CHAPTER III

RESEARCH METHOD

A. Research Design

This study employs a quantitative quasi-experimental nonequivalent groups pretest-posttest design to examine the effectiveness of YouTube video in teaching listening skills. The design is appropriate for educational settings where random assignment is impractical but comparison between groups is needed (Lampinen et al., 2022). Quasi-experimental designs are particularly valuable in real-world classroom environments, as they allow researchers to maintain natural instructional settings while still assessing causal relationships (Guetterman & Perez, 2023).

In this study, the sample will be divided into an experimental group, which will learn listening skills through YouTube videos, and a control group, which will be taught using the traditional dictation method; both groups will receive the same listening material but different instructional approaches, allowing for a comparison of effectiveness through pretest-posttest assessments analyzed via independent t-test to determine whether YouTube-based instruction yields significantly better results in improving listening comprehension than conventional dictation.

The nonequivalent groups design was selected because it enables comparisons between intact groups, such as existing classes, while controlling for initial differences through pretest measurements (Schwell et

al., 2023). This approach aligns with contemporary educational research practices that prioritize ecological validity while maintaining methodological rigor (Hoyte-West, 2023). Recent studies have demonstrated the effectiveness of similar designs in technology-enhanced language learning contexts, particularly when investigating multimedia-based interventions (Li et al., 2023). The pretest-posttest component strengthens the design by allowing for the measurement of growth in listening skills while accounting for baseline differences between groups (Ary et al., 2023).

B. Research Variables

A variable is a characteristic, number, or quantity that can take different values. There are four variables that involved in this study that is:

1. Independent Variable (IV): the use of YouTube video.
2. Dependent Variable (DV): Students' Listening Skill.

C. Population and Sample

The population in this study was class 11th grade students of SMAN 3 Kota Kediri which amounted to 362 students in the 2024/2025 academic year.Population is all members of real object in which educational researchers wish to generalize the result of the research. The population of this research is the students in 11th grade in SMAN 3 Kota Kediri.

In this research, the researcher, the researcher uses cluster random sampling to determine the sample. There are twelve in 11th grade classes at SMAN 3 Kota Kediri. The researcher uses class XI - 6 as where each class

consist of 36 students as an Experimental Group and XI- 9 with 36 students as a Control Group. The two classes are equal in grade classes.

D. Research Procedure

The treatments in experimental class and control class are conducted for three meetings, including pre-test, class treatment, and post-test. The schedule and treatment activities are below:

Table 3.1
Treatment Procedure

Experimental **(Using YouTube)**	**Control group** **(Using dictation)**
1. Briefly remind students about the pre-test and the topic of listening comprehension. 2. Allow students a short time to review their answers and memorize key details from the pre-test. 3. Play the YouTube video with title *"Learn English Through Story | On The Plane | Real Life English"* in channel "Learn English with Jessica" for the class using audio speaker.	1. Briefly remind the students about the pre-test and the topic of listening comprehension. 2. Allow students to review their answer and match the answer with the correct one. 3. Discuss what difficulties were

Link:https://youtu.be/BtZqlfN-Uc0?si=a_Vt3PPRbI6A6VzX 4. Encourage students to pay close attention to the dialogue, and visuals. 5. After the clip, discuss the benefits of using YouTube to develop listening skills. 6. Explain that a future post-test will involve listening to this listening instruction. 7. Instruct students to actively listen and remember what they hear during this section, as it will be part of the post-test.	encountered during the pre-test. 4. Explain that a future post-test will involve listening to this listening instruction. 5. Instruct students to actively listen and remember what they hear during this section, as it will be part of the post-test.

E. Research Instrument

1. Test

This study will utilize a three-phase assessment (pre-test, treatment, and post-test) to measure students' listening comprehension. The test instrument is specifically designed to collect data on learners' ability to understand spoken stories.

a. Pre-test

The pre-test is administered before the treatment to measure students' baseline listening skills. Both the control and experimental groups

receive the same listening materials, but with different delivery methods: the control group listens to a teacher-read dictation while the experimental group hears the content through an audio speaker. This standardization ensures comparable starting conditions while maintaining the distinct treatment approaches that will be implemented in the study. The test items are carefully selected to match the students' proficiency level at SMAN 3 Kota Kediri.

b. Post-test

Following the treatment period, the post-test evaluates the development of students' listening skills. The control group again completes a teacher-read dictation task, maintaining consistency with the pre-test format. Meanwhile, the experimental group demonstrates their listening comprehension through a YouTube video delivered via audio speaker, directly reflecting the treatment method. This design allows for clear comparison of skill development between the traditional and experimental teaching approaches while controlling for initial ability differences.

F. Data Collection Method

This study employs a three-stage experimental process: pre-test, treatment, and post-test. In the pre-test stage, the researcher assesses eleventh-grade students' baseline listening comprehension skills from classes XI-5 and XI-9 at SMAN 3 Kota Kediri. Following this initial evaluation, the treatment phase implements YouTube videos and dictation as the instructional intervention to enhance students' listening abilities. The

final post-test stage measures students' listening skill development after treatment administration using comparable assessment instruments. Throughout this process, the researcher maintains consistent experimental conditions between control and treatment groups while systematically collecting and analyzing quantitative performance data to evaluate the intervention's effectiveness.

G. Data Analysis

Data Analysis of Listening Test The researcher uses quantitative forms to analyze the data. Quantitative data is analyzed to obtain a numerical picture, to describe a series of numbers, and to present numbers in the form of averages, frequencies, and percentages. After obtaining the data from pre-test and post-test in the experimental and control group, data analysis used by the researcher are descriptive analysis, after that the normality test, the next is homogeneity test, and the last is independent sample t-test is explained as follows.

a. Descriptive Analysis

This is conducted to obtain an overview and exposure of the research data which includes the amount of data, maximum value, minimum value, and average value.

b. The Normality Test

The multivariate analysis requires a normal distribution population.50 To deal with the normality, one-sample Kolmogorov-

Smirnov test was used. If the value of significance (p) > .05, the distribution of the data is normal. 51

c. The Homogeneity Test

The homogeneity test serves as a statistical procedure to examine whether the variances across multiple distributions are equivalent. This analysis is conducted to verify whether different data groups originate from populations with similar variability characteristics. For this research, homogeneity was assessed using Levene's Test, implemented through the SPSS 27 statistical software package. The interpretation follows standard statistical conventions: a significance value (p-value) exceeding 0.05 indicates homogeneous variances across groups, suggesting comparable dispersion in the data. Conversely, a significance value below 0.05 signifies heterogeneous variances, implying statistically significant differences in variability between the groups under comparison. This test is particularly crucial for validating the assumptions of subsequent parametric analyses.

d. Indpendent sample t-test

The independent t-test (or Student’s t-test) is a statistical method used to compare the average (mean) scores of two separate, unrelated groups to determine if there is a significant difference between them, assuming the data is normally distributed and the variances are roughly equal. For example, in your study, it could assess whether students taught listening skills via YouTube video perform significantly better than those taught with traditional methods, based on their post-test scores.

The independent t-test requires that (1) the data is normally distributed (check with Shapiro-Wilk or Kolmogorov-Smirnov test), (2) the two groups have equal variances (verified by Levene's test), (3) the dependent variable is continuous (e.g., test scores), and (4) the groups are independent (no overlap in participants, such as separate classes in your study). If these assumptions are violated, non-parametric alternatives like the Mann-Whitney U test should be

1. If it is obtained that the significance value (2-tailed) < 0.05, it can be concluded that there is a significant differences between students' listening ability taught by using YouTube videos better than the students' listening ability taught by dictation. It means that Ha (Alternative hypothesis) is supported or Ho (Null hypothesis) is rejected.
2. If it is obtained that the significance value (2-tailed) > 0.05, it can be concluded that there is no significance differences between students' listening ability taught by using YouTube videos better than the students' listening ability taught by dictation. It means that Ha (Alternative hypothesis) is not supported or Ho (Null hypothesis) is not rejected. Independent Sample t-test The independent sample t-test is used to investigate whether there is a significant difference between the mean of two unpaired samples. It is used to answer the research. The researcher conducts the independent sample t-test with SPSS27 and the testing criteria are:

a. If it is obtained that the significance value (2-tailed) < 0.05, Ha (Alternative hypothesis) is supported or Ho (Null hypothesis) is rejected.
b. If it is obtained that the significance value (2-tailed) > 0.05, Ha (Alternative hypothesis) isn't supported or Ho (Null hypothesis) is not rejected.

Based on the hypothesis testing results, if the two-tailed significance value is less than 0.05, we reject the null hypothesis (H_0) and accept the alternative hypothesis (H_a), concluding that there is a statistically significant difference in the effectiveness of teaching listening skills between YouTube video and dictation methods. Conversely, if the significance value exceeds 0.05, we fail to reject the null hypothesis (H_0), meaning there is insufficient evidence to support a significant difference in effectiveness between the two teaching approaches. This interpretation follows the conventional alpha level of 0.05 as the threshold for determining statistical significance in the comparison of these instructional methods.