CHAPTER III
RESEARCH METHODOLOGY

The research methodology is presented in this chapter, along with detailed descriptions of the methods used by the researcher to collect and analyze the study's data. This chapter covers the research methodology, research setting, research participants, instruments, data collection technique, and data analysis approach.

A. Research Method

Research can be referred to as a process of seeking knowledge. A hunt for knowledge is what research is. It can also be described as a methodical and scientific search for data related to a particular topic[1]. Furthermore, Marvasti says that the research process is systematic in setting goals, arranging data, and reporting the findings that occur within a defined framework and under existing guidelines[2]. The frameworks and guidelines guide researchers on what to include in the research, how to conduct the research, and what kinds of conclusions are likely to be drawn from the data gathered. According to Marvasti, the three most prevalent research approaches used by researchers, are quantitative, qualitative, and mixed methods.

In this research, the researcher uses a qualitative descriptive method to obtain the data. Qualitative research aims to understand social phenomena from the perspective of those who are interviewed, observed, and asked to offer data, ideas, thoughts, and perceptions[3]. Qualitative research is interested in the lives experienced, the events that occur, the situations that are intertwined with routine activities, and the moments that occur. This study uses a descriptive

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[1] C.R. Khotari, *Research Methodology*, *New Age International Publisher*, second rev (New Age International Publisher, 2005).

[2] Amir Marvasti, "Research Methods," *The Cambridge Handbook of Social Problems* 1, no. 3 (2018): 23–37, https://doi.org/10.1017/9781108656184.003.

[3] Robiyatul Adawiyah, "Efektivitas Pembelajaran E-Learning Masa Pandemi Covid-19 Pada Mata Pelajaran Bahasa Indonesia Di Sma Negeri 1 Batang Toru," *Jurnal ESTUPRO* 6, no. 1 (2021).

qualitative research method because it aims to describe existing phenomena. This phenomenon is the implementation of a digital game in the Mini English program at Khamphee Wittaya School Bannangsata, Yala, Thailand. To be more specific, the researcher wants to find out how Kahoot! as digital game-based learning is implemented in the Mini English Program, then what are the strengths and weaknesses of using Kahoot! in acquiring English skills at Khamphee Witthaya School Yala, Thailand.

B. Research Setting

This research is conducted at Khamphee Wittaya School located on Highway 410, Tambon Bannang Sata, Amphoe Bannang Sata, Chang Wat Yala 95130, Thailand. The researcher will examine the implementation of Kahoot! as a digital game-based learning in the English Mini Program at Khamphee Wittaya School Yala, Bannang sata, Thailand. Whether strengths and weaknesses of using Kahoot! in the process of acquiring English skills. The data of this research obtains through observation, interview, and documentation processes of students' activities in using Kahoot! as a digital game. This research is conducted at the beginning of the semester, precisely in November.

C. Research Participants

In this study, purposive sampling is used by the researcher to select research participants to collect data. Etikan argues that the purposive sampling technique places a focus on individuals with particular qualities relevant to the research[4]. Purposive sampling refers to a variety of non-probability sampling techniques. Purposive sampling, also known as judgmental, selective, or subjective sampling, depends on the researcher's judgment when choosing the units (such as persons, cases/organizations,

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[4] Ilker Etikan, "Comparison of Convenience Sampling and Purposive Sampling," *American Journal of Theoretical and Applied Statistics* 5, no. 1 (2016): 1, https://doi.org/10.11648/j.ajtas.20160501.11.

events, or pieces of data) that are to be examined[5]. By employing this technique, sampling is limited to specific groups of individuals who can provide the needed information, either because they are the only ones who have it or because they fulfill certain criteria the researcher has established[6]. Whitehead and Lopez also add that in this technique, participants are people who have the necessary status, experience, or particular understanding to supply the data researchers are looking for[7].

In Khamphee Wittaya School Yala, Bannang sata, Thailand, there are six grade levels from grade one to grade six. Each class is divided into several categories according to students' interests, namely MEP class, Gifted class, Marjan class, and regular class. And because of the situation, time constraints, research effectiveness, and the researcher's teaching experience in the school, the researcher have chosen the 4th grade of MEP that consisting of 26 students as the research sample for this research.

D. Instrument and Data Collection Technique
1. Research Instrument

A research instrument is a tool that a researcher uses to collect, measure, and evaluate data relating to a research topic[8]. In addition, the researcher employs interviews, observation, and documentation in this study to optimize the analytical process and directly collect data. Taylor claims that the goal of the interview

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[5] Neetij Rai and Bikash Thapa, "A Study on Purposive Sampling Method in Research," *Kathmandu:Kathmandu School of Law*, 2015, 1–12, http://stattrek.com/survey-research/sampling-methods.aspx?Tutorial=AP,%0Ahttp://www.academia.edu/28087388.

[6] Uma Sekaran, "Research Methods for Business, Edisi Keenam", *(Jakarta: Salemba Empat, 2006)*.

[7] Dean Whitehead and Violeta Lopez, "Sampling Data and Data Collection in Qualitative Research Methods," *Nursing and Midwifery Research*, no. June 2016 (2016): 111–26, https://www.researchgate.net/publication/255950308.

[8] Saras Sarasvathy, "Research Instruments," *Indian Journal of Continuing Nursing Education* 16 (2015), https://doi.org/10.4337/9781848440197.00027.

is to examine more deeply the participants' "insider perspective," or their thoughts, perceptions, emotions, and experiences[9]. Taylor also adds that the most popular method of gathering data is through interviews[10]. According to Sarasvathy, the data collection methods are determined by the research instruments used by the researcher[11]. The selection of the proper instruments, Sarasvathy continues, is crucial to the success of any research study. Appropriate instruments are important for assessing or gathering complete data linked to a research problem. One or more instruments may be combined, depending on the research questions.

The interview guidelines are employed as a researcher's guideline for conducting effective interviews. The researcher employs guidelines for interviews to gather information and analyse the implementation of Kahoot! as a digital game-based learning in MEP at Khamphee Wittaya School Yala, Bannang sata, Thailand. Whether there are strengths or weaknesses in using Kahoot! in acquiring English skills. To capture student speech during the interview process, a recorder is used. Furthermore, the documentation tools used by the researcher such as smartphone recorders/cameras capture the participants' speeches and support the interview process.

2. Data Collection Technique
    a. Observation

Observation is a method commonly used in qualitative research design. And in this research, the researcher uses naturalistic observations, which take place in the context of genuine (natural) situations where people are inseparably engaged in interactions[12]. As a result, this research observation

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[9] M. Clare Taylor, "Interviewing" *Qualitative research in health care* (2005): 39-55.

[10] M. Clare Taylor, "Interviewing".

[11] Sarasvathy, "Research Instruments.", p. 59.

[12] Sedarmayanti dan Syarifudin Hidayat, Metode Penelitian, *(Bandung: CV. Mandar Maju, 2011)*, p. 75 cited in Arifah Lutfiah Anggriani,

is a non-participant observation, meaning the observer is not a participant in the events being watched but instead watches them directly. In addition, the observer observes the situation, whether publicly or covertly, but does not participate. Observation is used the researcher to observe the learning process that takes place at Khamphee Wittaya School Yala, Bannang sata, Thailand, directly especially in the implementation of Kahoot! in MEP.

b. Interview

According to Taylor, interviews are the most commonly used data collection method in qualitative research, and they are divided into three types: structured, semi-structured, in-depth, and unstructured[13]. And in this research, the researcher uses semi-structured interviews to collect data, creating a list of guiding questions and follow-up questions that were created during the interview process[14]. According to Whitehead and Lopez, in semi-structured interviews, a list of discussion topics is provided by the interview guide[15]. The questions are designed to cover the research questions or objectives. However, the researcher is free to ask any questions in any sequence, go off on tangents, or ask for clarification on a previous response or for further explanation of a response. Semi-structured interviews, in other words, direct the interview while allowing for flexibility. The interview process is conducted after students have English classes and employ Kahoot! in the learning process. This is done

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"Efektivitas Pembelajaran E-Learning Masa Pandemi Covid-19 Pada Mata Pelajaran Bahasa Indonesia Kelas IX-IPS 2 SMA Al-Hasra Kota Depok Tahun Pelajaran 2020/2021," *UIN Syarif Hidayatullah, Jakarta*, 2020, 110.

[13] M. Clare Taylor. "Interviewing." *Qualitative research in health care. p. 39*

[14] Heriyanti Tahang et al., "Language Learning Strategies Employed by Gifted Children," *E-Journal Qalam* 7, no. 1 (2018): 56–65.

[15] Whitehead and Lopez, "Sampling Data and Data Collection in Qualitative Research Methods.", p. 128.

to make students more time and space in answering the research questions. This interview was done to find out the implementation of Kahoot! as a digital game-based learning in MEP class at Khamphee Wittaya School Yala, Bannang sata, Thailand, and also the strengths or weaknesses in using Kahoot! in acquiring English skills.

c. Documentation

The recording devices are utilized to capture the perspective and thoughts of students in using Kahoot! in MEP and make it simpler for the researcher to analyse the interview process. Furthermore, the documentation tools used by the researcher such as smartphone recorders/cameras capture the participants' speeches and support the interview process. Then, the data from the tape was transcribed by the researcher and translated into English. The researcher then evaluates the data and provides findings from the research.

E. Research Data Validity

The triangulation technique is used by the researcher to assess the reliability and validity of the research's data. In research, triangulation refers to the employment of multiple methods to examine a topic[16]. According to Turner et al., triangulation is a methodological strategy that uses many different research techniques to examine some problems[17]. When examining the same problem, Ashour continues the triangulation technique is a strategy that facilitates data validation by combining various research methodologies (data sources,

[16] Roberta Heale and Dorothy Forbes, "Understanding Triangulation in Research," *Evidence-Based Nursing* 16, no. 4 (2013): 98, https://doi.org/10.1136/eb-2013-101494.

[17] Scott F. Turner, Laura B. Cardinal, and Richard M. Burton, "Research Design for Mixed Methods: A Triangulation-Based Framework and Roadmap," *Organizational Research Methods* 20, no. 2 (2017): 243–67, https://doi.org/10.1177/1094428115610808.

evaluators, methods, or theories)[18]. Additionally, the researcher employs a variety of techniques, including documentation, interview, and observation, to obtain the data. Furthermore, the researcher double-checked the data obtained from the participants after using a variety of data-collection techniques by analysing the information's summary to catch any errors and validate the sources used.

F. Data Analysis Technique

The study data will be sorted into certain categories, and only the data required for analysis will be chosen. Finally, the researcher will conclude so that this research is easy to understand. To collect the data for this study, observations, interviews, and documentation were used. Data collection will be followed by data analysis. Activities for analysing qualitative data are done interactively and continue until all the data has been analysed. According to Miles and Huberman, data analysis entails three steps: data reduction, data visualization, and conclusion drafting or verification[19].

1. Data Collection

The first step in the research process is data collection. Data collection is the systematic gathering of information for a specific goal from a variety of sources, including interviews, focus groups, observation, recording, and electronic tools. In qualitative research, data collection usually takes place along with data analysis[20]. Furthermore, the data in this research were collected from interviews, observations, and documentations process from the participants in

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[18] Mohammed Lutfi Ashour, "Triangulation As a Powerful Methodological Research Technique in Technology-Based Services," *Business & Management Studies: An International Journal* 6, no. 1 (2018): 193–208, https://doi.org/10.15295/bmij.v6i1.209.

[19] Matthew B. Miles and A. Michael Huberman, "Drawing Valid Meaning from Qualitative Data: Toward a Shared Craft," *Educational Researcher* 13, no. 5 (1984): 20–30, https://doi.org/10.3102/0013189X013005020.

[20] Marylen Rimando et al., "Data Collection Challenges and Recommendations for Early Career Researchers," *Qualitative Report* 20, no. 12 (2015): 2025–36, https://doi.org/10.46743/2160-3715/2015.2428.

Khamphee Wittaya School Yala, Bannang sata, Thailand.

2. Data Reduction

During the research process, the data obtained must be reduced. According to Miles and Huberman, data reduction is the process of selecting, emphasizing simplification, abstracting, and transforming raw data that is obtained from field notes taken over the process of research or data collection[21].

Data reduction is a type of analysis that aims to organize, categorize, and focus data to facilitate researchers to provide reliable findings[22]. Data reduction happens after field research has gathered the required amount of data.

3. Data Display

The reduced results will be displayed by the researcher. To make the results of data reduction easier to understand, the organization and layout are simplified. Thus, data display defines as an organized collection of information that facilitates researchers in drawing conclusions and taking action[23]. Furthermore, by using the data display, the data is easier to understand, read, and organize, thus the researchers will be able to plan out future study activities. Numerous formats of data display including descriptions, narratives, charts, and others, can be used to present data.

4. Conclusion drawing/verification

The last step in data analysis is conclusion drawing and verification after the data has been displayed. In conclusion, the researcher could assess the data and make it easier to understand. Then, the conclusion of this research is how the implementation

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[21] Matthew B. Miles and A. Michael Huberman, "Drawing Valid Meaning from Qualitative Data: Toward a Shared Craft,", p.23.

[22] Adawiyah, "Efektivitas Pembelajaran E-Learning Masa Pandemi Covid-19 Pada Mata Pelajaran Bahasa Indonesia Di Sma Negeri 1 Batang Toru."

[23] Miles and Huberman, "Drawing Valid Meaning from Qualitative Data: Toward a Shared Craft.", p. 24.

of Kahoot! as a digital game-based learning that used in MEP in Khamphee Wittaya School Yala, Bannang sata, Thailand, and also the strengths or weaknesses in using Kahoot! in acquiring English skills.