

CHAPTER III

RESEARCH METHODS

A. Type and Design of Research

1. Type of Research

This research was conducted at MTsN 4 Kuantan Singingi. Experimental research is a type of research used to determine the effect of a particular treatment on another variable under controlled conditions. According to Gay (2012), experimental research attempts to determine whether a treatment has an effect on an outcome by comparing groups under controlled conditions. This study was classified as a Quasi-Experimental Design. This design includes a control group; however, it cannot fully control the external variables that may influence the implementation of the experiment.

This study employed a quantitative method to determine the effect of using Genially media on students' interest in learning English through measurable data analyzed using statistical procedures. The study applied a quasi-experimental design in the form of a Post-Test Only Control Group Design, involving two classes: an experimental class and a control class. The experimental class received instruction using Genially media, while the control class was taught using a conventional teaching method.

In the experimental class, the English learning process was conducted using Genially as an interactive learning medium aimed at increasing students' interest in learning English. This medium was used to present learning materials in a more engaging way by integrating text,

images, animations, audio, and interactive features, thereby helping students become more focused, active, and interested in participating in English learning.

In the control class, the English learning process was conducted using conventional teaching media that were commonly used at MTsN 4 Kuantan Singingi. The media used in the control class consisted of the eighth-grade English textbook, student worksheets, the whiteboard and markers, printed handouts, and written practice exercises related to the Simple Past Tense material. These media were presented in a conventional, teacher-centered manner, in which the teacher explained the material verbally, wrote examples on the whiteboard, and provided written exercises for students to complete individually, without any interactive digital elements such as those used in the experimental class through Genially media.

The implementation of Genially media in this study was based on the theory of interactive learning, which states that the use of interactive digital media can enhance students' participation, attention, and interest in learning during the instructional process. In this study, Genially was used as an engaging and innovative learning medium to encourage students to become more active, enthusiastic, and interested in learning English, particularly in the topic of the Simple Past Tense.

The stages of implementing Genially media in this study were as follows:

Table 3. 1

Group	Treatment	Questionnaire
A	X	O
B	-	O

Where:

- Group A : Experimental Class
- Group B : Control Class
- X : Treatment (Using Genially media in English learning)
- O : Questionnaire (Final questionnaire to measure students' interest in learning English after being given treatment).

B. Variables and Operational Definition of Variables

1. Independent Variable

The independent variable (X) is usually called the independent variable, namely the variable that influences other variables. The independent variable in this study is the learning media in the form of Genially media.

2. Dependent Variable

The dependent variable (Y) is a variable that depends on or is influenced by other variables. The dependent variable in this study is english learning interest.

C. Population and Sample of Research

1. Population

According to Creswell (2012), population is a group of individuals who share the same characteristics and become the object of a

study. Population includes all individuals or groups that have certain similarities relevant to the research being conducted.

According to Gay (2009) population is a collection of individuals who have one or more similar characteristics and become the focus of a study. In research, population can be either finite or infinite.

In this study, the research population consisted of all students in eighth-grade at MTsN 4 Kuantan Singingi in the 2025/2026 academic year.

Table 3. 2

Population of Research

Class	Amount of the Students
VIII-1	26
VIII-2	25
VIII-3	23
VIII-4	21
Totals	95

Source: English Teacher of MTsN 4 Kuantan Singing

2. Sample

A sample is a subset of the population selected to represent the entire population in a research study. According to Sugiyono (2023), "a sample is a part of the total number and characteristics possessed by the population." In this study, the sampling technique used was cluster sampling. According to Sugiyono (2023), cluster sampling is a sampling technique based on naturally formed groups or clusters rather than on individual members.

Based on the explanation above, the cluster sampling technique was considered appropriate for this study because the sample selection was conducted based on intact classes rather than individual students. Furthermore, this technique is consistent with the characteristics of quasi-experimental research conducted in a real classroom setting, where the researcher cannot fully randomize the research subjects.

Based on the results of the random selection, two classes were chosen: Class VIII.1 and Class VIII.2. Class VIII.2 was assigned as the control class, which received instruction without using Genially media, while Class VIII.1 was assigned as the experimental class, which received instruction using Genially media.

The selection of these two classes was based on several considerations, including:

- a. Both classes are taught by the same English teacher.
- b. Both classes have relatively equal levels of English ability.
- c. The number of students in both classes is relatively the same so that the comparison between the experimental class and the control class is more balanced and the research results are more reliable.

Researchers compared the effects of using Genially media and conventional learning methods on students' interest in learning English in both groups. Selecting classes with similar characteristics and learning conditions is expected to produce more accurate research findings in demonstrating the effects of the treatment.

Table 3. 3
Sample of Research

Class	Amount of the Students
VIII-1	26
VIII-2	25
Totals	51

D. Data Collection Technique

1. Data Collection

Data collection techniques refer to the process of obtaining information related to the object of the research. Data are factual information that may consist of measurement results, numerical data, or other facts that support the implementation of the study. According to Creswell (2014), a data collection technique is a systematic and structured method used to obtain data that can be measured and analyzed statistically.

In this study, The data collection techniques used in this study were observation, questionnaire, and documentation.

a. Observation

Observation is a data collection technique used by the researcher to directly observe the learning process during the research. In this study, observation was conducted in the experimental class to observe students' responses, attention, participation, and involvement during the learning process using Genially media. The observation was

carried out during the treatment process to obtain supporting information about students' learning interest.

b. Questionnaire

A questionnaire is a data collection technique consisting of a number of statements that are given to respondents to obtain information related to the research variable. In this study, the questionnaire was used as the main instrument to measure students' interest in learning English after the treatment. The questionnaire consisted of 16 positive statements based on the indicators of learning interest, namely feeling of pleasure, interest, attention, and involvement. The questionnaire used a four-point Likert Scale, namely *Strongly Agree*, *Agree*, *Disagree*, and *Strongly Disagree*. The questionnaire was given to both the experimental and control classes to obtain data that could be compared and analyzed statistically.

c. Documentation

Documentation is a data collection technique used to obtain supporting data in the form of documents related to the research. In this study, documentation was used to collect information such as students' attendance lists, research permission documents, lesson plans, and photographs of the learning activities. Documentation was used as supporting evidence that the research activities were conducted at MTsN 4 Kuantan Singingi.

2. Research Instrument

In this study, the research instrument was used to measure students' interest in learning English regarding the use of Genially media at MTsN 4 Kuantan Singingi.

The instrument used in this study was a questionnaire. According to Sugiyono (2023), a questionnaire is a data collection technique consisting of a set of written questions or statements answered by respondents. The questionnaire was administered to collect data on students' interest in learning English based on their experiences during the learning process using Genially media.

A closed-ended questionnaire was employed, requiring respondents to select one of the provided answer options for each statement. The questionnaire was constructed using a Likert Scale. According to Sugiyono (2023), the Likert Scale is used to measure individuals' attitudes, opinions, and perceptions toward a social phenomenon. In this study, it was used to assess students' interest in learning English.

The questionnaire was developed based on four indicators of learning interest: feeling of pleasure, attention, interest, and students' involvement. The collected responses were analyzed to determine the effect of using Genially media on the English learning interest of the eighth-grade students at MTsN 4 Kuantan Singingi.

The Likert Scale used in this study consisted of four response categories, namely:

Table 3. 4
Questionnaire Assessment

Where	Code	Score for each question
Sangat Tidak Setuju	STS	1
Tidak Setuju	TS	2
Setuju	S	3
Sangat Setuju	SS	4

The questionnaire items were arranged based on learning interest indicators according to Slameto (2015), who stated that learning interest can be seen through four main indicators, namely feelings of pleasure, interest, attention, and student involvement in the learning process. In this study, the questionnaire consisted of several statements representing these four indicators in the context of learning English using Genially media.

1. The feeling of pleasure refers to the feeling of joy, comfort, and enthusiasm felt by students while learning English using Genially media.
2. Interest refers to students' desire to participate in learning, study Simple Past Tense material, and explore learning activities presented through Genially media.
3. Attention refers to the level of concentration and focus of students during the learning process, both towards the teacher's explanation and the material and interactive activities presented through Genially media.

4. Involvement refers to students' active participation in the learning process, such as participating in discussions, answering questions, doing exercises, and interacting with Genially media during learning activities.

The research questionnaire consisted of 16 positive statements developed based on the indicators of learning interest proposed by Slameto (2015), namely feeling of pleasure, interest, attention, and involvement. Before being used as the research instrument, the questionnaire was first validated by expert validators (expert judgment) to ensure that each statement was appropriate for the objectives of the study and suitable for measuring students' interest in learning English.

After being declared valid by the expert validators, The following is the blueprint of the English learning interest questionnaire used in this study.

Table 3.5
The Questionnaire Instrument

No.	Aspek	Pernyataan	SS	S	TS	STS	Keterangan
1.	Perasaan Senang	Saya merasa senang saat mengikuti pelajaran bahasa inggris dikelas					
2.		Saya menikmati setiap aktivitas yang diberikan dalam					

		pembelajaran bahasa inggris					
3.		Saya merasa puas setelah mengikuti pembelajaran bahasa inggris					
4.		Saya merasa tidak bosan saat belajar bahasa inggris					
5.	Keterlibatan	Saya aktif berpartisipasi dalam kegiatan pembelajaran bahasa Inggris.					
6.		Saya berani menyampaikan pendapat saat diskusi bahasa Inggris.					
7.		Saya mengerjakan tugas bahasa Inggris dengan penuh semangat.					
8.		Saya terlibat secara langsung dalam setiap aktivitas pembelajaran bahasa Inggris.					
9.	Ketertarikan	Saya tertarik untuk mempelajari bahasa Inggris lebih dalam.					
10.		Saya memiliki rasa ingin tahu yang tinggi terhadap materi bahasa					

		Inggris.					
11.		Materi pembelajaran bahasa Inggris menarik bagi saya.					
12.		Saya ingin mencari informasi tambahan tentang bahasa Inggris di luar kelas.					
13.		Saya memperhatikan dengan baik saat guru menjelaskan materi bahasa Inggris.					
14.	Perhatian Siswa	Saya fokus selama proses pembelajaran bahasa Inggris berlangsung.					
15.		Saya tidak mudah terganggu saat belajar bahasa Inggris.					
16.		Saya menyimak setiap penjelasan yang diberikan dalam pembelajaran bahasa Inggris.					

E. Validity Test

According to Sugiyono (2019), validity is the degree of accuracy between the actual data that occur in the research object and the data that can

be collected by the researcher. Meanwhile, Gay, Mills, and Airasian (2012) state that validity refers to the extent to which an instrument measures what it is intended to measure. This view is supported by Creswell (2012), who states that validity indicates the extent to which an instrument is able to measure the construct or variable that it is designed to assess.

The decision-making criteria were as follows:

If the significance value (Sig.) is <0.05 , the statement item is declared valid.

If the significance value (Sig.) is ≥ 0.05 , the statement item is declared invalid.

Only statement items that met the validity criteria were used as research instruments to collect data on student learning interests.

The result of research instrument used in this study was reviewed and validated by experts. The experts involved in the instrument validation were Dr. Arwemi, M.Pd., Hidayat Al Azmi, M.Pd., Lailatul Husna, S.Hum., M.Pd., as the expert validators, and Rizki Selvia Desiani, S.Pd., the English teacher at MTsN 4 Kuantan Singingi. Based on the consultation results, the researcher revised the instrument according to the suggestions provided by the experts.

The questionnaire, consisting of 16 statements, was then piloted with 30 students of MTsN 4 Kuantan Singingi to examine its validity. According to the validity criterion, a questionnaire item is considered valid if the calculated correlation coefficient $r_{hitung} > r_{tabel}$. Based on the r-table, with 30 respondents and a significance level of $\alpha = 0.05$, the value was 0.361. The questionnaire

validity test was conducted using SPSS version 26, and the results are presented in table.

TOTAL	Pearson Correlation	,409 [*]	,408 [*]	,401 [*]	,367 [*]	,606 ^{**}	,496 ^{**}	,450 [*]	,614 ^{**}	,601 ^{**}	,796 ^{**}	,375 [*]	,793 ^{**}	,483 ^{**}	,455 [*]	,693 ^{**}	,724 ^{**}	1
	Sig. (2-tailed)	,025	,025	,029	,046	,000	,005	,013	,000	,000	,000	,041	,000	,007	,011	,000	,000	
	N	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

*. Correlation is significant at the 0.05 level (2-tailed).
 **. Correlation is significant at the 0.01 level (2-tailed).

Table 3. 6

No	Item	r hitung	r tabel	Keterangan
1	P01	0,409	0,361	Valid
2	P02	0,408	0,361	Valid
3	P03	0,401	0,361	Valid
4	P04	0,367	0,361	Valid
5	P05	0,606	0,361	Valid
6	P06	0,496	0,361	Valid
7	P07	0,450	0,361	Valid
8	P08	0,614	0,361	Valid
9	P09	0,601	0,361	Valid
10	P10	0,796	0,361	Valid
11	P11	0,375	0,361	Valid
12	P12	0,793	0,361	Valid
13	P13	0,483	0,361	Valid
14	P14	0,455	0,361	Valid
15	P15	0,693	0,361	Valid
16	P16	0,724	0,361	Valid

Source: SPSS Data Processing, 2026

F. Reliability Test

According to Sugiyono (2019), reliability is the degree of consistency of data over a certain period of time. Gay, Mills, and Airasian (2012) state that reliability refers to the consistency of an instrument in measuring what it is intended to measure. Creswell (2012) also explains that reliability indicates the consistency of the scores obtained from an instrument when it is administered repeatedly under similar conditions.

The decision-making criteria refer to Ghozali (2018), namely:

Nilai Cronbach's Alpha	Kriteria
$\geq 0,90$	Sangat reliabel
0,80–0,89	Reliabel
0,70–0,79	Cukup reliabel
0,60–0,69	Kurang reliabel
$< 0,60$	Tidak reliabel

An instrument is considered reliable if it has a Cronbach's Alpha value of ≥ 0.70 . Therefore, if the Cronbach's Alpha value reaches or exceeds 0.70, the learning interest questionnaire is deemed to have a good level of consistency and is suitable for use as a research instrument.

Reliability testing is used to determine whether the questionnaire statement items being tested are reliable in providing results measuring students' learning interests. To test the reliability of the instrument, the researcher used the Alpha-Cronbach method. The reliability test for the questions was carried out using SPSS 26. From these calculations, the Alpha-Cronbach value was obtained, which can be seen in table:

Cronbach's Alpha	N of Items
,833	16

Source: SPSS Data Processing, 2026

Based on the results of the reliability test using the IBM SPSS Statistics 26 program, a Cronbach's Alpha value of 0.833 was obtained for 16 statement items. This value indicates that the research instrument has a high level of reliability because Cronbach's Alpha > 0.70 . Thus, the student learning interest questionnaire is declared reliable and suitable for use as a research instrument. Based on the reliability coefficient interpretation criteria, the value of 0.833 is in the range of $0.80 \leq r \leq 1.00$, so it is included in the very high category. Therefore, the instrument used in the study regarding the effectiveness of Genially media to increase student learning interest in English subjects has met the reliability requirements and can be used in the research data collection process.

G. Procedure of Research

Research procedures are the steps taken by researchers systematically to achieve research objectives. In this study, the research procedures were implemented in three stages: preparation, implementation, and completion.

1. Preparation Stage

In the preparation stage, researchers carried out several activities as follows.

- a. Conducting initial observations at MTsN 4 Kuantan Singingi as a research location to obtain information regarding school conditions,

learning processes, and problems related to students' interest in learning English.

- b. Conduct consultations with the supervising lecturer and English subject teacher regarding the implementation of the research.
- c. Processing research permit letters to the Faculty and MTsN 4 Kuantan Singingi as the location for conducting the research.
- d. Determine the research population and sample, namely class VIII-1 as the experimental class and class VIII-2 as the control class.
- e. Compiling learning tools that include Teaching Modules/Learning Implementation Plans (RPP), Simple Past Tense material, Genially learning media, and English learning interest questionnaires.
- f. Compile a questionnaire grid and statement items based on learning interest indicators according to Slameto, namely feelings of pleasure, interest, attention, and involvement.
- g. Validate research instruments through expert judgment to ensure that the instruments are in accordance with the research objectives.
- h. Conduct validity and reliability tests on the questionnaire before using it as a research instrument.

2. Implementation Stage

The research was conducted over five meetings, with each meeting lasting 2×40 minutes. It involved two classes: the experimental class and the control class.

- a. In the first meeting, the researcher delivered English learning materials, namely the Simple Past Tense, using Genially's interactively designed media. The material was presented through a combination of text, images, animations, and interactive quizzes, making learning more engaging and encouraging students to be more active, focused, and enthusiastic in participating in the learning process.
- b. In the second meeting, the researcher continued teaching the Simple Past Tense using Genially media, which included various interactive activities, such as exercises, educational games, and simple assessments. These activities aimed to increase students' attention, engagement, and interest in learning during English lessons.
- c. In the third meeting, the researcher continued teaching the Simple Past Tense using Genially media, which included various interactive activities, such as exercises, educational games, and simple assessments. These activities aimed to increase students' attention, engagement, and interest in learning during English lessons.
- d. In the fourth meeting, the researcher continued teaching the Simple Past Tense using Genially media, which included various interactive activities, such as exercises, educational games, and simple assessments. These activities aimed to increase students' attention, engagement, and interest in learning during English lessons.
- e. In the fifth meeting, the researcher continued teaching the Simple Past Tense using Genially media, which included various interactive

activities, such as exercises, educational games, and simple assessments. These activities aimed to increase students' attention, engagement, and interest in learning during English lessons.

In the experimental class, students received English instruction using Genially media throughout the treatment, while the control class was taught using conventional learning methods. The same learning material, namely Simple Past Tense, was delivered in both classes. After all treatments were completed, students in both classes completed an English learning interest questionnaire to collect the research data.

3. Completion Stage

After all the research data was obtained, the researcher carried out several activities as follows.

- a. Collect all questionnaires that have been filled out by students from the experimental class and control class.
- b. Processing research data using the SPSS version 25 program.
- c. Conduct data analysis which includes validity tests, reliability tests, normality tests, homogeneity tests, and hypothesis tests using the Independent Samples t-test.
- d. Interpret the results of data analysis according to the research objectives.
- e. Draw conclusions based on research results and compile a research report in the form of a thesis.

H. Data Analysis Technique

Data analysis is one of the most important stages in a research study because it is used to process, interpret, and draw conclusions based on the data obtained from the research instruments. According to Sugiyono (2023), data analysis is the process of systematically organizing and examining data obtained from questionnaires, documentation, and other data sources so that the data are easier to understand and can be used to draw conclusions.

In this study, the data were analyzed quantitatively to determine whether there was a significant effect of using Genially media on students' interest in learning English compared with the use of conventional teaching methods. The data obtained from the questionnaire were then tabulated and analyzed using SPSS version 26.

The data analysis in this study included descriptive statistical analysis, prerequisite tests, and hypothesis testing to determine the effect of using Genially media on students' interest in learning English. The explanation of each analysis is presented as follows.

1. Data Description

The researcher described the scores of the English learning interest questionnaire obtained from students in both research groups, namely the experimental class and the control class. According to Gay et al. (2012), descriptive data are used to organize, summarize, and describe the characteristics of the data so that they are easier to understand and interpret.

In this study, the descriptive data included the respondents' demographic information and the scores of the English learning interest questionnaire obtained from students in the experimental and control classes. These data were then used to provide an overview of the students' level of interest in learning English after participating in the learning process.

2. Descriptive Statistic

Descriptive statistics are used to describe the characteristics of the data obtained from the experimental and control groups. According to Sugiyono (2023), "descriptive statistics are statistics used to analyze data by describing or depicting the collected data as it is, without the intention of drawing conclusions that apply to the general population or generalizations."

The descriptive statistical analysis in this study includes:

a. Mean (Average Score)

The mean is a representation of a data set or average value and is used to determine the average level of each questionnaire item. According to (Gay et.al, 2012) "the mean is the most commonly used measure of central tendency. The mean is the arithmetic average of the scores."

The mean is calculated using the following formula:

$$\bar{x} = \frac{\sum x}{N}$$

Notes:

$\bar{x}$ = mean (average score)

$\sum x$ = total score of all respondents for a given item

N = total number of respondents

b. Standard Deviation

The standard deviation is used to measure how varied the responses are from the mean. A lower standard deviation indicates that the responses are more consistent, while a higher value shows greater variation.

The formula is as follows:

$$SD = \sqrt{\frac{(x - \bar{x})^2}{N}}$$

Notes:

SD = Standard Deviation

X = Individual score

$\bar{x}$ = Mean

N = Total number of respondents

This provides an overview of students' overall responses in both the Genially media and conventional groups.

c. Maximum

The Maximum function is used to display the largest value or number within a data range.

d. Minimum

The Minimum function is used to display the smallest value or number within a data range.

3. Pre-Requisite Data Analysis

Before conducting inferential statistical analysis, researchers first conducted prerequisite tests, including normality and homogeneity tests. These tests were conducted to determine whether the data obtained met the assumptions required for parametric statistical analysis.

a. Normality Test

Normality test is a statistical procedure used to determine whether research data are normally distributed or not. Normal distribution is a pattern of data distribution that is symmetrical and forms a bell-shaped curve (bell curve).

In this study, the normality test was conducted on the data obtained from the students' learning interest questionnaire in both the experimental class and the control class after the implementation of the learning process. The normality test was carried out using an appropriate method, such as the Shapiro-Wilk test for small sample sizes or the Kolmogorov-Smirnov test for larger sample sizes.

In this study, the normality test was conducted using the Shapiro-Wilk test. The selection of the Shapiro-Wilk test was based on the relatively small number of research samples, which were fewer than 50 respondents in each group. According to Ghazali (2018), the

Shapiro-Wilk test is more recommended for research data with a small sample size because it has a better level of sensitivity in detecting normal distribution compared to other normality tests. A similar opinion was also expressed by Razali and Wah (2011), who stated that the Shapiro-Wilk test is one of the most powerful normality testing methods and is more accurate for use with small sample sizes, particularly those consisting of fewer than 50 data points.

Normality testing criteria:

1. If the Sig. value is > 0.05 , the data is normally distributed.
2. If the Sig. value is < 0.05 , the data is not normally distributed.

b. Homogeneity of Variance Test

The homogeneity test was conducted to determine whether the variances of the two groups were homogeneous or equal. The homogeneity test aims to determine whether the variances of the two groups were equal or not. Data is said to be homogeneous if it has the same variance. In this study, researchers used the SPSS version 25 program through Levene's Test as part of the Independent Samples t-test analysis. According to Gay et al. (2012), homogeneity of variance is one of the requirements that must be met before conducting an Independent Samples t-test.

Criteria for homogeneity testing:

1. If the Sig. value is > 0.05 , the data is homogeneous.

2. If the Sig. value is < 0.05 , the data is not homogeneous.

c. Hypothesis Test

Inferential statistics were used to test the research hypothesis. In this study, the researcher used the Independent Samples t-test because this study compared two different groups, namely the experimental class and the control class. According to Gay et al. (2012), the Independent Samples t-test is used to determine whether there is a significant difference or influence between the average of two mutually independent groups. In this study, the hypothesis test was conducted to determine whether the use of Genially media has a significant difference on students' interest in learning English compared to the use of conventional learning methods.

Hypothesis testing criteria:

- a. If Sig. (2-tailed) < 0.05 , then H_0 is rejected, and H_1 is accepted.
- b. If Sig. (2-tailed) > 0.05 , then H_0 is accepted, and H_1 is rejected.

The formula for the Independent Samples t-test is:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{N_1} + \frac{S_2^2}{N_2}}}$$

Notes:

t = t-test value

$\bar{X}_1$ = Mean of the experimental class

$\bar{X}_2$ = Mean of the control class

S_1^2 = Variance of the experimental class

S_2^2 = Variance of control class

N_1 = Number of students in the experimental class

N_2 = Number of students in control class

