The Awareness of Morphemic Knowledge for Young Adults' Vocabulary Learning

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ABSTRACT

The study explored the awareness of morphemic knowledge among young adult learners in the ESL context. Morphological Relatedness Test and Morphological Structure Test (adapted from Curinga, 2014) were two important tools used to assess the students' morphemic knowledge in this study. The tests measured the students' ability to reflect and manipulate morphologically complex derived words in English. Paired sample t-test was utilized to report the results of this quantitative study. The results demonstrated that young adult learners have modest ability in both tasks i.e. to reflect and manipulate morphologically complex derived words. In fact, students' performance was poorer in manipulation task compared to the reflective task. The study suggests that explicit instruction on morphology units can be introduced as a strategy to develop morphemic knowledge among Malaysian young adult learners. The study further proposes that young adult learners can expand their vocabulary by analyzing the meaningful parts within words through morphological knowledge.

Keywords: *Morphology, knowledge, awareness, secondary school students, vocabulary*

INTRODUCTION

Vocabulary acquisition plays a crucial role in language learning, whether in the second or foreign language context. According to Koosha and Salimian (2010), there is a consensus among vocabulary experts that lexical competence is at the center of communicative competence. Asgari and Mustapha (2011), Gu (2003), Letchumanan and Tan (2011) as well as Kitchakarn and Choocheepwattana (2012) demonstrate that vocabulary plays a key role in learning a language especially English language. Kitchakarn and Choocheepwattana (2012) and Letchumanan and Tan (2011) explain that when learners are lack of vocabulary, not only their language development but also their communication will be affected.

Their research shows that strong relationship exists between vocabulary and students' ability to construct meaning because without vocabulary students cannot string words together to form sentences. Xu (2010) argues that students with inadequate vocabulary need a vocabulary learning strategy in order to read and write successfully because they face a lot of difficulties to understand complex words and concepts as they progress from primary to secondary; and secondary to tertiary education. This finding is further supported by Asgari and Mustapha (2011) that students in the ESL context should be educated with explicit word learning strategies which are necessary for their vocabulary development.

Jalaludin et al. (2008), Kaweera (2013) and Chen et al. (2008) argue that one of the reasons for the lack of vocabulary among ESL learners is because they have poor understanding in the linguistic aspect especially in morphology. Jalaludin et al. (2008) and Akande (2005) and found that ESL learners make word-level errors because they misused and overgeneralized affixes when adding to the root words in the English language. These errors indicate ESL learners have yet to comprehend the meaning of a complex word and /or form a complex word due to their incompetence in morphology knowledge.

Previous research show that for learners to be adept in the language they must acquire three main linguistic aspects: the morphological level (morpheme), the lexical level (word order) and the syntactic level (sentence structure) (Kaweera, 2013). However, this study has focused on the morphological level because it is the basic but important element to build words (Akande, 2005). Koosha and Salimian (2010) further stress that learners rely more on vocabulary meaning than on knowledge of the syntax to understand a text.

Rationale of the Study

According to Koosha and Salimian (2010), learners become disappointed when a text they attempt to read has many new and complex words, but if the vocabulary of the text is more familiar, they are more likely to continue with the reading task. This means vocabulary size is important to learners before they can approach a text comfortably.

Students can understand a large number of complex words if they are able to decode them into smaller morphemic units (Ferguson, 2006). Kieffer and Lesaux (2007) suggest that if learners have morphological knowledge that is the knowledge of root words and affixes they can make predictions about word meanings. They recommend morphemic knowledge as a powerful word-learning tool for learners' vocabulary development because they can decode meaning from part of words.

As Fox (2010) notes, complex words are widely used at secondary and tertiary level; and when words become lengthy students need to look beyond letter-sound awareness to identify the meaningful units in complex words. Carlisle and Stone (2005) mention that when learners know about the parts of words they are able to derive the meanings or build new words. They are able to examine and analyze morphemes when they encounter complex words to come up with the meaning of the word. Similarly, Wang et al. (2009) claim that when learners know morphemes (prefixes, suffixes and base words); it is possible for learners to infer word meaning.

Research Problem

Ferguson (2006) shows that comprehension of complex words is a main problem among struggling young adult learners in secondary schools because these students lack the ability to analyze morphology or word parts to decode the word meanings.

Morphology is the study of the smallest meaningful units of language and of their formation into words. It includes inflected, derived, and compound words (Lam, 2011). However, this study solely focused on morphologically complex derived words. Feldman (1993) argues that learners are less competent in derivatives than inflections and compound words because of the large number of derivational affixes.

Carlisle and Fleming (2003) mention that there are a large number of derivational affixes in English:

adjective-to-noun: *-ness* (*slow → slowness*);

adjective-to-verb: *-ise* (*modern → modernise*);

adjective-to-adjective: *-ish* (*red → reddish*);

adjective-to-adverb: *-ly* (*personal → personally*);

noun-to-adjective: *-al* (*recreation → recreational*)

noun-to-verb: *-fy* (*glory → glorify*);

verb-to-adjective: *-able* (*drink → drinkable*);

verb-to-noun (abstract): *-ance* (*deliver → deliverance*);

verb-to-noun (agent): *-er* (*write → writer)*

Carlisle and Fleming (2003) also assert that the understanding of derivational morphemes emerges later and continues to develop over a longer period of time, with the more advanced derivational awareness possibly not fully developed until early adulthood It is because of the large number of derivational affixes in English and the nature of derivational process as well (Zhang & Koda, 2013). Specifically, derived forms often involve phonological or/and orthographic changes (e.g., *decide* and *decision*), and adding a derivational affix to a base word usually leads to change of the meaning, and sometimes the grammatical category, of the base form. In addition, derivation is also constrained by the grammatical category of a base word (Zhang & Koda, 2013).

Carlisle and Fleming (2003) showed, young adult learners' knowledge derivational morpheme is largely limited to phonetically transparent and common forms (e.g., *teach – teacher, quiet - quietly*). However, learners take time to understand derived words that are less transparent or that contain less familiar suffixes (e.g., *long - length*). Additionally, Lam (2011) stressed that the acquisition of derivational morphemes are not fully mastered even tertiary students in the ESL context.

Jalaludin et al. (2008), Muhamad et al. (2013) as well as Rizan et al. (2012) agree that Malaysian students generally make morphology-related errors (affixes) especially in derivations: noun and adjective. According to them, prefixes and suffixes represent more than half of the total grammar mistakes in vocabulary committed by the students. Their findings also demonstrated that low and high proficiency learners make errors in derivatives; and low proficiency learners make more errors than the high proficiency learners.

Akande (2005) and Hamdi (2012) realized that such errors are a result of their under-developed linguistic awareness and their limited knowledge of derivational morphemic rules. Kaweera (2013) on the other hand, argues that it would be an ongoing concern among researchers if this problem is not dealt with care.

This paper therefore investigated the young adult learners in ESL context on morphologically complex derived words to further confirm the previous findings; and also to seek remedy for the problem by suggesting an explicit morphemic analysis instructional strategy to develop learners' vocabulary. As Edwards, Font, Baumann and Boland (2004) assert, morphological knowledge is important because students are able to decode morphologically complex words and also form new words.

Purpose of the Study

The purpose of this study is to investigate young adult learners' knowledge in morphologically complex derived words. The students' performance is assessed based on their morphology knowledge to reflect and manipulate morphologically complex derived words in English in two tests namely, Morphological Relatedness Test and Morphological Structure Test.

Two research questions are formed in order to achieve the objective of the study:

1. Is there any significant difference between the young adult learners' performance on Morphological Relatedness Test and Morphological Structure Test?

2. Is there a significant performance of the young adult learners on the reflective aspect than the manipulation aspect?

Based on the research questions two hypotheses are formed:

H1: There is a significant difference between the young adult learners' performance on Morphological Relatedness Test and Morphological Structure Test.

H1: ESL young adult learners' performance on reflective aspect is significantly higher than the manipulation aspect.

Significance of the Study

The study contributes to the existing literature that morphological knowledge particularly derivational morphology can be a tool to increase learners' vocabulary size. The study can be of great importance for English teachers, scholars, syllabus designers and textbooks developers so that they are convinced to pay more attention to the use of morphological knowledge in language teaching to help learners to learn as many words as possible.

Literature Review

Morphological knowledge

Carlisle and Stone (2003) assert that morphological knowledge is important for students to understand the meaning from words. Carlisle (1995) defines morphological knowledge as learners' understanding of the structure of words morphologically and their ability to reflect on and manipulate that structure. Baumann, Edwards, Font, Tereshinski, Kame'enui, and Olejnik (2002) refer it as unlocking a word's meaning by examining its morphemes.

Mountain (2011) and Antonacci and O'Callaghan (2011) claim that morphological knowledge help students to examine the morphologically complex word for its meaningful parts to discover the word's meaning. With this knowledge, students are able to deconstruct and construct meaning from the morphemes within the word itself apart from depending from contextual clues and dictionary for meanings.

Morphemic units

A morpheme is the smallest unit of meaning. Derivational morphemes change a word's part of speech. Derivational processes depend on affixation and affixes are grammatical. They have complementary functions and are interdependent (Saif, 2011).

Derivatives

Derivative is a process where new words are formed through the mechanics of affixation to an existing root word. It is one of the methods in word formation, for example, the root *person* is exploited to produce *personal*, *personalization*, etc (Saif, 2011). There are a large numbers of derivatives in English (*im-,un-, -able*, *-er,* etc) as they are inclusive of prefixes and suffixes.

Carlisle and Fleming (2003) mention that derivational knowledge emerges later and continues to develop over a longer period of time, with the more advanced derivational awareness not fully developed until adulthood. This is because of the large number of derivational affixes in English and the nature of derivational process (Zhang & Koda, 2013). They argue that derived forms involve phonological or/and orthographic changes (e.g., *decide* and *decision*), and when a derivational affix is added to a base word it leads to a change in the word-meaning. In addition, derivation is also constrained by the grammatical category of a base word.

Theoretical Framework

The theoretical framework of this study is based on morphemic analysis strategy. According to Wang et al. (2009), affixes and base words carry meaning, which in turn supports the understanding of a morphologically complex word. Therefore, knowing the meaning of these morphemes makes it possible for learners to infer a complex word meaning. Likewise, McBride-Chang (2005) defined morphological knowledge as the "knowledge of and access to the meaning and structure of morphemes in relation to word" (p. 417). As Anglin (1993) mention, words are made of morphemes and morphemes are the minimal meaningful linguistic units. They would be also able to learn morphemes by disassembling complex words into meaningful parts. In addition, morphological knowledge can also enable them to learn the meanings of affixes, and base words or to reassemble the meaningful parts to form new meanings. The practice of this reflecting and manipulating is called morphological analysis or knowledge. And according to Baumann et al. (2002), morphemic analysis strategy is a tool that can develop students' vocabulary.

Morphological knowledge and vocabulary development

Various studies have demonstrated the relationship between vocabulary and morphological knowledge. Biemiller and Boote (2006) consider it as important to promote vocabulary among learners. Kieffer and Lesaux (2007) advocate that as students in secondary and tertiary education read more complex texts; thus it is necessary to provide students with a cognitive strategy to learn new and complex words from the texts. Baumann et al. in 2002 and 2003 showed that the teaching of affixes and base words as word-part clues increased students' vocabulary and text comprehension. This view is further supported by Gomez (2009) who found that morphemic awareness contributed to word reading, reading comprehension and vocabulary; and she strongly suggests that the ability to perform morphemic analysis is important for students learning English.

METHODOLOGY

Participants

75 Malaysian mixed-ability young adult learners from a secondary school, from two intact groups participated in this quasi-experimental study. As Fraenkel and Wallen (2009) recommend a minimum of 30 individuals for experimental studies, the number of samples was deemed appropriate for the current study.

The researcher selected an intact group that was homogeneous in terms of age (17 years old), and gender (female) so that the effect of confounding variables could be minimized. The participants

were also particularly chosen because they have acquired basic reading skills; their secondary school texts are dense with morphologically complex words (Ebbers, 2008); low and high proficiency learners can use morphological knowledge to decode word meanings (Carlisle & Stone, 2005); Ferguson, 2006 and Singson et al., 2000).

Instrumentation

Morphological Relatedness Test and Morphological Structure Test adapted from Curinga (2014) were employed to measure the students' ability to reflect and manipulate morphologically complex derived words in English. The test was used as it is consistent and reliable and also the results are easy to score and interpret (Alsalamah, 2011). However, the researcher adapted the test items to make it more suitable for the participants' age and proficiency level in this study.

Time limit was not set for the tests and the participants answered the questions on their own pace. According to Alsalamah (2011), this is important to minimize participants' fatigue and anxiety.

Morphological Relatedness Test

The Morphological Relatedness Test was administered to determine participants' ability to reflect on similar meaning of the given words (e.g. A: happy happiness **YES** NO; B: bus business YES **NO**). According to Curinga (2014), the test is important because it can measure their reflective ability. There twenty items of derivational suffixes. Participants were asked circle YES if the second word means the same thing or almost the same thing as the first word; NO if you the second word does not have a similar meaning to the first word.

Morphological Structure Test

The Morphological Structure Test was used to measure the participants' ability to manipulate derivational morpheme to create new meanings. The test is important because it can measure their manipulation ability (Curinga, 2014). Participants were asked to change the word that best matches the sentence (e.g., **Help**. My sister is very **helpful.**). The 20 items tested were derivational suffixes.

Reliability

To ascertain the reliability of the test, the Cronbach alpha (SPSS version 21) reliability indices were calculated for the Morphological Relatedness Test and Morphological Structure Test used in this study. The alpha indices for the tests ranged from 0.71 to 0.79, indicating high reliability (Table 1).

Table 1 Cronbach's Alpha of Morphemic Sensitivity Test (n=75)

Instrument	No of Items	Alpha
Morphological Relatedness Test	20	0.71
Morphological Structure Test	20	0.79

The instruments were considered to have a high reliability standard and are good for classroom tests because the coefficient alpha is above 0.70 (Sekaran & Bougie, 2010).

Procedure

To achieve the objective of the study, a few procedures were followed. Firstly, two intact groups that suited the purpose of the study were chosen as to control the possibilities of confounding variables. The participants were informed about the purpose of the study; and they were assured of the confidentiality of their identity and findings prior to the commencing of the tests. They were assured that their involvement in the study would not affect their school grades. After the participants' consent was obtained, both tests were administered. It was a paper and pencil test and held in a predetermined location.

Data Analysis

Statistical analysis Paired sample t-test (SPSS version 21) was employed to find any significant performance of the participants in Morphological Relatedness Test and Morphological Structure Test.

RESULTS

The results revealed that there was no significant performance of the participants in both tests (t (17) = 0.3566, p<.05) as shown in Table 2.

Table 2

Descriptive statistics and paired sample t-test results

Variable	N	Mean	SD	T	Df	Sig
Morphological Relatedness Test	75	19.57	1.28			
				0.356	17	p<.05
Morphological Structure Test	75	17.91	1.63			

 p<.05

It was also found that ESL young adult learners' performance on reflective aspect (19.57) was not significantly higher than manipulative aspect (17.91).

DISCUSSION

The current study demonstrated that the young adult learners' morphological knowledge was at modest level and was at a minimal significant. The participants were not able to reflect and manipulate proficiently. Therefore, the alternative hypothesis claiming a significant difference between the performances of the participants in Morphological Relatedness Test and Morphological Structure Test was rejected. The second hypothesis was also rejected as proficiency students' performance on reflective aspect was not significantly higher than the manipulative aspect. In addition, the students performed poorly on the Morphological Structure Test than Morphological Relatedness Test. This implies that they are not familiar with most of the common suffixes used in the English lexicon. In fact, the findings of the present study showed that Malaysian young adult learners at secondary level have severe problems with this aspect of morphological knowledge namely knowledge of derivational suffixes and it poses the greatest challenge to them.

These findings were in line with Curinga (2014) claim that learners were not able to discriminate reflective ability from manipulative ability because of the lack of knowledge on transparent and opaque derivations; and this became as a hindrance in recognizing word parts. These findings were also concurrent with other studies which found that derivational morphology generally presents the

biggest challenge in contrast to inflectional morphology (Koosha & Salimian, 2010). This illuminates the importance of teaching, and learning morphology in Malaysian classrooms. Also, they should be taught how to apply the meaning of the affix to a root or base in order to help them to become explicitly aware of the structure of words. This can aid them understand the internal structure of the new words that they are required to read and write (Koosha & Salimian, 2010).

The finding of this study can be seen from many sides. First and foremost, it was carried out without any morphemic analysis strategy instruction prior to the assessment. Second, the tests may not be well modified to suit the participants of this study. Third, confounding variables might have affected the results of this study. However, the findings of this current study should be claimed as conclusive as it was only a small scale study. Thus, the results of this study cannot be generalized.

The finding implies that it would be more difficult to apply morphemic structure of the words to construct new words because of students' poor understanding in derivational knowledge. Hence, according to the findings of the present study the morphological knowledge of Malaysian young adult learners is relatively low and the researcher thinks that something should be done to fill this gap.

Recommendations For Further Study

The researcher recommends this study to be executed or replicated after a morphemic analysis strategy instructional programme is established. As Al Farsi (2008) advocates, it can emphasize the importance of morphemic analysis awareness as a linguistic tool for English language success.

Additionally, according to Tatabei (2011), test items should be well developed to make them more appropriate for ESL young adults learners so that a constructive result can be achieved in future.

CONCLUSION

The present study aimed to investigate the awareness of morphemic knowledge among Malaysian young adult learners in the ESL context. To answer this, Morphological Relatedness Test and Morphological Structure Test were employed to assess their knowledge on morphologically complex derived words. After comparing the results of the Morphological Relatedness Test and Morphological Structure Test, the researcher came to a conclusion that young adult learners in this study were not able to reflect and manipulate morphologically complex derived words.

Thus, the final suggestion for future research would be to test morphologically complex derived words with participants from different age groups, proficiencies and language backgrounds. Results from this study will help us better understand the complexities of morphology especially derivatives and how they contribute to vocabulary development in ESL context.

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