### **CHAPTER I**

#### INTRODUCTION

The chapter presents the background of the study, identification of the problem, limitation of the problem, formulation of the problem, objectives of the research, and significance of the research.

# **1.1.** Background of the study

The use of technology became popular in some developing countries because of its role as a supporting teaching material in learning (Mthethwa, 2014). It is considered important for effective teaching which always been talked for recent years (Kurt, Akyel, Koçoğlu, & Mishra, 2014). The term 'technology' is dynamic which result is often referrred as Information Communication Technologies (ICT), Computer Assisted Language Learning (CALL), Technology Enhanced Language Learning (TELL), or Computer Assisted Instruction (CAI), ect. Whereas, the term of technology refers to several tools that can be used for teaching and learning (Naima, 2017). Earle (2002) defined this case technology includes tools used by a person to deliver teaching materials, while the term 'integration' refers to how the way of using and applying the tools of technology, therefore the integration is related and focused on pedagogy to achieve effective teaching and learning process (Earle, 2002). Thus, technology integration is the application of technology based on the specific approach to provide an effective teaching.

Likewise, with the rapid of technological development become an issue for a teacher or EFL pre-service teacher. Teachers have a crucial role in which they are responsible for the process of transferring knowledge (Haddad & Draxler, 2002). Hence, they play an important role in this case because they have responsibility to students' performances in the classroom (Huang, Xu, & Liangguang, 2010). Moreover, in EFL context such as Indonesian where English is taught as foreign language, technology must be implemented in order to enhance students' language ability. Therefore, to include technology in EFL learning is very necessary (Liu, Liu, Yu, Li, & Wen, 2014).

In addition, in the field of education, there are a lot of efforts and concepts offered to maximize the performance of teachers, so what is learned is not only limited to the theory but also the practice in the real classroom. Besides, nowadays the existence of technology such as digital computers or other features of technology in various schools cannot guarantee the effectiveness of its usage (Ersanlı & Yangın, 2016). In the other words, the technological tools should be balanced with teacher's way in integrating those tools (Yıldırım, İşler, & Özgür, 2018). It needs enough pedagogical knowledge on the integration of technology in order to provide students with the best educational technology.

One form of adoption of technology into teaching is TPACK which stands for Technological Pedagogical Content Knowledge proposed by Mishra and Koehler in 2006. TPACK framework is defined as one model of the framework that integrates the three components in it including content, pedagogy and technology knowledge (Mishra & Koehler, 2006). Hence, TPACK is a

concept that mix and match technology in teaching that aims to provide ease in a problem solving, development of methods to facilitate the information retrieval system, as well as an understanding of difficult concept (Ekrem & Recep, 2014). Further, TPACK framework is not a new concept which stands alone. There are six components of knowledge which form TPACK known as Content Knowledge (CK), Pedagogical Knowledge (PK), Pedagogical Content Knowledge (PCK), Technology Knowledge (TK), Technological Content Knowledge (TCK), and Technological Pedagogical Knowledge (TPK). Thus, these knowledge interconnected with each other to form a more effective and comprehensive concept of technology integration within a classroom.

In terms of context of TPACK usage is also varied. One of them is in the microteaching class. One form of efforts that offered for EFL pre-service teacher is a training in microteaching class. One method that has been integrated since 1960s in medicine at Standford University, California, United State of America (Saban & Coklar, 2013). It developed by Dwight W. Allen and his colleagues (Seidman, 1968). Microteaching in teacher education is a situation where teachers teach students in a small amount of time and small numbers of students taught (Cooper & Allen, 1970). In microteaching class, the pre-service teacher will learn various things related to teaching and learning as it becomes a tool to practice and experience teaching (Ismail, 2011). Thus, they applied several approaches and strategies to be used to teach students.

Further, there have been many studies by experts in proving the use of TPACK framework. However, most studies did not mainly focus on EFL pre-

service teachers' view on TPACK (Yıldırım, 2018). Also, according to Yaman, 2007, 2008; Mavi, 2007; Yilmaz, 2008; Erdoğan & Şahin, 2010; Yilmaz, Ulucan, & Pehlivan, 2010; Kabakçı-Yurdakul, 2011; Semiz & Ince, 2012 in İşler and Yıldırım (2018) most areas such as Turkey, recent studies mostly discuss on EFL pre-service teachers' view on TPACK in the field of science, mathematics, social and physical education. Similarly, Ekrem & Recep (2014) stated that there still rare research about TPACK in language teaching context most were in the field of science and mathematics. Likewise, according to the researcher's review in terms of Indonesian context, most of the studies focused on teachers' view on TPACK.

Considering the previous issues, this study aims to capture the EFL preservice teachers' views and understanding of TPACK during microteaching performance.

### 1.2. Identification of the Problem

In the field of educational technology, an understanding of teachers or EFL pre-service teachers on content, pedagogy and technology is needed. Such understanding must necessarily correspond to the needs of the students. So, it needs a conceptual framework that includes the basic needs of teachers to be able to effectively integrate technology in the classroom. Therefore, Technological Pedagogical Content Knowledge or TPACK becomes one of the frameworks that can be integrated in applying technology in the classroom. In addition, Mishra & Koehler (2006) argued for every teacher, programs and teaching there is no single solution for technology except with the development of understanding of three kinds of knowledge that is content, pedagogy and technology. Therefore, in this

regard TPACK framework plays an important role in bridging the gap between EFL pre-service teachers' skills of technology and technology integration used in the classroom.

Further, the use of TPACK has benefits that can be accepted by EFL preservice teachers. By applying TPACK framework, enable EFL pre-service teachers to choose and implement the appropriate teaching strategies, to integrate technology in more effective way, and to increase self-confidence in selecting which technology that suits learners' needs. However, the advantage of using TPACK within classroom which becomes an issue is TPACK framework has a complicated concept because it has seven sub-components in it (Ertmer, 2013). Thus, EFL pre-service teachers are requires having deep understanding within the concept of the TPACK framework and its sub-components contained. It aims to confirm the nature of TPACK framework with an important focus on the understanding of content, pedagogy, and technology (J.Koehler, 2006). Several studies have been conducted in assessing TPACK framework usage with particular contexts involving its advantages, its disadvantages and its implementation that effect students' learning. Meanwhile, in this research the researcher mainly focuses on EFL pre-service teachers' views of their understanding of TPACK during Microteaching performance.

In the observation session, the researcher found that EFL pre-service teacher integrated multiple technologies into learning in their Microteaching class. The use of those technologies is to match with the content of the material they will teach. Thus, in this research the researcher would like to investigate EFL pre-

service teachers' views and understanding of TPACK framework as one of the concepts which discusses technological knowledge in the field of education based on the technology integration in Microteaching class. It helps us to understand further how EFL pre-service teacher chooses the appropriate technology in their teaching and how they connect their content and pedagogical knowledge to integrate those technologies into teaching during Microteaching performance.

### 1.3. Limitation of the Problem

The study conducted in English Language Department of Islamic University of Indonesia (PBI UII). This study examines EFL pre-service teachers' views and understanding of TPACK during Microteaching performance.

### 1.4. Formulation of the Problem

Based on the identification and limitation of the problems, the study was conducted to answer a question on how do EFL pre-service teachers view the TPACK during Microteaching performance?

## 1.5. Objectives of the Study

This study is aimed to investigate EFL pre-service teachers' views and understanding of TPACK during Microteaching performance.

# **1.6.** Significance of the Study

The result of this study can contribute to the theory and practice of technology integration through TPACK framework for EFL pre-service teacher during Microteaching performance in term of Indonesian context. Findings of this study describe and elaborate how TPACK framework used during Microteaching

performance. It also includes the contributions and barriers of TPACK framework for EFL pre-service teacher during Microteaching performance. Hence, this study might provide several advantages for stakeholders including the researcher, lecturer, EFL pre-service teacher, and department.

#### 1. For researcher

The findings of this study are expected to help all sides in the field of teaching and learning, especially on technology integration through TPACK framework for EFL pre-service teacher during Microteaching performance.

### 2. For lecturer

The outcomes of this study are intended to be useful for lecturer in order to give one sight of technology integration through TPACK framework for EFL pre-service teacher during Microteaching performance. Through this study the lecturer can recognize the advantages and disadvantages of TPACK framework for EFL pre-service teacher. So that lecturer can determine which approaches are best to be implemented.

### 3. For EFL pre-service teacher

The result of this study can be a reference for EFL pre-service teacher in integrating technology through TPACK framework in their Microteaching class. So that they will be more aware in preparing

everything related to technology integration as part of the approach in microteaching class in order to achieve an effective learning.

## 4. For department

Through this study the department can earn valuable results about technology integration for EFL pre-service teacher in Microteaching class. It can be a representation for improvement or evaluation on technology integration.

## 5. For other researchers

The result of this study might increase other researchers that the present study can provide good resource in the field of teaching and learning English in Indonesian context.