International Journal of English Language and Linguistics Research

Vol.13, No 1, pp.12-24, 2025

Print ISSN: 2053-6305(Print)

Online ISSN:2053- 6313(online

Website: https://www.eajournals.org/

Publication of the European Centre for Research Training and Development -UK

Morphological Analysis on the Level of Vocabulary Production of L2 Learners in Their Composition Writing

Jomar G. Mercado
Graduate School Student, Master of Arts in English Language Education (MAELE)
Philippine Normal University (PNU), Manila, Philippines
jomar.g.mercado@gmail.com

doi: https://doi.org/10.37745/ijellr.13/vol13n11224 *Published January 07, 2025*

Citation: Mercado J.G. (2025) Morphological Analysis on the Level of Vocabulary Production of L2 Learners in Their Composition Writing, *International Journal of English Language and Linguistics Research*, Vol.13, No 1, pp.12-24

Abstract: *The study ventured on the level of vocabulary production of L2 learners. Ten essays became the source of data which content words used were subjected to morphological analysis (corpus-based approach). Results showed that the students used affixation in producing their vocabulary with almost half of their composition. They used bound morphemes (prefixes and suffixes). The learners could only attach one bound morpheme to a root, few on two morphemes, and very rare on three. The most common bound morpheme used was the suffix –s and morphemes be-, -cy, -est, extra-, fore-, -fy, -ic, -ish, -ity, -ive, -le, -ne, over-, re-, and –th being the least. Confined with one morpheme attachment, the learners had basic level of vocabulary production. They used mostly inflectional morphological skills. In conclusion, morphological awareness has a key role in vocabulary production of learners and findings may help English teachers strategize activities to increase learners' morphological awareness.*

Keywords: morphological analysis, morphological awareness, vocabulary production, L2 learners

INTRODUCTION

Vocabulary is an indispensable tool either in first or second language acquisition, for it serves as one of the prerequisites in language learning (Calub C. & Calub, L., 2017). Even children of a very young age first learn words after sounds just before they can properly construct a phrase, clause, or a complete sentence and eventually learn and use the language. Calub C. & Calub, F. (2017) stated that the significance of vocabulary in language acquisition is unrivaled, for it is indispensable for successful language communication. They further stated that there is an expanding amount of evidence that

justifies that the more comprehensive one's vocabulary is, the greater one's language proficiency will be. Meara (2002) as cited in Calub C. & Calub, F. (2017, p. 37) states that despite other things being considered in the same level, learners possessing huge lexical knowledge are much more adept in a large array of linguistic skills than those exhibiting diminutive lexicon, and existing evidence are available to affirm that lexical competence provides crucial contribution to most of all facets of L2 competence.

In addition, having enough knowledge about vocabulary is a significant component of linguistic competence. The foundation of any language instruction program, as well as first language acquisition, is vocabulary knowledge. In fact, its understanding is extremely important in academics, literature, second language learning, and everyday life (Akbulut, 2017). As stated by Rabadi (2019), vocabulary is a fundamental language component that directly impacts language learning, for the reason that inadequate lexical or vocabulary knowledge has frequently been correlated with vocabulary disfluency for L2 learners, that then affects communication and text comprehension. Furthermore, knowledge on vocabulary catalyzes language utility; language utility stimulates growth of vocabulary knowledge; knowledge of the world incites surge of vocabulary literacy and language utility, and the like.

Additionally, vocabulary size is the mirror of how educated, intelligent, and well-read one is (Calub C. & Calub F., 2017). A large vocabulary size is regarded as something crucial to someone's use of the language. Furthermore, vocabulary knowledge is a salient component of linguistic competence together with discourse, socio-cultural, and strategic competence which then forms the four-fold communicative proficiency framework which was proposed by Canale and Swain in 1980 as cited by Bardaci (2016) in (Calub C. & Calub F., 2017).

In the Philippine setting, many students from elementary schools to college lack the requisite productive English vocabulary knowledge, making academic writing and public speaking challenging for them. They typically employ words in the 2,000–3,000 range in their speaking and writing; however, many, especially those exposed to the English language, have useful vocabulary knowledge at the university word level (Calub C. & Calub F., 2017). Furthermore, senior high school teachers in the area have noticed a drop in student performance in English-related disciplines, particularly in sessions using complicated terms. The students have difficulty understanding texts and even recognizing words.

The foregoing literature pointed out that there has been a problem in the vocabulary level of the language learners. Thus, having a deeper morphological awareness may improve their vocabulary production as they will know how to use morphemes in coming up with new vocabulary. Furthermore, it also articulates the necessity of evaluating their level of vocabulary production as teachers may devise different

activities to further expound learners' vocabulary knowledge because poor morphological awareness leads to greater difficulty in academic writing and public speaking as vocabulary is one of the pre-requisites in language learning.

The sources for language learners to learn new words are morphology, as numerous studies identified that morphological awareness is an indicator of language abilities such as writing skills (Qian, 2002) and vocabulary growth (Nagy & Anderson, 1984 & Wysocki & Jenkins, 1987 as cited in Rabadi, 2019). Koda and Zehler (2008) consider "morphological awareness" a component of L2 learners' understanding of new words by breaking down complicated words into their significant parts and bringing together their significant components into the brand-new word. Furthermore, vocabulary size or vocabulary knowledge is commonly measured in word families or base words. A word family contains a base word and its inflections and derivations (Nation, 2001 as cited in Calub, 2017).

Consequently, morphological awareness is a metalinguistic tool which pertains to the skill of using the knowledge of word formation rules and sound and meaning combination (Kuo & Anderson, 2006 & Al Farsi, 2008 as cited in Silvano et al., 2019). The practice of assembling and disassembling morphemes to their stem is called morphological analysis. This method is crucial for the learners, for them to breakdown these words into meaningful units according to their comprehension level (Silvano et al., 2019) and assembling or affixing morphemes to their stem or root words is which one consciously needs to know in order to produce their own words that will be used in communication.

In other words, morphological awareness implies the conscious knowledge of using different morphemes (both free and bound) including derivation and inflection in vocabulary production of a language. It is one of the skills that language learners need to have for them to have a wider perspective on how words are formed to give different meanings in a language, and when to use them, for which serves as a primary indicator of language comprehension. By this, the way they produce their vocabulary will stem to greater understanding of the language and greater acquisition.

In the study of Hsu (2015) as cited in Silvano et al. (2015), it was discovered that the majority of students have low abilities in word morphology; they have a limited vocabulary of around 2,000 words per student; their morphological awareness and vocabularies are superior to the general population; and that the relationship between morphological awareness and lexical knowledge is extremely important. It was also discovered that enhancing English root, prefix, and suffix teaching, as well as offering morpheme segmentation and morpheme-distinguishing tasks, can significantly improve students' morphological awareness and vocabulary. Furthermore, the study of Khodadoust et al. (2013) showed that there is a positive correlation between vocabulary

size and morphological awareness. The outcome only signified that there is a positive effect of morphological awareness on one's vocabulary growth. Furthermore, they recommended for language instructors to include systemic and analytic facets of morphological awareness in the language classes to heighten students' vocabulary and morphological knowledge. Similar finding was found in the study of Akbulut (2017) which revealed a significant positive correlation between morphological awareness and lexical knowledge or vocabulary size of the students and implied that morphological awareness can help one to learn English vocabulary. Moreover, Rabadi (2019) in his study pointed out that there is a relationship between vocabulary size and morphological awareness. Moreover, a positive relationship was found on the vocabulary complexity and their morphological awareness. This further intensifies the importance of having effective morphological awareness to one's vocabulary production because this determines how language learners effectively derive words to convey meaning and how these words can be used in written or discourse settings. How morphological awareness is a major tool in learning and expanding one's repertoire of vocabulary is heavily articulated.

There has been no emphasis given to morphological awareness, especially the vocabulary production of the language learners. Thus, language teachers must make an effort to collect data on the students' mastery levels (Ubamos, 2019) because the primary role vocabulary plays in language learning has not always been mirrored in the amount of attention that the language teachers and researchers in applied linguistics have been giving to it (Calub, C. & Calub, L. 2017). Therefore, this study aims to determine how the language learners produce their vocabulary through morphological awareness and how far they can synthesize them through their composition writing that will determine the level of their vocabulary production.

Purposes of Research

The main purpose of this study was to determine the level of vocabulary production of the L2 learners in their composition writing through morphological analysis. Specifically, it attempted to answer the following research questions:

1. How do L2 learners produce vocabulary in their composition?

2. How far can the students affix root words/ stem through inflection or derivation in their composition?

3. What are the most and least common morphemes that the learners used in their composition?

4. What is the level of vocabulary production of the learners?

5. What is the most common morphological skill that the learners show in their composition?

LITERATURE REVIEW

The development and perception of English words are heavily influenced by morphology. The smallest elements of words that communicate meaning are morphemes, which include roots, stems, prefixes, and suffixes. The ability to employ this intermediate level of dialect is critical for expanding one's vocabulary and comprehending English text. Morphology refers to the study or application of morphemes, which are the pieces of words that carry meaning (Akbulut, 2017).

This highlights morphological awareness as it is the primary indicator of how one produces his vocabulary. Having a deeper knowledge on morphology especially on morphemes helps someone to expand his vocabulary knowledge and even makes his vocabulary level on a different scale. How far a language learner can affix morphemes to their roots determines the complexity of his vocabulary which then later indicates his vocabulary level.

Similarly, morphological awareness, or knowing how words can be broken down into smaller pieces of meaning like roots, prefixes, and suffixes, has emerged as a key contributor to word reading and comprehension abilities (Tighe & Binder, 2015). Having knowledge about morphological rules helps in vocabulary expansion and even vocabulary production. This helps especially the language learners in understanding the target language, especially vocabulary. Thus, having the ability to break down words into smaller units or even attaching morphemes to their roots serves as a fundamental indicator of vocabulary knowledge and comprehension.

However, the smallest unit of words is the morpheme. Some words contain only one morpheme (for example, leap, maple, and tiger), while others have two or more. The word bananas, for example, has two morphemes: The fruit is described by the word "banana." As a result, adding prefixes and suffixes—both of which are instances of morphemes—can change the meaning of a word (Hennessy & Apel, 2017). Therefore, the role of affixes—prefixes and suffixes, as bound morphemes contribute in understanding a certain vocabulary. These morphemes add different meanings to their roots once attached. Hence, having adequate morphological awareness is the key factor in understanding words and meanings that leads to extensive vocabulary production.

In addition, the bound morphemes: inflectional and derivational affixes, play a vital role in the construction of meaningful text. Inflectional morphemes are suffixes that designate the underlying words they are connected to, providing grammatical information such as agreement or tense. Derivational morphemes, on the other hand,

can occur at the beginning (prefixes) or end (suffixes) of a word and cause semantic changes by changing the grammatical form of the word. Any difficulty in spelling these bound morphemes will have an impact on the grammatical and semantic accuracy, as well as the complexity, of the texts generated, and may assist to explain why children with SLI have trouble writing (Dockrell and Connelly, 2013 as cited in Critten et al., 2014).

Thus, morphological awareness contributes to the vocabulary production of language learners. Knowledge on the bound morphemes determines how these morphemes contribute to the creation of a certain word or vocabulary. Stated above, knowledge in using these morphemes to certain roots will have an impact not only on the grammatical and semantic accuracy, but also to the complexity of the derived or inflected word. In a nutshell, morphological analysis can be utilized in determining the level of vocabulary production of the language learners.

Adversely, when a child comes across an unfamiliar word in a text, they can break it down and infer the meaning of the full term using their understanding of the root, prefixes, and suffixes (Apel & Henbest, 2016). Having enough knowledge of these bound morphemes enables one to fully understand the meaning of a certain vocabulary and how each unit operates in free morphemes or roots. For instance, the prefix *–mis* indicates negative or "wrongly". Once a language learner fully understands that whenever this morpheme is attached to a free morpheme, it indicates negative meaning such as in "mishear", "misunderstand", etc. Hence, these existing morphological rules determine how one can effectively produce words and how a word differs with the other whenever they are inflected or derived.

However, students can execute more hard activities at the morpheme level than they can at the phoneme level because morphemes are more prominent and easier to reach (Goodwin & Ahn, 2010). Language learners, particularly L2 learners exhibit their vocabulary production and knowledge through morphological awareness. As indicated, through morpheme level, one can determine one's vocabulary production as to how these morphemes are used by the language learners in forming words to convey meanings in the language.

The study of Silvano et. al (2019) showed that general morphological knowledge among students is low (66 percent), with significant heterogeneity among the outcomes. The students performed better with inflectional affixes than derivational affixes, which is consistent with the literature, which suggests that inflection acquisition precedes derivation acquisition (Carlisle and Stone, 2003). The students also performed better in the analysis section than in the synthesis section. However, the synthesis test results demonstrate a floor effect, with eleven pupils receiving the minimum score of 0%. This

indicates that children were unable to generate new words using the parallel sentence and the morphological structure of previously encountered words.

The foregoing only highlights the problem of the learners—having poor vocabulary levels. Producing their vocabulary through their morphological awareness has been the difficulty of these learners. Their knowledge on inflectional and derivational bound morphemes is not yet fully furnished as they still have trouble in synthesizing vocabulary.

Consequently, an English language learner's grasp of culturally decontextualized text can be aided by pointing out cognates (similar units of meaning in the native language and English). English language learners can improve their reading comprehension and vocabulary by using cognates to decode unknown prefixes, suffixes, and root words (Goodwin et al., 2012). Thus, having the extensive knowledge of morphemes or the smallest units of words contributes to the vocabulary comprehension of the language learners, likewise in text comprehension. In addition, knowing the particular use of each morpheme and how it indicates meaning to a certain root underscores vocabulary production. The more a person attaches different morphemes in a single root, the more complex and definite the vocabulary is.

Theoretical Framework

This study was anchored on Kant’s Schema Theory.

This study presumes that one can learn new items introduced to him by relating them to his prior knowledge or schema. Encounters of new vocabulary words will add up to someone’s vocabulary size by recalling the morphological rules that apply to substantiate the meaning of these words that he can use in language and can be used even to derive new words based on his morphological awareness.

Experts have insisted that morphemic analysis skill or morphological awareness plays a significant role in the comprehension of the learners especially on their vocabulary production (Boonkongsaen, 2013 as cited in Ubamos & Aboy, 2019). In this study, the level of vocabulary production is measured through morphological analysis because ideally, the learners must have been exposed to these skills since elementary. Kant’s Schema theory serves as the foundation of the study as the language learners relate their prior knowledge about morphological rules in their vocabulary production.

METHODOLOGY

Founded by Kant's schema theory, morphological analysis was utilized in determining the level of vocabulary production of the second language learners. Morphological

analysis is the practice of assembling and disassembling morphemes to their stem. This method is crucial for the learners to be able to break down these words into meaningful units according to their level of comprehension (Silvano et al., 2019). The synthesis skill of the students through their composition was evaluated through qualitative analysis with the use of frequency in order to determine their level of vocabulary production.

Ten grade 9 students with five males and five females respectively were chosen as the subjects of the study. Their essay compositions in their English subject served as the source of the data. All content words used by the learners were sorted, and segmented. Content words are words with meaning such as noun, verb, adjective and adverb (Nordquist, 2020). Each data entry was then classified as to roots, morphemes used, morpheme frequency or occurrence, number of morphemes attached, bound morpheme classification, and number of content words produced. Then, the data underwent validation as to whether they are existent vocabulary in standard English and their correct usage in the sentence if they convey a clear meaning. Data were then categorized first as individual vocabulary production, then as a whole.

In the level of vocabulary production, a corpus-based approach was utilized such as the enumerative complexity of the words. Corpus-based approach is primarily used for measuring language complexity (Juola, 1998; Oh et al., 2013; & Bentz et al., 2016 as cited in Coltekin & Rama, 2022). In other words, the enumerative complexity" is grounded on the quantity of "morphosyntactic" differences indicated on words of a certain language (Ackerman & Malouf, 2013). It is identical with the idea of difficulty in almost every typological study, and it is in accord with what "computational linguists" naturally identify as 'morphologically rich' (Reut et al., 2013). Enumerative complexity for instance is counting the available morphological features in the corpora (Coltekin & Rama, 2022).

RESULTS & CONCLUSIONS

The data were gathered through the language learners' essay compositions. Only ten compositions were randomly selected to serve as samples in the study. The essays were informal and submitted as one of their requirements in English class.

Regarding how the students produce their vocabulary in their composition writing, results showed that almost half of their composition used affixation. They used both prefixes and suffixes in forming their vocabulary both derivational and inflectional morphemes. From 905 sorted content words they used, mostly had suffixes with 410 words having these morphemes either derivational or inflectional. On the other hand, very few had prefixes with only five words having these morphemes such as the words *foremost, overthink, extraordinary, insecure,* and *befall,* more so with both morphemes

having only five words such as the words *disappeared, unconsciously, reconnecting, unexpectedly, and disabilities*. In contrast, half of the composition did not have any affixation as they used free morphemes.

Based on the findings above, it can only be concluded that morphological awareness contributes to the vocabulary production of the learners. Given the results, in their composition writing, they used affixation in forming their words to create meaning as Akbulut (2017) stated that the development and perception of English words are heavily influenced by morphology.

As to how far the students can affix roots through inflection and derivation, results showed that mostly, they could only attach one morpheme in a word with most of the content words used in the composition. Most of their words carried only one morpheme with the majority of them having inflectional morphemes and few with derivational morphemes. Their composition had 231 inflectional suffixes, 185 derivational suffixes, 9 inflectional prefixes and 1 derivational prefix. In addition, only 14 words had two morphemes attached. Such words were *disabilities, disappeared, unconsciously, reconnecting, inspirational, personified, references, eventually, repeatedly, competitions, restrictions, normally, successfully, differently,* with adverb-marking morphemes dominating them. Meanwhile, only one had three morphemes attached, such as the word *unexpectedly*.

This supports the findings of Carlisle and Stone (2003) that state that the students perform better with inflectional affixes than derivational affixes, which is consistent with the literature, which suggests that inflection acquisition precedes derivation acquisition. Moreover, Silvano et al (2019) found out that the students perform better in the analysis section than in the synthesis section. However, the synthesis test results demonstrate a floor effect, with eleven pupils receiving the minimum score of 0%. This indicates that children were unable to generate new words using the parallel sentence and the morphological structure of previously encountered words. Thus, the language learners were not good in synthesizing words using morphemes as they tended to use more free morphemes than with the bound morphemes. Moreover, it can be concluded that learners had a very low morphological awareness that caused their limited vocabulary production. Given the results, most of the learners, confined with only one bound morpheme attached to every single word or root.

In inflectional suffixes, they used 231 morphemes from 905 content words used while only 185 derivational suffixes were used. In inflectional prefixes, only ten morphemes were used such as the words *disappeared, unconsciously, foremost, reconnecting, overthink, extraordinary, unexpectedly, disable,* and *befall.* In contrast, only one derivational prefix was used such as the word *insecure*. This further intensifies the result of the study of Carlisle and Stone (2003). Furthermore, Hsu (2015) as cited in Silvano

et al. (2015) discovered that the majority of students have low abilities in word morphology; they have a limited vocabulary of around 2,000 words per student. Given the results of limited synthesizing ability in vocabulary of the learners, it supports the study of Hsu (2015) as cited in Silvano et al. (2015) that students had low ability in word formation, especially in affixation.

Pertinent to the most common morpheme used by the learners, in inflectional suffixes, tense-marking and number-marking *-s* morpheme was frequently used with a total of 104 occurrences in the composition followed by another tense-marking *-ed* morpheme with 47 occurrences. In derivational suffixes, participial marking *-ing* morpheme was frequently used with 62 occurrences followed by adverb marking *-ly* morpheme with 23 occurrences. However, the inflectional suffixes which were least used were *-en, -est, -ity,* and *-ne* such as the words *written, greatest, humanity,* and *gone.* In derivational suffixes, morphemes such as *-cy, -fy, -ic, -ish, -ive, -le, -r,* and *-th* were least used such as the words *deficiency, personified, poetic, respective, multiple, writer,* and *truth.* In inflectional prefixes, morphemes such as *dis-* and *un-* were mostly used with only two occurrences. Such words were *disappeared, disabilities, unconsciously,* and *unexpectedly.* However, the morphemes *fore-, re-, over-, extra-, be-* were least used with only 1 occurrence such as the words *foremost, reconnecting, overthink, extraordinary*, and *befall.* Consequently, in derivational prefixes, the most commonly and least used morpheme was *in-* with only 1 occurrence such as the word *insecure.* In overall use of bound morphemes, suffix *-s* was the most used with 107 occurrences followed by -ing with 89 occurrences. However, the least used were *be-, -cy, -est, extra-, fore-, -fy, -ic, -ish, -ity, -ive, -le, -ne, over-, re-*, and *-th* with only 1 occurrence. Carlisle and Stone (2003) states that the students perform better with inflectional affixes than derivational affixes, which is consistent with the literature, which suggests that inflection acquisition precedes derivation acquisition.

With regard to the level of vocabulary production of the L2 learners, upon having morphological analysis, results showed that the students had a very basic level of vocabulary. They settled on words which are common, likewise unaffixatiable by bound morphemes. Rabadi (2019) stated on her study findings that there was a relationship on vocabulary complexity and morphological awareness. However, based on the results, most of the words used by the learners were free morphemes. Thus, it can be concluded that the learners had low word formation knowledge or morphological awareness. In addition, learners only settled on mostly one bound morpheme attached to the root. However, very few uncommon words were used such as *befall, contemplate, contend, deficit, deteriorate, endowment, enduring, falter, incredible, infuriating, predicament, shortcoming,* and *whim.* Thus, this supports the findings of Hsu (2015) as cited in Silvano et al. (2015) about students having limited vocabulary and Silvano et. al (2019) about poor morphological knowledge of the learners. Given the results, it can be generated that the learners may have lexical disfluency as they had basic level

and limited vocabulary, likewise the rampant use of free morphemes and confinement with one bound morpheme level as Rabadi (2019) stated that vocabulary is fundamental language component that directly impacts language learning, for the reason that inadequate lexical or vocabulary knowledge has frequently been correlated with vocabulary disfluency for L2 learners, that then affects communication and text comprehension. Furthermore, knowledge on vocabulary catalyzes language utility; language utility stimulates growth of vocabulary knowledge; knowledge of the world incites surge of vocabulary literacy and language utility and the like (Calub C. & Calub F., 2017).

In terms of morphological skill that the learners mostly exhibited in their composition, results showed that they commonly used inflectional affixation, particularly inflectional suffixes. Inflectional morphemes are suffixes that designate the underlying words they are connected to, providing grammatical information such as agreement or tense (Dockrell and Connelly, 2013 as cited in Critten et al., 2014). Thus, it can be concluded that with their rampant use of inflections, it contributed to their low level of vocabulary production as derivational affixation is associated with word synthesis and word complexity. Furthermore, it supports the literature of Ubamos (2019) that states that teachers must make an effort to collect data on the students' mastery levels pertinent to morphological awareness and vocabulary production as problems such as drop in student performance in English-related disciplines, particularly in sessions using complicated terms, is heavily emphasized where students have difficulty understanding texts and even recognizing words. Thus, in order to have better vocabulary production, one must have good morphological awareness as Tighe & Binder (2015) articulated that morphological awareness, or knowing how words can be broken down into smaller pieces of meaning like roots, prefixes, and suffixes, has emerged as a key contributor to word reading and comprehension abilities.

Based on the given findings above, the study has some limitations. Given the morphological analysis used such as the corpus-based approach, a very limited sample of essays were only analyzed due to manual sorting, segmentation, and analysis of vocabularies and non-availability corpus-based analysis software. An adequate sample of 20-30 essays might have given different results pertinent to the level of vocabulary production of L2 learners in writing. Nonetheless, the findings still brought some issues to light relative to level of vocabulary production. In general, findings may help English teachers strategize activities to increase the learners' morphological awareness.

REFERENCES

Ackerman, F., & Malouf, R. (2013). Morphological Organization: The Low Conditional Entropy Conjecture. *Language*, *89*(3), 429–464. https://doi.org/10.1353/lan.2013.0054

Akbulut, D. F. (2017). Effects of Morphological Awareness on Second Language Vocabulary Knowledge. *Journal of Language and Linguistic Studies*, *13(1),* 10-26.

Apel, K., & Henbest, V. S. (2016). Affix Meaning Knowledge in First Through Third Grade Students. *Language, Speech, and Hearing Services in Schools, 47(2),* 148-156.

Calub, C. & Calub, L. (2017). Breadth of Productive Vocabulary Knowledge of Pre-Service Teachers: Basis for the Proposed Intervention Strategies in Vocabulary Enhancement. *IAFOR Journal of Language Learning, 3(1),* 34–37.

Carlisle, J. F., & Stone, C. A. (2003). The Effects of Morphological Structure on Children's Reading of Derived Words in English. In E. M. Assink, & D. Sandra (Eds.), Reading Complex Words: Cross Language Studies (pp. 27-52). New York: Kluwer Academic. http://dx.doi.org/10.1007/978-1-4757-3720-2_2

Çöltekin, Ç., & Rama, T. (2022). What Do Complexity Measures Measure? Correlating and Validating Corpus-Based Measures of Morphological Complexity. *Linguistics Vanguard*, *9*(s1), 27–43. https://doi.org/10.1515/lingvan-2021-0007

Critten, S. et al. (2014). Inflectional and Derivational Morphological Spelling Abilities of Children with Specific Language Impairment. *Frontiers in Psychology*. https://doi.org/10.3389/fpsyg.2014.00948

Goodwin, A. P., & Ahn, S. (2010). A Meta-Analysis of Morphological Interventions: Effects on Literacy Achievements of Children with Literacy Difficulties. *Annals of Dyslexia, 60,* 183-208.

Goodwin, A. P., Lipsky, M., & Ahn, S. (2012). Word Detectives: Using Units of Meaning to Support Literacy. *The Reading Teacher, 65(7),* 461-470.

Hennessy, N., & Apel, K. (2017). Morphological Awareness: How the Pieces Add Up. *Perspectives on Language and Literacy, 43,* 7-9.

Khodadoust, E., Aliasin, S., H., & Khosravi, R. (2013). The Relationship Between Morphological Awareness and Receptive Vocabulary Knowledge of Iranian EFL learners. *IJERT, 4 (1),* 60-67.

Koda, K., & Zehler., A., M. (2008). Introduction: Conceptualizing Reading Universals, Cross-Linguistic Variations, and Second Language Literacy. In K. Koda and A. M. Zehler (Eds.), Learning to Read Across Languages (pp. 1-9). New York, NY: Lawrence Erlbaum.

Nordquist, R. (2020, January 28). *Definition and Examples of Function Words in English*. ThoughtCo. Retrieved May 13, 2022, from https://www.thoughtco.com/function-word-grammar-1690876

Qian, D., D. (2002). Investigating The Relationship Between Vocabulary Knowledge and Academic Reading Performance: An Assessment Perspective. Language Learning, *52 (3),* 513-536.

Rabadi, R. I. (2019). Morphological Awareness and Vocabulary Knowledge Among English Language Learners. *Arab World English Journal, 10 (3)* 43-63. DOI: *https://dx.doi.org/10.24093/awej/vol10no3.4*

Silvano, M. M. et al., (2019). Morphological Awareness of Grade 8 Students in Caraga Region. *International Journal of Science and Research (IJSR), 8(5),* 1726–1729. https://www.ijsr.net/archive/v8i5/ART20197992.pdf

Tighe, E. L., & Binder, K. S. (2015). An Investigation of Morphological Awareness and Processing in Adults with Low Literacy. *Applied Psycholinguistics, 36(2),* 245–273. https://doi.org/10.1017/S0142716413000222

Reut, T., Seddah, D., Kübler, S. & Nivre, J. (2013). Parsing Morphologically Rich Languages: Introduction to the Special Issue. *Computational Linguistics 39(1).* 15–22.

Ubamos, G. & Aboy, I. (2019). Morphemic and Semantic Analyses Skills of Senior High School Students. *Philippine Social Science Journal, 2(2).* http://orcid.org/0000-0003-3065-4024