

CHAPTER III

RESEARCH METHOD

A. Research Design

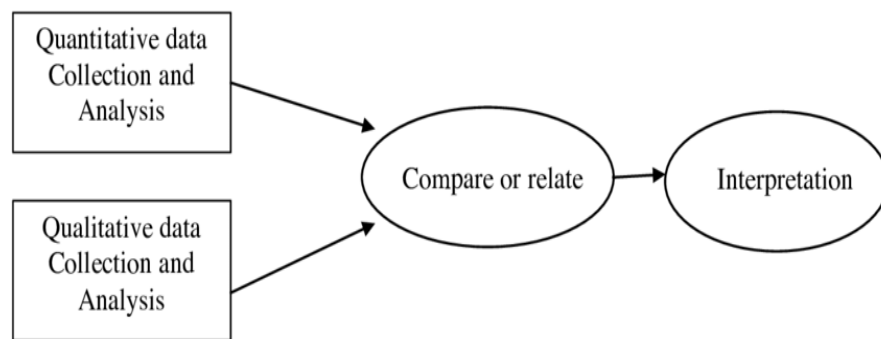
The researcher used the Convergent Mixed Methods Design as the research design. The researcher used mixed methods because this research will combine quantitative and qualitative analytical procedures in response to the research questions. Mixed methods are chosen because they can draw on both qualitative and quantitative research while minimizing the limits of both approaches (Creswell & Creswell, 2018). Mixed-method research provides more meaningful answers to complex research problems and a more thorough and complete explanation of phenomena than single-method approaches (Cohen, Manion, & Morrison, 2018). Mixed methods integrate or combine research questions from quantitative and qualitative methodologies to help the researcher understand the complexity of the subject being investigated (Creswell & Creswell, 2018).

The researcher used a convergent mixed methods design to describe the research problem in-depth; to achieve this, the researcher will cover quantitative and qualitative data to analyze the research questions comprehensively. With this design, the researcher typically gathers both types of data simultaneously and incorporates the data in interpreting the overall findings. In this design, contradictions or inconsistent results are explained or further investigated.

Therefore, the researcher will use the convergent mixed methods design to conduct the research relevant to the boarding school students' perceived impact of grammar competence in spoken English. The results will be described by merging quantitative results with qualitative results data collection and analysis.

In this single-phase methodology, a researcher gathers both quantitative and qualitative data, examines each type separately, and compares the findings to determine whether they prove or disprove one another. See Figure 3.1.

Figure 3. 1 Convergent Design



The steps of convergent mixed-methods design:

1. Data Collection and Analysis

Quantitative data was obtained from grammar and speaking tests, and qualitative data obtained from interviews and observation. The researcher collected several data from both quantitative and qualitative at this step.

2. Analyze

At this step, the researcher analyzed both quantitative and qualitative data collection separately.

3. Merge results

To merge the data, the researcher used side-by-side comparison. The researcher first presents both quantitative and qualitative results and then followed by describing how quantitative and qualitative confirm or disconfirm results.

4. Interpretation

The researcher wrote the interpretation of convergent approach into a discussion section of the study.

B. Research Setting

This study took place in Darul Hijrah Islamic Boarding School for Female located in Batung, Cindai Alus, Martapura, South Kalimantan. The researcher conducted this study for about two months, from January 18th, 2023 until March 18th, 2023. The researcher chose this place because they use English for daily conversation in the dormitory and class. Then the researcher felt that she had to find out the perceived impacts of grammar competence in spoken English, the challenges of applying grammar in speaking, and the contributing factors that encourage the ability to use grammar in speaking.

C. Participants / Subject

Because the use of the English language is the obligation for all students of Darul Hijrah Islamic Boarding School for Female. Because eleventh grade students is considered to have mastered English properly and correctly. As a result, the

researcher chose two classes from the eleventh grade where the number of students is 53 students to participate in this research.

D. Data

Data is used to gather the information that is then analyzed and interpreted. In this research, the data comes from tests, observation, and interviews about the students' perceived impact of grammar competence on speaking ability, the challenges of applying grammar in speaking, and the contributing factors that encourage the ability to use grammar in speaking at Darul Hijrah Islamic Boarding School for Female. The researcher obtained the data source from testing students' grammar competence and speaking ability to determine the students' perceived impact of grammar competence on speaking ability. Also, the researcher observed students' daily conversations and then interview several students and the English teacher about their challenges and contributing factors that encourage the ability to apply grammar in speaking.

E. Technique of Data Collection

Because the researcher used a Convergent Mixed-Methods design for this research, the researcher combined and integrated quantitative and qualitative methods. So, the researcher collected the data through tests, observations, interviews, and documents.

1. Test

(Cohen, Manion, & Morrison, 2018) explained that tests could cover a variety of topics, including an achievement (what a person can do or know), diagnosis (where a student's strengths and weaknesses are), aptitude (what the student is skilled at doing), proficiency, performance, speed, and other topics. Tests can be used to compare students and determine whether a student has met a specific fixed criterion, such as mastery tests, speed tests, power tests, and more. The researcher did a grammar test and a speaking test to determine whether the results of grammar tests always equal the speaking results.

2. Observation

Tuson (2003) highlighted that observation implies more than just looking at something. It involves observing and recording (often in a systematic way) people, events, behaviors, locations, routines, and so on. The researcher used observations to obtain data for answering the research question about the challenges of applying grammar and the contributing factors that encourage the ability to apply grammar in speaking. (Creswell & Creswell, 2018) mentioned that observation collected information by monitoring the sample at the research site. Kawulich (2012) said that observation would help to guide and identify the relationships between the informants and the researcher; also, observation will help you to learn how participants in the setting interact and how things are organized and given priority in that setting. Based on the research, the purpose

of this observation may help the researcher find the answer to challenges and contributing factors to the ability to apply grammar in speaking. Also, to help the researcher collect more data organized, the researcher develops an observation guide. The observation guide that the researcher will use is a checklist. By listing students' challenges and contributing factors to applying grammar in speaking, the researcher can focus on what occurs instead of trying to record everything. This type of observation will enable the researcher to mark the challenges and contributing factors that encourage the ability to apply grammar in speaking during observations.

3. Interviews

The researcher conducts interviews to gain information about the challenges and the contributing factors that encourage the ability to apply grammar in speaking at Darul Hijrah Islamic Boarding School for Female. (Cohen, Manion, & Morrison, 2018) explained that an interview has specific purposes, such as to obtain evidence or data or information by question-based the interviewer asking questions, the interviewer shows ignorance to the interviewee; also, the answer must be as clear and as exact as possible.

4. Documentation

Documentation is what the researcher gets from the process of observation and interviews. By combining the results of interviews and observation data, the researcher can gain more detailed information.

F. Research Instruments

The primary purpose of this research is to reveal the students' perceived impact of grammar competence in spoken English, either positive or negative. The research participants are 53 students of eleventh-grade at Darul Hijrah Islamic Boarding School for Females. The research instruments employed in this current study are listed below. The researcher conducted grammar and speaking tests, in-depth interviews, and classroom observations.

1. Test

Barkman (2002) mentioned that tests are generally used for knowledge-based questions. Knowledge-based questions offer choices such as correct vs. incorrect or accurate vs. inaccurate.

The researcher used a test-type instrument to collect quantitative data for this research. This test is a grammar test and a speaking test. This test's result will determine whether the results of grammar tests always equal the effects of speaking.

Researchers used tests to measure student learning outcomes after experiencing the teaching-learning process. In this test, researchers used ability tests. This test aims to see whether the results of the student's grammar and speaking tests are the same as the results of their interviews. Researchers also use test results (quantitative) to build on interviews and observations (qualitative) results.

Prior to conduct the test, the researcher has carried out index difficulty, validity, and reliability of the test.

2. Interview

The type of this interview is the semi-structured guide approach. This type of interview is flexible and allows the interviewee to provide more information than the others. This form of interview is neither too rigid nor too open. The interview items were designed based on a careful analysis of the former test of grammar conducted in the quantitative stage of this mixed methods research design. The researcher will attach interview guideline in the appendix.

3. Observation

The observation guide that the researcher will use is a checklist. By listing students' challenges and contributing factors to applying grammar in speaking, the researcher can focus on what occurs instead of trying to record everything. This type of observation will enable the researcher to mark the challenges and contributing factors that encourage the ability to apply grammar in speaking during observations. The observations guideline will be attached at the appendix.

G. Data Analysis

The researcher analyzed the data obtained from the convergent mixed-methods design to answer the research questions. Johnson and Onwuegbuzie 2004 mentioned that there are seven steps of data analysis in mixed methods design:

1. Data Reduction

The researcher analyzed the quantitative and qualitative data separately in the first step. The researcher analyzed the quantitative data simultaneously during the data collection process. Thus, the quantitative results are then used to plan the qualitative follow-up.

2. Data Display

The researcher describes the quantitative data and qualitative data visually. This step helped the readers conduct the research more controllable and kept the researcher on this research procedure.

3. Data Transformation

This transformation allowed the researcher to analyze the quantitative data qualitatively and represent the qualitative data statistically.

4. Data Correlation

The researcher correlated quantitative data with qualified data.

5. Data Consolidation

The next step is combining quantitative and qualitative data to create new or consolidated variables or data sets.

6. Data Comparison

After the consolidation step, the researcher compares data from the quantitative and qualitative data sources.

7. Data Integration

The last step the researcher needs to conduct in mixed methods data analysis is integrating quantitative and qualitative data into an evident whole.

The more detailed instruments matrix and the information required for this convergent mixed methods study are shown in table 3.1 below. It contained number of research questions, data collection technique, research instruments, participants of the research, investigated data, research design, and data analysis techniques.

Table 3. 1 The Matrix of The Research Instruments and Data Analysis Techniques

No of RQ	Data Collection Technique	Instruments	Participants	Investigated Data	Design	Data Analysis Technique
1	Test, Interview	Questions of Grammar test sheet, Interview Guideline	Students of Eleventh Grade	Perceived Impacts of grammar competence on speaking ability	<ul style="list-style-type: none"> • Quantitative • Qualitative 	<ul style="list-style-type: none"> • Descriptive statistics • Interactive model of data analysis
2	Interview, Observation	Interview Guideline, Observations Guideline	Students of Eleventh Grade	The Challenges of Applying Grammar in Speaking	<ul style="list-style-type: none"> • Qualitative 	<ul style="list-style-type: none"> • Interactive model of data analysis
3	Interview, Observation	Interview Guideline, Observation Guideline	English teacher and Students of Eleventh Grade	Contributing factors that encourage the ability to apply Grammar in Speaking	<ul style="list-style-type: none"> • Qualitative 	<ul style="list-style-type: none"> • Interactive model of data analysis