

CHAPTER III

RESEARCH METHODOLOGY

A. Types of the research (Research Design)

This research was employed a quantitative research approach. As stated by (Cresswell, 2012), quantitative research is a methodological approach that describes research problems through trends or variable relationships, guided by literature to formulate specific, narrow, measurable, and observable purpose statements, questions, and hypotheses. It collects numeric data from large samples using preset instruments, analyzes trends, compares groups, or relates variables via statistical methods, and interprets results objectively by comparing them to prior predictions and past studies in standardized, unbiased reports.

The research was utilized an experimental design, specifically a quasi-experimental design, because it involves two groups an experimental class and a control class that are not randomly assigned (Cresswell, 2012). In this design, two different classes were compared. The experimental class was taught using animated videos, while the control class received traditional instruction, following the usual teaching method.

B. Research Time and Place of the Research

1. Time of Research

The implementation of the main research, which was conducted over a period of two weeks with four meetings. In this stage, the researcher applied animation videos as a learning medium in teaching reading comprehension of recount texts. Each meeting was systematically designed to examine the effect of using animation videos in improving the reading comprehension of eighth-grade students at MTsS Darul Fikri.

2. Place of Research

This research was conducted at MTsS Darul Fikri, specifically in classes VIII.1 and VIII.2. The selection of this research site was based on several academic considerations. First, MTsS Darul Fikri implements a

curriculum in which reading comprehension, particularly recount texts, is considered an essential competency that must be mastered by eighth-grade students.

C. Population and Sample of the Research

1. Population of Research

According to (Cresswell, 2012) the population is the group of individuals having one characteristic that distinguishes them from other group. The population of this research consists of all eighth-grade students of MTsS Darul Fikri as many as 40 students. Consisting of eight classes, namely classes VIII.1 with consisted 19 students as control class and VIII.2 with 21 students as experiment class.

Table 3 1. Population of Research

No	Class	Total of Students
1	VIII.1	19
2	VIII.2	21
Total		40

Source: School administration data of MTsS Darul Fikri

2. Sample of Research

In this research, the sampling technique used was convenience sampling which is part of nonprobability sampling. According to (Creswell, 2012) in nonprobability sampling, the researcher selects individuals because they are available, convenient, and represent some characteristic the investigator seeks to study. In convenience sampling specifically, the researcher selects participants because they are available and willing to be studied. Since the school consisted of only two classes, both classes were used as the sample. Class VIII.1 with 19 students served as the control class and class VIII.2 with 21 students served as the experimental class, making the total sample 40 students.

Table 3. 2. Sample of Research

Control Class	Experiment Class
VIII.1 = 19	VIII.2 = 21

D. Variable of the Research

In conducting quantitative research, clearly defining the research variables is essential in order to determine the direction, focus, and scope of the study. Variables represent the characteristics or attributes that can be measured and analyzed to answer the research questions. According to Creswell, variables play a central role in explaining the relationship between causes and effects within a study. Therefore, this research involved two main variables, namely the independent variable and the dependent variable.

1. Independent Variable

Independent variable is defined as the variable that influences or affects the outcome of the investigation. It is the variable that the researcher applies or manipulates to see its influence on another variable. The independent variable of this study is the use of animation video in teaching reading comprehension. Animation videos are used as the instructional material to help the teaching and learning process especially in the reading activities. It is believed that the introduction of animation video would give visual and contextual assistance, increase students' engagement and promote a better grasp of the content of recount texts. The researcher intends to employ animation video to provide a more interesting and relevant learning environment that aids students to have a better understanding of textual contents.

2. Dependent Variable

The dependent variable is the variable that is affected by the independent variable. It is the effect or result that the researcher wants to assess, after the therapy has been applied. The dependent variable of this research is students' reading comprehension on recount material. Reading

comprehension is the skill that students have to grasp what they read by finding key concepts, seeing the order of events, understanding specific details, and reaching conclusions based on the text. This study measures the reading comprehension of the students to find out whether the usage of animation films has a significant influence to improve students' knowledge of recount texts. It is hypothesized that animation video as a teaching media influences students' reading comprehension of recount texts. It is predicted that the students' reading comprehension performance will be better with the use of animation video in the teaching process than with the traditional teaching approach.

Therefore, this research focuses on investigating the effect of using animation videos to improve students reading comprehension of recount text at the eight-grade of MTsS Darul Fikri. The findings of this study are expected to provide empirical evidence regarding the role of animation videos as an effective instructional medium in teaching reading comprehension.

E. Instrument of the Research

The instrument used was a reading comprehension test based on recount text. There was a pre-test given before the treatment and a post-test after the treatment for both experimental and control groups to measure students' improvement in understanding recount text. The test was in the form of multiple choices questions consisting of 20 items, which included Determining Main Idea (7 items), Reference (3 items), Inference (5 items), Vocabulary (1 item), and Detail Information (4 items). The detail of the test specification and blueprint can be seen in the table of specification (*see Appendix 3*)

Table 3. 3. Instrument of the Research

No	Indicator	Question Number
1	Determining Main Ide	1,2,4,7,9,10,15
2	Reference	5,11,20
3	Inference	6,8,12,14,18
4	Vocabulary	19
5	Detail Information	3,13,16,17

Source: Nuttal (1982)

F. Technique of Collecting Data

The data in this research were obtained from a test used to measure students reading comprehension in order to find out the objectivity. Thus, to collect the data, the researcher did three steps in order.

1. Pre Test

The researcher conducted a pre-test as an early step. A pre-test provides a measure on some attribute or characteristic assessed for participants in an experiment before they receive a treatment (Creswell, 2012, p. 297). This test was conducted for both the experimental and control classes. The purpose was to find out how well the students were in comprehending recount text. In this activity, the researcher used a multiple choices test given to students from both classes. The results showed the scores of students from those two classes and the gap in the scores between them (experimental and control class) before the researcher applied animated videos to the experimental class.

2. Treatment After conducting Pre Test

The researcher gave a treatment to both classes on the next occasion, but with different strategies. The researcher applied animated videos in the experimental class and applied the conventional teaching strategy to the control class, while the material remained the same for both classes.

3. Post Test

A post-test is a measure on some attribute or characteristic that is assessed for participants in an experiment after a treatment (Creswell, 2012). After giving a treatment to both the experimental and control classes, the researcher conducted a post-test as a form of evaluation. This test had similar questions to those in the pre-test. The post-test was conducted to determine the effect of teaching using animated videos in the experimental class. The results showed the significant difference in students' achievement between the pre-test and post-test scores.

Research Stage-Three-Part Framework (Brown, 2001)

Table 3 4. Research Stages

Research Stage	Experimental Class (Using Animation Video)	Control Class (Without Animation Video)
Pre-Test (Meeting 1)	1. The researcher greets students and explains the purpose of the test. 2. Students complete a reading comprehension test based on recount text. 3. Test format: multiple-choice questions.	1. The researcher greets students and explains the purpose of the test. 2. Students complete the same reading comprehension test based on recount text. 3. Test format and indicators are the same as those used in the experimental class.
Treatment 1 (Meeting 1) Pre-Teaching	1. The researcher shows a animated video clip to introduce the topic for	1. The researcher begins the lesson with an oral question about the topic of Session 1

(pre reading phase)	session 1, which focuses on personal recount texts. 2. The researcher asks a prediction question: “What do you think about this video?” 3. The researcher explains the key vocabulary that will appear in the video and the reading passage. 4. Students engage in a brief brainstorming session about the topic presented in the animated video. 5. The researcher activates students’ schemata by connecting the video’s topic to their everyday experiences.	without using visual aids. 2. The researcher asks a prediction question based on the title of the reading passage: “What do you think this text is about?” 3. The researcher directly explains the key vocabulary found in the reading passage. 4. Students engage in an oral brainstorming session guided by the teacher on the topic of the text. 5. The researcher activates students’ prior knowledge through a traditional question-and-answer session based on everyday experiences.
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While-Teaching (while reading phase)	1. The researcher plays a full-length animated video in front of the class; students watch the video. 2. Students fill out a viewing guide or observation sheet with questions about the video's content. 3. The researcher pauses the video at several key points (pause and discuss) to ensure students understand the material. 4. Students read a text related to the video's topic and use scanning (searching for specific information) and skimming (understanding the general content of the text) techniques. 5. Students identify the main ideas and supporting details of the text based on the visual context provided by the animated video.	1. The researcher distributes the reading passage to the students; the students read independently. 2. Students complete a worksheet containing comprehension questions about the content of the reading passage. 3. The researcher pauses the reading activity at several points and discusses key sections with the class. 4. Students use scanning and skimming techniques on the text to find the requested information. 5. Students identify the main ideas and supporting details of the text without the aid of visual context.
Post-Teaching (after reading phase)	1. Students answer reading comprehension questions based on the content of the	1. Students answer reading comprehension questions based on the text they have read.

	text and the animated video they have watched. 2. The researcher leads a discussion: students identify the main ideas, supporting details, and implied information from the text and video. 3. Students create a semantic map or mind map to organize information from the video and reading passage. 4. Students retell the content of the video and text orally or in writing in their own words. 5. The researcher provides feedback and confirms that the learning objectives for Session 1 have been met.	2. The researcher leads a whole-class discussion: students identify the main ideas, details, and implied information in the text. 3. Students create a written outline or simple summary of the text. 4. Students retell the content of the text orally or in writing in their own words. 5. The researcher provides feedback and reinforces the learning objectives for session1.
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Treatment 2 (Meeting 2) Pre-Teaching (pre reading phase)	1. The researcher shows thumbnails or short clips from different animated videos as an initial stimulus. 2. The researcher asks students to predict the plot or content of the video: “What do you think will happen in this story?” 3. The researcher reviews new vocabulary relevant to the video and the reading text for Session 2. 4. Students discuss in pairs (pair work) their personal experiences related to the video’s topic. 5. The researcher activates students’ schemas by connecting the topic of the animated video to stories or situations familiar to the students.	1. The researcher begins Session 2 by showing a still image or illustration from the textbook as an aperception activity. 2. The researcher asks a prediction question based on the illustration or the text’s title: “What do you think this story is about?” 3. The researcher explains new vocabulary from the reading text for Session 2 using the lecture method. 4. Students discuss the text’s topic in pairs based on the teacher’s guiding questions. 5. The researcher activates students’ prior knowledge through a question-and-answer session about experiences related to the text’s topic.
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While-Teaching (while reading phase)	1. The researcher plays a full-length animated video; students watch, focusing on the plot and characters. 2. Students fill out an observation sheet that includes questions about the characters, setting, and conflict in the video. 3. The researcher pauses the video at critical points in the story to discuss them with students so they can analyze the plot development. 4. Students read a related recount text and use skimming to understand the overall plot, followed by scanning for important details. 5. Students connect information from the animated video with the text to identify the main ideas and supporting details.	1. Students read the recount text independently; the teacher monitors the reading process. 2. Students complete a worksheet containing questions about the characters, setting, and plot of the text. 3. The researcher pauses the reading activity several times to discuss parts of the story considered important. 4. Students use skimming and scanning techniques on the text to answer the provided questions. 5. Students identify the main ideas and supporting details of the text independently or with the teacher's help.
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Post-Teaching (after reading phase)	1. Students answer reading comprehension questions that cover the content of the animated video and the reading passage. 2. The researcher leads a discussion: students identify explicit and implicit information from the video and text. 3. Students create a story map or mind map that integrates information from the animated video and the recount text. 4. Students retell the story from the video and text orally in front of the class or in writing. 5. The researcher provides praise and constructive feedback; confirms that the learning objectives for Session 2 have been achieved.	1. Students answer reading comprehension questions based on the text from Session 2. 2. The researcher leads a whole-class discussion to identify the main ideas and implied information in the text. 3. Students write a summary of the recount text they have read. 4. Students retell the content of the text orally or in writing using their own words. 5. The researcher provides feedback and confirms that the learning objectives for Session 2 have been achieved.
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Treatment 3 (Meeting 3) Pre-Teaching (pre reading phase)	1. The researcher shows the animated video for Session 3 to spark students' curiosity. 2. The researcher asks a more in-depth prediction question: "Based on this clip, what events do you think are being retold?" 3. The researcher explains the key vocabulary and expressions from the video and text to be studied in Session 3. 4. Students discuss in small groups their personal experiences related to the topic of the animated video. 5. The researcher activates students' schemas by relating the video's topic to real-life events in the students' lives or familiar cultural contexts.	1. The researcher begins Session 3 with an oral apperception question about the topic of the text to be read. 2. The researcher asks a prediction question based on the text's title: "What events do you think are described in this text?" 3. The researcher explains key vocabulary and expressions from the text using the blackboard or a dictionary. 4. Students discuss in small groups their personal experiences related to the text's topic. 5. The researcher activates students' prior knowledge through a class discussion about everyday events relevant to the text's topic.
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While-Teaching (while reading phase)	1. The researcher plays the animated video in its entirety; students listen to the sequence of events narrated in the video. 2. Students fill out an observation sheet containing questions about the sequence of events, time, and characters in the video. 3. The researcher pauses the video at key events to discuss them, helping students understand the sequence of events. 4. Students read a recount text related to the video's topic and use skimming to understand the sequence of events, as well as scanning to find specific information. 5. Students compare information from the animated video with the text to identify main ideas and supporting details.	1. Students read the recount text independently; the teacher provides reading focus guidelines. 2. Students complete a worksheet containing questions about the sequence of events, time, and characters in the text. 3. The researcher discusses key parts of the text with the whole class after students finish reading. 4. Students use skimming and scanning techniques to answer comprehension questions. 5. Students independently identify the main ideas and supporting details in the text.
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Post-Teaching (after reading phase)	1. Students answer reading comprehension questions about the content of the animated video and the recount text studied in Session 3. 2. The researcher leads a concluding discussion: students identify the main ideas, details, and implied meanings from the video and text. 3. Students create a mind map or timeline that summarizes the sequence of events from the animated video and text in an integrated manner. 4. Students retell the content of the video and text orally or in writing using their own words. 5. The researcher provides a final evaluation, comprehensive feedback, and confirms the achievement of the learning objectives for the entire research session.	1. Students answer reading comprehension questions based on the text from Session 3. 2. The researcher leads a concluding discussion to identify the main ideas and implied information in the text. 3. Students create a timeline or written summary of the recount text they have read. 4. Students retell the content of the text orally or in writing using their own words. 5. The researcher provides a final evaluation, comprehensive feedback, and confirms that the learning objectives for the entire research session have been achieved.
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Post-Test (Meeting 4) Post-Test	1. The researcher reviews the material briefly. 2. The researcher explains the instructions of the post-test. 3. Students complete a reading comprehension test based on recount text. 4. Test format: multiple-choice questions and text analysis. 5. Indicators assessed: main idea, vocabulary, reference, inference, and specific information. 6. Time allocation: ± 40 minutes. 7. The researcher collects students' answers.	1. The researcher reviews the material briefly. 2. The researcher explains the instructions of the post-test. 3. Students complete the same reading comprehension test. 4. Test format and indicators are the same as those in the experimental class. 5. Time allocation: ± 40 minutes. 6. The researcher collects students' answers.
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G. Technique of Data Analysis

Data analysis is a crucial step in quantitative research to process and interpret collected data to answer research questions and test hypotheses. According to (Cresswell, 2012) the process of quantitative data analysis involves several interrelated steps: data preparation, descriptive analysis, inferential analysis, results reporting, and interpretation of findings. In this research, data were analyzed using an inferential approach to determine the effect of animated videos on the reading comprehension of recount text at the eighth grade of MTsS Darul Fikri. The data analysis steps performed were as follows

1. Data preparation

The initial stage involved organizing the data for analysis. This included deciding how to assign numerical values to the data, choosing the

appropriate types of scores, selecting a statistical software, entering the data into the chosen program, and refining the dataset to ensure accuracy. The data used for analysis were obtained from students' reading comprehension assessments, specifically from the pre-test and post-test results.

2. Descriptive Analysis

Before conducting inferential analysis, a descriptive analysis of the data was performed to provide a general overview. This process included presenting the central tendency (such as the mean) and measures of variability (such as the standard deviation) for both the pre-test and post-test scores in the experimental and control groups. The purpose of this analysis was to illustrate the students' initial reading comprehension levels and the progress made following the implementation of the treatment.

3. Assumptions for Inferential

Before performing inferential hypothesis testing, several assumption tests were conducted to ensure that the data met the statistical requirements for the parametric tests used:

- a. A normality test was carried out to determine whether the pre-test and post-test score distributions from both the experimental and control groups followed a normal distribution. The researcher applied either the Kolmogorov-Smirnov test or the Shapiro-Wilk test, using a significance level of 0.05. If the resulting p-value was greater than 0.05 ($p > 0.05$), the data were regarded as normally distributed
- b. A homogeneity test was performed to assess whether the variance in post-test scores between the experimental and control groups was equal. The researcher utilized Levene's Test for this purpose. If the significance value exceeded 0.05 ($p > 0.05$), the data were considered to have homogeneous variance.

3. Hypothetical Test (Inferential Analysis)

After confirming that the data met the assumptions of normality and homogeneity, inferential analysis was conducted to examine the

research hypotheses. The researcher applied an Independent Sample t-Test to compare the post-test scores of the experimental group, which received instruction through animated videos, with those of the control group, which was taught using traditional methods

Hypothesis Formulation:

- a) Null Hypothesis (H₀): There is no significant effect of animation video toward reading comprehension of recount text eighth grade of MTsS Darul Fikri
- b) Alternative Hypothesis (H_a): There is significant effect of animation video toward reading comprehension of recount text eighth grade of MTsS Darul Fikri

Decision Criteria:

- a) If the significance value (p-value) of the Independent Sample t-Test is less than 0.05 ($p < 0.05$), then the null hypothesis (H₀) will be rejected, and the alternative hypothesis (H_a) will be accepted. This indicates a significant effect of using animation videos on students' reading comprehension of recount texts.
- b) If the significance value (p-value) of the Independent Sample t-Test is greater than 0.05 ($p > 0.05$), then the null hypothesis (H₀) will fail to be rejected. This indicates no significant effect of using animation videos.

5. Reporting and Interpreting Results

The results from both descriptive and inferential analyses were reported systematically using tables, figures, and a discussion of the key findings. Finally, the results from the data analysis were interpreted. This consisted of summarizing the results, comparing them with previous literature and theories, acknowledging the limitations of the study, and ending with suggestions for future research. This allowed the researcher to draw meaningful conclusions regarding the effectiveness of animated videos in enhancing students reading comprehension of recount texts.