This chapter presents the elaboration of the theoretical foundation of the research. It consists of the theory of the review of previous research, review of related literatures, procedures of teaching reading through Mind Mapping technique, and advantages and disadvantages of using Mind Mapping technique in teaching report text.

2.1. Review of Previous Research

Reading skill is crucial skill because it highly connected with the language ability of people. It makes reading very important especially in language learning. Getting involved in reading comprehension needs appropriate techniques or strategies. As the result, there are many researches had investigated about how to increase reading comprehension mainly in language teaching concept. Mind Mapping takes a part as one of techniques in teaching reading comprehension. The previous study about the use of Mind Map showed that Mind Map is effective.
Bekti (2007) used Mind Mapping in teaching reading comprehension at eleventh grade of SMK Negeri 8 Semarang. He did the research to find out how mind mapping technique is applied as a technique in teaching reading comprehension and to find out whether this technique can affect the students’ reading comprehension achievements. This study was experimental research. He chose one class as experimental group and one class as control group by using cluster random sampling. After being taught using Mind Mapping, the experimental group developed better as the average scores increased 2.40 point (from 70.06 to 72.46), whereas the average scores of the control group increased only 0.20 point (from 70.10 to 70.30). The significant differences of the two means were measured by using the t-test formula. It means that there are significant differences between students who were taught using Mind Mapping and those who were not.

Shiripanich (2010) also did the research about implementation of Mind Mapping. The object of his research was Thai EFL University Students. The objective of his research was to find out whether Mind Mapping can improve reading comprehension ability and also the opinion towards the use of Mind Mapping. The research design used in this study was one-group pre test-post test design. The study employed both quantitative and qualitative data analyses from pre-and post-tests, a questionnaire, and an interview. The participants of the study were 35 first-year students enrolling in a compulsory reading course called Communication and Reading Skills at a university south of Thailand. The result
showed that The English reading comprehension post test mean score of students was higher than the pre test mean score at the 0.05 level of significance; 2) most students were satisfied with their own reading comprehension ability; 3) they enjoyed working in group and agreed that mind mapping technique was a useful technique and can be applied to non-English subjects.

Yahmun (2011) a graduate students in The State of Malang University had explained about the effect of Mind Mapping on the MTs’ students. This study was to investigate whether Mind Mapping can improve the students’ ability in comprehending reading passages. To be more specific, this study was conducted to find out: (1) whether the low achieving students in experimental group who have been taught using Mind Mapping significantly achieve higher score than the low achieving students in the control group, (2) whether the high achieving students in the experimental group who have been taught using Mind Mapping significantly achieve higher score than the low achieving students in the control group. The design of this study was a Quasi-experimental or Nonrandomized Control Group, Pretest-Postest Design. The subjects of this study were students of Madrasah Tsanawiyah Malang which is located on Jalan Arjuno. The result showed there was no significant differences between experimental and control group. However, it was founded that the mean score of the low achieving students in experimental group was 58.40 whereas the mean score in the control one was 49.23. the researcher concluded that Mind Mapping be applied to help or to improve students’ comprehension ability for low achieving students.
Even though there was many researchs in increasing reading comprehension using Mind Mapping, no research were available in report text. So that in this time, the researcher will apply the Mind Mapping technique to increase students’ reading comprehension in report text.

2.2. Review of Related Literature

This part presents related theories of the concern of the research, such as: concept of reading comprehension, concept of reading aspect, reading strategies, concept of report text, and concept of Mind Mapping technique.

2.2.1. Concept of Reading Comprehension

There are many theories about reading comprehension. Nuttal (1982:2) has cited reading as the process of the interaction between language perception and the readers’ language skill, cognitive skill, and the knowledge of the words. In the consideration, reading seen as an active process and connectivity between the readers and the information restricted on the text. Nutal adds that authentic reason for reading is to get something from the writing: fact, ideas, enjoyment, even feeling of family community (a letter). The important of reading not only in what we get from the text but also the process itself. When the readers feel enjoy with what they do, they will certainly get the point of it.
Suparman (2007:12) states that there are three theories of reading comprehension. They are the theories of comprehension based on cognitive perspectives, social perspectives, and text-driven operation and knowledge-driven operation perspectives. Reading from a cognitive perspective is considered as an intrapersonal problem-solving task that takes place within the brain knowledge structure (Bernhardt, 1991:6). In other words, it is seen as an independent idea in finding solution using the readers’ own way of thinking to link up with the other idea for instance text.

As social perspective argues that a text is a social and cultural artifact representing group values and norms (Bernhardt, 1991:13). Particularly, what people read can influence the way they think. Then, when some people read a kind of text can lead them having a similar point of view. Another side, they may have different point of view in understanding a similar text. It is talking about the previous knowledge that people have before reading the text influence the way people thinking about the text itself.

The third is The Text-Driven Operation and Knowledge-Driven Operation. Any conceptualization of reading especially in the second language must deal with reader interaction with both dimensions of text (Bernhardt, 1991:72). All over, readers should be able to read the text not only “seen” texts but also “unseen” text. Suparman (2007:19) explain that “seen” text defined as the words, sentences and paragraphs with grammatical, morphological and sintatic meaning and “unseen”
text as conceptually driven, implicit, internal and reader-based meaning. In order to get with those aspects, the readers have to comprehend the text when they are reading.

Now, clearly that comprehension is important in reading. Since comprehension seen as the process of getting new information and connecting with the previous knowledge. Comprehension has to be the product of reading process.

### 2.2.2. Concept of Reading Aspect

There are five reading aspects that used in directing this research:

1. **Main Idea**
   
   Main idea is a sentence containing the most important information that tells about the whole paragraph. It usually appears in the beginning of paragraph. This sentence is called the topic sentence (Whother, 1986:36). In simply, this sentence is all the writer wants to express and the reader wants to get. It can be stated both implicitly and explicitly. The readers have to be wise in deciding the main idea of a paragraph.

2. **Specific Information**
   
   Supporting sentence or specific information develops the topic sentence by giving definition, examples, facts, an incidents, comparison, analogy, cause and effect statistics, quotation (Whother, 1986:36). The idea that is
stated will be broaden in supporting sentence. The writer gives the reinforcement of the idea in those supporting sentences.

3. References

Reference is words or phrase or after the reference in reading material (Latulippe 1986:20). It is used to avoid unnecessary repetition of words or phrases. So, it is indicated the readers about the meaning of words that will be found elsewhere in the text.

4. Inference

Inference is an educational guess or prediction about something unknown based on available facts and information (Kathleen, 1986:31). The readers have to connect the words with the context of the text to conclude the exact meaning.

5. Vocabulary

Vocabulary is the stock of words used by people or even person (Wallace, 1988:30). It is being important for the readers to understand what they read.

In this research, those 5 aspects above are applied to indicate the students’ ability in comprehending a text.

2.2.3. Reading Strategies

Reading comprehension strategies can be referred to as specific tactics, or techniques, observable or non-observable, that a comprehender uses to store, retrieve and use main formation to make sense of the ideas in the text (Suparman,
In order to comprehend the text, the readers should have a special technique that can encourage their ability in reading.

Brown (2001:306) proposes ten strategies of reading such as identifying the purpose of reading, using graphemes rules and patterns to aid in bottom-up decoding (for beginning level of learners), using efficient silent reading techniques for relatively rapid comprehension (for intermediate and advanced levels), skimming the text for main idea, scanning the text for specific information, using semantic mapping or clustering, guessing when the reader are not certain, analyzing vocabulary, distinguishing between literal and implied meanings, and capitalizing on discourse markers to process relationship. This research is involving the four strategies related to Brown theories. They are getting general picture, extracting detailed information, using semantic mapping or clustering, and extracting specific information.

Reading as the important aspect of language should be containing meaningful activity in the learning process. As Simanjuntak (1988:18) states, there are ten claims about reading that fulfill the principles of learning:

1. Reading requires purpose and motivation (interest, need)
   It seen that reading should be an activity that attrack people to do it for pleasure. They must have a desire to read when they saw a text. The curiosity for knowing something can be one factor to make them interesting in reading.
2. Reading requires the meaning for the learner.

   The learner will have a good spirit in reading when reading being an impressive activity for them. A good material without a suitable strategy will drive the activity drably and vice versa. Unity of a good material and suitable strategy can actualize a meaningful process.

3. The teacher must bring much background information to any reading task.

   Teacher as the facilitator of learning process have to build a good circumstances from the beginning until the end. In the beginning, teacher should bring the students to be drowned to the material. It can be done by giving cross questions to the students.

4. Reading is an active process, it requires the learner to be active in his learning to read.

5. Reading skills need the forming of habits.

6. A knowledge of syntactic structure and vocabulary is important.

7. Reading requires practice – time on task.

8. Favorable attitudes are important for effective reading.

9. Reading capabilities are different for each student.

10. Reason for reading is important to be an effective reader.

Based on those claims, reading should be done in a perfect activity that encourage the students not to read the text and ended with forgetting but to read with pleasure. They should not feel burdenning with reading but take reading as favourite and a must.
2.2.4. Concept of Report text

As senior high school students on second grade, there will be some text that should be mastered. On the 2006 (KTSP) curriculum, there are: narrative, report, hortatory and analytical exposition that have to be learnt by the students. The researcher focuses to the report text as one of difficult texts based on students’ experience.

Report is a kind of text that tells the readers about the descriptive of objects generally. Siahaan and Shinooda (2008:43) state that report is a text which can be written out with a descriptive technique. It describes an object to the readers. The purpose of the text is to inform or entertain the readers. It should be mastered by the students of senior high school on the second grade.

Report text is telling about a matter of fact. It is based on the reality. The text is opened by introducing the phenomenon under discussion. It also contain of the definition of the things that will be discussed. Then, followed by the details description of the things that is being discussed. This part is the important one because it is the main point of the text. Next, there is usually a conclusion for closing the text. It gives the final statement about the whole information of the text. Since report text tells about the general truth, it uses simple present tenses. Report text focuses on generic participants. It uses of relational processes to state what is and that which it is. There also have no temporal sequence.
What Are Clouds?

General Classification: Clouds are water vapor condensed into minute water particles which float in masses in the atmosphere. There are three main types of clouds, classified according to the height at which they occur. Clouds were first named by The English chemist Luke Howard in 1803, a pioneer of meteorology. The types he named were cirrus, cumulus and stratus.

Description: Cirrus clouds are usually high and appear as delicate whitish threads against a blue sky. Because of their height, they are composed of ice crystals and not of water droplets.

Cumulus clouds typically have a rounded appearance and sometimes reach 20,000 feet into the sky. They are often characterized by having an anvil shape in the center of the cloud.

Stratus clouds are layers of cloud which can form at any height and tend to cover the whole sky. Often, the sky is overcast and the sun is probably completely concealed.

Conclusion: This is a basic grouping of types of clouds. The ever-changing cloud formations are an important aspect of
meteorology and clouds can be further described in many ways.

(Source: F.A. Soeprapto & Mariana Darwis, Linked to The World 2, Yudhistira, 2006:8)

2.2.5. Concept of Mind Mapping Technique

Mind Map is an alternative of general thinking towards linear thinking. It seizes to the whole direction and gets many thinking from the whole angle (Michalko, 2007). Mind map is the simple way to place the information to the brain and get the information out from the brain. Mind map is a creative, effective way of noting and actually “mapping” is all of our minds (Buzan, 2007:4). As Buzan states that mind map is similar with the map of a city. The similarities are:

1. Mind Map gives the entire conception of the main problem or wide area.
2. Possible us to plan the route, or making choices, and knowing where we will go and where we were standing.
3. Collecting a big number of data in one place.
4. Supporting the problems solving with showing us the new creative ways.
5. Nice to look, to read, to understand, and to remember.

We usually look a map for searching an area that we want. By Mind Mapping, it is also help us to find out the idea that we need.
Mind Map can be defined as system of data saving, data conclusion, and amazing access of big library that actually existing on human brain (Buzan, 2007:12). All of Mind Maps has the similarity. They use color and have a natural structure that is started from the center. Additionally, Speller (2008) states that “mind map is a powerful graphic technique which connect the full range of productive skills in a single, powerful manner such as words, images, numbers, logics, rhythms, colors, and spatial awareness.

According to Buzan (2007:15), there are seven steps for making Mind Map:

1. Starting from the center of a landscape paper
   Starting from the center, giving a freedom for the brain extending to whole direction and gasp the mind more freely and natural.

2. Using PICTURE or PHOTO for the central idea
   It is because picture can show many words and help us to imagine. A central picture will be more interesting, make us focus, help us concentrate, and act our brain.

3. Using Colors
   For our brain, colors as interesting as picture. Colors can make Mind Map more meaningful and add energy for creative thinking.

4. Connect the main branch to the central picture and connect the second branch and third branch to the first and second and etc.
   The brain works by association. The brain likes to connect two or more things together. If only we connect the branches, it will be easier to understand and to remember.
5. Make connecting line in curve, not a straight line.

Since the straight line will be boring for the brain, it would be better to use curve for connecting any keywords on the Mind Map.

6. Using one key word for every line

Every single word or picture looks like multiplier, resulting many connection and association by their own.

7. Using drawing

As a central picture, every drawing has many meaningful words. So, if we have only ten drawings in our Mind Map, it is similar to ten thousand notes.

The using of Mind Mapping in report text can be designed in a simple type as follows:

Report text

Earthquake

An earthquake is the shaking of the land. It happens when rocks suddenly move because there a break deep underground. Hundreds of earthquakes happen each year, but most of them are very small. The most famous and terrible earthquake happened in 1755 in Lisbon, Portugal. Three shocks came at intervals of forty minutes destroying most of the large buildings and killing many people. Another example of a big earthquake happened in 1990 when an earthquake measuring 7.7 on the Richter scale destroyed cities, towns and villages in North-Western Iran.

When the location of the earthquake is under the ocean, it will cause a great tidal wave. We called it tsunami. The height of the tsunami wave is about 30 meters. The speed of the wave is about 800km per hour. Years ago, a tsunami destroyed houses and killed many people in Flores
Island. It was really terrible natural disaster. Now scientists have a tool to measure and record earthquakes. The tool is called seismometer. However, it is impossible to predict when the earthquake will occur.

The Mind Map of Report Text

Picture 2.2.

The center circle is the main idea of the report text, earthquake. It uses green light colors in order to make it catched easily. In reality, pictures related to the topic can be added. For example, the broken city that tells situation when earthquake
happened. There are three first red branches from the center circle. Each branch contains the ideas of the topic using a key word. It is based on the readers' background knowledge relating to the topic before reading the text. Then, every branch has more branches. It describes the information that put on the first branches. The second branches are from the readers' mind or the information refer to the text.

2.3. Procedures of Teaching Reading through Mind Mapping Technique

According to Alyousef (2005), the teaching reading activity is divided into three parts. They are pre- a reading, while- reading and post- reading. Those procedures are modified by the researcher as follow:

Pre-reading:

1. The teacher asks the students about their experiences about report text.
   (What do you know about report text? Is it difficult for you? What are your difficulties in reading report text?)

2. The teacher asks the questions related to the topic they will learn.
   (E.g. Do you know about earthquake? Why it can happens?, etc.)

Whilst- reading:

1. The teacher explains about the generic structure, grammatical features and social function of report text.

2. The teacher explains about Mind Mapping technique that will ease them in comprehending the report text.
3. The teacher asks the students to read the text “Earthquake”.

4. The teacher gives the example of Mind Mapping from the text “Earthquake”.
   a. The teacher writes “Earthquake” at the center of the whiteboard using black marker.
   b. The teacher asks the students what they know about earthquake.
   c. The teacher makes some branches and writes any supporting idea about earthquake on the branches using many different colors.
   d. Add some pictures related to the ideas.

5. The teacher and the students discuss the answer of reading comprehension test related to the text “Earthquake”.

6. The teacher gives the second text “Elephant”, and asks the students to read and mind map the text based on the teacher’s previous example.
   a. Ask the students to take a sheet of paper.
   b. Ask the students to write the title of second text at the center of the paper.
   c. Let the students do like the what has been done previously by the teacher, without instruction.
   d. Let them free to express their mind to comprehend the text.

7. The teacher lets the students answer the reading comprehension text.

8. The teacher collects the students answer.

Post-reading:

1. The teacher asks the students about what they have learnt.
2. The teacher asks the students about the difficulty in understanding the lesson.

3. The teacher asks the students to make a conclusion of the lesson.

Hopefully, with the implementation of this technique, there will be a significant improvement of student’s reading comprehension of report text.

2.4. Advantages and Disadvantages of Using Mind Mapping technique in Teaching Report Text

There are some advantages of using Mind Mapping in teaching report text, such as:

1. The students are stimulated to be creative and imaginative in comprehending the text.

2. Motivating the students in reading.

3. It is enjoyable and eases the students to get the idea and to remember.

4. Help students transform vague ideas into concrete projects.

5. It helps students to place the right point of view. (Busan, 2007:214)

However, Mind Mapping also has some disadvantages, such as:

1. Mind Mapping needs many school tools, for example: pencil colors, crayon, and markers.

2. It requires a little more time since the students will spend their time to create an interesting picture in their Mind Map.
2.5. Theoretical Assumption

Based on all the literatures reviewed before, the researcher finds that comprehension is very important in reading text. Because reading is not only about what is written, but also what does it mean. Students of Senior High School have to master many kinds of text. Report text is the difficult one. As one of difficult texts, report text usually hard to comprehend. It makes the students being lazy to read report text.

Dealing with this fact, the researcher chooses Mind Mapping technique. Mind Mapping technique will be suitable for report text. It can increase the students’ motivation and help them to concept their way of thinking. The researcher assumes that Mind Mapping will handle the students’ difficulties in reading report text. In other side, it is going to increase the creativity and motivation of the students in reading.

2.6. Hypothesis

Based on the theoretical assumption above, the researcher formulates the hypothesis as follows:

\[ H_0 : \text{There is no significant increase of students’ reading comprehension ability of report text by using Mind Mapping technique.} \]

\[ H_1 : \text{There is significant increase of students’ reading comprehension ability of report text by using Mind Mapping technique.} \]