

Morphological Awareness of Grade 8 Students in Caraga Region

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Abstract: *Morphological awareness is defined as the ability to use the knowledge of word formation rules and the pairings between sounds and meanings (Kuo & Anderson, 2006; Al Farsi, 2008). The aim of the study is to assess morphological awareness as a learning strategy for promoting learners' vocabulary size. Two key concepts of morphological awareness will be studied: analytic and synthetic word formation. The results are expected to provide insightful evidence of how to improve vocabulary instruction in the secondary level. To answer the present study's question of morphological awareness, a widely used test is adapted to the purpose of the study: Morphological Test with its subtests (analysis and synthesis). To answer the research question concerning the degree of the students' morphological knowledge, Spearman's rho is run on the data obtained from the Morpheme Identification Test and the Morphological Structure Test. The findings demonstrate that the students' overall morphological awareness is somewhat low (66%) with a considerable variation among the results. The students perform better with inflectional affixes than derivational affixes, which is consistent with the literature that indicates that the acquisition of inflection is ahead of acquisition of derivation (Carlisle and Stone, 2003). The results also reveal that the students perform better in the analysis section than they do in synthesis section. However, the results also show a floor effect in the synthesis test with eleven students scoring the minimal score of 0%. This suggests that students are not able to use the 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 (Arnoff and Fudeman, 2005, Mc-Bride-Chang et al., 2005). Taking this fact altogether with the students' linguistic level in the present study can explicate students' lower performance in the synthesizing morphological structure.*

Keywords: Morphological Awareness

1. Introduction

One potential vocabulary learning strategy is the use of morphological awareness to learn novel vocabulary. Morphological awareness is defined as the ability to use the knowledge of word formation rules and the pairings between sounds and meanings (Kuo & Anderson, 2006; Al Farsi, 2008). The practice of disassembling-reassembling method is called morphological analysis. This process is needed by learners to be able to breakdown words into meaningful units that are on their level of understanding. The aim of the present study is to assess morphological awareness as a learning strategy for promoting learners' vocabulary size.

Hsu (2015) found that most of the students have low abilities in word morphology; low amount of vocabulary around 2,000 vocabularies each student; the morphological awareness and the vocabularies of students with high academic achievement were superior to the general one; and that there is definitely high relevance between the morphological awareness and the vocabulary knowledge. It was further found that strengthening the teaching in English root, prefix, and suffix; and providing morpheme segmentation and morpheme-distinguishing exercises can effectively enhance student ability in the morphological awareness and increase their vocabularies. The study of Al Farsi (2008) also examined the relationship between morphological awareness and vocabulary size in Omani EFL learners. The results indicate that the students' overall morphological awareness and vocabulary size were limited, and that a relationship between the two constructs could not be established, owing to the appearance of the floor effect in test scores and task difficulty.

Many vocabulary researchers and studies indicate that understanding the language learner's Morphological

Awareness cannot only enhance their vocabulary acquisition but obviously raised the number of the vocabularies during their study. However, according to the surveys (Chao, 2002; Lin, 1995), the vocabularies of the students are low. This result affects their English learning and comprehension. Locally, Secondary Schools in Tandag City Division of the Department of Education in the Philippines for School Year 2017-2018 revealed in its Consolidated Post-ORPT that 36% of the learners are under Independent Level. The same percentage of 36 also fall under Instructional Level while 27% fall under the Frustration Level.

Two key concepts of morphological awareness will be studied: analytic and synthetic word formation. Analytic word formation refers to breaking down words into its meaningful components. In contrast, synthetic word formation refers to bringing the smallest pieces (morphemes) together to form words (Arnoff and Fudeman, 2005; Al Farsi, 2008). The results are expected to provide insightful evidence of how to improve vocabulary instruction in the secondary level.

2. Methodology

The participants of the study are the Grade 8 Learners of Caraga Region, Philippines specifically from Agusan del Sur National High School, Buenavista National High School, and Jacinto P. Elpa National High School in the School Year 2018-2019. 45 learners were selected, 15 from each school whose age ranges from 13-14. The first language of all the participants is Tandangon for schools from Tandag City Division and Manobo for the participants from Agusan del Sur National High School. 29 of the participants are ladies while 16 are gentlemen.

To answer the present study's question of morphological awareness, a widely used test is adapted to the purpose of

the study: Morphological Test with its subtests (analysis and synthesis). In this study, the participants are given a set of complex words out of context, and are asked to segment them into as many smaller meanings as they can identify in each word. The words are decontextualized to control for the possible effect of context in guessing the meanings of words. The morphemes are neutral in the sense that they neither cause phonological and orthographical change nor stress assignment changes in the stem.

The students are then asked to give the meanings in English of the morphemes they could identify. Students are asked to write the meanings of the chunks either in English. The participants are presented with a frame sentence that contains the usage of the target morpheme, and then ask to complete another sentence. It is expected that the participants use the frame sentence to complete the next sentence. Each morpheme in a test item receives one point. The total points of the morphological structure test is 35 points, representing the maximum number of possible morphemes the student could give as a response to the test items.

3. Procedure

Permission to carry out the research was first obtained from the Department of Education Tandag City Division and Agusan del Sur Division through Caraga Regional Office, as well as the School Heads of the three schools as the research locale. Permission was also obtained from the Graduate Studies Dean through the Professor of the course Advanced MorphoSyntax of English. The teacher-researchers, on their part, informed the students about the study and asked for their consent and clarified that their participation would not affect their academic grades. Student consent was then obtained. The students who agreed to join the project were grouped per school for a lecture-briefing to conduct the study. The session lasted for 2 hours. The researchers introduced themselves and the nature of the study. The researchers asked the students to read the study information letter for about 10 minutes. The information letter was presented in both Mother Tongue and English; any queries about the tests, research and results were answered after reading the letter. First, the Morphological Awareness Test with its two parts of analysis and synthesis was administered. Finally, the research material packets were collected in an envelope.

4. Data Analysis

As the data collected in this study is quantitative, descriptive statistics was used. Mean and standard deviation are used to summarize the results of the Morpheme Identification Test and the Morphological Structure Test. To answer the research question concerning the degree of the students' morphological knowledge, Spearman's rho is run on the data obtained from the Morpheme Identification Test and the Morphological Structure Test. The direction and the strength of the relationship between students' scores on the analytic aspects and synthetic aspects are sought. The alpha level is set at .05.

5. Results and Discussion

Morphological Awareness Test

Below are the means, standard deviations, ranges and Spearman's rho for the students' scores in the Morpheme Identification section and Morphological Structure section of the Morphological Awareness Test as taken by the learners from the Philippines, specifically in Agusan del Sur Division and Tandag City Division (Agusan del Sur National High School, Buenavista National High School, & Jacinto P. Elpa National High School; N= 54). Examining the means of both sections of the test, the average score of the Morpheme Identification section (the analytic aspect of morphological awareness) is the highest among the students (M= 24.27, SD= 6.48) compared to the synthetic aspect of morphological awareness (M= 18.68, SD= 11.14). The students score better in the Morpheme Identification Test (73.54%) than they do in the Morphological Structure Test (53.37%). For the Morpheme Identification Test, the highest score is 33 while the lowest is 8. For the Morphological Structure Test, the scores are ranging from 0- 32; the scores of eight students exhibit a floor effect in this section. The overall mean score of the Morphological Awareness Test is 42.11 out of 68 with a considerable dispersion among the results (SD= 11.68), which indicates that the students have intermediate awareness of word formation rules.

To gain more insight on the students' morphological knowledge and how the students deal with complex words, the knowledge of inflectional, derivational affixes and stems are sought. To reiterate, the total number of morphemes are 3 inflectional and 13 derivational and 17 stems in the analysis section and 9 inflectional, 3 derivational and 23 stems in the synthesis section. Table 1 reports the average percentage of the students' scores (standard deviation) in the test items' inflection, derivation and stems.

Table 1: The Average Percentage of the Students' Scores (Standard Deviation) in Inflectional Affixes, Derivational Affixes and Stems of Both Analysis and Synthesis Sections of Morphological Awareness Test

	Inflection	Derivation	Stem
Analytic Aspects*	63% (1.12)	59.15% (3.45)	87.11% (2.90)
Synthetic Aspects**	50% (2.75)	46.33% (1.01)	57.56% (7.61)

*Number of Morphemes: 3 inflectional, 13 derivational, 17 stem

**Number of Morphemes: 9 inflectional, 3 derivational, 23 stem

Students score better in the Inflectional affixes in both the analysis section (63%, SD= 1.12) and the synthesis section (50%, SD= 2.75) than they do with the Derivational affixes (59.15%, SD= 3.45 in the analysis section, 46.33%, SD= 1.10 in the synthesis section). Given that, the students' ultimate performance is found on the stems (87.11%, SD= 2.90 in the analysis section, 57.65%, SD= 7.61 in synthesis section). Looking at Figure 1 and comparing means and standard deviations, a negatively skewed distribution of morphological awareness is spotted. There is room for only little over one standard deviation of 13.94 above the mean (M= 42.11). Most studies of morphological awareness have focused exclusively on inflected morphology in younger children or exclusively on derivational morphology in older

children; however, in order to understand morphological awareness as a broader construct, it is important to incorporate both inflected and derived morphology within a single study. Few studies with older children have incorporated words with inflected endings because knowledge of inflectional morphology is mastered by the early elementary school years (Tighe and Binder, 2015). Furthermore, they compared adults in literacy classes with children matched on achievement level for spelling and reported that adults had particular difficulties with inflectional endings.

Similarly, in the same study, for the eighth and ninth graders, all three skills (morphological awareness, phonological memory, and phonological decoding) were unique predictors of reading comprehension; however, morphological awareness still accounted for the greatest percentage of variance.

In addition, morphological awareness has been found to be a strong predictor of single-word reading with children across a wide range of grades (Wade-Woolley, & Deacon, 2009). Singson et al. (2010) found that morphological awareness contributed uniquely to reading abilities (word reading and decoding skills) for third through sixth graders over and above phonological awareness and receptive vocabulary knowledge. Kirby et al. (2012) reported that independent of verbal and nonverbal IQ and phonological awareness, morphological awareness was a significant predictor of word reading accuracy and speed as well as reading comprehension in first through third graders. The current study investigated accuracy and response times on morphologically complex words embedded in a passage as well as morphologically complex words in a single-word recognition task. In addition, because morphological awareness has been found to be a strong predictor of both reading comprehension and single-word decoding, the present study looked at the contribution of morphological awareness over and above the contributions of decoding and phonological awareness to reading comprehension.

The findings demonstrate that the students' overall morphological awareness is somewhat low (66%) with a considerable variation among the results. This is in comparison to McBride-Change et al. (2005) who found that 'morphological awareness was a good predictor of vocabulary knowledge' (p. 428). This highlights the students' limited abilities to reflect and manipulate the morphological structure of words. The students in the present study are not able to recognize the morphological structure of complex words. From the perspective of cross-linguistic variation, English morphology might have hindered the students from reading and understanding English complex words. The affixes of Arabic complex words are inseparable from the root (i.e. both affixes and roots are bound morphemes). Unable to appreciate the separability of bases from affixes, the students encode an unfamiliar English complex word as a whole and, therefore, they could not unlock the meanings of newly encountered complex words.

The students perform better with inflectional affixes than derivational affixes, which is consistent with the literature that indicates that the acquisition of inflection is ahead of

acquisition of derivation (Carlisle and Stone, 2003). The results also reveal that the students perform better in the analysis section than they do in synthesis section. However, the results also show a floor effect in the synthesis test with eleven students scoring the minimal score of 0%. This suggests that students are not able to use the 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 (Arnoff and Fudeman, 2005, Mc-Bride-Chang et al., 2005). Taking 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 for morphological awareness intervention and explicit teaching of morphological units. For one thing, it is likely that morphological awareness leads to better learning outcomes as it is related to various language skills such as, spelling (Bear, Invernizzi, Tempelton Templeton, & Johnston, 2008), vocabulary growth, and reading comprehension (Fowler & Liberman, 1995; Qian, 2002). Moreover, it has been demonstrated that learners are able to use their morphological knowledge to arrive at the meaning of complex words (Gordon, 1989; Carlisle, 2000; Carlisle and Stone, 2003; Wysocki and Jenkins, 1987).

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