CHAPTER I

INTRODUCTION

A. The Background of the Study

The Technological Pedagogical Content Knowledge (TPACK) framework is a theoretical model that aims to describe the knowledge required by teachers for effective technology integration into their teaching practices. TPACK combines three essential types of knowledge: Technological Knowledge (TK), Pedagogical Knowledge (PK), and Content Knowledge (CK). The integration of these knowledge domains is crucial for successful teaching and learning in the digital age.

There are three main domains in creating the TPACK framework as follows: (1) Technological Knowledge (TK) focuses on teachers' knowledge of various technologies such as the use of software programs for teaching; (2) Pedagogical Knowledge (PK) refers to teaching methods, and processes,including classroom management, learning plan development and assessment improve student learning; (3) Content Knowledge (CK) is teacher knowledge.knowledge of various subject matter (Lin & Huang, 2020).

Additionally, Schmidt et al. (2014) defines four intersectional domains including the following: (1) Pedagogical Content Knowledge (PCK) refers to teaching processes related to various content areas; (2) Technological Content Knowledge (TCK), namely the use of technology to create concepts in a particular subject that are easily understood by students; (3) Technological Pedagogical

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Knowledge (TPK) focuses on teacher knowledge about various technologies that can be used in the teaching process; (4) Technological Pedagogical Content Knowledge (TPACK) refers to teachers' knowledge of integrating technology into their teaching processes in various content areas. This means that teachers can integrate several skills (speaking, listening, writing and reading) in their teaching.

In today's digital era, technology has become an integral part of students' lives, and its integration in education has the potential to transform teaching and learning experiences. English language learning, in particular, can benefit from technology integration as it provides opportunities for interactive and authentic language use, personalized learning experiences, immediate feedback, and exposure to diverse language resources. Integrating technology in the ELTL process at the elementary school level can create a more engaging and effective learning environment, supporting the development of language skills and promoting digital literacy.

While the potential benefits of technology integration in ELTL are evident, there are challenges that teachers face in effectively implementing TPACK. These challenges include access to appropriate technology resources, teachers' limited technological knowledge and skills, time constraints, and the need to align technology use with curriculum objectives. Therefore, studying the implementation of TPACK in the ELTL process at the elementary school level is crucial to identify effective strategies, address challenges, and maximize the opportunities that technology offers for language learning.

The TPACK framework provides a theoretical foundation for understanding the integration of technology in the ELTL process. It emphasizes the intersection of technological knowledge, pedagogical knowledge, and content knowledge, highlighting the need for teachers to strike a balance between these domains to create meaningful and effective learning experiences. By studying the implementation of TPACK, researchers and educators can gain insights into how to integrate technology seamlessly into the ELTL process, align it with pedagogical practices, and enhance content learning outcomes.

While there was a growing body of research on technology integration in education, there was a need for more specific studies focused on the implementation of TPACK in the ELTL process at the elementary school level. Existing studies often focused on higher education or general K-12 contexts, and there was a dearth of research that examined the unique challenges and opportunities of integrating technology in ELTL for young learners. Therefore, this study aimed to fill this research gap and contribute to the understanding of effective strategies for implementing TPACK in the ELTL process at the elementary school level.

From the explanation above, it could be seen that the researcher chose the Implementation of TPACK in the English language teaching and learning process as the topic and SDS IT NURUL AZIZI as the place for this research because there was a gap where this school had participated in several programs that supported the development of TPACK, but the English teacher had not yet known the term TPACK framework. This happened because the term TPACK framework

was not yet widespread in Indonesia. In Indonesia, studies regarding the TPACK framework were still rarely found, even though the TPACK framework had a significant influence on teaching in the digital era. Therefore, this topic was interesting and important to conduct as research. Thus, the researcher decided to conduct research with the title "Challenges in the Implementation of TPACK in the English Language Teaching and Learning Process at SDS IT Nurul Azizi Medan Academic Year 2024/2025." In this research, the researchers described English language teaching using TPACK as technology.

In the context of English Language Teaching (ELT), the implementation of TPACK presented unique challenges and opportunities. English language educators had to be proficient not only in the language and its pedagogy but also adept at integrating relevant technologies to facilitate learning. The successful implementation of TPACK in ELT could lead to more engaging and effective teaching strategies, fostering better student outcomes.

In the 21st century, integrating technology into education had become crucial, and the Technological Pedagogical Content Knowledge (TPACK) framework had emerged as a significant model to support this integration. TPACK combined three primary forms of knowledge: Content Knowledge (CK), Pedagogical Knowledge (PK), and Technological Knowledge (TK). The intersection of these knowledge areas helped educators effectively integrate technology into their teaching practices, thereby enhancing the learning experience.

In the context of English Language Teaching (ELT) at the primary school (Sekolah Dasar, or SD) level, implementing TPACK presented unique challenges and opportunities. Educators at this level had to be proficient not only in the English language and its pedagogy but also adept at incorporating relevant technologies to facilitate and enrich learning. Effective implementation of TPACK in ELT at the primary school level could lead to more engaging and effective teaching strategies, fostering better student outcomes and preparing students for a technology-driven world.

Phenomena Observed: At SD Swasta Islam Terpadu Nurul Azizi, the integration of technology into the English language teaching and learning process was intended to enhance educational outcomes by utilizing the TPACK framework. However, despite the potential benefits, several challenges were observed that may have hindered the effective implementation of this framework. These challenges included:

1. **Limited Technological Resources:**
   - There were instances where the school lacked sufficient technological tools such as computers, projectors, and reliable internet access. This limitation made it difficult for teachers to integrate technology into their lessons consistently.

2. **Teachers' Technological Proficiency:**
   - Some teachers reported a lack of confidence and skills in using technology for teaching. This gap in technological proficiency

affected their ability to create and deliver engaging, tech-enhanced lessons.

3. **Insufficient Training and Professional Development:**

   o The availability of training programs aimed at improving teachers' skills in integrating technology with pedagogy and content knowledge was inadequate. Many teachers felt they had not received enough support to effectively use TPACK in their classrooms.

4. **Time Constraints:**

   o Teachers often faced challenges in finding the time to plan, prepare, and implement technology-based lessons amidst their other responsibilities. This constraint led to a reliance on traditional teaching methods.

5. **Administrative and Policy Support:**

   o There was a need for stronger policies and administrative support to encourage and facilitate the use of technology in teaching. Without clear guidelines and backing from school leadership, teachers were hesitant to fully embrace technological integration.

Method Used: To gather preliminary data for understanding these phenomena, the following methods were employed:

1. **Observations:**

   o Classroom observations were conducted to see firsthand how technology was being used in English language teaching. This method helped identify the practical challenges faced by teachers and students.

2. **Interviews and Focus Groups:**

   o Teachers, administrators, and students were interviewed to gather qualitative data on their experiences, perceptions, and attitudes towards the use of technology in the classroom. Focus group discussions provided deeper insights into common issues and potential solutions.

3. **Surveys and Questionnaires:**

   o Structured surveys were distributed to teachers and students to collect quantitative data on the frequency and effectiveness of technology use, as well as the perceived barriers to its implementation.

4. **Document Analysis:**

   o School records, policy documents, and reports were reviewed to understand the existing infrastructure, training programs, and policies related to technology use in education.

Preliminary Findings:

   o The preliminary data indicated a need for improved access to technological resources and more comprehensive professional development for teachers.

   o There was also a clear requirement for better administrative support and policy development to facilitate the integration of technology in teaching.

   o Time management remained a significant hurdle, with many teachers expressing a need for dedicated time to develop and implement tech-enhanced lessons.

These preliminary findings provided a foundation for the background of the study, highlighting the key challenges and areas for improvement in the implementation of TPACK in the English language teaching and learning process at SD Swasta Islam Terpadu Nurul Azizi.

B. The Problem Of the Study

The research problem could be framed as follows:

1. What strategies do teachers use to overcome challenges in implementing TPACK in English language learning at SD Swasta Islam Terpadu Nurul Azizi ?

2. How far do teachers know about Technological Pedagogical Content Knowledge (TPACK) in English language learning at SD Swasta Islam Terpadu Nurul Azizi ?

C. The Objective of the Study

The objectives of the research were:

1. To identify and analyze the strategies used by teachers at SD Swasta Islam Terpadu Nurul Azizi to overcome challenges in implementing Technological Pedagogical Content Knowledge (TPACK) in English language learning.

2. To assess the extent of teachers' knowledge of TPACK in the context of English language teaching at Nurul Azizi Integrated Islamic Private Elementary School, including their understanding of technological, pedagogical, and content knowledge.

D. The Scope of the study

In this research, the researchers focused on both upper and lower class teachers in teaching and learning while implementing TPACK in the English teaching and learning process at the Nurul Azizi Integrated Islamic Private Elementary School in the 2024/2025 academic year. They examined the main challenges and other factors that influenced the success of TPACK in the teaching and learning process.

E. The Significance of the study

a) Theoretical significance

The theoretical significance that I gained from the research was providing an overview of TPACK-based English learning at SDS IT Nurul Azizi, offering a useful reference for future researchers who wanted to investigate this topic, highlighting the benefits and impacts of the challenges in using TPACK in learning and teaching English, providing constructive feedback, including positive criticism and suggestions regarding the use of TPACK in teaching and learning English, and offering support to teachers in using TPACK in teaching and learning English.

b) Practical Significance

1. Teacher

This research provided a reference on the implementation of the TPACK framework in learning and teaching for English teachers in other schools as well as teachers in any subject. Teachers could try several methods that had been mentioned in this research, so they

would find a method that suited their class circumstances. Teachers needed to understand that there would be no perfect framework for teaching because each framework had advantages and disadvantages. Therefore, teachers had to be creative and always try to combine or integrate any framework to achieve better results.

2. **Students**

This research could provide support. If teachers used appropriate methods of teaching English by applying the TPACK framework, the learning process would be more planned and focused. Students could understand the material that had been taught easily. This meant that students could achieve their learning goals effectively.

3. **Headmaster**

As a reference school, the SDS IT Principal of Nurul Azizi could provide an example to other schools regarding the application of the TPACK framework in English language learning and teaching. This could be applied not only in English but also in any subject taught at the school. With TPACK, it could improve the quality of teaching at SDS IT Nurul Azizi for the 2024/2025 academic year.

4. **Researcher**

This research could provide valuable information for researchers regarding English language teaching based on the Technological Pedagogical Content Knowledge (TPACK) framework in the 2024/2025 school year.

5. **Other Researchers**

This research could provide information regarding the field of teaching, especially English language teaching based on the TPACK framework, which was still being discussed in current research. This research could be a useful reference for future researchers who wanted to conduct research on the same topic. I hoped that future research would continue the research to make it better and better.