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An Analysis of English Education Students' Morphological Awareness: Identification and Structure Awareness

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Abstract

This study aims to describe English Education Students' morpheme identification awareness, morpheme structure awareness, and overall morphological awareness. This research employed descriptive quantitative method. The samples of this research involved the whole sixth semester students of English Study Program IAIN Curup which consisted of 51 students who had taken morphology subject in previous semester. The data were taken by giving the students a Morphological Awareness Test (MAT) which consists of Morpheme Identification Awareness test (MIAT) and Morpheme Structure Awareness test (MSAT). The results showed that the average score obtained in MIAT was 70,84 % in percentage, and the average score obtained in MSAT was 67,32 % in percentage. So, it can be concluded that both students' morphological identification and structure awareness were in enough category. Then, students' morphological awareness which was calculated from both MIAT and MSAT was also categorized as enough, 69,08% in percentage. From the overall average score, it was found that there were only 2 students who had very good morphological awareness. For good category, there were 18 students. Meanwhile, there were 19 students in enough category, and 12 students had low morphological awareness.

Keywords: Morphological Awareness, morpheme identification awareness, morpheme structure awareness.

Introduction

Akande (2005) and Saricoban (2014) stated that morphology is the branch of linguistics that deals with the study of the internal structure of words and how new words are created from the existing ones through the use of various morphological processes namely affixation, compounding, conversion, blending, clipping, reduplication, etc. As a branch of linguistics, morphology has a very important role. Anita et al. (2014) claimed that mastery of the morphology extensive knowledge will not

only enrich the formation and decomposition of word but also indirectly help the language skills to be better and more meaningful.

Morphology is important for English language learners because it breaks down language and creates patterns of meaning for speakers. The smallest pieces, the minimal units of meaning or grammatical function that are used to create new words are called morphemes (Burling, 1992; Stageberg, 1996; Yule, 2010). These units of meaning consist of forms like blend and the minimal units of grammatical function include markers used to denote plural or present tense. For instance, the word *collectors* includes three morphemes. One minimal unit of meaning is *collect*, another minimal unit of meaning *–or*, (marking person who collects something), and the other minimal unit of grammatical function *–s* (indicating plural). Once a speaker understands a morpheme, he/she will be able to apply and comprehend that construct of language with many different words.

Therefore, it is important to establish an understanding of the structure of words and word formation processes. Furthermore, developing an awareness of English morphology will enable students to understand how words enter a language, what they consist of and how they are formed by combining prefixes, suffixes, and roots. Recent research about morphology showed that learners with an awareness of word-formation processes tend to have larger vocabulary and better reading comprehension and by extension better writing. Consequently, morphology can be a valuable instructional tool for language learners to develop and use vocabulary creatively.

The knowledge about morphology is called morphological awareness. Morphological awareness is defined as the ability to use the knowledge of word formation rules and the pairings between sounds and meanings (Kuo and Anderson, 2010). Morphological awareness (MA) also refers to an individual's ability to decode the morphemic structure of words and further analyze them (Oz, 2014). In other words, MA means the explicit knowledge of the smallest meaningful units of language, including derivational (e.g., *-er/or, -tion, un-, re-),* morphemes (i.e., suffixes and prefixes), and inflectional markers (e.g., *-ed, -s, -ing, est*).

Morphological awareness provides learners with two types of abilities: Analytic aspect (morpheme identification awareness) and synthetic aspect (morphological structure awareness). Morpheme identification awareness is the ability to distinguish different meaning across homophones and break down complex words into smaller meanings. Meanwhile, morphological structure awareness is the ability to make use of linguistic knowledge to drive new meanings and reassemble smaller meanings to make up new words on the other (Chang et al., 2005). So, with morphological awareness, learners are able to learn morphemes and morphemic boundaries by 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). The practice of this disassemble and reassemble method is called morphological analysis.

Recent research into morphological awareness (MA) suggests that there is a significant rate of achievement among students who are exposed to strategies for not only understanding the meanings of words but also recognizing different morphological forms of the same word in reading texts, as opposed to students who are not exposed to such strategies. Indeed, a large number of studies conducted have established that MA is a critical factor in enabling comprehension and ensuring that students have a clearer understanding of vocabulary (Oz, 2014). In addition, according to Jornlin (2015), "morphological awareness has an important role in understanding words and building vocabulary, more successful word-learners use morphological analysis to understand and learn new words." It means that theoretically morphological awareness is important in mastering vocabulary.

Moreover there are so many advantages of morphological awareness, morphological awareness is an integral part of reading instruction and it is especially so for struggling readers. Students who learn how to attach meaning to parts of words will be empowered to be better readers and spellers. Based on the explanation above it can be concluded that the knowledge of the language which contained in the branch of linguistics is an important knowledge to be mastered by the students of English Education.

In the curriculum of English Education in IAIN Curup, Morphology subject is given to the fourth semester students, where in the previous semester have been giving Introduction to Linguistics courses (in first semester) and English Phonology (in third semester). As students of English study program who in fact will be a future teachers at school later, the students need to be equipped not only with language skills but also linguistic knowledge, including morphology. Knowledge of the morphology is also crucial for the students to help them mastering language skills. Considering the importance of morphological awareness, it is necessary to investigate the morphological awareness of the students. Therefore this study is aimed to describe the students morpheme identification awareness, morpheme structure awareness, and overall morphological awareness.

Research Methodology

This is a descriptive quantitative research. Descriptive research focuses in describing any situation or condition in population, systematically, factually and accurately (Zuriah, 2007:47). Meanwhile, the design of this research is quantitative because the data were analyzed numerically and statistically (Sugiono, 2017:15). The population of this research involved the whole sixth semester students of English Study Program IAIN Curup which consisted of 51 students who have taken morphology subject in previous semester. Total sampling was employed in this research. It means that all students in population were taken as the sample. The data were taken by giving the students a Morphological Awareness Test which is adopted from

the test designed by Catherine Mc bride–Chang, Richard K. Wagner, Andrea Muse, Bonnie W.-Y. Chow, and Hua Shu (2005). This test consists of: 1). Morpheme Identification Awareness test, 2). Morpheme Structure Awareness test.

The Morpheme Identification Test is test to measures students' ability to analyze and break down complex words into smaller meanings (e.g. *Childhoods= Child + hood + s*). The original morpheme identification test consisted of 13 test items. In this study, the test used was the modified version adopted from Al Farsi and it was administered to the subjects to measure their analytic ability (Al farsi, 2008). This version was used because it was more appropriate for the samples who were the university students. This modified version consisted of 15 complex words out of context and the students are asked to breakdown the words into morphemes, and to state the meaning of each morpheme.

Table 1. Morpheme Identification Awareness Test

Word	Meaning Of The Word	Part 1 + Meaning	Part 2 + Meaning	Part 3 + meaning
1. Childhoods	Masa kecil	Child : anak	Hood : keadaan / masa	S :plural
2. Washing machine				
3. Freedom				
4. Likelihood				
5. Harden				
6. Demotivation				
7. Spaciousness				
8. Oxen				
9. Partially				
10. Productive				
11. Nationwide				
12. Baby sitting				
13. Unpredictability				
14. Education				
15. Eyebrows				

On the other hand, Morpheme Structure Test is used to measure students' morphological productivity, which is the ability to synthesize morphemes to create new meanings. In this research, the test used was test which is adopted from Chang et al. (2005), but some of the items were taken from the test by Al Farsi (2008), which consists of 15 items. The 15 items tested were inclusive to inflectional and derivational affixes. This test examines the students' knowledge of lexical structure and the relations among words and within words and their constituents.

Table 2. Morpheme Structure Awareness Test

Come up with names for the objects or actions that are described below!	
1	A ballpoint pen that is blue in color. We call that **blue ballpoint pen.** There is a ballpoint pen that is red in color; we call that **.....**
2	Ahmed **lived longer** than Ali. Ahmed **outlived** Ali. James **performed better** than Juliet in the reading test. James……..Juliet.
3	There is a kind of train that runs **under the ground**. We call that an **underground train**. There is another kind of train that **runs over the ground**. What do we call that? ……
4	If Ali can only see **short distanced** things. He is **short-sighted**. If James can only see **near things** more clearly than distant ones. He is ……
5	If a researcher **examined** James. James is an **examinee.** If a researcher **interviewed** Ahmed. Ahmed is an …….
6	Many people wear laces on their **neck** called a **necklace**. Some people wear laces on their **foot**, what should we call that? .....
7	There is a **passer- by** near your house. Now, there are three of them. So there are ……
8	Some people wear rings on their **ears**, they are called **earrings**. Some people wear rings on their **nose**, what should we call that? .....
9	**Basketball** is a game where you throw a **ball through a basket.** Tim made up a new game where he throws a **ball into a bucket.** What should he call the game? .....
10	This animal is called a **wug**. There are four of them. There are four .....
11	James is professional in taking **photographs**. He is **a photographer**. Jerry is good at **eavesdropping.** His is an .....
12	Joe knows how to **fleamp**. He is **fleamping** something. He did the same thing yesterday. What did he do yesterday? Yesterday he .....
13	Look at John. John is **stotting**. Yesterday he did this. What did he do yesterday? Yesterday, he .....
14	This is a **krest**; it's used on letters. This letter has been **krested**. The postman is ..... the letters.
15	Sometimes the **raindrops** fall from the sky and we call that **raining**. Very rarely, **frogs** Fall from the sky, we call that .....

After the two tests were given to the students, the scores were calculated and analyzed. To determine the level of students' morphological awareness

, the five point scales were used based on Nurgiyantoro classification which widely used in the language research (Nurgiyantoro, 2010: 393). The classification could be seen in table below:

Table 3. Classification of Student's Level of Morphological Awareness

No	Score percentage	Interpreted
1	90 %-100%	Very good
2	75%-89%	Good
3	60%-74%	enough
4	40%-59%	Less/low
5	0%-40%	Poor / very low

Findings and Discussion
Findings

1. Students' Morpheme Identification Awareness

Morpheme Identification Awareness Test (MIAT) consists of 15 items. The result of this test can be seen on the following table:

Table 4: The result of student's morpheme identification awareness in percentage

Items	correct answer	wrong answer
question item 1	100%	0
question item 2	33,33%	66,67%
question item 3	74,50%	25,50%
question item 4	62,74%	37,26%
question item 5	76,47%	23,53%
question item 6	58,82%	41,18%
question item 7	66,66%	33,34%
question item 8	70,58%	29,42%
question item 9	68,62%	31,38%
question item 10	72,54%	27,46%
question item 11	49,01%	50,99%
question item 12	88,23%	11,27%
question item 13	72,54%	27,46%
question item 14	80,39%	19,61%
question item 15	88,23%	11,77%

The total correct answers of morpheme identification awareness test were 542, and the total of incorrect answers was 223. To count the percentage of students' morpheme identification awareness, the formula below was used:

$$x = \frac{R}{T \times n} \times 100\ \%$$

Where :

X = the percentage of students' morpheme identification awareness
T = number of sample
n = number of item
R = total number of correct answer

Therefore, the percentage of students' morpheme identification awareness was 70,84 %. So, students' morphological awareness was categorized as enough.

2. Students' Morpheme Structure Awareness

Morpheme Structure Awareness Test (MSAT) also consists of 15 items. The result of this test can be seen on the following table :

Table 4: The result of students' morpheme structure awareness test in percentage

Items	correct answer	wrong answer
question item 1	100%	0
question item 2	49,01%	50,99%
question item 3	41,17%	58,83%
question item 4	64,70%	35,50%
question item 5	76,36%	23,64%
question item 6	60,78%	39,22%
question item 7	33,33%	66,67%
question item 8	68,32%	31,38%
question item 9	80,39%	19,61%
question item 10	74,50%	25,50%
question item 11	88,23%	11,77%
question item 12	92,15%	7,85%
question item 13	94,11%	5,89%
question item 14	58,82%	41,18%
question item 15	21,56%	78,44%

The total correct answers of Morpheme Structure Awareness Test were 515, and the total of incorrect answers was 250. To count the percentage of students' morpheme structure awareness, the same formula in Morpheme Identification Awareness Test was used. Therefore, the percentage of students' morpheme structure awareness was *67,32 %*. Then, It can be concluded that students' morpheme structure awareness was categorized as enough.

3. Students' Overall Morphological Awareness

Students' overall score on MIAT and MSAT can be seen in this following table:

Table 5: The Students' total score in percentage and classification of their morphological awareness

No	Student's code	score		total score	percentage	classification
		MIAT	MSAT			
1	students 1	9	9	18	60%	enough
2	students 2	9	9	18	60%	enough
3	students 3	13	13	26	87%	good
4	students 4	10	11	21	70%	enough
5	students 5	9	9	18	60%	enough
6	students 6	10	12	22	73%	enough
7	students 7	11	11	22	73%	good
8	students 8	11	13	24	80%	good
9	students 9	10	11	21	70%	enough
10	students 10	13	13	26	87%	enough
11	students 11	9	12	21	70%	enough
12	students 12	11	12	23	77%	good
13	students 13	9	12	21	70%	enough
14	students 14	9	10	19	63%	enough
15	students 15	7	8	15	50%	low
16	students 16	13	14	27	90%	low
17	students 17	7	9	16	53%	low
18	students 18	10	11	21	70%	enough
19	students 19	6	12	18	60%	low
20	students 20	9	7	16	53%	low
21	students 21	11	4	15	50%	low
22	students 22	8	7	15	50%	enough
23	students 23	12	6	18	60%	enough
24	students 24	11	4	15	50%	low
25	students 25	10	4	14	47%	low
26	students 26	10	4	14	47%	low

27	students 27	10	6	16	53%	low
28	students 28	11	8	19	63%	enough
29	students 29	10	8	18	60%	enough
30	students 30	10	6	16	53%	low
31	students 31	11	8	19	63%	good
32	students 32	13	12	25	83%	good
33	students 33	12	13	25	83%	good
34	students 34	14	14	28	93%	very good
35	students 35	12	13	25	83%	good
36	students 36	14	14	28	93%	very good
37	students 37	12	11	23	77%	good
38	students 38	13	13	26	87%	good
39	students 39	12	13	25	83%	good
40	students 40	12	12	24	80%	good
41	students 41	14	12	26	87%	good
42	students 42	14	12	26	87%	good
43	students 43	12	11	23	77%	good
44	students 44	12	12	24	80%	good
45	students 45	12	12	24	80%	good
46	students 46	11	13	24	80%	good
47	students 47	9	9	18	60%	enough
48	students 48	4	11	15	50%	low
49	students 49	9	7	16	53%	enough
50	students 50	12	10	22	73%	enough
51	students 51	10	8	18	60%	enough

Based on the table above, it is founded that there are 2 or 3,95% of students who have very good morphological awareness. For good category, there are 18 students or 35,30% of students. Meanwhile, there are 19 students or 37,35% of students who have enough morphological awareness. It is also found that there are 12 students or 23,50% who have low morphological awareness.

To calculate the percentage and level of students' overall morphological awareness the following formula was used:

$$M = \frac{\sum\%}{n}$$

Where :

M : Mean

$\sum$ % : Total percentage of overall score

N : Number of students or samples

Thus, it is found that the percentage of the overall score was 69.08 %. So, it can be stated that the level of students' morphological awareness is in enough category.

Discussion

Morpheme Identification Awareness Test (MIAT) is a test to measures students' ability to analyze and break down complex words into smaller meanings Based on Morpheme Identification Awareness Test (MIAT), the students' morpheme identification awareness was categorized enough with percentage 70,08 %. From the results of students answer, it was found that students' ability to break down complex words into smaller meanings were good enough, in which there were 37 students who had more than 10 correct answer, while 14 students had less than 10 correct answer. It means that students' morpheme identification awareness was categorized enough.

From the 15 questions of MIAT, there were two questions which were difficult to be answered by the students. They were question number 2 and 11. In question number 2, there were only 17 out of 51 students who could answer correctly. It seemed that students still confused about how to break down the word "washing machine". Some students broke down this item into two parts, washing and machine, while there were actually three part in this item: *wash*, *ing* and *machine*. The second difficult question is question number 11, the word "nationwide". It was found that some students could not answer this item and chose to empty their answer sheet, while in this item, there were just two parts: nation and wide.

On the other hand, Morpheme Structure Awareness Test (MSAT) tests the ability to combine morphemes to create new meanings. Based on statistical calculation, students' morpheme structure awareness was categorized as enough, with the percentage 67,32 %. From 15 question items, there were 31 students who have more than 10 correct answers, and 20 students who have less than 10 correct answers. It means that students' ability to combine morpheme to create new meaning was less than their ability to identify the morphemes.

Based on the students' answers, it was found that there were four items of the test that the students found difficult: the items number 2, 3, 7, and 15. From the question number 2, there were many students who could not perform well in compound verb+ verb, for constructing word "outperformed" as a compound word from morpheme "out", "perform", and "ed" after given example in the same category , "outlived" to indicate lived longer. From the question number 3, it was found that there also many students who could not perform well to construct a compound word formed with a preposition. There were only 21 students who answered "over-ground train" correctly after being given example in the same category, "under-ground train" to indicate *train* that *runs over the ground*. Most of the students did not exclude the verb *runs* from their answer, thus most of the answers were "runs over ground train".

Next, there were many students who also have a problem in compound noun + noun word structure (item no 8). They got difficulty when they were asked to answer "noserings" after given word "earrings" as a compound from ears and rings. Some students also answered "nosering" without suffix –s , while in the context all of the things that in pairs must be added suffix -s to show that the object is plural.

Then, from the last part of MSAT, using inflectional morphology to understand words, some trends emerged in the participants' performance. The students show better performance in applying the *–ed* and *–ing* suffixes as the marker for past and present participle (items no 12, 13, 14) with 92,15 % , 94,11 % and 58,82 % correct answer respectively. However, they seem to have problem in using the *–ing* suffix for making *frogg**ing*** from *frogs* as an association to the example of *raindrops* and *rain**ing*** (item no 15).

The explanation above shows that sixth semester English students' performed better on MIAT than MSAT, although both fall into the same classification that were in enough category. It means that the students performed better in the analysis section than they did in synthesis section. These results also suggest that students were still troubled in using parallel sentence and the morphological structure of previously encountered words to produce new words. In addition, synthesis requires more advanced skills than analysis according to Bloom's taxonomy-cognitive domain. The analytic aspect of morphological awareness is subsequent to synthetic aspects, as Arnoff and Fudeman (2005) and Chang et al. (2005) said in their research. This fact altogether with the students' linguistic level in the present study can explicate students' lower performance in the synthesizing morphological structure.

Inability to recognize the morphological structure of complex words and the inability to use morphological structure of previously encountered words suggest that there is an urgent need to enrich morphological awareness and explicit teaching of morphological units. For one thing, that is morphological awareness leads to better learning outcomes as it is related to various language skills such as, spelling , vocabulary growth, and reading comprehension . Moreover, it has been demonstrated that learners are able to use their morphological knowledge to arrive at the meaning of complex words.

Conclusion and Suggestion

Based on the findings and discussion, it can be concluded that both students' morphological identification and structure awareness are in enough category. This is obtained from the results of morpheme identification awareness test (MIAT) and morpheme structure awareness test (MSAT). From the results of MIAT, the average score obtained was 70,84 % in percentage, meanwhile from the results of MSAT, the average score obtained was 67,32 % in percentage. Therefore, students' morphological awareness which was calculated from both MIAT and MSAT was also enough, 69,08% in percentage. From the overall average score, it was found

that there were only 2 students who had very good morphological awareness. For good category, there were 18 students. Meanwhile, there were 19 students in enough categories, and 12 students had low understanding of morphological awareness. This is, of course, not a satisfactory result for English students. They are expected to excel in English since it is their major. Thus it is suggested for the students to improve their morphological awareness since it plays a crucial role in mastering English skills. Moreover, it is also suggested for the future researchers to conduct more research about morphological awareness.

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