CHAPTER II
REVIEW OF RELATED LITERATURE

A. The Nature of Writing

1. The Definition of Writing

Writing is an act of communication. Writing is one of the four skills in English language learning. Dulay stated that writing is the only mode in which both linguistics manipulation tasks and communications tasks have been given. Fuziati also gives statement that writing as a process is orientated towards work in progress and the development of new skills, rather than merely evaluative tasks, the classroom practices, therefore, will vary from each other. In the other words, Nunan also states that Writing is the process of thinking to invent ideas, thinking about how to express into good writing, and arranging the ideas into statement and paragraph clearly. Heaton stated that the writing skills are complex and sometimes difficult to teach, requiring mastery not only of grammatical and rhetorical devices but also of conceptual and judgmental elements.

According to *Oxford Advanced Learner’s dictionary* that writing is the activity or occupation of writing e.g. books, stories or articles. Writing is the representation of language in a textual medium through the use of sign of 

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symbols. Writing began as a consequence of the burgeoning needs of accounting.

Based on the explanation above it can be stated writing is an active productive skill and it will be used to communicate and to pour out ideas in our mind and more clearly. Writing is an act or process to produce some information from arranging and combining the words or sentences in order to expressing the idea in right grammatical, so the message can be received by the reader from our mind in the form of words or writing. Also Writing is used by the educated people to record something, to report, to explain, to inform, to ensure and to influence the readers.

2. The Types of Writing

An article states that writing can divided into four main categories; they are description, exposition, argumentation and narration. It will explained in the following ways:25

a. Narrative is a writing form is used to tell a story, to give meaning an event or series of related event.

b. Descriptive is kind of writing form which is used to evoke the impression produced by some aspect of person, place, scene or the like.

c. Expository is a writing form in which it includes most of people, read and write magazine or article and so forth.

d. Argumentative is a kind of writing form which is used to convince to persuade the readers to adopt a certain idea, attitude, or course of action.

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3. Process Writing

Writing is never a one-step action. Writing as one productive skill needs process. Writing process gives any benefit. It guides students from the topic to the finished product. Teaching the writing process is fairly straightforward, so it’s the way students interact with the writing process that proves most beneficial. There are four steps of writing process:

a. Planning

This process refers to pre-writing process and the point at which we discover and explore our initial ideas about a subject. Pre-writing is the thinking, talking, reading and writing you do about the topic before we write a first draft. Pre-writing is a way to get ideas. In this step, the researcher can choose a topic and collect ideas to explain the topic.\(^{26}\) The teacher needs to stimulate students’ creativity, to get them thinking how to approach a writing topic. There are several activities we can choose from in the prewriting stage. During Prewriting we are creating or generating a lot of ideas about our topic. The most important part of Prewriting is to generate as many ideas as possible. These prewriting activities include listing, brainstorming, free writing, clustering.\(^{27}\)


1). **Listing**

Listing is a pre-writing technique in which you write the topic at the top of a piece of paper and then quickly make a list of words or phrases that come into your mind.  

2). **Brainstorming**

Another way to get ideas down on paper quickly is through brainstorming. Brainstorming is one way to capture thoughts. Brainstorming starts with a significant word or phrase, and tries to record everything that comes to your mind. If you reach a point where you can no longer come up with any new ideas, ask a friend to help you brainstorm some fresh topics. Jerry also states that brainstorming is one popular activity of prewriting in which a topic is introduction by the teacher or students, after which students call out ideas associated with the topic while the teacher (or a student or two) write the ideas on the board.

3). **Free Writing**

In freewriting you write non-stop about a subject for a certain amount of time. You just write down sentences as you think of them without worrying about whether your sentences are correct or not. Also, Spelling or punctuation, mistakes, and finding exact words do not matter. You can

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31Alice Oshima and Ann Hogue, *Introduction to Academic Writing*, p. 34.
even write incomplete sentences phrases. The main goal of free writing is to keep your pencil moving across your papers. Brown also states that freewriting is a technique to generate ideas, it should be used as a beginning, as an initial exploration of the ideas that you have about a topic.  

4). Clustering

Clustering is a way get ideas for writing. Clustering, diagramming (mapping) is helpful for people who think in a visual way. You can put your idea in a circle or block and branch off examples or other ideas pertaining to it. As you think of related ideas, your write is this idea in smaller circle or block around the first circle. The related idea in each small circle may produce even more ideas and therefore more circle around it. Alice and Ann also stated that clustering is making a visual map or your ideas. 

b. Drafting

The next step is to write drafts, using your outline as a guide. Drafting is the actual writing of the paragraph. Write you rough draft as quickly as you can without stopping to think about grammar spelling or punctuation. Just get your ideas down on paper. You will probably see many errors in your rough draft. This is perfectly usual and acceptable-after all; this is just a rough draft. Then this process needs an editing for checking the text and fixes errors.

c. Revising and Editing

This stage is called revising and editing. Polishing is most successful if you do two steps. First, revising is attacking the big issue of content and organization. Then, editing is last process of writing process. In editing, the researcher focuses on the smaller issue of grammar, punctuation, and mechanics.

B. Nature of Paragraph

1. Definition of Paragraph

According to Siahaan that a paragraph is a piece of writing text. It contains several sentences. It can be classified into three parts; they are the beginning, the body and the ending. As a text, a paragraph contains several sentences which can be classified into three parts.  

There are several definitions of paragraph stated by different experts. Paragraph is usually a series of sentences that develops one topic. Paragraph is a basic unit of organization writing in which a group of related sentences develop one main idea. In a paragraph, the sentences should be related to one another and it discuss of the topic or main idea of the paragraph. All of the sentences in a paragraph are related because each sentence adds something about the same idea. The length of paragraph varies and depends on the complexity or simplicity of idea that is discussed in the paragraph. A complex idea may a long discussion, this a longer paragraph. Paragraph should be long enough to develop the main idea or topic clearly.

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36 *Ibid*, p. 3.
Based on the opinions above, it can be concluded that a paragraph refers to basic and logical unit of organization in writing in which a series of closely related sentences supply the readers with detailed information to support a single topic or a paragraph has only main idea that is written in a main sentence. The main idea should be develop with supporting sentences. The supporting sentences should be connected and refer to the main idea. Then, a paragraph also has concluding sentences which summarizes the control idea.

2. The Elements of Paragraph

Paragraph are the foundation of writing, students need to write paragraph in order to equip them paper, journal, reports and so forth. If students some paragraph can stand alone and some are parts of larger piece of writing such as an essay. According to Furaidah that paragraph is a group of related sentences which develops one main idea or one main topic. Paragraph has five major elements. They are:

a. The Topic Sentence

It states the main idea of paragraph. the researcher’s main idea, opinion or feeling about the topic. It is the key sentence because it names the subject and the controlling idea. The topic sentence must be vivid, stimulating and exciting to capture the reader’s mind. The topic sentence could come at the end of the paragraph or somewhere in the middle, but usually in the first sentence. The topic of paragraph is usually introduced in a sentence; this sentence is called the topic sentence. However, the topic

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37 Ruth Culham, The discussion of the elements of writing in this and the following section is based on the writing model described in 6+1 Traits of Writing, New York: Scholastic Professional Books, 2003, p. 11.
sentence can do more than introduce the subject of paragraph. A good topic sentence also serves to state an idea or an attitude about the topic.\(^{38}\)

Furaidah stated that the first element of a paragraph is a topic sentence. Every good paragraph has a topic sentence, which clearly states the main idea or topic of the paragraph. A topic sentence is the most important sentence in a paragraph. It briefly tells what the paragraph is going to discuss.

According to Robert A. Butler that quoted by Nirwanto, in understanding the topic sentence, there are three important points to be considered: \(^{39}\)

1) A topic sentence is a topic sentence; it contains a subject, a verb, and (usually) a complement.

2) A topic sentence contains both a topic and controlling idea. It names the topic and then limits the topic to a specific to be discussed in the space of single paragraph.

3) A topic sentence gives only the main idea; therefore, it is the most general statement in the paragraph. It does not give any specific details.

b. The Support


The support sentences they develop the topic sentences by giving specific
detail about the topic such as reasons, examples, facts, statistics and quotations.
According to Furaidah that after you formulated a topic sentence with a
focused controlling idea, you need to develop that topic sentence into a
paragraph. You can discuss, explain, or prove the view expressed in that
sentence. Take notes on details that can serve as the material that can back up
the limiting statement in the controlling idea. Knowledge from reading,
experience of others, or your own experience can be sources for generating the
support.

c. Unity

Unity is an important element of a good paragraph. Every good
paragraph has unity, which means that in each paragraph, only one main idea is
discussed. If you start to discuss a new idea, begin a new paragraph. The
unity is synonymous with oneness. It means oneness to express the ideas in one
paragraph. All sentences in a paragraph should state on the one thing in the
topic sentence. All of the sentences stick together.

d. Coherence

Another important component of paragraph is coherency. The verb
cohere means “hold together”. In order to have coherence in writing, the
movement from one sentence to the next must be logical and smooth. Each
sentence should flow smoothly into the next one. There are four ways to
achieve coherence, they are: using repetition of key nouns, using pronouns

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which refer back to key nouns, using transition signals to show how one idea is related to the next, and using logical order.

In order to have good writing skill, there are two important things that must be concerned. They are background knowledge and linguistic knowledge. Background knowledge related to the principles and theories how to write itself, and linguistic knowledge related to the use of punctuations, spelling, diction and grammar correctly. There must be no sudden jumps for a paragraph to be coherent, first it must has unity.\footnote{Ibid, p. 39.}

Furaidah said coherence is achieved by arranging sentences in logical order and providing signals that help the reader understand the relationship between the ideas in the sentence in the paragraph. In addition, the sentences are now connected by several linking devised: repetition of keywords, transition signal, and sentence combining.\footnote{Furaidah, \textit{Advanced Writing}. Pusat Penerbitan: Universitas Terbuka, 2002, p. 114.}

C. Descriptive Text

1. Definition of Descriptive Text

Descriptive text is a piece of text that describes a particular person, place, or thing. While Boardman and Jia state that descriptive text is a kind of text that is used to describe what something looks like.\footnote{C.A. Boardman and Jia F., \textit{Writing to Communicative Paragraphs and Essays}, 2nd Ed., New York: Longman, 2002, p. 19.} Another definition about descriptive text is based on Gerot and Wignell, it is stated that descriptive is a kind of text which is aimed to describe a particular person, place, or thing.\footnote{Linda Gerot and Peter Wignell, \textit{Making Sense of Functional Grammar}, Sydney: Gerd Stable Podean Education Enterpress, 1994, p. 214.}
From the definitions above, the researcher concludes that descriptive text is a text which aims to describe particular things, such as people, place, even unit of days, times of day, or season. It may be used to describe more about the appearance of people, their character or personality. Descriptive text reproduces the way things look, smell, taste, feel.

2. Generic Structure

The generic structure of descriptive text is shown in the following table:

<table>
<thead>
<tr>
<th>Generic Structure</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification</td>
<td>Identifies the person, place, or thing to be described</td>
</tr>
<tr>
<td>Description</td>
<td>Describes parts, qualities, and characteristics</td>
</tr>
</tbody>
</table>

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3. Grammatical Features

In descriptive text, use:⁴⁶

a. Specific Nouns, e.g. my car, my new house, my dog, etc.

b. Simple Present tense, e.g. I live in a simple house; the house is very beautiful; it has a wonderful park.

c. Detailed Noun Phrase to give information about subject. E.g. I have my white skinned girl friend, etc.

d. Some adjectives (describing, numbering, classifying), e.g. two strong legs, sharp white fangs, etc.

e. Relating verbs to give information about subject, e.g. My mum is really cool; it has very thick fur, etc.

f. Thinking verb or feeling verb to express personal writer view about subject, e.g. Police believed the suspect is armed; I think it is a clever animal, etc.

g. Action verb, e.g. Our new puppy bites our shoes; my cat eats mouse, etc.

h. Adverbials to give addition information about its behavior, e.g. fast, at the tree house, etc.

i. Figurative language, like simile, metaphor. e.g. John is white as chalk; her hair is black as ebony, etc.

4. Example of Descriptive Text

Prambanan Temple

Prambanan is one of Indonesia tourist place. Prambanan is in Klaten, Cental Java. Also, Prambanan is famous around the world. Prambanan is ancient heritage. Therefore, Prambanan is conserved sites by government. Prambanan has myth about Roro Jonggrang and Bandung Bondo Wasa.

Prambanan is Hindu temple. Prambanan has built since Mataram era. Prambanan had 1000 temples early. Yet, Prambanan has several temples because the weather and natural disaster some of temples were ruined. Prambanan has three big temples. There are Wisnu temple, Brahmana temple and Siwa temple. Wisnu temples is central temple and the biggest temple in Prambanan. Inside Wisnu temple, we can find Wisnu statue but we can enter to Wisnu temple because it is renovation. Prambanan also has many statues and relieves. Roro jongrang is the popular statue in Prambanan. Ramayana is one of relief in prambanan wall. Prambanan is so beautiful when we look it at night. Prambanan has large and beautiful garden around it. However, Prambanan is not one of seven wonders world. Many tourists visit Prambanan such as foreign and domestic tourist.  

Prambanan Temple

Picture 2.1

Prambanan Temple
D. Picture Media in Language Teaching Learning

1. Definition of Picture

Heinich and Molenda define picture in their book that picture is photographic representations of people, place and thing.48 Pictures enter the cognitive system through the eyes and processed as pictorial representations in the visual pictorial channel.

Picture is a visual media which is important and easy to find. It is important because it can give concrete visual illustration for the problem described. Picture can make people to receive ideas and information clearly, more than whatever described by words, even in written or spoken. Picture is used as media for teaching and learning since a long time. It can be also used effectively and easily. Besides, picture is easy to find and the simple picture is not difficult to make.

Also, picture is a visual media in the form of scratches or other forms which can bring about responses, perception, or human ideas toward an object or other things. There are many kinds of picture which can be used as teaching and learning media. Every picture kind has different excess and flaws each other. There are some kinds of picture which is able to use as teaching and learning media, such as: stick figure, sketch, illustration, photo, poster, flash card, folder, cartoon, and caricature.49

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Fauziati states that picture can be used to develop and sustain motivation, to produce positive attitude toward English and to teach and reinforce some language-learning skill. There are various cut outs that can be used for teaching a foreign language, such as:

a. Pictures of single person and single object,
b. Pictures of people engaged in activities,
c. Pictures showing some environment (a street, a room, a factory, a form, nature scenes, etc.)
d. Series of several pictures belonging to one conversational theme: foods, pieces of furniture, work activities, sports, means of transportation, articles of clothing, etc) glued on to a large sheet of heavy paper, and
e. Small pictures glued onto small cards for pair group work.

By means of a cut out picture the teacher can do the following things.\(^{50}\)

1) To introduce new lexical items,
2) To illustrate a new grammar structure,
3) To have simple description,
4) To tell stories, and
5) To conduct a conversation practice.

Based on the explanation above picture can be conclude, picture is an image or likeness of object, person, or scene produce on flat surface especially by drawing. Picture also can help to teach as media on writing. Picture can use as media because pictures can be used by teachers and students whatever their

emphasis of the syllabus they are following. Furthermore, pictures make a particularly powerful contribution to both the content and the process of language learning; especially contribute to interest and motivation, a sense of the context of the language, and a specific reference point or stimulus. Pictures could be an appropriate instructional media because pictures could be as function as an outlining device combining the design of table and grid table contras or comparison. In addition, the full color pictures could be useful to motivate students’ interest in teaching learning process of writing descriptive text material.

2. Types of picture

According to Jeremy Harmer, pictures can be in form of flashcard, large wall pictures, cue cards, photographs or illustrations, and projected slide. 51

a. Flashcard

It is a small card which we can hold up for students to see. Flashcard is particularly useful for “drilling” grammar items, for cueing different sentences, or practicing vocabulary.

b. Large wall picture

It is big enough for everyone to see detail. Sometime teachers use large wall pictures when pointing to detail of a picture to elicitresponse.

c. Cue card

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It is small card which students use in pairs or group work. Teachers put students in pair of groups and give them some cards so that when a student picks up the top cue card in a pile he or she will say a sentence that the card suggests.

d. Photograph or illustration

It is a photo or an image that depicts a situation or people in action. The teacher uses it to make the situation or the action clear. Photograph can be found in the book, newspaper, magazine, etc.

e. Projected slide.

In multimedia class, the teacher also uses it to teach. Sometimes the teacher uses it to show the images in the big form.

3. The Principle of Selecting Picture as Teaching Media

Any activity done in the classroom must be efficient in achieving its purpose. Picture should certainly be subjected to some practical criteria for assessment of their value. There are some criterion of selecting picture as teaching media.52

a. Easy to prepare
b. Easy to Organize
c. Clearly to see
d. Interesting
e. Meaningful and Authentic
f. Sufficient amount of language.

4. The Purposes of Picture Usage

According to Andrew Wright, the purposes of picture usage are:

a. To complete and make the content of message/information clear both in written or message.
b. To summarize the content of message/information delivered even orally or by reading texts.
c. To overcome the limitation of time, room, things and our monitoring.
d. To inspire the motivation, creativity and to prevent the boredom as the impact of only reading text or only listening.
e. To decrease the eyestrain while reading or listening weariness while delivery orally.

5. Advantages of Picture

There are several reasons to use picture as learning media. The advantages are:

1) Concrete,
2) Can overcome the limits of time and space,
3) To overcome the shortage of human resources capable of sense of sight,
4) Can be used to describe a problem,
5) Easy to use, and
6) Cheaper and easy to find.

6. Procedures in using Picture

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53Ibid, p. 17.
54Ibid, p. 3.
Below, the explanation of procedure in using picture media when teaching learning process:

1) Look at the picture
2) Then, students guess what picture that is.
3) Students identify the picture and write down in their paper

Give an assignment by using picture. Students make a paragraph to describe the picture based on their own word. For example, picture of spongbob. They have to describe the condition of spongbob and mention all things they found in the picture.

7. The Importance of Teaching Media

Media that used by the teacher in learning process can give motivation and stimulus to the students in learning activity.\textsuperscript{55} The use of media in English teaching is more effective. Besides that, it can give motivation and help the students to comprehend of the subject. One of the main functions of the teaching media is as teaching aid that will influence the climate, the condition, and the environment of learning organized and created by the teacher.\textsuperscript{56} There are some reasons of importance teaching using media:

1. The teaching learning process using media will increase students’ attention so that it can develop in learning motivation.
2. The meaning of the material that to be taught is easy to understand and it also makes the purpose of teaching very well.

\textsuperscript{55} Hamalik and Azhar Arsyad, \textit{Media Pengajaran}, Jakarta: PT. Rajagrafindo Persada, 2000, p. 15.
\textsuperscript{56} \textit{Ibid}, p. 15.
3. Teaching method will be more variety it is not only limited on teacher instruction so that the student not be bore.

4. The students are more diligent to study because they are not only listening to the teacher’s explanation but students also do the other activities to demonstrate and others.⁵⁷

E. Teaching Writing Descriptive Text Using Picture

To implement picture media in teaching of writing at the senior high school there were pedagogical activities to be done. They were Pre-Writing, Whilst Writing and Post-Writing.

In Pre-writing activity, the class activity was focused on stimulating the students’ background knowledge by showing pictures, having students brainstorming on topic and explaining the objective of the task.

In whilst writing activity, the class activity was focused on guiding and assigning the students to identify the picture, to obtain the writing of task. They will find out their idea and pour it in their writing. Then they develop the idea to be a good writing.

In Post-Writing activity, the class activity was focused on having students revising their writing. In this sense, the teacher guide and assigned students to correct their writing.

F. Scoring Method

⁵⁷ Ibid, p. 25
To assess the Students’ writing product, there are three methods of scoring for judging the students’ writing. Those are holistic, primary trait, and analytic scoring. In the present study, the writer used analytic scoring method in evaluating the students’ final composition. Analytic scoring is a procedure in scoring a piece of writing by referring to a list of features or sub skills on which a rater bases his or her judgment. It is assumed that analytic scoring system is closer to the criteria use in the process writing. The scoring method applied in the study is developed by Behram. The analytic scoring method applied in this study covers four components (content, organization sentence structure, grammar, vocabulary and mechanic).\(^{58}\)

<table>
<thead>
<tr>
<th>Table 2.2</th>
<th>The Scoring Rubric for The Measurement of Writing Test.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aspect</strong></td>
<td><strong>Score</strong></td>
</tr>
<tr>
<td>Content (C) 30% Topic Details</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>The topic is complete and clear and the details are relating to the topic</td>
</tr>
<tr>
<td>3</td>
<td>The topic is complete and clear but the details are almost relating to the topic</td>
</tr>
<tr>
<td>2</td>
<td>The topic is complete and clear but the details are not relating to the topic</td>
</tr>
<tr>
<td>1</td>
<td>The topic is not complete and clear and the details are not relating to the topic</td>
</tr>
<tr>
<td>Organization (O) 20% Identification Description</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Identification is complete and descriptions are arranged with proper connectives</td>
</tr>
<tr>
<td>3</td>
<td>Identification is almost complete and descriptions are arranged with almost proper connectives</td>
</tr>
<tr>
<td>2</td>
<td>Identification is not complete and descriptions are arranged with few misuse connectives</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category</th>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification</td>
<td>1</td>
<td>Proper connectives are used correctly. Identification is not complete.</td>
</tr>
<tr>
<td>Grammar (G)</td>
<td>20%</td>
<td>Use present tense agreement. Very accurate grammatical and agreement.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Few grammatical and agreement inaccuracies but not affect on meaning.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Numerous grammatical or agreement inaccuracies.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Frequent grammatical and agreement inaccuracies.</td>
</tr>
<tr>
<td>Vocabulary (V)</td>
<td>15%</td>
<td>Effective choice of words and word forms.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Repertory of words is enough, the chosen and use of word occasional not exactly, but not change the meaning.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Limited range confusing words and word forms, the meaning is hazy and obscured.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Very poor knowledge of words, word forms, and not understandable.</td>
</tr>
<tr>
<td>Mechanics (M)</td>
<td>15% (M)</td>
<td>It uses correct spelling, punctuation, and capitalization.</td>
</tr>
<tr>
<td>Spelling Punctuation</td>
<td></td>
<td>It has occasional errors of spelling, punctuation, and capitalization.</td>
</tr>
<tr>
<td>Capitalization</td>
<td></td>
<td>It has frequent errors of spelling, punctuation, and capitalization.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>It does not master the rule of spelling and writing, full of error in spelling, punctuation, capitalization arrange of paragraph, difficult to read the writing, not enough information to evaluate.</td>
</tr>
</tbody>
</table>

**G. Experimental Study**

An experiment is a scientific investigation in which the researcher manipulates one or more independent variables, controls any other relevant variables, and observes the effect of the manipulations on the dependent variable(s). An experimenter deliberately and systematically introduces change and then observes the consequences of that change. Only research problems
that permit a researcher to manipulate conditions are appropriate for experimental research. The goal of experimental research is to determine whether a causal relationship exists between two or more variables. Because the experiment involves control and careful observation and measurement, this research method provides the most convincing evidence of the effect that one variable has on another.\[^{59}\] The essential requirements for experimental research are control, manipulation of the independent variable, and observation and measurement.\[^{60}\]

1. **Control**

Control of variables is the essence of the experimental method. When a study is completed, researchers want to attribute the outcome to the experimental treatment. To do this, they must eliminate all other possible explanations by controlling the influence of irrelevant variables. Without control it is impossible to evaluate unambiguously the effects of an independent variable or to make inferences about causality.\[^{61}\]

2. **Manipulation**

The manipulation of an independent variable is a deliberate operation performed by the experimenter. In educational research and other behavioral sciences, the manipulation of an independent variable involves setting up different treatment conditions. Treatment is another word for the experimental manipulation of the independent variable. The different treatment conditions


\[^{60}\] Ibid, p. 266.

administered to the subjects in the experiment are the levels of the independent variable.\textsuperscript{62}

3. Observation And Measurement

After applying the experimental treatment, the researcher observes to determine if the hypothesized change has occurred. Some changes can be observed directly, whereas other changes are measured indirectly. Learning, for example, is often the dependent variable in educational research. Researchers cannot measure learning directly. They can only estimate learning through scores on an achievement test or other measures chosen according to the operational definition. Therefore, strictly speaking, the dependent variable is observed scores rather than learning perse.\textsuperscript{63}

H. Analysis Of Variance (ANOVA)

An experiment investigating the combined effects of two or more independent variables is called a factorial design, and the results are analyzed by means of a multifactor analysis of variance. If two independent variables are investigated, it is the analysis a two-way analysis of variance. The null hypothesis for two way ANOVA is that the population means are equal. The effects of each independent variable (stress, age and motivation level) on the dependent variable are called main effects, whereas the effect of different combinations of the two independent variables on the dependent variable is referred to as an interaction effect. The end products of these analyses will be

\textsuperscript{62} Ibid, p. 267.

\textsuperscript{63} Ibid, p. 269.
three F ratios, two of which indicate the significance of the two main effects and the third indicates that of the interaction effect.\footnote{\textit{Ibid}, p. 186.}

The general rationale of ANOVA is that the total variance of all subjects in an experiment can be subdivided into two sources: variance between groups and variance within groups. Variance between groups is incorporated into the numerator in the F ratio. Variance within groups is incorporated into the error term or denominator, as it is in the t test. As variance between groups increases, the F ratio increases. As variance within groups increases, the F ratio decreases. The number of subjects influences the F ratio: the larger the number, the larger the numerator becomes. When the numerator and denominator are equal, the differences between group means are no greater than would be expected by chance alone.

In this study, the researcher used two-way ANOVA to find the significant effect of using picture media toward bright and low level students’ achievement in writing descriptive text. Since in this study, the researcher has three variables; one independent variable and two dependant variables that divided into low and bright level students’ achievement.