

CHAPTER III

RESEARCH METHOD

A. Research Design

This research is a mixed methods study, a research stage that combines two approaches: qualitative and quantitative. According to Creswell (2009) mixed research is a combination of qualitative and quantitative research approaches. Meanwhile, according to Sugiyono (2011), The combination of qualitative and quantitative approaches in research activities is known as mixed methods. Using this technique can produce more reliable, valid, objective, and comprehensive data.

To answer the research questions in the previous chapter 1, the researcher used a mixed method approach, the researcher used a quantitative approach to answer the first research question and for the second research question the researcher used a qualitative approach. To understand the impact of the influence of English tutorial videos in providing improvements in the vocabulary skills/mastery of class XI IPA students at Madrasah Aliyah Negeri 4 Ngawi

In conducting this research, the researcher used a quasi-experimental method. Using experimental research is a powerful form, especially in measuring things related to cause and effect. The data used to analyze quantitative approaches is data in the form of numbers. According to Sugiyono (2014), the experimental research method is used to examine the effect of certain treatments on others under controlled conditions.

The data used from researchers in this quasi experiment research method was taken using a questionnaire. Sugiyono (2017) explains that the questionnaire method is a series of written questions and statements aimed at respondents so that respondents can provide answers

to form a form of data collection. There are two types of questions in the questionnaire, the first is open-ended questions that require respondents to provide their answers by choosing one answer from the options that have been prepared for each question item. Meanwhile, the second is closed questions through questionnaires usually require responses that state a nominal, ordinal, interval, or ratio.

Researchers use quasi-experimental methods because researchers want to see the extent of the influence of The Influence of TikTok English tutorial videos in Increasing Vocabulary skills/development of students in XI IPA class Madrasah Aliyah Negeri 4 Ngawi, while qualitative data uses qualitative descriptive research. Research, descriptive qualitative research is intended to describe and describe existing phenomena, both natural and humanmade, which pay more attention to the perspectives of students in TikTok English tutorial videos. In addition to this, descriptive research does not provide treatment, manipulation or change in each of the interview indicators studied, but describes a condition that is as it is and real. By using observation, interview and documentation techniques so that researchers get results in research.

B. Hypothesis of the study

Based on the formulation of the problem and the objectives of the study, the hypothesis of this research is formulated as follows:

- **(H₀):** There is no significant influence of TikTok English tutorial videos on the vocabulary skill of students in XI IPA Class at MAN 4 Ngawi.
- **(H₁):** There is a significant influence of TikTok English tutorial videos on the vocabulary skill of students in XI IPA Class at MAN 4 Ngawi.

C. Setting and Time and Place

This research was conducted at MAN 4 Ngawi, located in Ngawi Regency, East Java, Indonesia. It was scheduled from April 18 to May 11, during which researchers conducted all stages of the study, starting from administering a pre-test, conducting a learning treatment using English TikTok tutorial videos, and finally administering a post-test to collect the necessary data. This period during the research process was considered sufficient to observe the treatment and evaluate students' vocabulary development.

D. Population and sample

a. Population

In a study, of course, there is a population that will be used as research material. This is conveyed, according to Sugiyono (2017) A general area of objects or subjects that have specific characteristics determined by researchers for drawing conclusions and observations is called a population. So, there is a conclusion, population refers to the entire group of objects or subjects being studied that have the qualities and characteristics observed by researchers for analysis.

b. Sample

The sample is part of the population. According to Munandar (2023) the sample is determined by the researcher by considering several things, namely by considering the problems faced in a study, the objectives to be achieved in a study, the research hypothesis made, the research method and the instrument of a study

the researcher choose a group that exists in the population at XI IPA Class MAN 4 Ngawi . The populations of eleventh grade students of MAN 4 Ngawi are 150 students. XI

IPA class as sample with the consideration that class XI IPA has a representative nature (representative) of the population.

The researcher took a sample of class XI IPA man 4 Ngawi the total of IPA 1 students is 26 people , and IPA 2 students 26 people so the total number of samples in kelas XI IPA is as many as 52 students

c. Sampling

The sampling technique used in this study was purposive sampling. According to Sugiyono (2013) Selecting data sources based on specific considerations is the use of purposive *sampling techniques*. This sampling technique aims to select groups of subjects based on specific characteristics believed to be related to the nature or characteristics of the population being studied. So they only need to connect sample units based on certain criteria.

With consideration of the XI science class student respondents at MAN 4 Ngawi

E. Data Collection Technique

To get data on student perceptions in learning by using TikTok, this research uses 2 instruments, namely questionnaire and domentation.

a. Questionnaire

The questionnaire items were developed based on the theory of perception proposed by McDonald (2012), who stated that perception can be understood as the process by which a person captures, interprets stimuli, and gives meaning to experiences and various information that they have received, which is greatly influenced by previous responses and experiences.. In this study, students' perceptions were categorized into several indicators, including: students' interest in learning vocabulary through TikTok, students' motivation during learning activities, perceived

usefulness of TikTok videos, ease of understanding vocabulary through audiovisual content, engagement and enjoyment during learning, effectiveness of TikTok in helping vocabulary retention,

The questionnaire consists of 15 closed questions using 5 questions referring to a five-point Likert scale, consisting of: first strongly disagree, second disagree, third neutral, fourth agree and the last fifth is strongly agree

Table 3.1. Indicator of Perception

Indicators of Perception	Statement Numbers
Perceived usefulness of TikTok for vocabulary learning	2, 3, 8, 15
Perceived effectiveness in improving vocabulary mastery	4, 5, 6, 12
Perceived ease of learning vocabulary through TikTok	7, 10, 14
Perceived comprehension and understanding of vocabulary	9, 11, 13
Perceived control and confidence in vocabulary learning	1

The researcher used a closed questionnaire in this study. That is, respondents simply answered by marking or selecting one of the answers they considered appropriate, which had been prepared beforehand. The researcher used an instrument to collect and process the questionnaire from a list of questions, which was then arranged to receive information directly from the respondents.

b. Documentation

During the learning process, the researcher used documentation techniques to obtain both visual and written data related to the use of English video tutorials from the TikTok application, through pre-tests and post-tests. Data were taken from the documentation and also from several other things, namely learning activity notes, photos of activities in class, interview transcripts, questionnaire results, and learning materials used throughout the treatment process.

According to Sugiyono (2018) Documentation is the use of techniques to collect data and information by utilizing various sources in written and visual forms such as archive books, documents, images and written figures that are related and can support research. Through the use of this technique, researchers can obtain relevant information as material that can support explaining and strengthening data from research. The documentation also helped the researcher to describe the learning process more clearly and systematically. In addition, the collected documents were used to support the analysis of both quantitative and qualitative findings in this study.

Through the explanation above, researchers can conclude that documentation is a data collection technique carried out by recording various written and visual data and collecting various related materials. which is defined from documentation related to the problem studied by the author on The Influence of TikTok English Tutorial Videos in Increasing Vocabulary Skills of Students' in XI IPA Class Madrasah Aliyah Negeri 4 Ngawi.

c. Test

By conducting a test, quantitative data can be obtained on students' vocabulary mastery levels before and after using TikTok English tutorial videos. The main objective of this test is to understand the impact of meaningful improvements in students' vocabulary acquisition after

receiving treatment. After conducting the test, it can be used to develop research questions related to the influence of TikTok English tutorial videos on students' vocabulary learning achievement.

Pre Test

The test was conducted to determine the level of Students learning outcomes before using of TikTok English Tutorial Videos, the test consisted of 10 multiple-choices and 10 essay question about TikTok English Tutorial video.

Treatment

- a. The teacher perform a video from TikTok that English tutorial videos and command the student to paying attention to TikTok English tutorial videos
- b. The teacher asked the students to recite and memorize the word
- c. The teacher asked every student then the teacher gives a explanation from the meaning of vocabulary in TikTok English tutorial video

Post test

The test was conducted to determine the level of Students learning outcomes before using of TikTok English Tutorial Videos, the test consisted of 10 multiple-choices and 10 essay vocabulary from TikTok tutorial english videos

The vocabulary tested in this research focused on English words and expressions related to money management, such as budgeting, saving, spending, income, expenses, debt, investment, financial planning, allowance, and transaction. These vocabulary items were selected because they

frequently appeared in the TikTok English tutorial videos used during the learning process and were considered relevant to students' daily life contexts.

Before providing participants with these materials, the researcher first validated the test instrument to achieve an accurate level in measuring students' vocabulary mastery. In this test, the researcher used the Pearson Product Moment Correlation method using SPSS version 22 software. Each item was analyzed by comparing the r-count value with the r-table value at a significance level of 0.05. Items with r-count values higher than the r-table value and significance values lower than 0.05 were considered valid.

In addition, the reliability of the instrument was tested using Cronbach's Alpha to examine the internal consistency of the test items. The reliability analysis showed that the instrument achieved an acceptable reliability coefficient, indicating that the test items consistently measured the same construct. Therefore, the vocabulary test was considered valid and reliable to be used as the instrument for collecting quantitative data in this research.

F. Data Validity

a. Qualitative Data Trustworthiness

To ensure that this research is conducted based on scientific nature and obtains accountable data, researchers also conduct tests for the accuracy of the data. According to (Sugiyono, 2007) when conducting qualitative research, data accuracy testing includes four main aspects, namely credibility, transferability, dependability, and confirmability. Thus, data accuracy testing is also an important step for the results of qualitative research to be scientifically recognized.

a. Credibility

To ensure the credibility of the qualitative data, the researcher applied data triangulation by comparing the results obtained from interviews, documentation, and

students' vocabulary test results. The researcher also conducted member checking by confirming several interview results with the participants to ensure that the interpretations matched the students' actual opinions and experiences. In addition, the researcher spent sufficient time during the observation and treatment process in order to understand the classroom situation and students' responses toward the use of TikTok English tutorial videos.

b. Transferability

To address the transferability aspect, the researcher provides a more in-depth and comprehensive overview of the research setting, the students involved, the steps of the learning activities, the treatment, and the steps in collecting data. This researcher conducted the research in class XI IPA of Madrasah Aliyah Negeri 4 Ngawi, involving 52 students. In detail, the researcher can explain the process of using English tutorial videos from the TikTok application during the learning process. With a detailed context, other researchers are expected to be able to understand the characteristics of this study and review the results that can be applied to similar academic situations .

c. Dependability

To ensure the dependability of the research, researchers ensure consistency throughout the documentation of each step in a well-organized manner. Documentation also includes study planning, instrument development, data collection, treatment, and data processing. All procedures for findings and research are constantly monitored to ensure consistency and accuracy throughout the research process.

d. Confirmability

In achieving confirmability, it was ensured that all qualitative findings of this researcher were sourced from the responses of the participants and the evidence that had been collected, not from personal opinions. From this, the researcher systematically compared the transcripts of the answers obtained from the questionnaire and various documents to confirm that the explanations obtained were related to the actual experiences of the participants.

The researcher also maintained research evidence such as interview transcripts and classroom documentation as supporting data for the findings. During the analysis process, the researcher focused on interpreting the data objectively and linking the findings to the themes that emerged from the participants' responses. Therefore, the conclusions of the qualitative findings were derived directly from the collected data and supported by clear research evidence.

Quantitative Data Validation

a. Validity

The validity test was conducted to determine whether each item of the instrument was valid or not. The test was performed using Pearson Product-Moment Correlation by comparing the correlation coefficient (r-count) with the r-table value.

Based on the results of the analysis, all items showed a correlation coefficient (r-count) higher than the r-table value ($r = 0.273$, $N = 52$, $\alpha = 0.05$). In addition, all significance values (Sig. 2-tailed) were less than 0.05. Therefore, it can be concluded that all items in the instrument were valid and suitable to be used in this research.

Table 3.2 Validity Item

Item	r-count	r-table	Sig.	Conclusion
S01	0.359	0.273	0.009	Valid
S02	0.423	0.273	0.002	Valid
S03	0.335	0.273	0.015	Valid
S04	0.286	0.273	0.040	Valid
S05	0.292	0.273	0.036	Valid
S06	0.366	0.273	0.008	Valid
S07	0.394	0.273	0.004	Valid
S08	0.537	0.273	<0.001	Valid
S09	0.323	0.273	0.019	Valid
S10	0.308	0.273	0.026	Valid
S11	0.630	0.273	<0.001	Valid
S12	0.506	0.273	<0.001	Valid
S13	0.328	0.273	0.017	Valid
S14	0.428	0.273	0.002	Valid

Item	r-count	r-table	Sig.	Conclusion
S15	0.375	0.273	0.006	Valid
S16	0.301	0.273	0.030	Valid
S17	0.630	0.273	<0.001	Valid
S18	0.405	0.273	0.003	Valid
S19	0.454	0.273	<0.001	Valid
S20	0.631	0.273	<0.001	Valid

Based table 3.1 on all items have r-count values higher than the r-table value (0.273) and significance values lower than 0.05. This indicates that each item in the instrument has a significant correlation with the total score. Therefore, all items are considered valid and appropriate for measuring students' vocabulary mastery in this study.

Furthermore, the validity of all items demonstrates that the instrument has a good level of accuracy in capturing the intended construct. This result confirms that the instrument is suitable to be applied in the research context and can provide reliable data for further statistical testing, including the analysis of students' pre-test and post-test performance.

b. Reliability

To examine the internal consistency of the instrument, a reliability analysis was conducted using the Cronbach's Alpha coefficient in SPSS. Reliability testing is essential to determine whether the items in the instrument consistently measure the same construct. A higher

Cronbach's Alpha value indicates a higher level of internal consistency among the items. In this study, several items were reviewed and refined through the analysis process to improve the overall reliability of the instrument.

Based on the results presented in Table 3.2 the Cronbach's Alpha coefficient of the instrument is 0.549 with a total of 7 items. This value indicates that the instrument has a moderate level of reliability. Although the coefficient does not reach a high reliability category, it is still considered acceptable for use in exploratory or educational research contexts.

Furthermore, the reliability value obtained in this study reflects that the items are sufficiently consistent in measuring the intended construct. During the analysis process, several items with low item-total correlation were removed in order to improve the internal consistency of the instrument. This step was necessary to ensure that only items contributing positively to the overall measurement were retained.

After establishing the reliability of the multiple-choice items, the analysis is further extended to the essay section (S11–S20). This step is essential to ensure that all components of the instrument, including subjective items, consistently measure the intended construct. The reliability of the essay items was evaluated using Cronbach's Alpha. Prior to this analysis, one item (S13) was identified as having a very low corrected item-total correlation and was therefore excluded to improve the internal consistency of the instrument. The results of the reliability analysis for the remaining essay items are presented in the following table.

As shown in the table 4.2 the Cronbach's Alpha value for the essay section is 0.734, which exceeds the commonly accepted threshold of 0.70. This indicates that the instrument demonstrates good internal consistency and that the remaining items are sufficiently correlated with the overall

scale. Furthermore, most items exhibit acceptable corrected item-total correlation values, suggesting that each item contributes meaningfully to the measurement of the construct. Although a few items show relatively lower correlation values, they are still retained because the overall reliability coefficient has met the required standard. Therefore, it can be concluded that the essay instrument, consisting of nine items, is reliable and suitable for use in subsequent data analysis.

c. Data Analysis

1) Qualitative Data Analysis

The qualitative data were obtained from questionnaires, interviews, and documentation related to students' perceptions toward the use of TikTok English tutorial videos in vocabulary learning. The researcher analyzed the qualitative data using descriptive analysis.

First, the researcher transcribed all interview recordings into written form. After that, the researcher read the interview transcripts repeatedly to understand the overall meaning of the participants' responses. The researcher then selected important statements related to students' perceptions, learning motivation, vocabulary understanding, learning engagement, and challenges during the use of TikTok English tutorial videos.

Next, the researcher conducted coding by grouping similar responses into several categories. The categorized data were then organized into major themes such as positive perceptions toward TikTok, improvement of vocabulary understanding, increased learning motivation, student engagement, and learning challenges. After the themes were identified, the researcher interpreted the findings by relating them to the research questions and relevant theories.

The qualitative findings were presented descriptively in narrative form based on descriptive analysis to describe students' perceptions, learning motivation, vocabulary understanding, student engagement, and challenges regarding the use of TikTok English tutorial videos in vocabulary learning.

2) Quantitative Data Analysis

In the findings of this quantitative research, the researcher obtained the data from the scores obtained from the pre-test and post-test administered to students. All data was then processed using SPSS version 22. The first step the researcher took was to conduct an analysis, starting with descriptive statistical analysis to obtain the average score, minimum to maximum score, and standard deviation of the test. The researcher conducted this analysis to obtain an overview of students' vocabulary skills before and after the treatment.

The next step was to test the normality of the data using the Shapiro-Wilk method to ensure whether the data were normally distributed. This test is also a crucial step before proceeding to the next stage of analysis.

The researcher then assessed the quality of the measuring instrument. The Pearson product-moment correlation was used to test the instrument's validity by comparing the calculated r-value with the table r-value at a significance level of 0.05. Likewise, the researcher used Cronbach's alpha technique to measure the instrument's reliability by assessing the consistency of the items.

Finally, the researcher conducted hypothesis testing. A paired-sample t-test was used to determine whether there was a significant difference between students' pre-test and post-test scores after using the English video tutorial with the TikTok

app. In this study, the significance level used was 0.05. If the Sig. (2-tailed) value is found to be less than 0.05, then the alternative hypothesis (H_1) is accepted, meaning that using the English video tutorial from the TikTok app can have a significant impact on increasing students' vocabulary mastery.