

**AN INVESTIGATION OF ENGLISH AS A FOREIGN LANGUAGE (EFL)
PRE-SERVICE TEACHERS' TECHNOLOGICAL PEDAGOGICAL
AND CONTENT KNOWLEDGE (TPACK)**

THESIS

**Submitted to Fulfill Requirement for The Degree of
Master of Education**

By

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ABSTRAK

IZZA AISYAH NURMAHATI. 1609067024. *An Investigation of English as a Foreign Language (EFL) Pre-Service Teachers' Technological Pedagogical and Content Knowledge (TPACK).* Tesis, Jakarta: Program Studi Magister Pendidikan Bahasa Inggris. Sekolah Pascasarjana Universitas Muhammadiyah Prof. DR. HAMKA. 2018.

Penggunaan teknologi dalam proses belajar mengajar sangat ditekankan di pendidikan guru Bahasa Inggris di masa kontemporer. Meskipun begitu, dibutuhkan sebuah kerangka bekerja untuk mengarahkan guru dan para calon guru menggunakan teknologi dengan benar. Banyak kerangka bekerja yang telah diperkenalkan oleh para ahli dan praktisi dalam dunia pendidikan, dan salah satunya yang juga paling sering dibahas oleh para peneliti adalah *Technological, Pedagogical and Content Knowledge (TPACK)*. Hasil dari penelitian ini menunjukkan penilaian persepsi dan tingkat TPACK para calon guru Bahasa Inggris serta bagaimana penerapannya di dalam kelas. Dengan membagikan survey yang berjudul TPACK-EFL kepada 80 calon guru Bahasa Inggris, penulis lalu menghitung hasilnya dan 6 dari 80 calon guru Bahasa Inggris yang mendapatkan nilai tertinggi selanjutnya diwawancarai serta diobservasi cara mengajarnya di dalam kelas. Penelitian ini menggunakan metode campuran. Data kuantitatif diperoleh dengan menggunakan instrumen survey sedangkan data kualitatif dikumpulkan dari hasil wawancara dan observasi. Hasil dari penelitian ini menunjukkan bahwa tingkat TPACK para calon guru dipengaruhi oleh jenis kelamin sementara mata kuliah mengenai pendidikan dan Indeks Prestasi Kumulatif (IPK) tidak terlalu mempengaruhi hasil dari survey TPACK tersebut. Dari hasil penelitian, dapat disimpulkan pula bahwa para calon guru Bahasa Inggris memahami cara penggunaan teknologi dengan baik. Meskipun begitu, saat pengaplikasiannya di dalam kelas, mereka menjadi sedikit kesulitan ketika menggabungkan pengetahuan teknologi dengan pengetahuan lainnya yang terdiri di dalam kerangka TPACK.

Kata kunci: Pre-service teacher, English as a Foreign Language (EFL), TPACK framework.

ABSTRACT

IZZA AISYAH NURMAHATI. 1609067024. *An Investigation of English as a Foreign Language (EFL) Pre-Service Teachers' Technological Pedagogical and Content Knowledge (TPACK).* A Thesis, Jakarta: Department Of English Education, Graduate School University Of Muhammadiyah Prof. DR. HAMKA. 2018.

The use of technology in instruction is highly emphasized in the contemporary education of English as a Foreign Language (EFL) teachers. However, to use technology properly, there must be a framework which can guide the teacher or pre-service teacher in using it. Many frameworks have been introduced by some experts and practitioners, and one of them and the most well-known one among researchers is Technological, Pedagogical and Content Knowledge (TPACK). This study reports an assessment of EFL pre-service teachers' perception and level of TPACK and its application in the class. By distributing a TPACK-EFL survey to 80 pre-service teachers who are majoring in English education, the writer later scored and ranked them, the six pre-service teachers who got the highest result were interviewed and observed. This study employed mixed-method which combines quantitative and qualitative method. The quantitative data were gathered by using the survey while the qualitative data were collected by doing interview and observation. The writer used SPSS in checking the data from the survey. Results from the study confirmed that TPACK level was influenced by gender while teaching courses and Grade Point Academic (GPA) did not contribute significantly on it. The observation data reveals that pre-service teachers had acquired technology integration skills but demonstrated relatively low competencies in blending the components of TPACK.

Key words: Pre-service teacher, English as a Foreign Language (EFL), TPACK framework.

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AN INVESTIGATION OF ENGLISH AS A FOREIGN LANGUAGE (EFL)
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AND CONTENT KNOWLEDGE (TPACK)

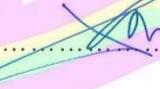
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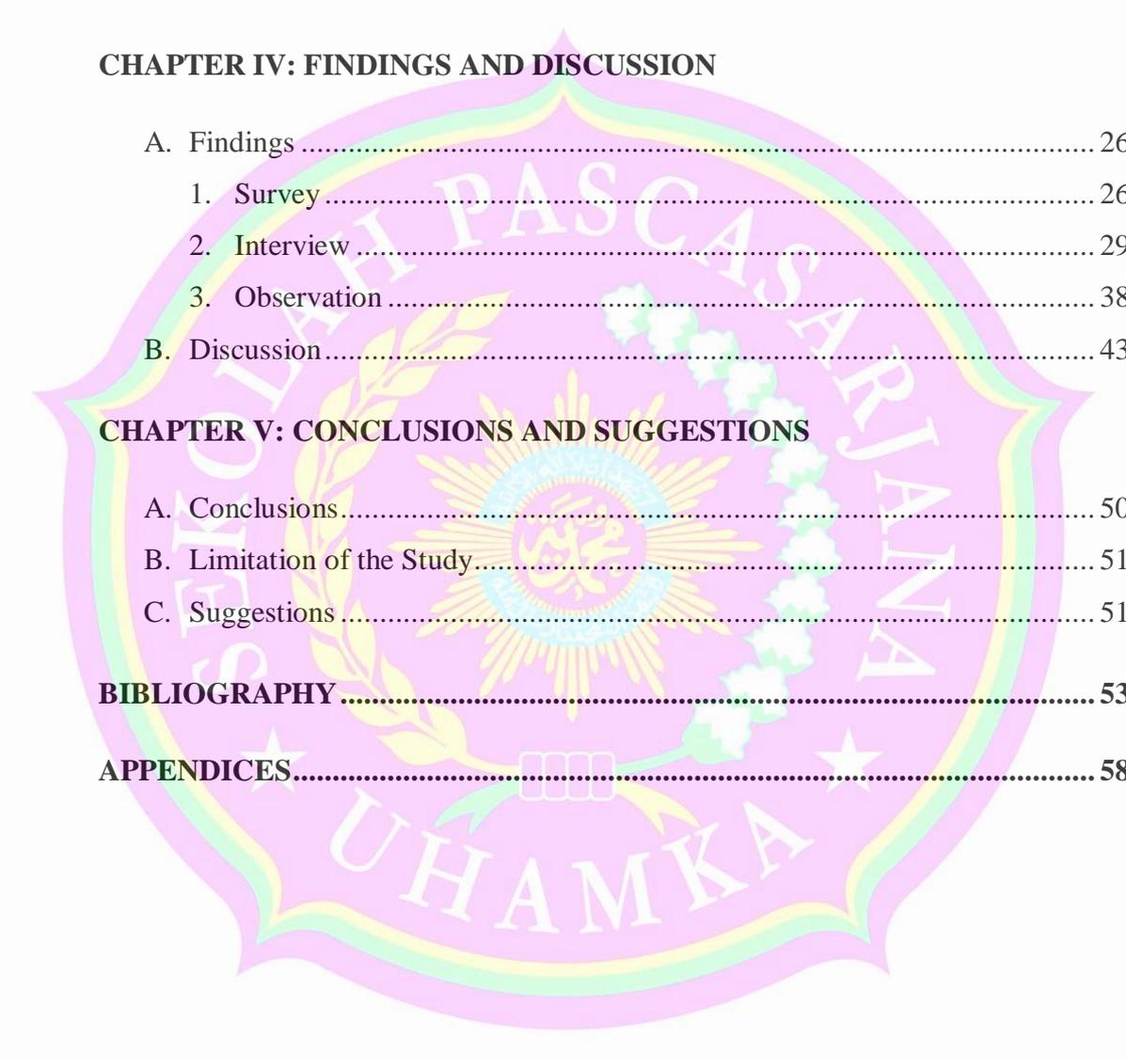
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CHAPTER I

INTRODUCTION

A. Background to the Study

Digital era has forced us to integrate technology in all aspects in life; it is from the simplest activity to the complicated one. The growing digital era has made people do everything with technology. However, the technology integration has proven that it does help people to do their activities. Technology integration cannot be denied as it is our way out to make our life easier and more leading. From all aspects in people life, technology has been also included in educational environment.

Technology integration has become a new and promising way in helping teachers delivering their material to students. Not only does it assist teachers in delivering material but also in preparing or creating the teaching material and media. Many teachers agree that by integrating technology into their classrooms, instructional process can achieve its objective more effectively. Moreover, teachers also admit that by bringing technology into classroom, the students who are digital natives, can become more engaged and interested in the lesson.

Nowadays, numerous teacher training program to improve teachers' quality have been done by some government and non-government educational organization. One of the improvement that is intended here is to train teachers in applying technology in their teaching process as it is a high demand in this digital era. Moreover, many countries have also applied some project to support the use of technology in education field: Australia, United Kingdom, USA, Singapore,

Korea and so on (Hunter, 2015: 13). And currently, Indonesia has also started to optimize the use of technology in education field. For instance, technology literacy has been also attached in Indonesia curriculum.

Moreover, in language teaching, the use of technology cannot be avoided since it needs more exposure in that language and it can be easily done by integrating technology into the classroom e.g. showing the students a video consists of daily expression in the authentic situation and spoken by the native speakers. On the other hand, it is pivotal for teachers to show and introduce their students the culture and everything that relates to the language itself besides teaching grammar and the four skills: Speaking, Writing, Listening and Reading. Teachers need a device which can help them in doing so and technology is the answer to the problem. Technology also can be beneficial for teachers to improve their own skill to become fluent in that language.

Knowing that, in this digital era, which the students are digital natives, it is highly suggested to integrate technology into classrooms. However, technology still cannot substitute the role of teacher in the class as stated by Clifford, “Technology cannot replace teachers, but teachers who do not use technology will soon be replaced.” To that reason, many teachers respond to this phenomenon positively as it also helps them in many ways such as designing and preparing learning material and delivering the material itself to students. Moreover, as the demand of 21st century skills, it is necessary for teachers to “requiring and applying new knowledge with dexterity in problem solving, communication, teamwork, technology use and innovation. (Hunter, 2015:29). According to one of

the quotes in *Edutopia* website which is quoted by Hunter (Hunter, 2015: 30) in her book that “improving schools through technology planning impacts student achievement and academic performance in content learning, higher-order thinking and problem solving skills and preparation for the workforce.”. Those impacts clearly define how important it is to integrate classroom with technology as we know that technological skill is quite important to suit the current era.

Realizing that technology integration is needed in education field, many scholars are interested in examining the use of technology in their studies (Davies et al, 2013; Morris, 2011; Tomlinson and Whittaker, 2013; Motteram, 2013). Those studies have successfully approved that technology integration is really effective in enhancing the learning achievement. Technology integration is gradually increasing and captivating many more scholars as it gives many positive impacts to educational field. Following that condition, there are also many ICT practitioners who create some platforms and courseware for educational purpose.

However, despite technology integration is considered pivotal in today’s teaching and learning process and many studies have also approved it, one of the pivotal topic that seems never been explained is how to apply it properly. To that reason, many experts have been trying to construct a framework to underlie the use of technology in educational and research field. To date, there are some conceptual framework constructed by experts such as SAMR (Puentedura, 2006), HPC (Hunter, 2015) and the most recognized among researchers and teachers, TPACK (Mishra and Koehler, 2005). Among those framework mentioned earlier, TPACK is considered as the most reliable and practical framework since “the

central focus of TPACK framework is on a specialized kind of teacher knowledge, involving the interplay of three essential forms of knowledge: Content, Pedagogy, and Technology. The most purposeful and gainful use of technology in teaching subject matter means that teachers must understand and negotiate the relationships between these three forms of knowledge. As teachers develop such sophisticated and interrelated knowledge, they develop a form of expertise for teaching with technology.” (Hunter, 2015).

Using PCK framework which is constructed by Shulman (1986) as the underlying theory, many researchers have tried to integrate technology into the framework with various terms e.g. Niess (2005) with technology-enhanced PCK and Angeli and Valanides (2005) with ICT-related PCK (ICT-TPCK). The combination of technology into PCK has not been recognized until Mishra and Koehler (2005) proposed a new framework by adding “T” abbreviation in the first order as it stands for technology in PCK framework which is constructed by Shulman (1986). Then it is extended into TPCK which stands for Technological, pedagogical and content knowledge. Years after it is extended into TPACK, Thompson and Mishra give their idea to add “A” as to make it easier to pronounce (Angeli and Valanides, 2015). Since then, TPACK is widely known among researchers, teachers and practitioners as a framework which can be used as a framework in technology integration and the assessment itself.

TPACK framework has been applied in many studies with various purposes. TPACK framework has been used to evaluate teachers’ knowledge, framework in evaluating a technological-based teaching process or conduct a

technological-based courses. Moreover, there are also some researchers who create and evaluating TPACK assessment in their studies.

Many researchers are captivated in doing a study in this topic. As the result, many studies have been conducted related to TPACK topic. Some studies focus on constructing and developing the instruments assessment. The rest of them focus on applying the TPACK framework into their teaching process. As many advantages given by TPACK framework, the writer is eager to conduct this research which will focus on pre-services teachers.

Nevertheless many TPACK studies done in Indonesia, there are only few which concentrate on pre-service teachers especially in English subject. To that reason, a research focusing in English pre-services teachers are needed to investigate their perceived level of TPACK. Thus, this research aims to know the pre-service teachers TPACK and it can tell whether or not they are ready to integrate technology in their own classroom and the way teacher educator program teach the pre-service teachers about technology.

B. The Scope of the Study

From the background of the study, this study will only focus on TPACK assessment which was done in the pre-service teachers. From the assessment, the writer knew the pre-service teachers' perception on the technology integration in classroom and later, the writer found out whether the pre-service teachers apply the technology properly into their teaching process based on the TPACK framework.

C. The Questions of the Study

In this study, the writer has formulated three questions which the writer is trying to answer it later.

1. How is pre-service teachers' perceived level of technological pedagogical and content knowledge (TPACK)?
2. How do pre-service teachers with highest level perceive the technology integration based on TPACK framework?
3. How do they apply their TPACK in the actual field?

D. The Objective of the Study

There are three objectives in this study namely:

1. To find the answer to the questions stated above. By conducting this research, the writer will identify the participants or pre-service teachers level of TPACK.
2. For further objective, the writer will investigate whether the pre-service teachers' perception on technology integration is in line with the TPACK framework.
3. Lastly, the writer is eager to know how TPACK framework can be applied in the actual field when they are doing the teaching practicum.

E. Significance of the Research

The writer hopes that the result of the study can be useful in two aspects. Theoretically, the finding of the research can be useful to add and support the existing theory about Technological, Pedagogical and Content Knowledge (TPACK) that has been popular in technology-related research field lately. Practically, the writer hopes that this research gives many benefits to teachers who are in charge in teacher training school, pre-service teachers, next researcher, and especially to the writer. For teachers who teach in teacher educator program, to motivate them in shaping their students so that they are ready to face the real teaching situation, and for the pre-service teachers, to get a better learning process so that they can be more ready to educate their own students. For the readers or the next researchers, to get more information about the TPACK framework in order to do their research, and also for the writer who is a teacher too, to help me later using technology properly in my classrooms.

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