

CHAPTER III

RESEARCH METHOD

A. Research Design

In this research, researchers used qualitative with case study. Qualitative research is research that is naturally done without being made up. Usually in qualitative research a problem or phenomenon has occurred in the field. The goal of qualitative research would to be to obtain a complete explanation of human societal phenomena in their relative contexts (Ugwu, et al., 2017). Qualitative research particularly effective in getting culturally specific information on the beliefs, opinions, and societal context of people (Mack et al., 2005). This approach helps the author analyze the experiences of the respondents, perspectives, and behaviors in detail, making it suitable for studies that investigate complex educational phenomena, such as the implementation of TPACK in teaching English listening skills.

According to Starman (2013) case study is an in-depth exploration from multiple perspectives of the complexity and uniqueness of a particular phenomenon in a real-life context. A case study is especially useful for situation where the boundaries of the situation are not clearly defined, and for researchers who want to get deep knowledge of a specific case. This research procedure was adapted from Creswell (2009), who outlines the

steps for conducting a case study in a systematic and comprehensive manner.

In this study, the case is defined as the implementation of the TPACK framework in teaching English listening skills at MAN 1 Banjarmasin. The case is bounded by two English teachers as the participants, one school as the setting, and listening instruction practices as the focus of the study. Therefore, this research does not only focus on the teachers as individuals, but also on how they conduct their teaching practices using technology in the classroom. A case study design was chosen because this research aims to explore a specific phenomenon within a real-life context. Therefore, a case study is considered the most appropriate design.

Furthermore, this design helps the researcher answer the research questions by collecting data through interviews, classroom observations, and documentation. The first research question is answered by exploring teachers' experiences in implementing the TPACK framework, while the second research question is addressed by identifying the challenges faced by teachers during the teaching process.

The procedures in this research are described as follows:

Step 1. Determine whether a case study is suitable for research

It used a case study design because it enables the researcher to explore in depth how English teachers apply the TPACK Framework in

their teaching English listening skills. The use of this approach is considered appropriate since the research aims to understand teachers' real experience within a specific setting at MAN 1 Banjarmasin, where the researcher directly observed classroom practices and interacted with the teachers.

Step 2. Identifying and selecting to case to be examined

The focus of this research is on English teachers at MAN 1 Banjarmasin who have applied the TPACK Framework in their listening instruction. Participants were chosen purposively to ensure that they possessed sufficient experience integrating technology into listening lessons. In this research, two English teachers were selected as participants because they had experience in integrating technology into their teaching practices.

Step 3. Gathering data from various sources

To obtain a comprehensive understanding of the case, data were collected from multiple sources. In answering the first research question regarding teachers' implementation of the TPACK framework in teaching listening skills, classroom observations served as the primary data source to examine teachers' actual classroom practices, while interviews were used to support and clarify the observation findings.

Meanwhile, in answering the second research question regarding the challenges faced by teachers in implementing the TPACK framework, interviews served as the primary data source to explore teachers'

experiences and difficulties in depth, while classroom observations were used to support and confirm the interview data.

Step 4. Analysis data and reporting the findings

After the data collection process, the researcher analyzed the data by identifying patterns and themes related to teachers' implementation of the TPACK Framework in teaching English listening skills and the challenges they face. The analysis focused on describing how teachers integrate technology, pedagogy, and content in their teaching practices, as well as the challenges they faced, such as technical problems, limited internet access, and students' difficulties in understanding listening materials. The findings were then presented in a descriptive form to answer the research questions.

B. Research Setting

This research was conducted at MAN 1 Banjarmasin, which is located at Jalan KP. Melayu Darat No. 31, RT. 11, Banjarmasin Tengah, Banjarmasin. The study was carried out during the academic year 2025/2026, specifically from November 2025 to January 2026. This school was chosen as the research site because it has adequate technological infrastructure to support English learning, especially listening skills. The facilities available at this school, such as projectors, computers, and internet access, are actively utilized in the learning process.

In addition, the teachers at MAN 1 Banjarmasin have implemented the concept of the TPACK framework in their teaching. This implementation became the main focus of the research, particularly in exploring how technology is effectively applied in teaching listening comprehension to English language learners. The research was conducted under normal classroom conditions, where teaching and learning activities took place as usual without any experimental treatment. The study involved two different class settings, namely a twelfth-grade class in the computer laboratory and a twelfth-grade English specialization class in the language laboratory.

C. Participants

The participants in this research were two English teachers at MAN 1 Banjarmasin who were selected purposively. They were chosen because they actively taught English, had experience integrating technology in listening instruction, and had sufficient understanding of the TPACK Framework in their teaching practice. Both teachers actively integrated technology into listening activities and demonstrated a sound understanding of the TPACK framework. Teacher 1 implemented the TPACK Framework primarily in formal classroom settings, while Teacher 2 applied it in both classroom instruction and extracurricular activities, providing broader perspectives on TPACK implementation in different instructional contexts.

Teacher 1 has been teaching English for approximately 10 years. At the beginning of the teaching career, the teacher used audio cassettes and classroom speakers to support listening activities. Meanwhile, Teacher 2 has been teaching English for approximately 8 years and has experience in implementing technology-assisted listening instruction.

The use of two participants was considered appropriate because this research applied a qualitative case study design, which focused on in-depth exploration rather than generalization. By involving a small number of participants, the researcher was able to obtain rich and detailed data related to teachers' implementation of the TPACK framework in teaching listening skills. In addition, both participants met the research criteria and provided relevant information to answer the research questions.

D. Data

The data in this study were qualitative data collected through a case study approach. The researcher attempted to find out how English teachers implement the TPACK framework in teaching listening skills and what challenges they encounter during the teaching process. The data were obtained from classroom observations and interviews involving two English teachers who applied the TPACK framework in teaching listening instruction. The observation data focused on teachers' instructional practices, the integration of

technology, pedagogy, and content knowledge, the use of technological tools, teaching strategies, classroom interaction, and students' responses during listening activities.

These data were used to answer the research questions related to teachers' implementation of the TPACK framework and the challenges encountered during listening instruction. To clarify the relationship among the research questions, the required data, the data sources, the data collection techniques, and the data analysis, the details are presented in the following table:

Table 3.1 Research Data Framework

Research Question	Data Needed	Data Source	Data Collection Technique	Data Analysis
How do the teachers implement TPACK Framework to teach listening skills?	Teachers' experiences, teaching strategies, use of technology, integration of TK, PK, CK	Two English Teachers	Observation (Main), Interview (Support).	Thematic analysis
What are the challenges in using the TPACK framework to teach listening skills?	Difficulties in teaching listening, technical problems, student understanding, classroom constraints	Two English Teachers	Interview (Main), Observation (Support)	Thematic analysis

E. Technique of Data Collection

The researcher employed a case study approach to gain an in-depth understanding of how English teachers implement the TPACK framework in teaching listening skills. This research focused on English teachers who have prior knowledge of TPACK and actively apply it in their teaching. The data were collected through classroom observations and interviews to obtain comprehensive information related to teachers' implementation of the TPACK framework in listening instruction. All collected data were transcribed and organized for further analysis.

1. Observation

Classroom observations were conducted to examine how the TPACK framework was implemented in actual classroom practices during listening lessons, as well as to identify the challenges faced by teachers during the teaching process. The observations involved the same teachers who participated in the interviews. During the observations, the researcher focused on how teachers used technology, applied teaching strategies, delivered listening materials, interacted with students, and handled difficulties that emerged during listening activities, such as technical problems, students' comprehension difficulties, and classroom management during technology use.

In this research, classroom observations were mainly used to answer the first research question regarding how teachers implement the TPACK framework in teaching listening skills. In addition, observation data were also used to identify challenges faced by teachers during listening instruction. The observations were conducted in two sessions. The first observation took place in the computer laboratory during a Zoom session with students from Japan, providing authentic listening practice. The second observation was conducted in the language laboratory, focusing on listening activities using descriptive text materials.

An observation guideline was used to focus on relevant aspects of TPACK, and field notes were taken to record important events, teacher activities, students' responses, and challenges encountered during the learning process (Yin, 2018).

2. Interview

Interviews were conducted to explore teachers' experiences, perceptions, and challenges in implementing the TPACK framework in teaching listening skills. In this research, the researcher used semi-structured interviews, which allowed the researcher to prepare guiding questions while also giving flexibility for the participants to elaborate on their answers. In this research, interviews were mainly used to support and clarify the findings obtained from classroom observations regarding teachers' implementation of the TPACK framework. Furthermore,

interview data were also used to gain deeper information about the challenges faced by teachers during the teaching process.

The interviews were conducted with two English teachers at MAN 1 Banjarmasin. Each interview was carried out face-to-face and lasted approximately 20–30 minutes. The researcher asked questions related to how teachers integrate technology, pedagogy, and content knowledge in listening lessons, as well as the challenges they encountered during the teaching process.

During the interviews, the researcher recorded the conversations using a mobile phone and also took brief notes to capture important points. After the interviews were completed, the recordings were transcribed into written form to facilitate data analysis. The use of semi-structured interviews is supported by Creswell (2022), who states that this type of interview allows researchers to gain deeper insights into participants' experiences.

Table 3.2 Schedule of Data Collection

Technique	Activity	Date/day
Interview	Interview with Teacher 1	28 Nov 2025
	Interview with Teacher 2	27 Jan 2026
Observation	Observation in computer laboratory during Zoom session with students from Japan	27 Jan 2026

	<p>Observation in language laboratory during listening lesson about descriptive text</p>	<p>30 Jan 2026</p>
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F. Research Instrument

1. Observation Guide

The observation guide was used to examine how the TPACK framework was implemented in real classroom practices during listening lessons. In addition, the observation also aimed to identify the challenges faced by teachers during the teaching process.

In this research, observation data primarily functioned to answer the first research question regarding teachers' implementation of the TPACK framework in teaching listening instruction. However, the observation also provided supporting data related to the challenges encountered by teachers in the classroom.

The aspects observed included the use of technology (such as audio, video, Zoom, and language laboratory tools), teaching strategies, classroom interaction, students' responses, and difficulties encountered during instruction.

The observations were conducted in two settings, namely a computer laboratory session involving Zoom interaction with students from Japan and a language laboratory session focusing on descriptive listening materials. Field notes were taken during the observation to record both the implementation of TPACK and the challenges that occurred in the classroom.

2. Observation Guide

The interview guide was developed to explore teachers' experiences in implementing the TPACK framework in teaching listening skills in the classroom. It was designed to examine how teachers integrate technological, pedagogical, and content knowledge in listening instruction.

In this research, interview data mainly served to support and clarify the findings obtained from classroom observations regarding teachers' implementation of the TPACK framework. Furthermore, the interviews also provided deeper information related to the challenges experienced by teachers during the teaching process.

The interviews were conducted in a semi-structured form using open-ended questions. The researcher prepared guiding questions related to the use of technology in listening lessons, teaching strategies, the integration of content and pedagogy, and challenges encountered during

instruction. The interviews were conducted face-to-face with two English teachers at MAN 1 Banjarmasin, recorded with participants' permission, and supported by field notes.

G. Data Analysis

Once the necessary were collected, then the step is to analyze the data using thematic analysis. The thematic analysis approach was chosen because it allowing the researcher to recognize, organize, report on the key patterns from the data in a systematic manner (Jnanathapaswi, 2021). Thematic analysis is suitable for case study research as it helps the researcher gain a deeper understanding of the case by exploring recurring patterns related to teachers' experinces in implementating the TPACK framework in teaching English listening skills. The data in this study followed six phase of thematic analysis propesed by Braun & Clarke (2006), as desribed below:

1. Familiarizing with the Data

In this stage, the researcher transcribed the interview recordings and organized the observation field notes from the listening classes conducted in the computer laboratory and language laboratory. The researcher then read the data repeatedly to gain a deep understanding of how teachers implemented the TPACK framework and the challenges that occurred during listening instruction.

2. Initial Codes

The researcher identified and labeled important data segments from both interviews and observations. The coding process focused on teachers' use of technology in listening instruction, teaching strategies, delivery of listening materials, classroom interaction, students' responses, and challenges such as technical problems and students' comprehension difficulties.

3. Identifying Themes

The coded data were then grouped into broader categories to form themes. The implementation themes were developed based on TPACK components, namely Technological Knowledge (TK), Pedagogical Knowledge (PK), Content Knowledge (CK), Technological Pedagogical Knowledge (TPK), Technological Content Knowledge (TCK), and Pedagogical Content Knowledge (PCK). Meanwhile, challenge-related themes were developed from recurring problems found during the listening teaching process.

4. Reviewing Analysis

In this stage, the researcher reviewed and refined the themes by comparing them with the interview transcripts and observation notes. This process ensured that the themes accurately represented the data and were relevant to the research questions. Some themes were revised, merged, or removed when necessary.

5. Identifying and labeling Themes

Each theme was then clearly defined based on its relevance to the TPACK framework and listening instruction. The researcher ensured that every theme directly reflected teachers' actual classroom practices and challenges in implementing technology-based listening teaching.

6. Producing the Report

Finally, the findings were presented in Chapter IV. The results were written descriptively and supported by excerpts from observation notes and interview transcripts. These findings were then interpreted in relation to the TPACK framework and the research questions of this study.

To prove whether this data is reliable, there are several criteria in the Trusworthiness, according to Alexander (2019) data as follows,

1. Credibility, shows confidence levels in the results of the findings and their interpretation. In this study, credibility has been maintained through ongoing engagement between researchers and participants, the use of multiple data sources, and verification by participants.
2. Transferability, the degree to an extent to which qualitative the findings are transferable to or have application in other places, settings or groups. To support this, detailed information descriptions of the setting and participants.

3. Dependability, this is defined as the consistency of data through time and over different condition. It was maintained through careful documentation of all research procedures and an audit trail of data collection and analysis.
4. Confirmability, this is referring to the objectivity that is a key argument between two or more independent experts about the accuracy, or meaning, of that information. The researcher ensured ethical considerations by maintaining participants' anonymity using codes TE1 and TE2, and obtaining consent before data collection.