II. FRAME OF THEORIES

This chapter discusses the description of morphology, inflectional morphology, derivational morphology, morphological awareness, measuring morphological awareness, vocabulary, vocabulary in language learning, vocabulary size, morphological awareness and vocabulary knowledge, theoretical assumptions and hypothesis.

2.1 Notion of Morphology

Morphology refers to the study of forms. Linguistics morphology refers to the study of words, their internal structure and the mental process that are involved in word formation (Arnoff anf Fudeman, 2005: 3-21). It is '… the study of the hierarchical and relational aspects of words and the operation on lexical items according to word formation rules to produce other lexical items' (Leong and Parkinson, 1995: 237). One of the parts of morphology is morpheme and will be discussed in the following sections.

2.1.1 Morphemes

A morpheme may be defined as the minimal linguistic sign, a grammatical unit in which there is an arbitrary union of a sound and a meaning and can not be further analyzed. Traditionally, a word can be divided into the minimal linguistic units

that bear meanings or grammatical functions (i.e. *morphemes*). In line with the traditional definition, Coates (1999: 17) identifies four criteria of what it takes to be a morpheme. A morpheme should have a meaning or function (e.g. morpheme *pre* which has meaning "before" in sentence *He gives some preview before present the presentation*), recur in other words with a related meaning (e.g. prefix *un* in the sentences: *He is unbelievable stingy* and *It was unhappy married*), be involved in a pattern of interchange (e.g. suffix *est* in word *longest*) and can be substituted with another morpheme such as suffix *er* in the sentences: *Mississippi river is the longest river in the world* and *Mississippi river is longer than Missouri river*.

If we add a morpheme to an utterance, or take one way, by definition we alter the meaning of that utterance, for example, the word "*child*" can be formed by adding suffixes *en, ish and hood* in the sentences below:

1. *She is beautiful child.*

    In the sentence above, the word *child* serves as a noun, which means young human being.

2. *Those children are playing in the yard.*

    In the sentence above *children* serves as a noun which has the meaning as child, but in the form of plural by adding suffix *en.*

3. *Don't be childish.*

    In the sentence above, *childish* serves as an adjective which means behaving like a child because suffix *ish* modify the word *child* into adjective.

4. *He spent his childhood in the village*

In the sentence above *childhood* serves as a noun which means state or time of being a child because suffix *hood* modify the word *child*.

2.1.2 Types of Morpheme

Morpheme can be classified as free or bound.

a. **Free morphemes** can not be syntactically split up further, and exists only as a part of the single unit (Simpson et al., 1992: 54). Free morphemes are those that can exist in their own (e.g. *book* in *notebooks*), whereas bound morphemes cannot (e.g. morpheme *s* in *notebooks*)

b. **Bound morphemes** must be attached to another word, and no upper limit to the number per word. Those prefix and suffix morphemes have traditionally been called bound morpheme (Fromkin et al. 1988: 77). The morphemes such as suffix *s*, as in *students*, and suffix *ed*, as in *carried*, which must be attached to another, are bound morphemes (Crystal, 1971: 189).

Morphemes are further categorized into lexical morphemes (e.g. –full, –ness, etc.) or grammatical morphemes (e.g. –ed, –s). Grammatical morphemes are part of inflectional morphology that underlies the process involved in building grammatical word forms. Lexical morphemes are part of derivational morphology that is concerned with the processes involved in building lexical form (Coates, 1999). In this present research, the researcher tried to identify knowledge of English morphology which involves knowledge of both inflectional and derivational process. These processes make distinctive contribution in language and use. Knowledge of inflectional morpheme plays a key role in grammatical accuracy while knowledge of derivational plays a role in the development of

vocabulary size. The role of learner knowledge on both inflectional and derivational process in the development of English vocabulary is the focus of the present study. The explanation above leads us to know deeply about the concepts of inflectional process and derivational process.

2.2   Notion of Inflectional Morphology

Inflectional morphemes are morphemes that never change the syntactic category of the words or morphemes to which they are attached (Fromkin et al., 1988: 129). Knowledge of inflectional morphology focuses primarily on indicating grammatical changes in words (e.g. *He was attacked by a dog* and *He was attacked by three dogs*. The suffix *s* in *dogs* indicates the plural form of the base word). They define inflectional morpheme as changes in the form of a word according to its grammatical function, for example in sentences:

1) *They **talk** with me in the living room.*

2) *They **talked** with me yesterday.*

In the sentences above, *talk* becomes *talked* to indicate activity in the past time.

2.3 Notion of Derivational Morphology

In this present research, the researcher focused on morphological awareness and tried to identify the student's ability to use the knowledge of word formation rules. Word formation rule is according to which an affix can be attached to another morpheme in order form a new word. There are several processes of word formation, namely: derivation, compounding, blending, conversion, back

formation and clipping. In this research, the researcher focused on derivation and compounding since they are closely related to morphology.

Derivation process changes the category, or grammatical class of words, when a prefix or suffix is joined to others morphemes (or words) a new word is derived, or formed (Fromkin et al., 1998: 120). Derivational process concerns change of a word to give additional meaning to the original words (e.g. the word *sufficient* becomes *insufficient*), for examples:

1) *Ten dollars will be **sufficient** to pay your debt.*

2) *Ten dollars are **insufficient** to pay your debt.*

The morpheme *in* adds meaning "not" to word "sufficient" which means not enough.

Derivational morpheme also changes grammatical class from the underived word as well (e.g. *beauty* as noun, becomes *beautiful* as an adjective), for examples:

1) ***Beauty** is only skin-deep.*

2) *Those flowers are **beautiful**.*

In the sentence above, the word *beauty* as noun is changed into *beautiful* as adjective by adding suffix *ful*. Derivational morphemes typically occur by the addition of an affix. The derived word is often of a different word class from the original.

Knowledge of derivational morphology plays a role in the development of vocabulary size, while knowledge of inflectional morphology plays a key role in grammatical accuracy. Knowledge of derivational morphology such as:

2.3.1 Affixation

Affix is a bound morpheme that is joined before, after, or within a root or stem. There are two kinds of affixes in English, those that go before the roots and those after the roots. In the linguistic process speakers use to form new words (neologisms) by adding morphemes (affixes) at the beginning (prefixation) and the end (suffixation) of words.

The use of prefix and suffix is one of the most common ways in which new words are created, so common in fact that a speaker will feel unsure if a word exists or they have just created it. The key for the learners to develop their vocabulary is by understanding how prefix and suffixes change the meaning and form.

a. Prefixes

A prefix is an affix which is placed before the stem of a word. In the other words, a prefix is a word part added before the word to change or to modify the meaning. Some prefixes have more than one meaning; therefore students should always consider the context of the word when determining the meaning.

The following table below consists of most common prefixes used in English:

a. Prefix *a(n)* which has meaning "not" or "without", for examples:

   1) *He prefers to remain **anonymous**.* This word means without name.

   2) *Some persons in the world were born in **asexuality**.* This word means without sex or sex organs.

b. Prefix *co* which has meaning " together", for example, for examples:

   1) *It is a **cooperative** factory.* This word means joint together.

2) *The work of the two agencies should be **coordinated**.* This word means making action work together.

c. Prefix *dis* which has meaning "apart", "separation", "reverse", "opposite", for examples:

1) *Cycling to school has one **disadvantage**. It makes you feel hot and sweat*. This word means unfavorable condition.

2) *His stories were **discredited** by us*. This word means cause people think badly about someone or something.

d. Prefix *ex* which has meaning "former", for examples:

1) *Ir. Soekarno is **ex-president** of Indonesia*. This word means former of president.

2) *He is my **ex-boy friend**.* This word means former of boy friend.

e. Prefix *extra* which has meaning "outside", "beyond", "additional", for examples:

1) *I like to follow **extracurricular** activities*. This word means course which is taken outside the regular course of work at a school.

2) *He has an **extraordinary** spirit*. This word means having power beyond what is usual or ordinary.

f. Prefix *i(n)* which has meaning "not", for examples:

1) *This fact **irrelevant** to the problem*. This word means not relevant.

2) *His story is **illogical**.* This word means not logical.

g. Prefix *kilo* which has meaning "thousand", for examples:

1) *We need one **kilogram** of sugar to make this cake*. This word means a thousand grams.

2) *The distance from my house to the college is about one **kilometer**.* This word means a thousand kilo.

h. Prefix *mis* which has meaning "bad" or "wrong", for examples:

1) *She had **miscarriage** yesterday.* This word means giving birth to a baby before it has developed enough to stay alive.

2) *I must clarify my sentence to avoid **misunderstanding**.* This word failure to understand correctly.

i. Prefix *multi* which has meaning "many", for examples:

1) *Indonesia has **multiculturalism**.* This word means has many cultures.

2) *There are **multicolored** flower in my garden.* This word means has many colors.

j. Prefix *post* which has meaning "after", for examples:

1) *The **post test** will be held on Monday.* This word means after the test.

2) *My brother is **post graduated** student.* This word means after the graduation.

k. Prefix *pre* which has meaning "before", for examples:

1) *He wins the governor election in **pre-elections**.* This word means before election.

2) *This material is for **pre-intermediate** level.* This word means before intermediate level.

l. Prefix *re* which has meaning "again", for examples:

1) *Can you **replay** the video please?.* This word means play again.

2) *They are give socialization about **regeneration**.* This word means give new life to something.

m. Prefix *super* which has meaning "extremely" or "more than", for examples:

1) *The United States products **supersonic** jet in large amount.* This word means faster than the speed of sound.

2) *She likes to talk in **superlatives**.* This word means the highest quality.

n. Prefix *un* which has meaning "not", "opposite", for examples:

1) *I felt **unhappy** when he was coming. (not happy).* This word means not happy.

2) *His reason is **unacceptable** (opposite from acceptable).* This word means not acceptable.

b. Suffixes

A suffix (also sometimes called a *postfix* or *ending*) is an affix which is placed after the stem of a word. Common examples are case endings, which indicate the grammatical case of nouns or adjectives, and verb endings, which form the conjugation of verbs. Neufeld and Webb (1984: 7) say that as well as slightly changing the meaning of the root, the suffix plays a very important role in vocabulary teaching. It tells the function of the word, that is, the way the word is used in sentence. It is also defined that a suffix is a word part added at the end of a word and/or change the part of speech of the word (Ophelia Hancock, 1987: 22). For example; one meaning of 'to breathe' is 'to inhale or exhale air' and is a verb. Adding the suffix of '*er*' to 'breathe' modifies the meaning to one that breathes, and the results in the word 'breather', which is noun.

This is the list of common suffixes in English:

a. Suffix *able* which has meaning "capable" or "can do", for examples:

1) *I **able** to speak English fluently.* This word means capable or can do.

2) *It is **valuable** experience.* This word means very useful or worth.

b. Suffix *dom* which has meaning "state of condition of", for examples:

1) *Indonesia got its **freedom** on August 17ᵗʰ 1945.* This word means state of being free.

2) *England is a **kingdom** country.* This word means a country ruled by a king or queen.

c. Suffix *er / or* which changes verb to noun, for examples:

1) *Andrea Hirata is the **writer** of novel "Laskar Pelangi".* In this sentence, suffix *er* change the word *write* as verb into the word *writer* as noun. This word means person who write.

2) *Dra. Hartati Hasan, M.Hum. is my second **advisor**.* In this sentence, suffix *or* change the word *advice* as verb into the word *advisor* as noun. This word means person who give advice.

d. Suffix *ful* which has meaning "ful of" or "having some or much", for examples:

1) *Make yourself **useful**.* This word means having some uses.

2) *His drawing is very **colorful**.* This word means full of colors.

e. Suffix *hood* which has meaning "state/condition of", "a group sharing characteristics", for examples:

1) *We have to keep our **brotherhood**.* This word means condition of friendship between brothers.

2) *I spent my **childhood** in a village called Ogan lima.* This word means state of being a child.

f. Suffix *illion* which has meaning "large number", for examples:

1) *There are **billion** stars in the sky.* This word means having large number of stars.

2) *My father spent 100 **million** to buy our new car.* This word means one thousand thousands.

g. Suffix *ism* which has meaning "doctrine", "act", "practice" or "condition", for examples:

1) *Most of the people in Bali are **Buddhism**.* This word means religion based on Siddartha Gautama or Buddha.

2) *It's a **plagiarism**.* This word means take somebody else and use them as if they were one's own.

h. Suffix *ist* which has meaning "person", for examples:

1) *Her mother is a **novelist**.* This word means person who write the nevels.

2) *Syahrini is the most famous **artist** in Indonesia.* This word means person who practice one of the arts.

i. Suffix *ive* which make the noun to adjective, for examples:

1) *He **acts** like animal.*

2) *He is very **active** boy.*

In the sentences above, suffix *ive* changes the word act as verb to the word active as adjective. This word means doing something energic.

j. Suffix *ize or ise* which means "to cause", "to be" or "to become", for examples:

   1) *She **idolizes** her husband very much.* This word means worship somebody as idol.

   2) *She will **socialize** the danger of AIDS in the localization.* This word means become mix socially with others.

k. Suffix *ly* which means " like" or "having the attributes of", for examples:

   1) *Let's make a **quick** decision.* (adjective)

   2) *He runs **quickly**.* (Adverb)

   In the sentences above, suffix *ly* changes the word *quick* as adjectives to adverbs.

   3) *There are 50 **states** in the U.S.* (noun)

   4) *Taj Mahal is **stately** building.* (adjective)

   In the sentences above, suffix *ly* changes the word *state* as noun to adjectives.

l. Suffix *man* which means "person", for examples:

   1) *My father is a **fireman**.* This word means person whose job is to put out fires.

   2) *We went to the cinema to watch **Superman** film.* This word means person who has super power.

m. Suffix *phone* which means "sound", "audio", or "speaker of language", for examples:

1) **Telephone** *is one kind of communication tools.* This word means instrument used in the system of sending and hearing sounds over a distance.

2) *She gets difficulty in differentiating* **homophone** *words.* This word means having same sounds.

n. Suffix *place* which means "place", for examples:

1) *He will be difficult to* **replace**. This word means put back in its place.

2) *Machine may* **displace** *people.* This word means move something from its usual place.

o. Suffix *ship* which means "circle" or "state of being", for examples:

1) *I did it out of* **friendship**. This word means friendly relationship.

2) *I get* **scholarship** *to continue post graduate study in Australia.* This word means knowledge of an academic subject.

p. Suffix *where* which means "location", for examples:

1) *I've lost my purse. I'm sure it felt in* **somewhere**. This word means in every place.

2) *We can find it* **everywhere**. This word means in unknown place.

q. Suffix *y* which has meanings "having the quality of " or " inclined to", for examples:

1) *We need to clean this* **messy** *room.* This word means having much mess.

2) *It is a* **sunny** *day.* This word means having much sunlight.

2.3.2 Compounding

Compounding is the combining of two or more independent words. Thus two words joined to make a new and usually more specific word applicable to the circumstances. For instance the word 'news' can have several meaning. In a compound several free morphemes are combined, resulting in a word that often derives its meaning from the combination of its components.

1) *classroom* is combination of the word *class* and *room* (e.g. *That is my classroom*)

2) *skyscraper* is combination of the word *sky* and *scraper* (e.g. *They are skyscraper*)

3) *wall paper* is combination of the word *wall* and *paper* (e.g. *We should change this wallpaper with the new one.*)

In English, compounds are often not written as single words but separated or combined by a hyphen (e.g. *dry cleaner, on-line*). Note that while noun + noun compounds are frequent, other combinations also abound and the result must not be a noun.

1) verb combined with noun becomes noun (e.g. *That is interesting a **talk show***)

2) adjective combined with noun becomes noun (e.g. *She is a **beautiful girl***)

3) preposition combined with noun becomes verb (e.g. *She is **overshadowed** by her younger sister*)

Many compounds exhibit a so-called **modifier-head structure**, with one part specifying the other in terms of meaning. Thus a *blackboard* is a kind of board

and a *talk show* is a kind of show (not a kind of *black* or a kind of *talk*). The modifier may function in different ways, e.g. a *raincoat* is not a coat for but against rain.

While the abovementioned examples are **endocentric** (i.e. the meaning of the compound is derived from the meaning of the parts) there are some compounds where this is not the case. A *redhead* is not a type of head but a person with red hair. Such compounds are called **exocentric**, because their meaning is not strictly contained in the components.

2.4 Notion of Morphological Awareness

Vocabulary instruction is most effective when students are positively and actively involved in their learning and they are allowed to apply their own strategies to learn the vocabulary. Therefore, investigating instructional approaches to the use of morpheme or root word families in teaching vocabulary is needed. Long and Rule (2004: 40) found that the learners could develop their vocabulary better when vocabulary was taught through concrete representations (i.e. using pictures and real objects) and morphological analyses rather than more traditional class instruction methods (e.g. simply writing words down, students note taking, no morphological analysis).

Anglin (1993: 58) found that the students could analyze the morphological structure of complex words which they have not actually learned before to figure out the meanings. Morin (2003: 87) proposed the strategy of using morphological knowledge to infer word meanings, and with it, the need to develop

morphological awareness in the L2. She characterized morphological awareness as the ability to reflect on and manipulate morphemes and word formation rules in a language. These ideas were supported by Carlisle and Stone (2003), they said that morphological awareness refers to the learners' knowledge of morphemes and morphemic structure, allowing them to reflect and manipulate morphological structure of words. In addition, Kuo & Anderson (2006) defined morphological awareness as the ability to use the knowledge of word formation rules and the pairings between sounds and meanings.

With morphological awareness, learners are able to learn morphemes and morphemic boundaries by disassembling complex words into meaningful parts (e.g. *childhoods* is derived from the base *child* and suffix *hood* plus *s*), understanding the roots, affixes (e.g. *child* which means baby and suffix *hood* which means the state of being and suffix *s* to indicate plural nouns), and reassembling the meaningful parts into new meanings (e.g. the words *motherhood, fatherhood, brotherhood* are combined from word *mother* and suffix *hood*). The practice of this dissembling and reassembling method is called *morphological analysis*.

The concept of morphological awareness implies learners' strategies of reflecting and manipulating word formation rules to derive the meaning of new words in the absence of communicative context. Morphological awareness delineated in this study leads upon learners' knowledge of morphemes that enables them to recover the meaning of new complex words by means of morpheme identification or

decomposition and to recombine morphemes to construct new meaning by means of morphological structure.

2.5 Measuring English Morphological Awareness

Anglin (1993) identifies five different morphological word types in English. The five types are:

1. root words (e.g., *short, closet)*

2. inflected words (e.g., *smoking, reports)*

3. derived words (e.g, *shortish, treelet)*

4. literal compounds (e.g., *sunburn, birthday),* and

5. opaque, idiomatic compounds or lexical idioms, which are then called simply 'idioms' (e.g., *mouse tail,* "a plant of the crowfoot family"; *pink lady,* "a cocktail").

In this present study, four of the morphological word types (root words, inflected words, derived words and literal compounds) were used to investigate morphological awareness. : Morpheme Identification Awareness and Morphological Structure Awareness test. The Morpheme Identification Awareness test measures the students' knowledge of root words and use of morphemes to guess meaning, whereas the Morphological Structure Awareness test assesses the ability to create literal compounds, inflected, and derived words. Further discussion on these two measures of morphological awareness is provided in the next sections.

2.6 Notion of Vocabulary

Vocabulary is one of the language elements which should be learned if one wants to master a language. Harmer (1993: 153) states that if the language structures make up the skeleton of language, than it is vocabulary that provides the vital organs. According to Harimurti (1983: 98), Vocabulary is a component of language that contains information about the meaning of words in language. Webster (1988: 124) stated that vocabulary is a collection or list of words used in language by class, individual, or in field of knowledge.

Napa (1991: 6) states that vocabulary is one of the language components and that no language exists without words. This means that to communicate well, we need some stock of words to convey our thought, it is stated by Wallace (1987: 30) that vocabulary defined as a stock of words used by the people, a particular class, people, or even a person. As Fries (1973: 32) states that vocabulary is the essential of language learning. No matter how well the students learn grammar, no matter how successfully the sounds of L2 are mastered, without words to express a wide range of meanings, communication in an L2 can not take place in any meaningful way. Therefore, without some knowledge of vocabulary, neither language production nor language comprehension would be possible (Anglin, 1993: 2).

Vocabulary such a crucial thing for everyone that needs to be learned it in order to understand someone else's utterance. In more specific, Fries (1974: 4) classifies the vocabulary into four types as follow:

1. **Content words**. They constitute the bulk of vocabulary of the language. In other words, content words represent the name of subject or things, those are:

a. Name of subject or things, that is: nouns. **Nouns** which have a part of speech inflected for case signifying a concrete or abstract entity. Nouns also change form to show number and possession, for example word "boy" became "boy's" while "boys" became "boys'") such as:

1) *The boy sitting on the chair is my brother.*

2) *The boy's a handsome student.*

3) *The boys are visiting the zoo.*

4) *Those are the boys' car.*

They are used primarily as *substantives* that is, word that refers to: 1) person (e.g. teacher, lecture, etc), 2) animals (e.g. dog, horse, bird, etc), 3) Places (e.g. house, school, office, etc), such as in these sentences:

1) *Teacher works to help students' learn.*

2) *My neighborhood buys a dog.*

3) *My father goes to the office in the morning.*

According to Frank (1972: 6), based on the meaning, noun can be classified into five types:

1. Proper noun (e.g. *Mr. John Smith, Paris, Dutchman, Thanksgiving Day*), for example:

   1) *Mr. Smith is an English lecture in my college.*

   2) *Paris is the capital city of French.*

2. Concrete noun (e.g. *flower, girl*), for example:

   1) *He gives me fragrant flowers.*

   2) *She is my brother's girl friend.*

3. Abstract noun (beauty, justice), for example:

1) *My mother is a manager of beauty salon.*

2) *I will bring him to justice.*

4. Countable (*chairs, tables*) and non countable noun (*sugar, sand*), for example:

   1) *The chair is broken of my false.* (countable noun)

   2) *I need some sugar for a cup of tea.* (non countable noun)

5. Collective noun (*committee, class, crew*), for example:

   1) *The school committee held a meeting today.*

   2) *This class is so dirty of plastic – rubbish.*

b. Action done by with those things, that is: verbs. **Verbs** which have a part of speech without case inflection, but inflected for tense, person and number, signifying an activity or process performed or undergone. Frank (1972: 47) mentions that verbs can be classified into five types:

   1) The predicating or linking verbs (*be, seem, look*) as in sentences:

      1) *The want to be a nurse.*

      2) *He seems like my partner in my office.*

      3) *She looks like an artist.*

   2) Transitive verbs (*give, write*) such as in:

      1) *My teacher gives the students some advises for facing the final examination.*

      2) *The lecture writes a research book.*

   3) Intransitive verbs (*go, come*) such as in:

      1) *They go to the movie theater to watch Harry Potter film.*

      2) *She came to my house yesterday.*

4) Reflexive verbs (*express oneself, wash oneself*)

5) auxiliary verbs (be, have, do), and finite or non-finite verbs, such as in:

    1) *He washes his car himself.*

    2) *He is very happy.*

c. Qualities of the things, that is: adjectives. **Adjective**. Most short adjective has three forms to show degree (*pretty, prettier, and prettiest*) for example:

    1) *Dona is pretty student.*

    2) *Hery is prettier than Dona.*

    3) *Artha is the prettiest than all the students in my class.*

Such words as *beautiful* and *terrible* have no inflection. Adjective is used to modify nouns and pronouns. Frank (1972: 109) categorizes the types of adjectives into some classifications:

1) Three determiners article *(the, a, an)* such as:

    1) *We will visit the museum today.*

    2) *He buys a gold ring for his mother.*

2) Demonstrative adjectives (*this, that*) such as:

    1) *I bought this book yesterday.*

    2) *I like that cake very much.*

3) Possessive adjective (*my, your, the girl's*) such as:

    1) *My laptop is broken.*

    2) *Your hair is so beautiful.*

4). Numeral adjective (*four, twenty, fourth, twentieth*) for example:

    1) *I have thirty six students in a class.*

    2) *I am the first child in my family.*

5). Adjective of indefinite quantity (*some, few*), such as:

1) *I buy some beautiful flowers*.

2) *Can you give me few minutes please?*

6) Relative and interrogative adjective (*whose, which*) such as:

1) *He is a man whose the car repaired*.

2) *Which one do you like*?

7) Descriptive adjective proper adjective (*a French dish, a Catholic church*) such as:

1) *They built a wonderful Catholic church in a central town*.

2) *My mother buys a French dish*.

8) Participial adjective (*an interesting book, a bored student*) such as:

1) *He gives me an interesting book*.

2) *He is a bored student*.

9) And adjective compounds (*a good-looking girl, absent-minded, a wall-to-wall carpet, a never-to-be-forgotten plot*) such as:

1) *Sarah is a good-looking girl.*

2) *It will be a never-to-be-forgotten plot.*

d. How the action done, that is: adverbs. **Adverb.** Adverb has a part of speech without inflection, in modification of or in addition to a verb. Adverb also does not change form, but has characteristic forms of its own. It is used to modify anything but nouns and pronouns. Frank (1972: 148) summarizes the category of adverbs into five categories:

1) Adverbs of manner (*slowly, silently, carefully*) e.g. *Open the door carefully!*

2) Adverbs of place (*inside, there*) e.g. *She puts her books inside the cupboard.*

3) Adverbs of time (*yesterday, tomorrow*) e.g. *I went to Jakarta yesterday.*

4) Adverbs of frequency (*sometimes, often*) e.g. *She often visits her grandmother in the village.*

5) Adverbs of degree (*completely, very*) e.g. *Albert Einstein is very clever person.*

e. The pronouns are *I, he, she, it, we, you, they,* and *who* with their compounds. **Pronoun**. Pronoun has a part of speech substitutable for a noun and marked for person. It is also used as substantives, and they might be considered sub-class of noun, but their inflections are quite different, and their use does not exactly parallel those of nouns.

2. Function words are those words, which are used as a means of expressing relation of grammar structure, such as conjunction *(and, but, because)*, article *(a, an, the)* and auxiliaries *(do, does, did)*, for example:

1) *Anton and Tino go to school together everyday.*

2) *My neighborhood bought a beautiful bicycle yesterday.*

3) *Barry does not see the traffic light so he gets the accident today.*

3. Substitute words, those which represent the individual things or specific action as substitutes for whole form classes of words, that is identifies *(anybody, anyone),* for example:

1) *Anybody would think he is crazy.*

2) *Anyone can pass the exam if he studies hard.*

4. Distributed words, those are distributed in use according to grammatical matter as the presence or absence of a negative, such as: *some, any, other*, etc.

The example of sentences:

1) *They will find some other solution as soon as possible.*

2) *You can come any day you like.*

3) *Turn it over on the other side!!*

As mentioned by Rivers (1970: 462), it would be impossible to learn a language without vocabulary, learning a language means learning its vocabulary. This shows that people do nothing to communicate if they do not know the words or vocabulary. In other words, vocabulary is important for the students to learn in order that they can express their minds, make sentences, speak and get knowledge from the context. By mastering a lot of vocabulary, people may be able to understand what someone say and write. Thus, vocabulary is as a crucial thing for everyone that she or she needs to learn it in order to understand someone else's utterance and pronoun.

Furthermore, Burton (1982: 98) explained that a large number of vocabularies help you to express the idea precisely, vividly, and without repetition of words. He also mentioned that the larger our vocabulary is, the better we can perform in all aspects of English language works.

Vocabulary knowledge is not something that can ever be fully mastered; it is something that expands and deepens over the course of a lifetime. Instruction in

vocabulary involves far more than looking up words in a dictionary and using the words in a sentence. Vocabulary is acquired incidentally through direct exposure to words and intentionally through explicit instruction in specific words and word-learning strategies.

2.7   Vocabulary in Language Learning

The curricula have the Basic Course Outline (BCO) that represents the whole enterprise of the instructional process (Departement Pendidikan dan Kebudayaan, 1995). The BCO shows that vocabulary is used to measure the level of achievement. Vocabulary is a component in language that can not be separated when learning the language. Vocabulary is the primary carriers of meaning, and it is widely recognized that there is a strong relationship between the individual's vocabulary size and his/her general language proficiency. In fact, we have known for many decades that vocabulary size is a strong predictor of reading comprehension. In addition, vocabulary size has been identified as one of the most important indicators of L2 reading proficiency and of academic language skills in general.

National Reading Panel (2000) and RAND Reading Study Group (2002) indicated that vocabulary knowledge enables students to comprehend what they read, and the act of reading itself provides the opportunity for students to encounter and learn new words. The more words students know, the more likely they are to learn new words easily. Read (2004: 24) found that L2 learners are typically aware of the extent to which limitations in their vocabulary knowledge hinder their ability to communicate effectively in the target language. This is because lexical items

carry the basic information load of the meanings they wish to comprehend and express. In other words, the learners realize that knowing more vocabulary will have a direct effect on their ability to use and further develop the L2 they are learning. Thus, vocabulary can lead the learners to be more confident in using the language.

The nature of vocabulary learning and acquisition is complex and involves several processes that can inform instruction. Nagy and Scott (2000) described five noteworthy aspects of word knowledge:

1. First, they pointed out that word learning is incremental—that is, we learn word meanings gradually and internalize deeper meanings through successive encounters in a variety of contexts and through active engagement with the words. For example, the average tenth grader is likely to have a deeper and more sophisticated understanding of the term *atom* compared to the knowledge of an average fourth grader, who still has a more simplistic understanding of the term. It may be that, for some words, students may only need to have a general understanding of a term to keep comprehension intact. For other words, a deeper understanding may be necessary for students to successfully comprehend a passage.

2. Secondly, another aspect of word knowledge is the presence of polysemous or multiple meaning words. Many words have different meanings depending upon the context in which they are used. For

example, a common word such as *table* represents an entirely different meaning in science texts when authors discuss the *Periodic Table*.

3. The third aspect of word knowledge described by Nagy and Scott (2000) is the different types of knowledge involved in knowing a word. The types of knowledge include the use of words in oral and written language, correct grammar usage of words or syntactical knowledge, semantic understandings such as appropriate synonyms and antonyms, and even morphological understandings that involve correct usage of prefixes and suffixes. Surprisingly, more than 60% of words encountered in academic texts can be taught morphologically (Nagy & Anderson, 1984). In particular, Milligan and Ruff (1990), in their analysis of social studies textbooks used from elementary through high school, found that approximately 71% of the glossary terms contained affixes and roots that could be directly taugh

4. The fourth aspect of word knowledge is the notion that learning a word meaning is inextricably related to knowledge of other related words. We do not learn word meanings in isolation; we learn word meanings in relation to other words and concepts. For example, knowing the concept of rectangle involves knowing about *polygons*, *quadrilaterals*, *right angles*, *squares*, and other related concepts. Finally, Nagy and Scott (2000) noted that word knowledge differs according to the type of word. Knowing the meaning of prepositions (e.g., *if*, *under*, *around*)

differs greatly from knowing the meaning of specific science terminology, such as *nucleus*, *proton*, and *neutron*.

Vocabulary knowledge is a case of either knowing a word or not knowing it. It suggests that, at the very least, estimates of vocabulary size must take into account productive and receptive knowledge. Then there is knowledge of spelling and pronunciation, of derivative forms and of different shades of meaning.

Additionally, Anglin (1993: 58) proposed three approaches in the research literature to the development of vocabulary knowledge:

1) Direct instruction of vocabulary in school (McKeown, Beck, Omalson, and Perfetti, 1983)

2) Learning words and their meanings from context, especially during reading activities (Miller, 1991; Nagy and Anderson, 1984). In addition, Zimmerman (2005) emphasizes that the primary method for acquiring new vocabulary (breadth) and deepen understanding for existing vocabulary (depth) is through extensive reading. Furthermore, Krashen, (1985, 1989, as cited in Morin, 2003) believes that reading is the most efficient way to learn vocabulary naturally.

3) Applying morphological knowledge to infer the meanings of words (Nagy and Anderson, 1984; Wysocki and Jenkins, 1987).

The third approach is the focus of this research. In particular, it considered the individual learners' application of morphological awareness as a vocabulary learning strategy. Learning strategies can play an important role in development because they encourage the learner's active involvement in the learning process. It

is better for the teacher to spend time on strategies that the learners can use to deal with words than to spend time on individual word.

2.8 Notion of Vocabulary Size

Nation (1990: 75) states that it is useful to know how much vocabulary learners can draw on for each of the four language skills. So, investigating the vocabulary size is very important to make better language learning result. There are many useful ways of increasing the students' vocabulary size, one of them is using morphological awareness as vocabulary learning strategy. Then, by mastering large vocabulary, the students will be able to learn all the language skills.

The main purpose of vocabulary level test is to measure the comprehension and production of words in speaking and writing (Madsen: 1983). Specifically, a vocabulary test is usually divided into two types, breadth and depth of vocabulary knowledge. Frebody (1981) in Read (1993) defined breadth of vocabulary knowledge as the size of learner's vocabulary (how many words are known), whereas depth knowledge involves a consideration of the quality of learners' vocabulary knowledge (how well are particular words known).

However, it is difficult to reach both types of test at the same time. A test on breadth of vocabulary involves a lot of words to be covered in the test and it requires a short response in relation to each word being tested Read (1993: 146). Then, if the test focuses on depth vocabulary, very few words can be included because it usually deals with testing of words in context and usage and the use of words in different situations. Since this study is meant to measure students'

vocabulary size, the test focused on the breadth of vocabulary knowledge that should cover a lot of words.

The two most common ways used for investigating vocabulary size involve the use of a dictionary and a frequency count (Nation: 1990). In the dictionary method, the tester randomly chooses words from the dictionary. One method would be to choose the second word at every tenth page of the dictionary depending on how many words are needed for the test. From these words we can make vocabulary test, for instance, multiple-choice test and the students are intended to find the meaning of the words either in English or in students' native language. If we want to find a rough estimate of students' vocabulary size we can take a representative dictionary and open the passage in dictionary randomly and then ask a student to explain the meaning of the more uncommon word on one page. So, if the dictionary contains 30.000 words and the students know about two-third of the words, then we can roughly estimate that the students' vocabulary size is about 20.000 words.

In addition, the next way of measuring student's vocabulary size is based on word frequency count. The General Service List (GSL) of English (Bauer & Nation, 1993) and University Word List (UWL) (Nation, 1990) can be used as the Vocabulary Level Test to test the student's vocabulary size. The Word definition Matching Format (WDMF) is used as the kind of the vocabulary level test. The vocabulary level test is divided into some levels. A number of words are selected randomly from different levels, e.g. the first 1000 words, the second 1000 words, and the third 1000 words, and the UWL as the sample.

In this present study, the levels are limited only four levels, the first three levels are taken from GSL of English Words (Bauer & Nation, 1993) and the fourth level is taken from UWL of Nation (1990). The additional words from UWL, which seem to be more difficult, are included to see how much the students can master words that are commonly used at university level. This level can also be used to measure if the learners have mastered academic vocabulary. If they know the words in the university list, they are able to read university texts and need only guess or look up less than 1 unknown word in every 18 words (Nation, 1990). Each level is represented by 30 words as a sample. So, there will be 120 items for the test. The words to be included in the test were proportionally by picking up every tenth words in the list of the first three levels.

The words from UWL, the sampling is a bit different because the number of words is smaller, 800 words (Nation, 1990). Therefore, the words are picked up in every eight words in the list. This sampling method is believed to be representative so that the result can be generalized to the population (the four vocabulary levels test).

According to Nation (1990: 78), there are two steps to consider when looking at test of vocabulary size, they are:

1. **Selecting**

   Usually it is not possible to test all the words within a particular group. First, the researcher must exclude all the words that can not easily be tested, for example: a, the, of, be. In fact, the test will be easier to make if we test only nouns, verbs, adjectives and adverbs. Second, after excluding

the word, he/she must find a good way of choosing the test item from the words left. The best way is to the number of the words and then to select every tenth word if this will give enough word for the test.

2. **Testing**

There are so called recognition and recall tests. In a recognition test, we want to see if the learners know the meaning of a word when they hear or see it. In such test, the learners hear or see an English word and then write or say a mother tongue words, or English synonym or definition. While in recall test, we are interested in the learner's production of words. In such test, the learner listens or sees a mother-tongue word or a simple English synonym or definition, or they see a picture and then they express the English word.

Asking learners to respond with English synonyms or definitions requires the learners to have a reasonable proficiency in English. It can be used successfully with advanced learners (Nation, 1970). In this research, the writer tested the recognition of vocabulary and used the translation test. Translation test is designed to be the basis for estimating the students' vocabulary size (Nurweni & Read, 1990). The aim of the test is to find which words in the general service list and university word list are known and which are not known. In this test, the students were required to choose the word to go with meaning by matching the word with their definition in Bahasa Indonesia.

According to Roger T Bell (1993: 6) Translation is the process the replacement of a representation of a text in one language by a representation of an equivalent text

in a second language. Text in different language can be equivalent in different degrees (fully or practically equivalent) in respect of different levels of context, of semantics, of grammar, or lexis, etc) and at different ranks (word-for-word, phrase-for-phrase, sentence-for-sentence). This idea is supported by V.S Vinogradov (2010: 286) who defined translation as a *process* (and its *result*) caused by social necessity of information (content) transmitting, expressed in a written or oral text in one language by the means of an equivalent (adequate) text in another language. In other words, translation is the interpreting of the meaning of a text and the subsequent production of an equivalent text, likewise called a "translation" that communicates the same message in another language. The text being translated is called the source text, and the language that being translated into is called target language; the final product is sometimes called the target text.

In this research, the writer used translation test in form of translating word-for-word (literal translation). The focus is on the response of the learner to the message. The response must then be compared with the way in which the original receptors presumably reacted to the message when it was given in its original setting. Correctness must be determined by the extent to which the average reader for which a translation is intended will be likely to understand it correctly. Anything that can be said in one language can be said in another, unless the form is an essential element of the message. We certainly cannot expect a perfect match between languages. In fact, we don't have such a match even in translating (Nida, 1982: 3). As have been explained before, the vocabulary size test is a kind of recognition test. In recognition test, we just want to see if the learners know the meaning of word when they see or hear it. We just want to find out which words

in the General Service List and University Word List which are known and which are not known by the students. In other words, we are not concerned merely with the possibility of student's understanding correctly, but with the overwhelming likelihood of it. Simply, we are not content merely to translate so that the average students are likely to understand the message; rather we aim to make certain that such a person is very unlikely to understand. The sample of the test can be seen as follow:

a) Private

b) Slow

c) Sorry   1. _____ melompat

d) Jump   2. _____ pelan

e) Apply   3. _____ pribadi/swasta

f) Blame

According to the definition above, it can be concluded that the vocabulary size is the number of words that students master at a certain level. Vocabulary size is categorized in the breadth of vocabulary knowledge. The translation test is used as vocabulary size test. Here, the students have to match the English words to Bahasa Indonesia equivalent. So, by knowing the vocabulary size, the process of learning foreign language can be improved and design based on the students' need.

2.9 Morphological Awareness and Vocabulary Knowledge

The role of morphology in vocabulary knowledge is well documented. Many studies show the beneficiary effect of utilizing morphological information. Morphological Awareness refers to the learners' knowledge of morpheme and

morphemic structure, allowing them to reflect and manipulate morphological structure of words (Carlisle and Stone, 2003: 31).

It is should be noted that many people confuse morphology acquisition and morphological awareness. While the concept of morphological awareness implies learners' use of metacognitive strategies of reflecting and manipulating word formation rules to derive the meaning of new words in the absence of communicative context, the concept *morphology acquisition* does not necessarily entails metacognitive strategies. Morphology acquisition means the cognitive abilities to use and comprehend morphological structure in natural speech (Kuo and Anderson, 2006). In this sense, morphological awareness falls under the umbrella of morphology acquisition.

Morphological awareness delineated in this study hinges upon learners' knowledge of morphemes that enables them to recover the meaning of new complex words by means of morpheme identification or decomposition and to recombine morphemes to construct new meaning by means of morphological structure.

Kuo and Anderson (2003) studied whether morphological awareness plays a significant role in vocabulary acquisition and reading proficiency among second, forth and sixth American and Chinese graders of English and Chinese languages. The result shows that morphological awareness is developed gradually throughout the students' language experience, and that morphological awareness is indispensable for English and Chinese vocabulary acquisition and reading proficiency.

Some researchers recommend raising students' morphological awareness to boost vocabulary knowledge and reading abilities. Carlisle (1995) emphasizes that morpheme identification can be seen as problem-solving strategy that can be used to understand a large number of derived words. Therefore, morphological awareness is crucial for developing children's independent, vocabulary learning strategies.

Even fewer studies have dealt with vocabulary learning and morphology or morphological awareness, but the small corpus of existing research suggests a strong link between morphological awareness and vocabulary learning. Prince (2007) reports a study done by Nonie Lesaux (in press), which shows that a learner who understands how words are formed, by combining prefixes, suffixes, and roots, tends to have a large vocabulary and better reading comprehension. The main concern for this present study is to relate morphological knowledge to vocabulary learning in the L2. The type of morphological knowledge, namely derivations and inflections, will also have an effect on vocabulary learning (Anglin, 1993).

2.10 Theoretical Assumption

Vocabulary is the primary carrier of meaning. Vocabulary is a component in language that can not be separated when learning the language. It is widely recognized that there is a strong relationship between the students' vocabulary size and their language proficiency. In English foreign language learning, appropriate language learning strategy will result in a successful learner.

Improving students' vocabulary size depends upon how the students understand about learning strategy.

The use of morphological awareness is one of the potential strategies for vocabulary learning. Research in L1 and L2 has shown that understanding and mastery of morphology have been shown to be effective for building vocabulary. This idea was supported by Morin (2003: 87) she proposed the strategy of using morphological knowledge to infer words meanings, and with it, the need to develop morphological awareness in the L2 learning. Based on the explanation above, it seems that morphological awareness significantly correlates with the vocabulary size of English senior high school students.

2.11 Hypothesis

Basically, research is considered to be the systematic and organized way to testing the research hypothesis in order to find the answer for the formulated problem. Referring to related literature presented earlier, the researcher formulated the hypothesis as follows:

> "There is significant correlation between morphological awareness and English vocabulary size at the third year students of SMA Al-Azhar 3 Bandar Lampung"