

CHAPTER III

RESEARCH METHODOLOGY

This chapter examines the methodology used in research to find the information needed. This chapter comprises four main sections: research design, subjects, data collection procedures, and data analysis.

3.1 Research Design

The research design of this study is mixed-method research, most appropriately employing the sequential explanatory design. According to (Creswell, 2018, p. 67), mixed methods refer to the blending or integration of qualitative and quantitative research and data in a research study. Quantitative data typically contains closed-ended responses like those found on questionnaires or psychological instruments, but qualitative data typically has open-ended questions without predetermined answers.

In this study, the researcher initially used the sequential explanatory design to gather the quantitative data, followed by the qualitative data. Sequential descriptive design, as described by (Creswell, 2018), gathers quantitative data first, followed by qualitative data. Because the resultant word and numeric data are related, sequential explanatory reasoning is applied.

The aim of using the sequential explanatory design made researchers acquire a comprehensive understanding of the strengths and weaknesses of using Podcasts in the EFL-speaking classroom. In addition, strategies for addressing the Podcast's flaws, which might prevent pupils from developing their speaking abilities, are explored.

3.2 Research Subject

This study focused on college students enrolled in their third through eighth semesters. These pupils had used podcasts as a form of media before. The researcher uses purposive sampling in this study to get the sample. According to (Brazil et al., 2010), Purposive sampling is selecting a sample by considering a subject's dependence on the particular purpose rather than the level or location. Deliberate sampling involves choosing a sample based on the needs of the research. The purpose of the sample is to inform the selection of participants. The study's requirements are taken into account while selecting participants. English Education Department Program students are at the University of Muhammadiyah Malang in 2020-2022. Thus, the number of participants was 32 students to complete the questionnaire. Students are

selected based on their participation in the Podcast. In this case, students can use the Podcast as a listener or podcaster. Meanwhile, six participants participated in the interview session based on more profound knowledge and participation in the Podcast.

3.3 Data Collection

In mixed-method research, the data collection techniques used were closed questionnaires and unstructured interviews.

Data collection will use two instruments: a close-ended questionnaire and an unstructured interview to achieve the research objectives. The following steps are the data collection procedure.

First, the questionnaire will be distributed via Google form on 25th November 2023. Each class group received the same questionnaire link. Because this research study uses a closed-ended questionnaire, participants can provide answers according to available choices. Then, after reaching the target participants, a questionnaire analysis was used to find six students who were allowed to participate in the interview.

Second, the six respondents were allowed to participate in the interviews conducted on different sections of each other. The interview was held from 11 until 15 December 2023.

3.3.1 Technique and Instrument

The researcher gathered the primary data for this study. According to (Ajayi, 2017), Primary data sources include questionnaires, personal interviews, observations, experiments, and surveys. The primary data for this study will be collected from questionnaires and personal unstructured interviews with the subjects of this research.

This research also uses a closed-ended questionnaire. This type is suitable for the topic of the study, which asks about the strengths and weaknesses of podcasts in speaking class. Using this type of question, the students' opinion towards using podcasts in speaking class can measure the strengths and weaknesses and maximize people's freedom to respond to the questionnaire constructed on a Likert Scale. According to (Bertram, 2007), the Likert scale is a psychometric response scale generally employed in surveys to measure participants' preferences or levels of agreement with a proposition or collection of statements.

Additionally, the questionnaires adapted from unpublished research of (Astuti, 2023) the title "EFL Students' Perceptions of Blended Learning in English Language Course: Experience and Involvement". The question items addressed to students are

related to giving learning experience, student involvement, appropriate as the learning media, perception, and involvement. Each statement in the questionnaire will receive a score. There are four predetermined answers with a scale of 1-5 suggested by Likert Scale.

Options	Scores
Strongly Agree	5
Agree	4
Fair	3
Disagree	2
Strongly Disagree	1

Table 3.1 Option and Scores

Note: The options and scores for positive and negative items

Second, this research used the unstructured interview. This type is suitable for the topic of the study that asks the student's opinion on the use of podcasts in speaking class as well as the strengths and the weaknesses. A Smartphone recorded the data from the interview. Data analysts transcribed the interview recording for analysis. The next step was interpreting the data on the study's research questions. The strengths and weaknesses of using podcasts in a speaking class are exploring using this type of question.

3.3.2 Research Procedure

In this study, data from many methods are combined using a mixed sequential method technique. (Creswell, 2018) implemented this technique in two stages: they implemented quantitative data analysis. The first stage collects and analyzes quantitative data in answering the problem formulation. That was to know the strengths and weaknesses of integrating Podcasts as a medium of speaking skills at the University of Muhammadiyah Malang. Research subjects were distributed the questionnaires to conduct quantitative data collection.

In addition, we investigated the qualitative data collected for use in considering participant interviews. Participants were purposely chosen and asked about the strengths and weaknesses of using podcasts to learn speaking skills. Those who are willing to participate will receive interview requests for students. In addition, the interview data will gather the questionnaire information.

3.4 Data Analysis

A concurrent mixed method will be used for data analysis. The concurrent mixed approach is a data analysis technique that concurrently integrates quantitative and qualitative methodologies, according to (Creswell, 2018). Data reduction, data visualization, conclusion, and verification drawing are all aspects of data analysis. The questionnaire results helped calculate how often each factor appeared. Thus, we generally know the factors that dominate each category. Then, the data from the G-form results will be sorted and focused according to the research objectives. The second step is presenting data in bar charts and statements from participants. The third step is concluding and verifying. Here are the steps of data analysis:

1. Data reduction

Data collection, namely data obtained from surveys on g-form. Google Forms collected data from 30 November to 10 December 2023. Then, the data were analyzed using a statistical data collection technique with a portrait data analysis model, calculating each factor's frequency value. Thus, we will generally know the factors that dominate each category. Here is the formula used.

$$\Sigma F\% / \Sigma N\% \times 100\%$$

Information: $\Sigma F\%$ = total percentage frequency
 $\Sigma N\%$ = number of subjects/participant.

The second data reduction stage is qualitative data analysis after the interview. The interview was held from 11 until 17 December 2023 via WhatsApp with voice notes from the six participants. Researchers asked permission to record all activities they carried out during the interview. Then, they recorded the interview findings in detail and summarized them. They then transcribe and code the data to ease the appropriate data analysis.

2. Data visualization:

A bar chart will display the quantitative data in this study. Data is displayed using pre-existing categories. Quantitative data is not only converted into a bar chart but also into a description. As a result, data analysis became more accessible.

Improve participant remarks on numeric data and qualitative data will be provided. Additionally, the remarks will be on each category. At this point, we will compare the reduced and original data. Ensure the processed data matches the original data and has the same values.

3. Data conclusion and verification:

The last section of the data analysis will combine results from both data sets. There will be a detailed explanation of how the two pieces of data relate to each other for every piece of data. That will address experiences and elements affecting students' blended learning participation.

