CHAPTER III

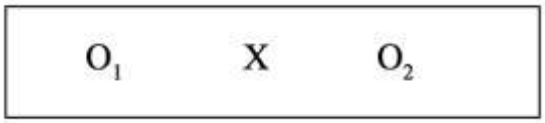
METHODOLOGY

3. 1 Research Design

The research used a pre-experimental design. Pre-experimental design is suitable for studies that focus on the discovery of the effectiveness of certain variables compared to other variables. Another reason is that this research focused on one group and deliver treatment to that group during the investigation. According to Creswell (2014), pre-experimental design is employed whenever the researcher analyzes a single group and gives an intervention during the experiment. He also argued that there is no need for a control group to compare to the experimental group in this approach (Creswell, 2014). The selected group observed twice: once before treatment and after treatment. This type of research was designed to verify that comic strips are an appropriate medium to improve the skill of students in writing narrative text.

The design for this research was used One Group Pre-test Post-test Design. In conducting this research, the researcher used tests (pre-test and post-test) and questionnaires as instruments. The pre-test was conducted before giving the treatment to find out the students writing skills, while the post-test was used to measure and to find out the students writing skills after giving the treatment. This research can be considered as successful if the results of the students' post-test are higher than the pre-test. So, comic strips have a good effect to enhance the students' writing ability because they can be determined accurately, compared, and analyzed easily after the treatment is applied in the classroom (Arikunto, 2006).

Figure 3.1 One Group Pretest Posttest Design (Sugiyono, 2016)



Description:

O_1 : Pre-test before applying treatment (the score before teaching through comic strips)

X : Treatment (teaching narrative text using comic strips)

O_2 : Post-test after applying treatment (the score after teaching through comic strips)

In this research, the researcher acted as facilitator and teacher at the same time. Thus, the researchers prepare and deliver learning as well as assess student progress. The teaching procedure will only be carried out in one class. Furthermore, in order to select research participants, this research will use a purposive sampling technique. Purposive sampling is a type of non-probability sampling in which researchers select participants based on a set of criteria, judgments, and considerations (Sugiyono, 2016). Purposive sampling, according to Sugiyono (2016), is one of the sampling techniques that does not require all samples to meet the research's requirements. Purposive sampling is used since the researcher will implement this research in the chosen school where the researcher will receive pre-service teacher training (PPL) with students who will learn narrative text in the second semester.

3.2 Variables

In experimental research, variables need to be specified in order to define what groups are receiving the experimental treatment and what outcomes are being measured (Creswell, 2014). This research will investigate two variables namely the independent variable and the dependent variable.

3.2.1 Independent Variable (X)

Independent variables are those that probably cause, influence, or affect outcomes that are also called treatment, manipulated, antecedent, or predictor variables (Creswell, 2014). In this research, the independent variable is the use of comic strips as a media that becomes the major variable to be investigated.

3.2.2 Dependent Variable (Y)

Dependent variables are those that depend on the independent variables which are the outcomes or results of the influence of the independent variables (Creswell, 2014). The dependent variable in this research is the students' narrative writing skills. It observed and measured to determine the effect of the use of comic strips as the independent variable.

3.3 Site and Participants

This research was conducted for the tenth-grade students in one of the public schools in Bandung. The reason for choosing this level is because of the suitability of the material chosen in this research. The material that used in this research, which is a narrative text, is contained in the tenth grade of senior high school based on the 2013 curriculum. Moreover, the narrative text is taught to tenth-grade students in the second semester.

In this research, the population is the tenth grade in one of public school in Bandung. Since this study is one group pre-test post-test design, the research was conducted by using a group of samples. Therefore, the researcher took the tenth grade of MIPA 3 as its participants, because according to the syllabus for senior high school level, the curriculum where the narrative text taught existed in the tenth-grade curriculum and there was no qualification during the selection of the classes.

3.4 Data Collection

This study will employ two data collection techniques which are students' writing (document analysis) and questionnaires. A writing test is used to get the score of students' writing performance in writing narrative text through a comic strip. It is assumed that the writing test is the best way to test writing ability (Susilawati, 2017). The writing test is also used to see whether there is an enhancement in students' writing or not. The test consists of pre-test and post-test. The pre-test was to find students' initial scores in writing narrative text before being given treatment. Moreover, the post-test was conducted to find out the students' writing scores after

being given treatment. The tests required the students to write a narrative text. In analyzing the data related to the students' writings, the researcher used the analytical scoring rubric from Hyland (2003).

Meanwhile, the questionnaire is used at the end of the post-test, which is used to find out students' reflections on the use of comic strips in writing activities. The questionnaire can provide standardized interviews in all subjects and can provide suggestive data to test hypotheses (Gillham, 2008). It consisted of 17 closed-ended questions (Likert scale) and was designed using *Bahasa Indonesia* in order to find out more comprehensive students' reflections on the use of comic strips in writing. The purpose of the questionnaire in this study is to find out students' perceptions of the use of comic strips to learn to write narrative texts. The questions are about students' perceptions of the use of comic strips as a medium in learning writing. The questions are adapted from Servia (2018) that are modified and adjusted based on the context of this research. Moreover, because of the pandemic the questionnaire given through the Google Form link.

3.5 Research Procedures

The research procedure is based on Susilawati (2017) with some modifications, which are described as follows. Before conducting the pre-test, the researcher administered the pilot test to check the validity and reliability of the instruments. The data for the pilot test took from another class different from the class being tested, it consist of 21 tenth grade high school students. After administering the pilot test and the result of the instruments is vali and reliable, the researcher started the research. In the first meeting at *the Knowledge of the Field* (BkoF) stage, students taught about narrative text in general. Teachers gave the students several questions based on the topic that relates to the activity. This activity is to develop students' background knowledge of the narrative text. After that, they report the result of their understanding of the topic through Google Classroom.

Then, in the second meeting at *the Modeling of the Text* (MoT) stage, teachers guided the students to improve their knowledge about a particular genre. Students are

introduced to the aims, structures, and language features of a narrative text. The teacher explained about grammar and structure of the text through the learning video that they have made. Then, several kinds of narrative texts introduced to the students. They will distinguish the kinds and focus on the language features of the narrative text. This activity is to develop student's understanding of narrative text from its purpose and its characteristics. Then, the pre-test given to students in this meeting in order to know their writing skills before receiving treatment. The steps of the pre-test are: (a) the researcher asks students what they know about narrative texts; (b) the researcher instructs the students to write short narrative text based on their chosen topic; (c) the researcher explains what the students are going to do; and (d) the researcher assesses students' writing.

After being given a pre-test, in the next meeting at *the Joint Construction of Text* (JcoT) *stage*, the treatments were given to the students. In this stage, the comic strip was implemented. The time allocation of each meeting is 60 minutes. The main procedures of giving treatments are mentioned as follows: (a) the researcher showed an example of the comic strips to teach narrative texts, and the students are required to arrange the pictures from the earliest to the latest; (b) the researcher asked the students to read the whole of the comic strips and try to understand the story; (c) the researcher and the students discuss the vocabulary, place, action, time, and description related to the comic strip; (d) the researcher asked the students to work as a group and guided the students to construct the text. Each of the students delivers their idea to make a sentence related to the pictures in the comic strip into the text; and (e) the researcher gives comments or feedback to students' work on making sentences. This activity is to develop student's writing skills to construct the narrative text from the comic strips as a group.

In the last meeting at *the Independent Construction of Text* stage, students already have the skill and knowledge to write independently. Before administering post-test, teachers made sure that students possess the competencies by giving them questions through Quizizz. Then, the post-test was given after treatment in the form of students' final draft. In this case, students' writing skills improvement may be seen

because of a comparison between the result of the pre-test and the post-test. The steps of post-test are (a) the researcher reviewed and concluded the whole materials of narrative text; (b) the students were asked to post their final draft on Google Classroom; (d) the researcher gave feedback to their final draft but the students do not need to revise it because the final result obtained in this step, and (e) the researcher assessed the students' writing. After the students done the post-test, the students filled the questionnaire that also shared in a Google Classroom.

3.6 Data Analysis

The collected students' writings from the pre-test and post-test were analyzed using IBM SPSS (Statistical Product and Service Solution) version 25 for Windows. The procedure is as follows.

3.6.1 Scoring Technique

To acquire valid scores that describe students' writing skills, there were criteria and scores which were used to give a brief explanation for every score that was given to assess students' writing. The final draft will be analyzed and assessed using the scoring rubric by Hyland (2003) which criteria involve format and content; organization and coherence; sentence construction and vocabulary as seen in the following table.

Table 3.3 Scoring Rubric adapted from (Hyland 2003)

Aspect	Mark	Criteria
Format and content (40)	31-40 Excellent to very good	Fulfill task fully; correct convention for the assignment task; features of chosen genre mostly adhered to; good ideas/good use relevant information; substantial concept use; properly develop ideas; good sense of -40 nt to very poc audience.

	21-30 Good to average	Fulfill task quite well although details may be undeveloped or partly irrelevant; correct genre selected; most features of chosen genre adhered to; satisfactory ideas with some development; quite good use of relevant information; some concept use; quite good sense of audience.
	11-20 Fair to poor	Generally adequate but some inappropriate or irrelevant data; an acceptable convention for the assignment task; some features of chosen genre adhered to; limited ideas/moderate use of relevant information; little concept use; barely adequate development of ideas; poor sense of audience.
	1-10 Inadequate	Clearly inadequate fulfillment of task; possibly incorrect genre for the assignment; chosen genre not adhered to; omission of key information; serious irrelevant or inaccuracy; very limited ideas/ignores relevant information; no concept use; inadequate development of ideas; poor or no sense of -30 average Jood 01 uate audience. Messages followed with ease; well organized.
	16-20 Excellent to	Messages followed with ease; well organized and through development through introduction, body, and conclusion; relevant and convincing supporting details; logical progression of content contributes to fluency;

Organization and coherence (20)	very good	unified paragraph; effective use of transitions and reference.
	11-15 Good to average	Messages mostly followed with ease; satisfactorily organized and developed through introduction, body, and conclusion; relevant supporting details; mostly logical progression of content; moderate to good fluency; unified paragraph, possibly slight over- or under- use of transitions but correctly used; mostly correct references.
	6-10 Fair to poor	The message followed but with some difficulty; some pattern of organization - an introduction, body, and conclusion evident but poorly done; some supporting details; progression of content inconsistent or repetitious; lack of focus in some paragraphs; 6- 10 Fair to poor over- or under- use of transitions with some incorrect use; incorrect use of reference.
	1-5 Inadequate	Message difficult to follow; little evidence of organization - introduction, and conclusion may be missing; few or no supporting details; no obvious progression of content; improper paragraphing; no or incorrect use of transitions; lack of reference to 1-5 inadequate comprehension difficulty.
	31-40	Effective use of a wide variety of correct

Sentence construction and vocabulary (40)	Excellent to very good	sentences; a variety of sentence length; effective use of transitions; no significant errors in agreement, tense, number, person, articles, pronouns, and preposition; effective use of a wide variety of lexical items; word form mastery; effective choice of idiom; correct register.
	21-30 Good to average	Effective use of a wide variety of correct sentences; some variety of sentence length; use of transitions with only slight errors; no serious recurring errors in agreement, tense, number, person, articles, pronouns, and preposition; almost no sentence fragment or run-ons; the variety of lexical items with some problems but not causing comprehension difficulties; good control of word form; most effective idioms; correct register.
	11-20 Fair to poor	A limited variety of mostly correct sentences; little variety of sentence length; improper use or missing transitions; recurring grammar errors are intrusive; sentence fragments or run-ons evident; a limited variety of lexical items occasionally causing comprehension problems; moderate word form control; occasional inappropriate choice of idiom; perhaps incorrect register.
	1-10	A limited variety of sentences requiring

	Inadequate	considerable effort to understand; correctness only on simple short sentences; improper use or missing transitions; many grammar errors and comprehension problems; frequent incomplete or run-on sentences; a limited variety of lexical items; poor word form; inappropriate idioms; incorrect register.

As mentioned earlier, the main source of data in this study is students' writing in the pre-test and post-test. In order to see to what extent the use of comic strips to improve the students' writing skills, document analysis conducted in such a way by reading and comprehending students' writing from the pre-test and the post-test in form of students' final draft writing. Their writings were then graded based on Hyland's scoring rubric as presented in the table above.

3.6.2 Pilot Test Data Analysis

A pilot test was conducted to determine the instrument's validity and reliability. As mentioned earlier by Riyanto and Hatmawan (2020) that validity can be used to measure the sample according to the objectives of the research. In determining the validity test, the researcher used SPSS 25 for Windows to calculate the results of the students' writing on the pilot test. A pilot test was conducted with 21 students from another class different from the class being tested. To determine the instrument's scale of validity, the final result was compared to the coefficient correlation criterion's table below.

Table 3.4 Interpretation of Coefficients Correlation by Sugiono (2011)

Coefficient Interval	Interpretation
0.00 – 0.199	Very Low
0.20 – 0.399	Low
0.40 – 0.599	Fair
0.60 – 0.799	High
0.80 – 1.000	Very High

After administering the validity test, the items were found to be valid since the score for each scoring aspect is as follows (1) format and content is .968, (2) organization and coherence is .887, and (3) sentence construction and vocabulary is 957. It showed that the result was categorized as very high validity because of the coefficient interval around 0.80 - 1.000 (appendix 3).

Then, the researcher has to calculate the reliability to see the consistency of the instrument when administered under similar conditions (Hatch & Farhady, 1982). Cronbach's Alpha formula was used to compute the data by using SPSS 25 for Windows. The interpretation of the index of reliability is described in following table.

Table 3.5 Interpretation of the Index of Reliability by Sugiono (2011)

Coefficient Interval	Interpretation
$r \leq 0.20$	**Very Low**
$0.20 \leq 0.40$	**Low**
$0.40 \leq 0.70$	**Fair**
$0.70 \leq 0.90$	**High**
$0.90 \leq 1.00$	**Very High**

The data is said to be reliable if the Cronbach's Alpha value is more than 0.6. The result of reliability test can be seen in the following table.

Table 3.6 The Result of Reliability Test

Cronbach's Alpha	N of Items
.855	3

Based on the calculation of the reliable test above, it states that 3 items are declared reliable. This is because the value of Cronbach's Alpha is greater than 0.6. The result showed that the reliability coefficient of the research instrument is 0.855. It means the value reaches 0.70 ≤ 0.90 so it was categorized as high reliability. The table showed a much greater value so that the conclusion is that this research instrument is very consistent and can be used as a valid research instrument.

3.6.3 Normality Distribution Test

A normal distribution test is used to investigate whether a set of data is normally distributed or not. Shapiro-Wilk test is used in this research using SPSS 25 for Windows (Field, 2005).In conducting the normality distribution test, there are three steps that are as follows. (a) Setting the alpha level. By default, this research test at 5% level of significance (two-tailed). Then, stating the hypothesis: Họ: the pre-test score are normally distributed. (b) Analyzing the data by using the Shapiro-Wilk test through SPSS 25 for Windows. (c) Interpreting the result of the test. If the significant value (Asymp.Sig) is less than 0.05 (Asymp.Sig < 0.05), the normality assumption is rejected. Meanwhile, if the value (Asymp.Sig) is higher than 0.05 (Asymp.Sig 0.05). The normality assumption is accepted (Field, 2005). Then, the result of normality test can be seen in the following table.

Table 3.7 Test of Normality

	Shapiro-Wilk		
	Statistic	**Df**	**Sig.**
Pre-test	.949	21	.218
Post-test	.945	21	.172

Table 3.7 showed that the data of pre-test and post-test is normally distributed by the significant value of .218 for pre-test and .172 for post-test by looking at the

Shapiro-Wilk test. Both of the significant values of the data were greater than p.05, which means that the data met the assumption of normal distribution.

3.6.4 Pre-test and Post-test Data Analysis

In analyzing students' writing from pre-test and post-test, the researcher compared their means through dependent t-test to find whether the difference between the pre-test and post-test mean score is significant or not. A dependent t-test is used to calculate the degree of relationship between pairs of two or more variables (Hatch & Farhady, 1982).

A dependent t-test is calculated by using SPSS version 25 for Windows by comparing the significance value with the level of significance to the test hypothesis. If the significance value is greater than or equal to the level of significance (0.05), the null hypothesis is accepted, and no significant differences between pre- and post-test will be found. The null hypothesis is rejected if the significance value is less than the level of significance (0.05), and it is decided that the result is significantly different between pre-test and post-test (Field, 2005). The pre-test was needed to determine the students' initial ability to comprehend narrative text in writing. Meanwhile, a post-test was undertaken to see if comic strips may help them enhance their writing comprehension.

1) Dependent T-test

Dependent t-test is conducted in this research in order to investigate the significant difference between the result of students' mean scores in pre-test and post-test. The procedures of the t-test began with the researcher set the level of significance or alpha level at 0.05 where:

H0: there is not a significant difference between the mean scores of pre-test and post-test.

H1: there is a significant difference between the mean scores of pre-test and post-test.

After that, the researcher calculates the t-test score using IBM SPSS (Statistical Product and Service Solution) version 25 for Windows. The last step, the researcher compares the t-test score with the value of the t-table.

Table 3.8 Hypothesis Testing (T-Test)

Testing	Hypothesis	
	H_0	H_1
t-test > t-table	Rejected	Accepted
t-test < t-table	Accepted	Rejected

As can be seen in table 3.8, if the t-test score is equal to or greater than the t-table score, it means that H_0 is rejected and H_1 is accepted, and there is a significant difference between the mean score in pre-test and post-test. Meanwhile, if the t-test score is less than the t-table score, it means that H_0 is accepted and H_1 is rejected, and there is no significant difference between the mean score in pre-test and post-test.

2) Data from Questionnaire

Before the questionnaire is distributed, it tested for validity and credibility by using SPSS v.25. The participants were taken from a different class from the class being tested. The results of the validity and reliability of the questionnaire are as follows:

a) Validity of the Questionnaire

Validity tests are useful to determine the validity or suitability of the questionnaire used by researchers so that each instrument can be used to measure the sample according to the objectives of our research (Riyanto & Hatmawan, 2020). The validity test carried out in this study used the Pearson product-moment correlation which was processed through SPSS V. 25 software for windows.

Benchmarking the value of r count with table:

a. The value of r count is more than r table = valid
b. If the calculated value is less than r table = invalid

How to find the value of r table with N = 21 at a significance of 5% in the distribution of the r value of the statistical table, then the r table value is 0. 433.

Table 3.1 Validation of the Questionnaire

V: Valid

I: Invalid

No. Item	Indicator	r count	r table (N=21)	I/V
1.	Response to the use of comic strip in writing narrative text	0,710	0,433	V
2.		0,248	0,433	I
3.		-0,009	0,433	I
4.		-0,013	0,433	I
5.		0,767	0,433	V
6.		0,759	0,433	V
7.		0,643	0,433	V
8.		0,819	0,433	V
9.		0,900	0,433	V
10.	Response to the motivation in learning writing narrative text through comic strip	0,773	0,433	V
11.		0,858	0,433	V
12.		0,543	0,433	V
13.		0,640	0,433	V

14.	Response to the role of the teacher in teaching and learning to write narrative text to comic strip	0,835	0,433	V
15.		0,686	0,433	V
16		0,761	0,433	V
17.		0,900	0,433	V
18		0,845	0,433	V
19.		0,680	0,433	V
20.		0,838	0,433	V

The results of the calculation of the validity of the questionnaire showed that from a total of 20 items, 17 items were declared valid while 3 items were declared invalid. For this reason, the researcher will use 17 valid items as valid research instruments.

b) Reliability of the Questionnaire

A reliability test aims to see whether the questionnaire has consistency if the measurements made with the questionnaire are repeated. Based on the basis of Cronbach's Alpha reliability test, the questionnaire is said to be reliable if the Cronbach's Alpha value is more than 0.6.

Table 3.2 Reliability of the Questionnaire

Reliability Statistics	
Cronbach's Alpha	N of Items
.918	20

Based on the calculation of the reliable test above, it states that as many as 20 items are declared reliable. This is because the value of Cronbach's Alpha is greater than the value of the r table (0.433). This figure shows a much greater value so that the conclusion is that this research instrument is very consistent and can be used as a valid research instrument.

The data from the questionnaire analyzed using descriptive statistics by referring to the percentage from the result on Google Form. The data is interpreted based on frequencies and/or percentages of students' answers to see their reflections on the use of comic strips in writing learning. The researcher used Likert Scale and students were asked to choose one of the options. The range option of questionnaires is one to four, which are categorized as; strongly disagree (1), disagree (2), agree (3), and strongly agree (4).

If the respondents choose options 4 and 3, it indicates a positive response toward comic strips in improving students' writing skills. If the respondents choose options 2 and 1, it indicates a negative response toward using comic strips in improving students' writing skills. Students' response toward using comic strips in improving students' writing skills would be presented in percentage (%).

According to Sugiono (2011), the calculation results can be interpreted as follows.

Table 3.9 Percentage Interpretation of Questionnaires

Percentage	Interpretation
0%	No one
1% ≤ P < 26%	Only a few
26% ≤ P < 50%	Nearly a half
50%	A half
51% ≤ P < 76%	Most of them
76% ≤ P < 100%	Nearly all of them
100%	All of them

Based on table 3.9, if the percentage is 0%, it means a negative response because no one agrees with the statement. If the percentage is $1\% \leq P < 26\%$, only a few respondents agree with the statement. If the percentage is $26\% \leq P < 50\%$, it means that nearly half of the respondents agree with the statement. If the percentage is 50%, it means that half of the respondents agree with the statement. If the percentage is $51\% \leq P < 76\%$, it's already concluded as a positive response because most of the respondents agree with the statement. If the percentage is $76\% \leq P < 100\%$, it means that nearly all of the respondents agree with the statement. Last, if the percentage is 100%, it means a positive response because all of the respondents agree with the statement.