EXPLORING VOCATIONAL SCHOOL ENGLISH TEACHERS' TECHNOLOGICAL KNOWLEDGE IN BUKITTINGGI CITY

THESIS

Submitted as a Partial Fulfillment Requirement to Obtain Bachelor of Education (B.Ed) in English Language Education Program

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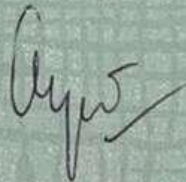# HALAMAN PERSETUJUAN SKRIPSI

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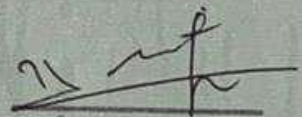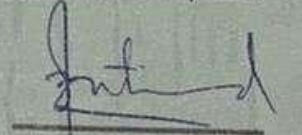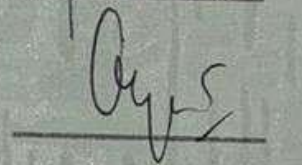Nama   : Ega Giana
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Padang,   October 2022

The writer

ABSTRAK

Giana, Ega. 2022. "Exploring Vocational School English Teachers' Technological Knowledge in Bukittinggi City". Thesis. Fakultas Bahasa dan Seni. Universitas Negeri Padang.

Perkembangan teknologi pada abad 21 berdampak pada segala aspek kehidupan, salah satunya bidang pendidikan. Oleh karena itu, guru harus mampu menguasai teknologi yang dapat mendukung pembelajaran sehingga menjadi karakter pembelajaran abad 21. Penelitian ini mencari penggunaan alat dalam pengetahuan teknologi oleh guru bahasa Inggris sekolah kejuruan di Kota Bukittinggi. Penelitian ini menggunakan penelitian deskriptif. Peserta penelitian ini adalah para guru dan siswa di Kota Bukittinggi. Pemilihan peserta menggunakan teknik purposive sampling dan pemilihan peserta didik menggunakan metode accidental sampling. Instrumen yang digunakan adalah angket dan wawancara. Hasil penelitian alat yang digunakan oleh guru bahasa Inggris SMK di kota Bukittinggi paling banyak adalah platform media sosial, aplikasi Microsoft Office, komputer/laptop, dll. Kemudian kategori yang paling banyak diperoleh guru adalah rata-rata, dan tidak ada yang mendapat nilai sangat tinggi. kategori. Dapat disimpulkan bahwa penggunaan tools dalam pengetahuan teknologi oleh guru bahasa Inggris SMK di kota Bukittinggi sudah diterapkan oleh para guru.

Kata kunci: Pembelajaran abad 21, Pengetahuan Teknologi, Perancangan RPP, Proses Belajar Mengajar, dan Penilaian Siswa

ABSTRACT

Giana, Ega. 2022. "Exploring Vocational School English Teachers' Technological Knowledge in Bukittinggi City." Thesis. Fakultas Bahasa dan Seni. Universitas Negeri Padang.

The development of technology in the 21st century impacts all aspects of life, one of which is the field of education. Therefore, teachers must be able to master technologies that can support learning so that they become 21st-century learning characters. This study seeks the use of tools in technological knowledge by vocational school English teachers in Bukittinggi City. This research used descriptive research. The participants of this study were the teachers and the students in Bukittinggi City. The selecting of participants used purposive sampling techniques and the selection of students used the accidental sampling method. The instruments were a questionnaire and interviews. The research findings for the tools used by the vocational school English teachers in Bukittinggi city the most were social media platforms, Microsoft Office applications, computers/laptops, etc. Then the category the teacher got the most was average, and none got the very high category. It can conclude that the use of tools in technological knowledge by vocational school English teachers in Bukittinggi city has already been implemented by the teachers.

Keywords: 21st century learning, Technological Knowledge, Designing Lesson Plan, Teaching and Learning Process, and Assessing Students

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CHAPTER I

INTRODUCTION

A. Background of the problem

In the 21st century, many human aspects have changed. The changes also affect the economy, society, technology, and education sectors. In the education sector, the changes affect all variables. They are students, teachers, administrators, and others. The difference that the teacher experience in the education sector is the way of learning (Gelen, 2018). Learning way in the 21st century has different perspectives learning. The learning process can be done anywhere, all the time, on any topic, and in any learning style (Jan, 2017). To sum up, learning in the 21st era is more flexible and has different ways of teaching to enhance students' competencies.

According to Erdem (2020), the students' competencies in the learning process are the way of thinking, way of working, equipment for working, and skills for interacting in the world. In detail in his article, the speciality competencies in the way of thinking are creativity, critical thinking, problem-solving, decision-making, and learning. The method of working consists of communication and collaboration. Equipment for working is information and communications technology and information literacy. The skills for interacting in the world are citizenship, life and

career, and personal and social responsibility. Moreover, in Akhwani's (2020) opinion, the professional teacher must have skills, attitude, and knowledge to achieve those competencies.

As mentioned above, professional teachers need to understand the knowledge in the learning process to achieve the required competencies by the students. According to Akhwani (2020), experienced teachers must master the subject's content, how to manage the class, and the knowledge of digital literacy as part of the 21st century. He also mentions that digital literacy is essential knowledge for the teacher and students to be mastered while teaching and learning. As Martin (2005), cited by Sadaf et al. (2017), says digital literacy means a person's ability, knowledge, and capability to use digital tools and other facilities. In specific, digital literacy's abilities are to analyze, recognize, discover, organize, integrate, survey, and unit through digital resources to construct new knowledge, create media expressions, and communicate with others. In the opinion of Pahamzah and Baihaqi (2021), digital literacy talks about the skill and ability to utilize digital tools and applications, the capacity to comprehend digital media tools and information critically, and the competency in developing and interacting with digital technology.

From the definition above, digital literacy is also linked with technological knowledge. This statement, argued by Akhwani (2020), states that the ability to operate technology and use standard technology tools while learning is defined as Technological Knowledge. In

conclusion, both digital literacy and technological knowledge discuss the applying technology as a tool or media used in the classroom. Besides that, digital literacy and technological knowledge have an important role in teaching and learning because it is linked to the competencies like the way of thinking, way of working, equipment for working, and skills interacting in the world that have been stated before.

For this reason, teachers need to know and apply digital literacy in teaching through technological knowledge because teachers, as formal educators, must explore information about developing students' skills (Erdem, 2020; Sadaf et al., 2017). Furthermore, it is highly recommended that teachers must master technological knowledge to develop the students' skills. In addition, as stated by Lee and Tsai (2010), quoted by (Beri & Sharma, 2021), the quality of teachers when teaching certain materials in the classroom needs to integrate technology with a pedagogic approach. Therefore, teachers must incorporate technological knowledge in the school to achieve competencies and create the best learning.

One of the best ways for teachers to integrate technology into the learning process is by using the TPACK framework. TPACK is a framework that connects teachers' knowledge of technology, pedagogy, and content which interact with one another to produce effective teaching and learning (Akhwani, 2020; Finger et al., 2010). As Beri & Sharma (2021) mentioned, TPACK is the skill of combining the pedagogic and content knowledge concept with the integration of technology to teaching

strategies into the learning environment. They also state that the TPACK framework not only emphasizes the integration of technology from teachers or the usage of technology tools but also communicates and combines the technology, pedagogy, and content. To sum up, TPACK is a framework that integrates technology in pedagogical and content knowledge to create effective and efficient learning.

In detail, the knowledge of standard technologies, such as books, chalk, and blackboards, and more sophisticated technologies, such as the internet and digital video, is called technological knowledge. In digital technology, technological knowledge also includes the abilities required to operate specific technologies such as computer hardware and standard software such as word processors, spreadsheets, browsers, and e-mail. Based on the definition above, technological knowledge is the knowledge and capacity to operate technological tools.

As Firmin & Genesi (2013) quoted, the application of technology in the classroom has opened up opportunities for teachers to deliver technology-based materials. The application of technology has a positive impact on teachers. The teachers can design a creative and effective lesson plan (Ghavifekr & Rosdy, 2015). As a result, the learning process becomes active and fun (N. Kumar et al., 2008). In addition, Masruddin (2014) states that mastering technology makes teachers faster in conveying messages from lessons, making it easier for students to absorb the material being taught. Based on some of the reasons above, it is inevitable that

mastery of technology by teachers greatly facilitates engaging in designing learning and delivering more suitable material. To sum up, teachers can meet their demands to prepare students to achieve the competencies in the 21st century mentioned earlier.

Based on the reason for mastering by the teachers above, the teacher must implement technology during the learning process. However, the researcher found that some teachers still do not apply TPACK in the learning process, especially in technological skills; moreover, many teachers do not know the TPACK framework. The researcher found the problem while doing teaching practice in the Senior High school in Agam regency. The researcher and teacher advisor briefly discussed the lesson plan at that time. Then, the teacher asked about TPACK, one of the frameworks the researcher used while creating a lesson plan. The researcher also asks the other teacher about TPACK; most do not know about TPACK matter.

In addition, the researcher observed the teaching activity in the classroom; most teachers do not integrate technology while conducting the learning process. Instead, the teachers explain the material verbally, known as the teacher center method. Then, the teacher stands in front of the class and lets the students listen to the material. Because of this phenomenon, the researcher wants to explore the tools in technological knowledge that is used by the vocational school English teachers in Bukittinggi city. Whether teachers already know and apply some tools in

technological knowledge in preparing lesson plans, conducting the learning process, and assessing students in the city of Bukittinggi or not.

Based on the reason for mastering technology by the teachers above, some researchers have conducted studies about technological pedagogical and content knowledge. A research conducted by Rahma (2021), with the title *"Investigating the Use of Technological Pedagogical and Content Knowledge (TPACK) by the English Teacher Candidate in the Classroom*." It investigates the use of TPACK by the pre-service teacher during the learning process in the classroom. The focus of the study is investigating the use of Technological Content Knowledge (TCK), Pedagogical Content Knowledge (PCK), and Content Knowledge (CK). The result of the study mentioned that English Teacher Candidates did not integrate the TPACK while the learning process, especially TCK, while teaching activities.

In another article about *TPACK, "Evaluating Novice and Experienced EFL Teacher's Perceived TPACK for Their Professional Development,"* by Nazari et al. (2019), the research aims to investigate the differences between novice and experienced EFL teachers' perceptions of TPACK and its impact on their professional development. The findings mentioned that experienced teachers have higher pedagogical knowledge and pedagogical content knowledge. However, novice teachers have a higher understanding of technological knowledge, technological content knowledge, technological pedagogical knowledge, and TPACK. In

addition, in developing a professional program, both experienced and novice teacher is different.

As stated in the abovementioned phenomenon, the researcher conducts "Exploring Vocational School English Teachers' Technological Knowledge in Bukittinggi City." The focus of the study is to explore the tools in technological knowledge by vocational school English teachers while teaching English subjects, including designing a lesson plan, teaching and learning process, and assessing the students. The limitation of the technology explored is digital technology tools in developing lesson plans, conducting teaching and learning processes, and evaluating the students by Vocational English Teachers. The other reason for choosing teachers' from Vocational schools as research subjects is because the researcher wants to know whether the problem experienced by the teacher where the researcher did teaching practicum in senior high school also happens to the vocational school English teachers. Besides that, the researcher wants to know what tools in technological knowledge are integrated by vocational English teachers while designing a lesson plan, teaching and learning process, and evaluating the students.

B. The focus of the research

Based on the background of the problem above, the researcher focuses on exploring the tools in technological knowledge of vocational English teachers in Bukittinggi city.

C. Formulation of the problem

From the background explanation above, the researcher can formulate the problem "What are technological tools for vocational school English teachers in Bukittinggi city?"

D. Research Question

The researcher seeks to answer the following question based on the explanation above. The problems of this research are:

1. "What are the tools in technological knowledge that vocational school English teachers use in designing lesson plans?"

2. "What are the tools in technological knowledge that vocational school English teachers use in teaching and learning?"

3. "What are the tools in technological knowledge that vocational school English teachers use in evaluating the students?"

E. Purpose of the research

The research aims to explore the tools in technological knowledge from Vocational school English teachers in Bukittinggi City.

F. Significance of the research

1. Theoretical significance

The theoretical significance of this research is to know the tools in technological knowledge of vocational school English teachers use in Bukittinggi city.

2. Practical significant:

a. Teacher

The researcher hopes that the teachers implement the tools of technological knowledge in designing lesson plans, teaching and learning processes, and evaluating the student with various kinds of technologies in education.

b. Other researchers

The researcher hopes that other researchers will inspire to conduct another research with a similar topic but a more complex problem.

G. Definition of key terms

1. TPACK

The TPACK highlights how instructors understand the material, pedagogy, and technology interact to achieve effective teaching.

2. Technological Knowledge

Technological knowledge discusses the knowledge of technology tools and operating a particular technology, such as low technology (such as pencils and paper) and digital technology (such as the internet, digital video, and software).