding to ICT integration into classroom. Unfortunately, they found some barriers which limited their steps to be more active in setting their creativity when integrating ICT tools into their lesson. The common ICT integration barriers reported by the respondents were lack of adequate technology resources in their work place, lack of support from students and senior teachers, and lack of ICT training for their teaching purposes. Moreover, this study also discovered that PowerPoint, WebQuest, Web-based teaching were the common ICT usage type performed by the respondents.

In Indonesian context, the study which tries to portrait novice teachers' practices of ICT integration into EFL class is not much explored yet. The previous studies on the context of ICT integration into Indonesian EFL class only focus on the investigation of factors influencing ICT integration into EFL class (e.g. Mulyadin, 2012), teachers' resistance toward ICT integration (e.g. Herendita, 2013), and ICT integration for accelerating students' particular language skills (e.g. Tungka, 2012). That is why this present paper would like to try to fill this research gap in the area of ICT integration into EFL class.

This study mainly aims at investigating how the novice teachers' perceived belief of technological pedagogical and content knowledge (TPACK) is reflected in their practice of ICT integration into EFL class, and exploring the perceived barriers of ICT integration into EFL class which the novice teachers encounter in their teaching practices. Overall, the finding of this study is expected to offer valuable insights into the experiences of the novice teachers over their first three years of teaching time which has implications for tutor teachers, principals, teacher educator, and policy makers. Hopefully, this study can bring ideas on some supports for novice teachers in terms of educational support, career development support, ICT-related skills support which can be attempted to help the novice teachers improve their teaching performance in ICT-integrated class.

1.2. Research Questions

This study was conducted to answer these following research questions:

1. How is the novice teachers' perceived belief of technological pedagogical and content knowledge (TPACK) reflected in their practice of ICT integration into EFL class?
2. What barriers do the teachers encounter in integrating ICT for their class?

1.3. Aims of the Study

Following the research questions proposed in this study, this study was carried out to address two main aims of this study. First, this study tried to portray in detail the novice teachers' perceived belief of their TPACK and the novice teachers' practice of ICT integration into English as a Foreign Language (EFL) class. In this case, this study attempted to depict whether or not the teachers' practice with ICT integration into EFL class were in line with their perceived belief viewed from the TPACK framework. Second, this study tried to elaborate the barriers faced by the novice English teachers in implementing ICT-based learning for their classes. Having these two aims of this study, it is hoped that the result of this study could provide a real portrait of ICT integration practice into EFL class. The finding of this study is expected to be able to contribute valuable insights for teachers, researchers, and other educational parties in the field of English language teaching and learning, mainly about what to do to support the betterment initiatives for empowering the novice English teachers' positive pedagogical potentials.

1.4. Limitation of the Study

In relation to the aims of this study, the scope of this study was limited to investigate the novice English teachers' practices of ICT integration into EFL class. To get more detailed information about the issues of ICT integration into EFL class, this study also explored and elaborated the barriers experienced by the novice English teachers in integrating ICT for teaching English to the students.

However, the finding of this study might not be applicable for other subjects, individuals, or parties because the investigation scope of this study was limited only on the novice English teachers who had teaching experiences not more than three years. In other words, the finding of this study might not be able to generalize the practice of ICT integration in EFL class in other contexts of English language teaching and learning.

1.5. Significances of the Study

The significances of the present study are provided in three points of view as described below.

1. Theoretically, this study may add empirical support to the existing theories, literatures, and scholarly research findings on the field of the novice teachers' practice with ICT integration into EFL class;
2. Practically, the results of this study may help to clarify the real practice of ICT integration into EFL class undertaken by the novice teachers together with its barriers rendering the successful integration of ICT into EFL class;
3. Professionally, this study may encourage the teachers to develop their capabilities in teaching with technology and to be aware with some solutions which might be attempted to resolve the barriers of ICT integration into EFL class.

1.6. Research Method

This study aims at responding the formulated research questions. It was a qualitative study in design. Since this study tried to expose the real practice of ICT integration into EFL class performed by novice English teachers, a case study was applied as its research approach. A case study is defined as "empirical inquiry that investigates a contemporary phenomenon within its real life context" (Yin, 2011, p. 13). Nunan (1992) supported that a case study is commonly used to explore a single case or single instance. Particularly, Heigham and Croker (2009) mentioned that a case study generally describes intrinsically the case itself. Thus,

"there is no attempt at all to generalize from the case being studied, compare it to other cases, or claim that it illustrates a problem common to other, similar cases" (p. 69-70).

1.6.1. Research Participants

This study was participated by three novice English teachers who taught in a Junior High School. Those three research participants were differentiated by the geographical issue of the school where they taught. It means the selected research participants came from three different categories of school namely urban school, sub-urban school, and rural school. This school differentiation hopefully could prompt the issue of ICT accessibility which might contribute a factor of different practice of ICT integration into EFL class.

Moreover, the selection of these research participants was also based on two main considerations. First, the research participants should have no more than three years of teaching experience. Second, the research participants should be willing to be the subject of this study without any forces. It means the participation of this research subject was based on voluntarily willingness to study.

1.6.2. Research Instruments

For the purpose of collecting the needed data, this study employed three kinds of research instruments. Those three research instruments are questionnaire, classroom observation, and interview.

1.6.2.1. Questionnaire

The questionnaire was a means to collect the data about the research participants' self-perceived belief of technological pedagogical content and

knowledge (TPACK), perceived barriers to integrate ICT into classroom activities, and their accessibility to ICT equipments for the purpose of teaching and learning activities. The questionnaire was in the form of printed semi-structured questionnaire which was adapted from the study of Mishra & Koehler (2006). It consisted of some questions with five-scales rating and open ended questions. The questionnaire was distributed in English as the research respondents were an English teacher who is supposed to be familiar with English document.

1.6.2.2. Classroom Observation

Classroom observation was used to get a clear depiction on how the novice English teachers implemented the ICT integration in his/her class. The classroom observation was done by coming to the class in which the researcher listened and observed carefully in order to discover the relevant data with the research objectives. The activity of classroom observation was guided by an observation checklist which revealed some criteria to observe and a field note which was used to record the uncovered variables in the observation checklist. The observation checklist was adopted from the study of Kafyulilo (2010).

1.6.2.3. Interview

The instrument of interview was used to clarify the unclear gathered data from the questionnaire and the classroom observation. It means the interview became the tool to elicit unforeseen data. The interview was in the form of open-structured interview. It was conducted by meeting the research respondents directly and proposing some questions to answer orally.

1.7. Clarification of Terms

To minimize misunderstanding among the concepts in this paper, the following are the clarification of some terms which are frequently used in this study.

1. Novice teacher is the teacher who has no more than three years of teaching (Kim & Roth, 2011).
2. ICT integration is the use of technology to enhance teaching and learning and to support existing curricular goals and objects (Sun, 2000).
3. EFL class is the class in which English is thought to those who do not use English not as their native language (Brown, 2001).
4. Teaching practice is a set of actions done by teacher in the classroom while teaching a lesson.
5. The abbreviation of TPACK stands for Technological Pedagogical and Content Knowledge.

1.8. Organization of the Paper

This study is reported in five chapters. The chapters are as follow:

Chapter I: Introduction

This chapter provides the research background, research questions, aims of the study, significance of the study, research method, clarification of terms, and organization of the paper.

Chapter II: Theoretical Foundation

This chapter cites some related theories as the basis of the research's investigation. It also presents some relevant previous studies which are used to support the research investigation.

Chapter III: Methodology

This chapter discusses a detailed research methodology which consists of research design, research questions, research sites, research

participants, data collection instruments, data collection procedures, data analysis, trustworthiness of the study, and ethical consideration.

Chapter IV: Findings and Discussion

This chapter discusses the results and the findings of this study and its analysis to answer the formulated research questions.

Chapter V: Conclusions and Recommendations

This chapter presents the conclusions of this study and some suggestions for the English teachers, the institutions, and also the further researchers who are interested in this research area.