

CHAPTER 3

RESEARCH PROCEDURES

This chapter presents the methodology used to conduct the research. It contains seven parts of research procedures, such as; research design, focus of the research, research setting and participants, data collection, data analysis, steps of the research, and time and place of the research

3.1 Research Design

This study used a descriptive case study research design based on qualitative research methodology as the scope of the case study is based on a phenomenon that is thoroughly investigated in its natural environment (Yin, 2009). Descriptive case study design allows researcher to deeply explore and understand complex topics which is helpful when investigating phenomenon. Therefore, this research design was chosen in order to investigate the EFL learners' perception regarding the role of Character AI in their English language learning.

3.2 Focus of the Research

This research focused on EFL learners' perception on the role of Character AI in English language learning. The data were taken from the result of interviews with the EFL learners who experienced in using Character AI in their English language learning in junior high school level.

3.3 Research Setting and Participants

This study took place in one of junior high schools in Tasikmalaya, West Java, Indonesia where the phenomenon of EFL learners using Character AI in learning English language occurred. The data were taken from three EFL learners, aged between 12 and 14 years, consisting of two males and one female. They were selected as participants because they used Character AI in their English language learning. They used it to learn English language independently to improve their written communication skill through interactive written dialogue with the characters provided which stimulates their motivation on learning English language.

Additionally, they were willing to participate in the research. Before conducting the interviews, the researcher provided a consent form as an ethical measure, also assigning them the pseudonyms P1, P2, and P3.

3.4 Data Collection

In this research, a semi-structured interview was employed as the data collection technique. As described by Bryman (2012), a semi-structured interview involves the use of a prepared list of questions, but there is flexibility in the way the questions are asked. The interviewer has the freedom to deviate from the predetermined sequence or modify the questions based on the context and flow of the interview. Unlike structured interviews where the questions are fixed and asked in a specific order, semi-structured interviews allow for a more conversational and flexible approach. The interviewer can add questions during the interview process, adapting to the participants' responses and exploring new ideas.

The Interview questions adapted from the technology acceptance model (TAM) (Davis, 1989), on EFL learners to express their experiences showing their perception towards Character AI in their English learning. For example, How can Character AI help them in learning English? How does Character AI facilitate them to receive feedback and correct mistakes in learning English? How can Character AI be used for written conversation practice in English? etc. The interview was conducted twice with audio recording through face-to-face approach. Then, the recording was transcribed and translated into English. It is hoped the questions could collect data in order to answer the research questions of this study, that is, “What are the perceptions of EFL learners regarding the role of Character AI, in their English language learning at the Junior High School level?”

3.5 Data Analysis

This research used the thematic analysis approach for data analysis. Thematic analysis is a widely used qualitative analysis method that involves identifying, analyzing, and reporting patterns or themes within qualitative data. It is a flexible and iterative process that allows researchers to gain a deeper

understanding of the data and uncover meaningful insights (Braun and Clarke, 2006). The thematic analysis typically involves six key steps:

1) **Familiarizing with the Data**

In this step, the interview results were transcribed. After transcribing, the interview transcripts were read and reread to become familiar with the data. Also, pay attention to both the explicit and implicit aspects of the data, that related to the role of Character AI.

2) **Generating Initial Codes**

In this step, the researcher carried out the coding process by systematically giving various colors to the relevant parts of the data. The sentences were highlighted as the codes that contain random and various information which need to be simplified into themes. The researcher related the data based on the research aim and then classified it using the initial codes with distinguishable color (e.g., written dialogue practice - yellow; stimulates interaction - magenta, language focus - dark red, etc.). Each color represents a code which is then categorized at the next stage.

Table 2. Generating Initial Codes

Interview Data	Initial Codes
<p>I became accustomed to communicating. Everything that is written in the chat in Character AI, from time to time enters my brain. My English is also becoming more fluent. (P1)</p>	<p>Written Dialogue Practice</p>
<p>Character AI likes to ask something first like "Hi my name is Princess Aurora, what is your name?" then ask what you like, "what are your hobbies?" I like playing basketball. I also talk about my hobbies with her. Sometimes she initiates to change the topic to talk about her favorite food." (P2)</p>	<p>Stimulates Interaction</p>

<p>The context depends on the character and the topic we want to talk about. For example, if I want to talk about friendship, we will be friends with the character, and if we want to go to war, there will be the enemy, and then there will be war too. (P3)</p>	<p>Specific Needs</p>
<p>When I got confused in English, Character AI can help me with verbs, verb-ing, verb 2, and correct words too. It also can be a friend to chat with in English so that I can communicate smoothly and not be shy. (P3)</p>	<p>Help-seeking</p>
<p>I feel like Character AI is my friend, so there is no need to be nervous There are many benefits.... It assists me in correcting mistypes, gaining new vocabulary, and learn grammar. (P2)</p>	<p>Learning Ability</p>
<p>I learn some new words and know when to use verbs 1, verb 2, verb-ing. (P3)</p>	<p>Language Focus</p>
<p>I type some sentences and then I ask the AI if the grammar is already correct The AI immediately gives me corrections. (P2)</p>	<p>Self-evaluation</p>
<p>Character AI can take advantage of my free time with learning English. I use it usually at night when I am bored and there is no other work. (P2)</p>	<p>Time management</p>
<p>I use Character AI on my smartphone through the application. It's easy to access as long as there is an internet connection. (P3)</p>	<p>Environmental Structuring</p>
<p>I learn from the words that are written in the chat.... playing word games, and even have debates with the AI (P1)</p>	<p>Task Strategies</p>

Table 3. Initial Codes Frequency

Initial Codes	Frequency
Written Dialogue Practice	9
Stimulates Interaction	7
Specific Needs	19
Help-seeking	4
Learning Ability	10
Language Focus	10
Self-evaluation	3
Time management	5
Environmental Structuring	3
Task Strategies	3

3) Searching for Themes

In this step, the researcher began to organize and categorize codes into potential themes that suit the research question, also looked for connections and relationships between codes, grouping them together to form meaningful themes.

Table 4. Potential Themes

Initial Codes	Potential Themes
Task Strategies	Autonomous Learning Facilitator
Environmental Structuring	
Help-seeking	
Time management	
Self-evaluation	
Written Dialogue Practice	Language Practice Partner
Stimulates Interaction	
Language Focus	
Specific Needs	Personalized Learning Tool
Learning Ability	

4) **Reviewing Themes**

In this step, the researcher examined and reviewed the identified themes concerning the codes and research questions. Additionally, the researcher determined whether themes accurately represent patterns in the data. After that, coherence within each theme and external differences between themes were checked

5) **Defining and Naming Themes**

In this step, the researcher ensured that the terms used in the theme summarized its core meaning and ensured that the defined theme answered the research question.

Table 5. Themes Definition

Themes	Definition
Autonomous Learning Facilitator	Character AI as a facilitator for EFL learners to regulate their English language learning.
Language Practice Partner	Character AI as EFL learners' partner for language exposure, specifically in written dialogue.
Personalized Learning Tool	Character AI as a technology tool to promote EFL learners' specific needs and learning ability

6) **Producing the Report**

Finally, the researcher wrote a comprehensive report that communicates the findings of the analysis, includes a description of each theme, supported by relevant quotes or examples from the data.

3.6 Steps of the Research

This study took some steps in order to have a well-organized result, as follows:

Table 6. Research Steps

Steps	Description
Identifying the phenomenon	The researcher begins the research by identifying the phenomenon. The phenomenon is the use of AI Chatbot technology in English language learning, namely Character AI.
Reviewing the literature	The researcher examined existing research, theories, and findings related to the chosen phenomenon, also some gaps in the current topic.
Defining the purpose of the research	The researcher defines the research objective that outlines the study's goals to gain a comprehensive understanding of the topic.
Determining research setting and participants	The researcher decides where the research will take place and who will be involved in the study.
Collecting the Data	The researcher gathered the necessary data using semi-structured interviews related to the research objective.
Analyzing the Data	The researcher examined the collected data with thematic analysis to identify the theme and codes related to the research objective.
Interpreting the Findings	The researcher interpreted the data by comparing it to the literature review and theoretical framework.
Reporting and Evaluating the Research	Wrote a comprehensive report detailing the methodology, data analysis, findings, and recommendations for future research.

3.7 Time and Place of the Research

This study was conducted from October 2023 to July 2024, as shown in the table. This study took place in on of a junior high school in Tasikmalaya, where the learners study their formal education. Below is the research schedule conducted by the researcher.

Table 7. Research Schedule

Activities	OCT/ 2023	NOV/ 2023	DES/ 2023	JAN- APR/ 2024	MAY/ 2024	JUN/ 2024	JUL/ 2024
Research Proposal writing							
Research Proposal Examination							
Data Collection							
Data Analysis							
Progress Report							
Thesis Result Seminar							
Thesis Examination							