II. THEORETICAL BACKGROUND

This chapter deals with two major points: review of previous research and review of related literature.

2.1. Review of Previous Research

Many researchers have conducted studies about morphological analysis and reading comprehension. The outcomes are presented as follows.

The first study that revealed the positive effect of morphological analysis on reading comprehension was done done by Ku and Anderson (2003). They conducted a study to investigate whether morphological awareness, which is conscious awareness of the morphemic structure of words and the ability to reflect on and manipulate that structure, played a significant role in vocabulary acquisition and reading proficiency among second, fourth, and sixth American and Chinese graders of English and Chinese languages. The researchers administered a reading comprehension test along with a morpheme recognition test, a morpheme interpretation test, and a pseudoword judgment test. The results demonstrated that morphological awareness was developed gradually throughout the students' language experience and that morphological awareness was indispensable for English and Chinese vocabulary acquisition and reading proficiency.

The second study about morphological analysis and reading comprehension was done by Timyam (2008). He conducted needs analysis of knowledge in linguistics for English-major students. The subjects were 123 English-major students at the undergraduate and graduate levels in Thailand. The results revealed that the students considered morphology as significantly needed. That study suggested that morphological elements should be taught in order to help students know the meaning of unfamiliar words.

The third study about morphological analysis and reading ability was done by Kirby (2011). He investigated the effect of morphological awareness on reading in 103 children from grades 1 to 3. Morphological awareness was assessed with a word analogy task that included a wide range of morphological transformations. The results indicated that morphological awareness was a significant predictor of word reading accuracy and speed, pseudoword reading accuracy, text reading speed, and reading comprehension. Morphological awareness also explained variance in reading comprehension after further controlling word reading. He concluded that morphological awareness had important roles in word reading and reading comprehension and he suggested that it should be included more frequently in assessment and instruction.

The fourth study was done by Asgharzade (2012). That study investigated the effect of explicit morphological practice on improving reading comprehension ability of Iranian intermediate level language learners. The participants in that study were sixty Iranian EFL learners in English institutes of Amol, Mazandaran, Iran that were randomly assigned to one experimental group and one control group.

First of all, the students in both groups took pretest. Then, the treatments of the researcher started and all the students in both groups received a six-sessions reading comprehension training but the experimental group also received explicit morphological practice during reading comprehension classes. After finishing the treatments, all the participants took a posttest.

The results indicated that the students in the experimental group showed a progress in their reading comprehension ability from pretest to posttest. That demonstrated that explicit morphological practice was effective in improving reading comprehension skills of Iranian intermediate level EFL students.

The last study was done by Varatharajoo (2013). The aim of his study was to investigate morphemic analysis awareness among low proficiency Malaysian secondary school students in ESL context. Learners' morphemic analysis awareness in this study was assessed based on analytic and synthetic aspects of morphemic analysis tasks. The results indicated that the students had limited awareness in both analytic and synthetic aspects of morphemic analysis tasks. This finding implicated that there was a need for explicit teaching of morphology units to create morphemic analysis awareness among Malaysian secondary school students. That was because it could help them to unlock the meaning of new and complex words by analyzing the meaningful parts within the words.

Based on the previous studies elaborated above, the following things had been found:

1. Morphological awareness was developed gradually throughout the students' language experience and that morphological awareness was indispensable for

English and Chinese vocabulary acquisition and reading proficiency (Ku and Anderson, 2003).

2. The students at the undergraduate and graduate levels in Thailand considered morphology as significantly needed in order to help students know the meaning of unfamiliar words (Timyam, 2008).

3. Morphological awareness was a significant predictor of word reading accuracy and speed, pseudoword reading accuracy, text reading speed, and reading comprehension. It has important roles in word reading and reading comprehension, and it is suggested that it should be included more frequently in assessment and instruction (Kirby, 2011).

4. The Iranian intermediate level EFL students in the experimental group showed a progress in their reading comprehension ability from the pretest to the posttest after explicit morphological instruction. That demonstrated explicit morphological practice was effective in improving reading comprehension skills of Iranian intermediate level EFL students (Asgharzade, 2012).

5. The students of Malaysian secondary school had limited awareness in both analytic and synthetic aspects of morphemic analysis tasks. There was a need for explicit teaching of morphology units to create morphemic analysis awareness because it could help them to unlock the meaning of new and complex words by analyzing the meaningful parts within the words. (Varatharajoo, 2013).

Based on the findings above, there was one issue that needed an attention, that is, morphological analysis had played a significant role in reading comprehension. The results of the findings recommended that there should be an instruction of

morphological analysis because it can help them to unlock the meaning of new and complex words. Therefore, this research would be carried out to deal with that issue.

2.2. Review of Related Literature

This part consists of some terms reviewing the explanation of literature that relates to this research. The explanations are as follows:

2.2.1. Concept of Reading Comprehension

It is better to know what reading is before going to the concept of reading comprehension. Reading is one of language skills in learning English that deals with written form. For many years, there has been three basic definitions of reading (Foertsch, 1998). According to the first definition, learning to read means learning to pronounce words. The second definition states that learning to read means learning to identify words and get their meaning. For the third definition, learning to read means learning to bring meaning to a text in order to get meaning from it.

Reading is more than knowing what a letter of alphabet stands for. Reading involves more than recognition, that is, without comprehension, no reading takes place. Therefore, reading comprehension can be understood as the ability to make sense of written or printed symbols to guide recovery of information to construct plausible interpretation of the written message (Grabe et. al., 1986: 27). As it has been discussed in the first chapter, reading is essential because most of beneficial information in the world are in a written form. Therefore, those who want to know

and improve every information and knowledge have to read. Moreover, the U.S. National Reading Panel (Armbruster, Bonnie B., and Jean Osborn, 2001) defines reading comprehension as a complex system of deriving meaning from prints that requires all of the following:

1. The skill and knowledge to understand how phonemes or speech sound are connected to print.

2. The ability to decode unfamiliar words.

3. The ability to read fluently.

4. Sufficient background information and vocabulary to foster reading comprehension.

5. The development of appropriate active strategies to construct meaning from print.

6. The development and maintenance of a motivation to read.

In addition, Simanjuntak (1988: 4) states that the first point to be made about reading process is comprehension and the meaning is the basic element for comprehension. She also adds that comprehending a text is an interactive process between the readers' background knowledge and the text itself. It is also supported by Eskey (1986) saying that schemata plays a major role in reading comprehension. It is important that the readers should be able to interpret what they read and associate with their experience because when they read the text, the communication process between the readers and the writer has happened. The readers try to interact with print and their prior knowledge is combined with the visual (written) information. As a result, they may be able to comprehend the text.

Thus, there is no reading without comprehension and background knowledge (schemata) is involved in the process of building up the comprehension.

Generally, there has been five sort reading skills that should be mastered by the readers to comprehend the text deeply. They are identifying main idea, identifying details, determining inference, understanding vocabulary, and reference (Nuttall, 1985). Among them, there are two basic reading skills that have to master as follows.

1. Identifying main idea

   In accordance with Segretto (2002: 12), main idea is what the passage is mostly about. The author often states the main idea in the first or last few sentences of the first paragraph. However, the author may state the main idea anywhere in the passage. Sometimes, the author only suggests the main idea by leaving clues within the passage.

2. Understanding vocabulary

   Linan et al (2007: 87) states that the role of vocabulary in reading is clearly understood: vocabulary knowledge, the understanding of word meanings and their use, contributes to reading comprehension and knowledge building.

In addition to those things, there are still many skills the readers should develop. This is because reading comprehension test items will vary and do not cover those five reading skills only. Therefore, the readers can develop their reading skills by using the following reading comprehension strategies (Suparman, 2012).

1. Making/confirming/revising predictions

   Predicting is guessing what things are about to happen using a few facts. The

readers are asked to always reread and ask themselves questions until they have enough information to predict an outcome.

2. Interpreting problems/solutions

Problem and solution is a pattern of organization where information in a passage is expressed as a dilemma or concerning issue (a problem) and something that can be or should be done to remedy this issue (solution or attempted solution).

3. Making a generalization

A generalization is a simplification of a large topic. The readers should think carefully what one true thing is they can say about all the information. To be valid, a generalization must be true for all things and in all cases.

From the previous statements, it is clear that reading and comprehension is regarded as one activity which can not be separated and depends on the progress of activity of mind. In other words, reading comprehension is an activity to grasp the meaning of written materials with fully understanding and the information from the readers' own background knowledge to build up comprehension.

2.2.2. Concept of Teaching Reading

Teaching reading in learning English turns to be salient because all aspects in learning English requires this ability to get familiar with English vocabularies as the basic component in learning this subject. McDonough and Shaw (1993) state that the aim of teaching reading is to develop the students' skill so that they can read English texts effectively and efficiently. To be able to do so, students have to be familiar first to the words on the text so that they can comprehend the text and

understand the information effectively. This simultaneously assumes that teaching reading can not be separated from teaching vocabulary.

Reading comprehension and vocabulary are inextricably linked. The ability to decode or identify and pronounce words is self-evidently important, but knowing what the words mean has a major and direct effect on knowing what any specific passage means. Students with a smaller vocabulary than other students comprehend less of what they read and it has been suggested that the most impactful way to improve comprehension is to improve vocabulary. In order to develop the needed vocabulary knowledge, learners should be exposed to various extensive readings, be taught individual words explicitly, and taught strategies to unlock word meaning, and have their word consciousness raised (Graves, 2004).

Alyousef (2005: 143) states that in teaching reading, contemporary reading task involves three-phase procedures: pre-, while-, and post-reading stages. The pre-reading stage helps to activate the relevant schema. Then the aim of while-reading stage is to develop the students' ability in tackling texts by developing their linguistic and schematic knowledge. Post-reading includes activities which enhance learning comprehension using matching exercise, cloze exercise, cut-up sentences, and comprehension questions.

In teaching reading, the teacher should provide strategy to the students with purpose for reading to anticipate different type of reading texts. As Suparman (2012) states that there are two major reasons for reading (1) reading for pleasure; (2) reading for information (in order to find out something or in order to do something with the information readers get).

In brief, teaching reading truly cannot be separated from teaching vocabulary. This is because words are the components in reading text that readers should understand the meaning of the words so that they can comprehend such a reading text. It is assumed that as reader's vocabulary mastery is better, their reading comprehension also turns better. It also can be stated that in teaching reading, appropriate and possible strategy should be applied based on the purpose of reading in order to get the comprehension.

2.2.3. Concept of Hortatory Exposition Text

In teaching to increase morphological knowledge, the texts used should be considered. Expository texts provide exposure to a wider variety of members of morphological families than another type of text, such as narrative text (Kirby and Bowers, 2012). Thus, an increased attention to expository texts may facilitate the development of morphological and vocabulary knowledge. For that reason, hortatory exposition text as one of the examples of expository texts was chosen in this research.

Hortatory exposition text is a kind of text that elaborates the writer's idea about the surrounding phenomenon. It is also a kind of text that presents one side of an issue in a form of arguments. Its purpose is to argue/persuade the reader that something should be or should not be done or supported. To make the persuasion stronger, the speakers or writers give recommendation of what should be or should not be done. That text consists of the following generic structures:

1. Thesis   : It introduces the topic and indicates the writer's position.

2. Argument   : It explains the arguments to support the writer's position.

3. Recommendation : It persuades the the reader that something should be or

should not be done or supported.

The example of hortatory exposition text is as follows.

Table 2.1 Hortatory Exposition Text

Generic Structure	Hortatory Exposition Text
Thesis	Organic food is really beneficial, especially for its consumers, and for several reasons, organic food is advisable to consume.
Arguments	The nutritional value of food is largely a function of its vitamin and mineral content. In this regard, organically grown food is dramatically superior in mineral content to that grown by modern conventional methods. Healthy plants mean healthy people and better nourished plants provide better nourishment to people. A major benefit to consumers of organic food is that it is free of contamination with health harming chemicals such as pesticides, fungicides, and herbicides. As you would expect of populations fed on chemically grown food, there has been a profound upward trend in the incidence of diseases associated with exposure to toxic chemicals in industrialized societies. It comes as no surprise, therefore, that organically grown food tastes better than that conventionally grown. The tastiness of fruit and vegetables is directly related to its sugar content, which in turn is a function of the quality of nutrition that the plant itself has enjoyed. Organically grown plants are nourished naturally, rendering the structural and metabolic integrity of their cellular structure superior to those conventionally grown. As a result, organically grown food can be stored longer and do not show the latter's suspectibility to rapid mold and rotting.
Recommendation	Considering the advantages mentioned above, we have to consume organic food because it is really beneficial.

Adapted from <http://www.small-farm-permaculture-and-sustainable-living.com.html>

To sum up, hortatory exposition text belongs to a text persuading the readers to do

or not to do something. It consists of thesis, arguments, and recommendation.

2.2.4. Concept of Morphological Analysis

Morphological analysis derives from morphology. Morphology is the study of the

forms of words and the ways in which words are related to other words of the

same language (Anderson, 1992). Morphological analysis is the process of

breaking down morphologically complex words into their constituent morphemes

(word meaning parts). A morpheme is often defined as the smallest unit of

meaning in a word. It may consist of a word, such as *hand*, or a meaningful piece of a word, such as the *–ed* of *looked*, that cannot be divided into smaller meaningful parts. According to Oiry (2009), morphemes can be classified based on various properties like where they show up in words. All morphemes are either free or bound. Simply, free morphemes are those that can exist in their own (e.g. *book* in *notebooks*), whereas bound morphemes cannot (e.g. *–s* in *notebooks*) (Coates, 1999).

Bound morpheme is also further divided into two categories. They are inflectional and derivational morpheme. The inflectional morpheme is a word ending that changes grammatical roles but still in the same part of speech. It serves a purely grammatical function, never creates a new word but only a different form of the same word.

Table 2.2 Inflectional Categories

Word class to which inflection applies	Inflectional category	Regular affix used to express category
Nouns	Number	-s, -es: book/books, bush/bushes
	Possessive	-'s, -': the cat's tail, Charles' toe
Verbs	3rd person singular present	-s, -es: it rains, Karen writes, the water sloshes
past tense	-ed: paint/painted	
perfect aspect	-ed: paint/painted ('has painted), (past participle)	
progressive or continuous aspect	-ing: fall/falling, write/writing, (present participle)	
Adjectives		
Comparatives (comparing two items)		er: tall/taller
Superlatives		est: tall/tallest

Adapted from Oiry (2009)

On the other hand, a derivational morpheme is a type of bound morpheme which generates new words by changing the class of the word or forming new words. For instance, *entertain* (verb) becomes *entertainment* (noun), *danger* (noun) becomes *dangerous* (adjective), *diligent* (adjective) becomes *diligently* (adverb), and many more.

According to Oiry (2009), there are three word formation processes in English; inflection, derivation, and compound words. Inflection is the process by which affixes are combined with roots to indicate basic grammatical categories, such as tense or plurality (e.g. in 'cat-s', 'talk-ed', '-s' and '-ed' are inflectional suffixes). It is viewed as the process of adding very general meanings to existing words, not as the creation of new words. On the other hand, derivation is the process by which affixes are combined with roots to create new words (e.g. in 'modern-ize', 'read-er', '-ize' and '-er' are derivational suffixes). It is viewed as using existing words to make new words. In addition to inflection and derivation, compound word is a word that is formed from two or more simple or complex words. Thus, compounding is a process whereby two or more individual words are combined to form a new word with a new meaning. Here are a few examples: *credit card, video games, underground,* and *underwater.*

It can be stated that inflection and derivation consist of the combination of free morpheme and bound morpheme while compound word is the combination of free morpheme and free morpheme. Those formation of words are the origin to analyze words through morphological analysis. The first way to analyze words through morphological analysis is by analyzing compound words (free morpheme

+ free morpheme). Each free morpheme has its own meaning and to determine the meaning of that word, the reader just needs to combine the meaning of every free morpheme.

The other way of morphological analysis is by analyzing free morpheme + bound morpheme. Nation (1990) states that morphological analysis involves deriving the meaning of a word by combining the meaning of the parts of the word (morphemes). The word parts with meaning include (a) prefixes, (b) suffixes, and (c) roots. The root is the core of a word to which other morphological units are attached. The difference between root and stem is that a stem is a base morpheme to which another morphological piece is attached. For example, *disagree* is the stem of *disagreement* because it is the base to which *–ment* attaches, but *agree* is the root.

Then, prefixes and suffixes belong to the term affixes. Prefixes (e.g. *re-, un-*) are bound morphemes that are attached in front of a stem, while suffixes (e.g. *-s, -able*) are bound morphemes that are attached at the end of a stem. Table 2.3 below displays the most common prefixes and suffixes adapted from Blevins (2001).

Table 2.3 Most Common Prefixes and Suffixes in Order of Frequency

Prefixes		
Highest frequency	High frequency	Medium frequency
un- (not, opposite of)	over- (too much)	trans- (across)
re- (again)	mis- (wrongly)	semi- (half)
dis- (not, opposite of)	pre- (before)	anti- (against)
non- (not)	inter- (between, among)	mid- (middle)

Suffixes		
Highest frequency	High frequency	Medium frequency
-s (plural)	-er, -or (person)	-ness (state of)
-ed (past tense)	-ion, -tion (act, process)	-ity, -ty (state of)
-ing (progressive tense)	-ible, -able (can be done)	-ment (action or process)

Adapted from Blevins (2001)

According to Nation (1990), morphological analysis involves three skills: (a) breaking a new word into its morphological parts, (b) connecting a meaning to each of those parts, and (c) combining the meaning of the parts to determine the word's definition. For instance, the word *worker* is comprised of two meaning units, the base *work*, and the suffix *–er*, which conveys the meaning of an agent (person or thing) that does whatever is implied in the base. Thus, the worker is one who works.

There are two approaches of morphological analysis (Arnoff and Fudeman, 2005). Those approaches reflect two dimensions of learners' morphological knowledge of word formation. The analytic approach is concerned with morpheme identification or breaking words down into its meaningful components. For example, *notebooks* can be recognized as *note-book-s*. The other example is *childhoods*: *child*: little human being, *-hood*: the state of being, *-s*: to indicate plural. The synthetic approach, on the other hand, is concerned with productivity of morphological structure or bringing the smallest pieces (morphemes) together to form words. It is assumed that learners know what the pieces are in order to be able to construct new meaning into words. For instance, Ahmed **lived longer** than Ali. Ahmed **outlived** Ali.

According to Farsi (2008), 60% of the unfamiliar words a reader encounters in a text have meanings that can be predicted on the basis of their component parts. In additon, having an awareness of morphological structure and the ability to break down morphologically complex words into their constituent parts may help readers assign meaning to new words they encounter in text (Anglin, Miller and

Wakefield, 1993; Carlisle, 1995)**.** As a result, a reader with a better grasp of word formation processes may be better to infer the meanings of these words and will therefore be able to comprehend the text better (Nagy, Berninger, Abbott, and Vaughan, 2003). Therefore, morphological analysis turns to be possible and potential way to help readers to understand reading text and as a result teaching this kind of analysis is recommended.

According to Kieffer and Lesaux (2007), to break a word down into morphemes, a student must complete the following four steps:

1. Recognize that he or she does not know the word or does not have a deep understanding of the meaning of the word.

2. Analyze the word for morphemes she or he recognizes (roots and affixes).

3. Hypothesize a meaning for the word based on the word parts.

4. Check the hypothesis based on the context.

Kieffer and Lesaux (2007) also state to complete those steps, there are three types of language knowledge that students need to know to use morphological analysis effectively:

1. Knowledge of Prefixes and Suffixes

Teachers can teach prefixes and suffixes in a variety of ways. Teachers should engage students in grouping words by prefix or suffix. They can then discuss what these words share in meaning or part of speech. In this way, students can articulate their own meanings of prefixes and suffixes. Providing a cumulative word wall with these prefixes and suffixes grouped by meaning will reinforce these lessons. Teachers can also develop students' word consciousness by

encouraging them to seek out and analyze new examples of word parts to add to the wall. Like other vocabulary items, learning prefixes and suffixes will require practice and reinforcement.

2. Knowledge of Roots

Students' abilities to extract roots from derived words can be a powerful strategy for acquiring new vocabulary. However, like other vocabulary words, these roots should not be presented as a list to be memorized, but rather they should be taught in meaningful contexts when they are most useful for students to comprehend particular texts.

3. Knowledge of How Words Get Transformed

Teachers can group words by root to show how a single word can take many forms. This can expand students' written vocabulary by providing them with several forms for a known word.

Table 2.4 How Words Get Transformed

Noun	Adjective	Verb	Adverb
politics, politician	political		politically
representation	representative	represent	
finance	financial		financially
acceptance	(un)acceptable	accept	(un)accepatably

Adapted from Blevins (2001)

In brief, morphological analysis is the practice of disassembling complex words into meaningful parts (e.g.*childhoods = child + -hood + -s*), learning the meanings of roots, affixes (*child*= baby, *-hood*= the state of being, *-s*= to indicate plural nouns), and reassembling the meaningful parts into new meanings (*motherhood*, *fatherhood*, *brotherhood*).

2.2.5. Morphological Analysis in Reading Comprehension

Reading comprehension is a complex undertaking that involves many levels of processing. One of the most fundamental aspects of comprehension is the ability to deal with unfamiliar words encountered in text. Those unfamiliar words relate to one's vocabulary knowledge. Vocabulary and reading comprehension have a reciprocal relationship, that is, as greater vocabulary leads to greater comprehension, better comprehension also leads to learn more vocabulary words (McBride-Chang, 2005).

Stahl (1999) suggests that knowing a word means not only knowing its literal definition but also knowing its relationship to other words, its connotations in different contexts, and its power of transformation into various other forms. Students who can master these different aspects of knowing a word have strong depth of vocabulary knowledge, and students who are familiar with many words have breadth of vocabulary knowledge. Absolutely that rich of vocabulary knowledge will result in their better understanding of a passage.

A large number of the unfamiliar words that students encounter in printed school English textbook can be understandable if students know the more common root word and can break the complex word down (Farsi, 2008). Since texts contain many of these complex but decipherable words, students' abilities to attack and dissect them are essential to their understanding of those texts. Therefore, morphological analysis, which is the ability to disassemble morphologically complex words into their meaningful parts and to derive meanings of the whole words from their morphemes, is a potential learning strategy that seems

particularly useful for the learners when attempting to tackle the meanings of new words.

According to McBride-Chang (2005), the larger the student's reading vocabulary, the better his or her comprehension, and the more one comprehends, the more one can learn new words. Kuo and Anderson (2006) also state that learners who are provided with morphological knowledge including the knowledge of how words are formed, by combining prefixes, suffixes, and roots have larger vocabulary repertoire and better reading comprehension. In addition, a reader with a better grasp of word formation processes will be better to infer the meanings of these words and will therefore be able to comprehend the text better (Nagy, Berninger, Abbott, and Vaughan, 2003).

A number of studies have investigated the relationship between morphological awareness as a threshold of morphological analysis and reading comprehension in general and vocabulary knowledge in particular. Deacon and Kirby (2004) conducted four-year longitudinal study and the result indicated that there was a positive relationship between morphological awareness and reading comprehension for the second, forth, and sixth graders. The study indicated that morphological awareness contributed to reading development even after three years of the study and after controlling for phonological awareness.

Furthermore, Ku and Anderson (2003) conducted a study to investigate whether morphological awareness played a significant role in vocabulary acquisition and reading proficiency among second, fourth, and sixth American and Chinese graders of English and Chinese languages. The results demonstrated that

morphological awareness was developed gradually throughout the students'
language experience and that morphological awareness was indispensable for
English and Chinese vocabulary acquisition and reading proficiency.

Those explanations and previous researches above concerning with morphological
analysis in reading comprehension show this kind of analysis may turn to be
fruitful as one of the strategies to uncover the meaning of new words for
promoting learners' vocabulary knowledge and reading abilities. When the
readers have the ability to break down the word parts into its base, they
simultaneously have a chance to infer the meaning of the words and will be able
to comprehend the text better.

2.2.6. Procedure of Teaching Reading through Morphological Analysis

In doing this research, the researcher gives treatments to the students by teaching
reading comprehension of hortatory exposition text through morphological
analysis teaching. The teaching procedures are adapted from Kieffer and Lesaux
(2007). The procedures have been modified by the researcher into the following
steps:

1. **Pre Activity**
    a. The students' schemata are activated by the teacher who asks affixes the
        students have learned in Bahasa.
    b. The students are shown a video relating to some transformations of the
        same word forms containing affixes in English.
    c. Each student gets the reading text.

d. The students are directed to the topic under discussion by being asked some questions relating to the topic of the reading text presented.

2. **While activitiy**

a. The students read the text given by the teacher.

b. The students together with the teacher discuss the main idea of that text.

c. The students observes some words consisting of prefixes and suffixes from that text.

d. The students together with the teacher analyze those morphologically complex words consisting of prefixes and suffixes to find their meanings in a process of morphological analysis.

e. In pair, the students are asked to find out and break down the other words consisting of prefixes and suffixes from that text so that they are able to define their meanings. Later they will discuss it guided by the teacher.

f. The students observe some roots from that text. The students together with the teacher add some prefixes and suffixes to those roots to show that a word can be tranformed into another word with both prefixes and suffixes and still with the same related meaning.

g. The students are asked to analyze the other words.

h. The students are informed that morphological analysis may not only consist of prefix and suffix but also consist of free morpheme and free morpheme (compund words).

i. The students, as well as, the teacher discuss that reading text as a whole.

j. The students do the task following that reading comprehension text and discuss it by peer-to-peer correction.

3. **Post Activity**

    a. The students together with the teacher summarize the day's material.

    b. The students take part in the follow-up acitivities. They have to find out 5 morphologically complex words and break them down into roots, prefixes, and suffixes and transform other 5 roots into other words consisting of prefixes and suffixes from another hortatory exposition text provided by the teacher.

2.2.7. The Advantages and Disadvantages of Morphological Analysis

As a strategy in tackling the meaning of morphologically complex words encountered in a text, the researcher assumes that morphological analysis comes in both its strength and weakness. Those strength and weakness are considered from some previous studies done by Ku and Anderson (2003) and Varatharajoo (2013). Here are the advantages and disadvantages or morphological analysis:

1. **The advantages of morphological analysis**

    By breaking down morphologically complex words into their meaningful parts and deriving meanings of the whole words from their morphemes known as morphological analysis, the students will get advantages when encountering unfamiliar words in reading text. The first point is it can improve their vocabulary knowledge. Simultaneously, when their vocabulary mastery has improved, their reading comprehension goes better as well. This

two things result in their independency as a reader who can predict the meaning of the words and comprehend the text better.

2. **The disadvantages of morphological analysis**

It seems that morphological analysis is an effective strategy for helping students' reading comprehension. However, it has several weaknesess as well. There are two weaknesess when performing morphological analysis in the class. First, morphological analysis needs longer time because there are many components of prefixes and suffixes that can be attched to the stem of the word with different form and meaning to be introduced to the students. Second, it is quite difficult to introduce and teach this kind of analysis to the students who do not know the meaning of many common base forms.

To overcome the first disadvantage above, the researcher tried to select the most common and frequent prefixes and suffixes usually used in hortatory exposition text for the second grade of senior high school students. That was done because not all components of suffixes and prefixes were used in hortatory exposition text and the available time for reading comprehension activity was limited. Moreover, to overcome the second disadvantage, the researcher would frequently introduce the meaning of base forms found in a reading text so that they would know the meaning of many common base forms.

2.2.8. Theoretical Assumption

The literature reviews above had made the researcher predict that there would be a significant difference on both the students' morphological analysis achievement and reading comprehension achievement before and after being taught through

morphological analysis teaching and at the end teaching morphological analysis would have a positive effect on increasing the students' reading comprehension achievement. That was because morphological analysis enabled them to break down words parts to find the meaning of each part especially its base. When they had known the meaning of its base, they could predict the meaning of the word which shared the same base form. Then they just continued to find the meaning of prefix or suffix that was attached to its base form. They could also predict the meaning of a particular word by finding the other words that they had known, which shared the same base form, because the word with the mutual base form had a related meaning. When the meaning of the words could be understood, they were also able to comprehend a reading text better. Therefore, it could be assumed that the students' reading comprehension achievement could increase as the result of teaching morphological analysis.

2.2.9. Hypotheses

The following hypotheses were proposed in order to answer the mentioned research questions. For the first research question, the hypothesis was:

There was a significant difference on the students' morphological analysis achievement before and after being taught through morphological analysis teaching.

For the second research question, the hypothesis was:

There was a significant difference on the students' reading comprehension achievement before and after being taught through morphological analysis teaching.

In accordance with the hypothesis of the first and second research question, the hypothesis for the third research question was:

There was a positive effect of teaching morphological analysis on the students' reading comprehension achievement.

Concerning with the fourth research question stated in the first chapter, there was no hypothesis because it refered to a qualitative study.

That is the theoretical background of this research. Then, the next chapter will discuss the methods of this research.