

CHAPTER III METHODOLOGY

A. Type of Research

This study employs a mixed-methods approach, blending qualitative interviews with quantitative survey data to enhance the validity and comprehensiveness of the findings. This approach allows for a more integrated analysis, leading to stronger and more confident conclusions (Finne et al., 2020). This study employs a mixed-methods approach, which combines qualitative interviews and quantitative survey data in order to improve both the depth and breadth of the findings. By integrating qualitative insights, which provide a detailed understanding of individual experiences and perspectives, with quantitative data that offers statistical analysis, this approach not only strengthens the overall validity of the study but also enables a more comprehensive and nuanced interpretation of the research questions.

In analyzing the qualitative data, this study employs Descriptive Analysis, which focuses on systematically describing and summarizing the collected data without deep interpretation. This method allows the researcher to present an objective account of how Differentiated Instruction (DI) is implemented, the challenges teachers face, and their perceptions of DI application. By utilizing Descriptive Analysis, the study

ensures that qualitative findings are clearly structured, making it easier to compare with the quantitative results for a more holistic understanding of the topic.

B. Place Of Research

This research was conducted at Vocational High School 4 of Kepahiang City for the following reasons:

1. This school implements differentiated learning in its teaching practices, making it relevant to the focus of the study.
2. The school has a diverse student population with various learning styles, which aligns with the research objective of exploring differentiated learning.

The subjects of this study are EFL (English as a Foreign Language) teachers who have experience in implementing differentiated instruction in their teaching practices. These teachers are selected based on their knowledge and practical application of differentiated instruction, ensuring that their perceptions provide valuable insights into the research objectives. This study employs purposive sampling, a non-random sampling technique commonly used in qualitative research to select participants who can provide rich information related to the research focus. As stated by Creswell & Plano Clark (2011 in Palinkas et al., 2016), "This involves identifying and selecting individuals or groups of individuals that are especially knowledgeable about or experienced with a phenomenon of interest." By using purposive sampling, the study ensures that the

selected EFL teachers have relevant expertise and firsthand experience with differentiated instruction, allowing for in-depth exploration of their perceptions.

C. Data Sources

This study's data sources include:

1. Primary Data: Information collected directly from the source by the researcher is referred to as primary data. Focus group discussions (FGD), observations, and interviews are a few methods for gathering primary data. Data is collected in a natural environment (real-life situations) in qualitative research. In-depth interviews and interactive observation are frequently the mainstays of primary data sources and collection methods . (Sugiyono, 2013 in Rizky Fadilla & Ayu Wulandari, 2023). Primary data is data collected directly by the researcher from the first source. In this study, primary data was obtained through in-depth interviews and direct observations. The interviews were conducted with EFL (English as a Foreign Language) teachers who teach 11th-grade students from different majors, with a total of two participants: two male teachers. Participants in this study were two male EFL teachers who had implemented differentiated instruction at the same school. The first participant Teacher 1 is a male English teacher who is 39 years old. He has 17 years of teaching experience and has been implementing differentiated instruction for 3 years. In addition to his role as an English teacher, he also serves as the Vice Principal of Quality Assurance

at the same school and is recognized as a *Guru Penggerak* (Teacher Leader), actively contributing to the advancement of innovative teaching practices in his institution. The second participant Teacher 2 is a male English teacher who is 44 years old. He has been teaching at the vocational high school (SMK) level for 13 years and has implemented differentiated instruction for approximately 3 years. Teacher 1 and Teacher 2 was selected based on his extensive teaching experience, his role as an English teacher, and his active involvement in differentiated learning strategies. Both participants were selected based on their experience in English language teaching, their implementation of differentiated instruction, and their willingness to participate in this study by signing a consent form.

2.Data Sekunder: This type of data is obtained from the research object in a non-long-term manner. Researchers collect data that has already been collected by other people using a variety of methods , whether in a commercial or noncommercial setting. A variety of sources, including Biro Pusat Statistik (BPS), books, journals, laporan, and other sources, can provide secondary data. Data collection can be done by observation or documentation. (Rizky Fadilla & Ayu Wulandari, 2023). In addition to primary data, this study also utilizes secondary data obtained from various existing school documents. The secondary data in this research includes curriculum and syllabus documents, Lesson Plan (RPP), student learning outcome reports, and teacher

observation records related to the implementation of differentiated learning. Additionally, school policy documents on learning strategies and internal school research journals or articles are also used to support the analysis. This data provides a broader context on how differentiated classes are implemented in the school environment and supports the findings from the conducted interviews and observations

D. Data Collection Method

1. Qualitative

a. Observation is the act of observing and automatically recording a condition/phenomenon that is being observed. (Auliya, N. H. et al., 2020 in Haryono, 2023). One technique for gathering data is observation, which is seeing a situation or phenomena directly and systematically documenting it. To guarantee the accuracy and uniformity of the data gathered, this procedure is frequently carried out automatically, either with the use of tools or Specialized technology. This method makes observation a crucial research stage since it gives investigators measurable, objective information about the thing being observed.

b. An interview is a conversation in which the interviewer asks the interviewee questions in order to get information. Structured interviews, unstructured interviews, and combination interviews are the three types of interviews. An interview that is structured involves the interviewer presenting a list of deep

and comprehensive questions. Free-form questions are used in an unstructured interview, which still focuses on the material that has to be analyzed. Combining structured and unstructured interviewing techniques results in a combination interview. (Jipto, 2006 in Haryono, 2023)

c. Documentation refers to documents such as books, magazines, journals, articles, minutes, reports, notes, videos, photos, images, and others, whether in print or digital. (Sugiyono, 2019 in Haryono, 2023). Data collection through the use of various printed and digital document kinds is known as documentation. Books, publications, journals, articles, minutes from meetings, reports, notes, and visual materials like images, videos, and pictures can all be considered documents. Documentation is an efficient method for finding suitable information for research or study using these many sources.

2. Quantitative

a. Questionnaire will be used to gather quantitative data on teachers' perceptions of differentiated instruction. The questionnaire will include Likert-scale items to measure teachers' agreement or disagreement with various statements regarding differentiated instruction.

E. Data Analysis

1. Quantitative

The data obtained from the questionnaire will be analyzed using descriptive statistics. To analyze the quantitative data, calculations will be conducted by determining the frequency of each response selected by the respondents.

In, each response in the questionnaire will be assigned a score using a Likert scale, where, for example, "Strongly Agree" is given a score of 5, "Agree" is given a score of 4, "Neutral" is given a score of 3, "Disagree" is given a score of 2, and "Strongly Disagree" is given a score of 1.

To analyze the overall tendency of respondents' perceptions, the average score of each statement will also be calculated using the following formula:

The average is used to calculate each statement.

Average Score = (Total score of all respondents / Total number of respondents)

The average is used to calculate the overall total.

Average total = (total score of all statement averages / number of statements)

With this approach, in addition to understanding the distribution of responses, the analysis can also reveal trends in teachers' perceptions of the implementation of Differentiated Instruction (DI) through the calculation of the average score. For instance, if the majority of respondents select "Agree" or "Strongly Agree,"

the average score will be high, indicating that teachers have a positive perception of Differentiated Instruction. Thus, this method provides a clearer and more quantitative picture of teachers' perceptions of Differentiated Instruction implementation.

2. Qualitative

(Miles dan Huberman 2019) stated that qualitative data processing methods or techniques can be carried out in three stages: data reduction, data display, and conclusion drawing/verification.

a. reduction of data

Field data is often more vast and less structured than quantitative data. As a result, data reduction includes summarizing, selecting out the most important data, focusing on the most significant elements, seeing patterns and themes, and eliminating unnecessary information.

b. data display

Presenting the data in a way that is clear comes next once it has been reduced. Using well-formatted tables, graphs, charts, pictograms, or other such tools may be enough.

c. Verification/conclusion drawing

According to Miles and Huberman, developing conclusions and verifying them is the third step in the study of qualitative data. The preliminary findings are subject to modification in the event that compelling evidence is found

during more data collection phases. However, the conclusions reached can be considered as genuine if the researcher returns to the field to gather data and finds reliable and consistent evidence.

F. Data Validity

1. Quantitative

a. Validity test

The validity test is a feasibility test. A research instrument that has been declared valid means that the instrument can measure the variable that is intended to be measured (Sugiyono, 2014).

2. Qualitative

One way to address such uncertainty, according to (1985 in Ummah, 2019) is by establishing standards for the validity of qualitative research data. They proposed several criteria to ensure the validity of qualitative data, which include the following.

a. credibility standard

This guarantees that the study's findings are quite accurate and in line with the available data. In order to do this, researchers can increase their level of field participation, carry out thorough and ongoing observations, explore deeply into the phenomenon, use triangulation (methods , content, and process), have peer discussions, examine negative cases, and make sure that the analysis results are consistent and comprehensive.

b. Transferability stand

The research report's readers evaluate this criterion. If the readers comprehend the research focus and content clearly, the research result is considered highly transferable.

c. Dependability standard

This standard includes assessing the researcher's accuracy in consistently interpreting the data. The research is regarded as quite reliable due to the researcher's constancy throughout the entire process.

d. Confirmability standard

By examining and verifying (checking and auditing) the quality of the study findings, this standard makes sure that the conclusions are genuinely based on the field. Usually, the dependability audit is carried out concurrently with the confirmability audit.

3. Triangulation Data

To ensure the validity of the data, the researcher applied methodological triangulation and source triangulation as part of the research strategy.

a. Methodological Triangulation:

This type of triangulation was carried out by employing three different data collection techniques: questionnaire, interview, and observation.

The questionnaire provided quantitative data that measured teachers' perceptions of Differentiated Instruction.

The interviews offered deeper insights into the teachers' experiences and understanding of the teaching approach.

The observation was used to directly observe the implementation of Differentiated Instruction in the classroom setting. By using these three methods, the researcher was able to compare and cross-check the information obtained from different perspectives. This process helped to minimize bias and avoid potential misinterpretation, ensuring that the data collected was accurate and reliable.

b. Source Triangulation:

Source triangulation was conducted by comparing the data collected from two different participants, both of whom were English teachers teaching at the same school. This approach aimed to identify any similarities or differences in their perceptions and practices of Differentiated Instruction. By examining the consistency of their responses, the researcher could validate the findings and enhance the credibility of the research. Through the application of these two types of triangulation, the researcher intended to produce data that was not only accurate and consistent but also trustworthy, supporting the validity of the research findings.

c. Research Stages

Sudarwan dalam (Sidiq, Choiri and Mujahidin, 2019 in Sofiyana et al., 2022) argues that research is generally divided into six Specific stages. However, in practice, many do not follow these six stages. The stages are as follows:

1. Identifying the research problem used to identify the research challenge

A variety of questions, such as the issue's depth, supporting availability, educational background, the potential utility of the

anticipated findings, and other relevant factors, can be used to identify the research challenge.

2. Collecting Relevant Materials

The researcher must choose materials or literary sources for this stage that are actually relevant to or related to the issue selected in the previous phase.

3. Determining Strategy And Developing Instruments

Choosing the research approach that will be used is part of this step. It also includes the creation of the tools that will be used during the study. Due to the variety of the research techniques and the fact that the data being sought is qualitative in nature, fixed equipment are not necessary in qualitative research.

4. Collection Of Data

Primary data as well as additional supporting data are gathered at this phase. Open, structured, or a combination of interviews, open, closed, or a combination of questionnaires, document studies, and observation are the usual methods used to collect data.

5. Data Interpretation

Analyzing and summarizing the field research findings is part of this step. It is necessary to analyze the discovered data in a precise, rational, and systematic way. To produce an understandable and rationally sound description, the analysis of the research findings must be significant, complete, and Specific.

6. Reporting The Research Findings

The research report must be prepared at this point. The research findings should be presented in detail in the report, together with an easily understandable summary for the reader. The research findings should ideally be published as a scientific journal in addition to being presented in a report.