

Morphology Awareness in Vocabulary Construction

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Abstract: Vocabulary is a fundamental aspect of language learning, and acquiring a rich vocabulary is essential for achieving fluency in the target language (TL). Morphology, the study of word formation, plays a critical role in building vocabulary. Morphology provides learners with an understanding of how words are constructed and how their forms change based on their use in sentences. Possessing sufficient knowledge and awareness of morphology can enhance learners' ability to comprehend and produce words accurately in the TL. This research article provides a comprehensive theoretical explanation of the benefits of using morphology as an approach to constructing vocabulary. The article discusses the different ways new words are coined in various languages and how morphological processes can be used to create new words. Additionally, the article explores how morphological analysis can help learners understand the meaning of unfamiliar words based on their word parts. Moreover, the article emphasizes the importance of morphology awareness for TL learners and provides practical applications for incorporating morphology into vocabulary instruction. The article proposes that learners can benefit from explicitly teaching morphological rules, using morphological analysis to derive meaning from words, and encouraging learners to use morphological clues to guess the meaning of unfamiliar words. In conclusion, possessing morphology awareness is crucial for TL learners to acquire a robust vocabulary. By understanding the principles of word formation and variation, learners can enhance their vocabulary acquisition and usage. This research article provides a theoretical foundation for incorporating morphology into vocabulary instruction and offers practical strategies for enhancing learners' morphology awareness.

Keywords: Vocabulary, Morphology, Word Formation, L2 Learning, Morphological Awareness

1. Introduction

The title of this research refers to two concepts: *Morphology Awareness* and *Construction*, which require explanation and interpretation. In this study, morphology awareness refers to the metalinguistic knowledge that learners need to possess while acquiring English as a second/foreign language (ESL/EFL). This includes knowledge of the internal structures of words in the target language, such as suffixes, infixes, and prefixes. On the other hand, construction refers to the formation of words and the morphological structures of existing words. Research has shown that morphological awareness can help learners perform better in other language skills, such as reading, by enabling them to understand the correct forms of vocabulary used (Levesque, Kieffer & Deacon, 2017). Moreover, other studies (e.g., Kuo & Anderson, 2006; Nagy, Carlisle & Goodwin, 2013; Shu, McBride-Chang, Wu & Liu, 2006) have found that morphological awareness is related to the ability to recognize vocabulary, word reading, and spelling.

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In recent years, several studies (e.g., Jin & Webb, 2021; Rodgers & Webb, 2019) have investigated vocabulary acquisition through various methods, including watching subtitled videos, and intensive and extensive reading, writing, and explicit vocabulary instruction. However, the role of morphology awareness in constructing vocabulary has been overlooked. Therefore, it is believed that morphology awareness is a crucial requirement for learning a new language because it allows learners to use words in different grammatical contexts (Kimppa et al., 2019).

Based on the literature, it can be concluded that researching the role of morphology awareness in vocabulary acquisition is necessary. Hence, this study aims to provide sufficient knowledge of morphology and its relation to vocabulary construction.

2. Theoretical Background

We speak tens of thousands of words every day, and communication of our joys, worries, opinions, imaginations, wants, requests, demands, and feelings—as well as the occasional threat or insult—is an essential part of being human. Thus, speakers should not take words for granted, and it is crucial to know and understand words and their characteristics. Being fluent and accurate in a TL depends on how accurately and correctly the speaker uses the words. To fulfill this purpose, it is crucial to understand what a word is.

Looking at previous research and textbooks, researchers and writers have faced difficulties in defining the term 'word.'" A paper by Leonard Bloomfield, an American linguist, in 1926 provided a standard definition of the term "word." According to Bloomfield, "a minimum free form is a word," meaning that the smallest meaningful language unit can be utilized on its own and cannot be divided into any smaller parts. A word can be used independently to convey meanings. For example, "child" is a word that has meaning and cannot be divided into smaller units. On its own, it conveys meaning. Furthermore, according to Merriam-Webster Online, a word is "a speech sound or series of speech sounds that symbolizes and communicates a meaning usually without being divisible into smaller units capable of independent use" (MWO).

It can be concluded that defining a word is challenging and beyond the ability of current linguists (Bauer, Lieber & Plag, 2010), and the reason for providing a concrete definition is that the term 'word' can be used to denote things that are conceptually very different from each other. We need better classification and a more precise terminology if we are to serve the needs of morphologists" (Bauer et al., 2010, p. 7). Therefore, it is vital to have a comprehensive understanding of morphology.

2.1 What is Morphology?

The term "morphology" first was coined by the German poet, novelist, playwright, and philosopher Johann Wolfgang von Goethe (1749–1832) in a biological context. Its etymology is Greek: "morph-" means "shape, form," and morphology is the study of form or forms. In biology, morphology is the study of the form and structure of organisms (Aronoff & Fudeman, 2011). In linguistics, morphology is defined as the branch of linguistics that deals with words, their internal structure, and how they are formed. Katamba (1994) defined morphology as the study of how words are formed and how they are internally organized.

Lieber (2022) also defined morphology as the study of word formation, including the ways new words are coined.

When researching morphology, the reader may come across other terms such as morph, morpheme, and allomorph. First, let us understand what a morpheme is. A morpheme is defined as the smallest linguistic unit with grammatical functions. For example, a morpheme may consist of a word such as "book." Another term that needs to be defined is "morph." According to Aronoff and Fudeman (2011), "morph" refers to the phonological realization of a morpheme. For instance, in the past tense in "booked," the "-ed" has various morphs such as /t/ after voiceless sounds such as /p/ and "d" after voiced sounds such as /g/ and /əd/ such as in "bragged."

2.2 Morphology Knowledge and Vocabulary Acquisition

As language learners develop their language skills and learn how to use the TL grammatical rules correctly, they also need to build up their vocabulary because their ultimate goal is to reach a proficient level. Therefore, vocabulary acquisition is one of the essential stages of TL development. The question is, what is the relationship between morphology and vocabulary acquisition? And how does morphology knowledge increase learners' vocabulary size? To answer these questions, let us give you some scenarios. Lieber (2022) stated that native speakers have intuitive knowledge of creating words. They know how to recognize and understand new words that they have never heard before. She says "Suppose that splinch is a verb that means 'step on broken glass'; what is its past tense? (p.24). Based on the morphology knowledge, native speakers add (-ed) to the word "splinch" because they know they need to add a suffix to change the verb from present to past tense, and they also know how to pronounce the word as /splɪntʃt/ because -ed + /t/ pronounces as /t/ sound. Therefore, giving an adequate explanation of morphology subparts shows if there is any relationship between morphology knowledge and vocabulary acquisition.

2.3 Morpheme

According to Tokar (2012), the smallest meaningful component of a word is defined as a morpheme; whereas Lieber (2022) defined a morpheme as the smallest unit of language that has its meaning. On the other hand, Aronoff and Fudeman (2011) defined morphemes as the smallest linguistic pieces with grammatical functions. Analyzing the given definitions, the linguists agreed that morpheme is the smallest unit, and it has to have meaning. What if a unit of language is not meaningful? Is it still considered a morpheme? For example, words like book, uncle, or red are morphemes, but so are prefixes, such as -er, re-, and -ize. Thus, there has to be more than one condition on morphemes in a unit of the language. Morphemes are classified into several categories such as free morphemes and bound morphemes.

2.3.1 Free Morpheme

When morphemes can stand alone, and they are meaningful, they are considered free morphemes (Lieber, 2022). For example, teach, go, find, and law have meanings and can stand alone in a sentence. For instance:

1. You have to abide by the law.
2. I try to find my car keys.

As can be seen in Figure 1, a free morpheme is classified into two types: lexical and function. A lexical free morpheme is also called content words/ open class words such as nouns, verbs, adjectives, and adverbs, that is, they convey meaning and a message such as a girl, study, beautiful, and automatically. On the other hand, conjunctions, prepositions, articles, and pronouns are called functional morphemes because they perform a function in the language. They are also referred to as closed-class words.

2.3.2 Bound Morpheme

By contrast, a bound morpheme cannot stand alone and does not fulfill the condition of being used in isolation (Tokar, 2012). For instance, the morpheme "{un-}" before the word "untrue" is a bound morpheme. It cannot stand alone in a sentence, but a bound morpheme can be used when attached to a free morpheme. For example:

3. The story you have heard was untrue.
4. It is illegal to park here.

Both {un-} and {il-} are bound morphemes, i.e., they cannot be used in isolation, and they must be attached to a free morpheme to give meanings.

In morphology, bound morphemes are called affixes, and they can be further classified into two categories: inflectional and derivational affixes (Lieber, 2022).

To provide a clearer understanding, Yadav and Yadav (2021) presented a graphic illustration in their research, and the details of each branch are explained in the following sections.

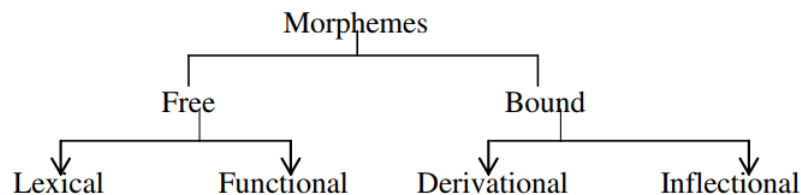


Figure 1: Morpheme Illustration in the English Language

In a study conducted by Goundar (2019) on vocabulary learning strategies, the researcher aimed to identify the strategies used by participants in vocabulary acquisition. Data was collected through a survey questionnaire, which included an item that assessed the participants' use of word structure analysis (prefix, root, and suffix) when guessing the meaning of words (p.183). The results indicated that 47% of the participants agreed with this statement. Hence, having knowledge of morphology proved advantageous for vocabulary acquisition.

Furthermore, linguists categorize morphology into two domains: inflectional and derivational word formation (Lieber, 2022). Inflectional word formation refers to the process where the category of a word remains unchanged after adding affixes, and new lexemes are not created. Instead, the form of the word is altered to fit into grammatical contexts.

2.4 Word-formation and Types of Inflectional Morphology

As mentioned before, linguists categorize bound morphemes into two domains: inflectional and derivational word formation, and in this section, the focus is on and discussed inflectional morphology. Several linguists (Bauer et al., 2010; Lieber, 2022; ŠTEKAUER & LIEBER, 2005) have classified inflectional morphology as illustrated in the figure below.

Table 1: The Eight English Inflectional Morphemes

Nouns:	{-s}	Plural	The birds
Noun phrases	{-s}	Genitive/possessive	The bird's song
Adjectives/adverbs	{-er}, {-est}	Comparative and superlative	Faster, fastest
Verbs	{-s}	3 rd person singular present tense	proves
	{-ed}	Past tense	proved
	{-ing}	Progressive/present participle	Is proving
	{-en}	Past participle	Has proven
			Was proven

Analyzing the examples in Table 1, it can be easily understood that adding inflectional affixes does not change the lexical categories of the words, nor does it create new lexemes. In addition to that, inflectional morphemes play an important role in learning and using words for speakers of the TL because using them incorrectly can create ambiguous sentences that might lead to misunderstandings between the speaker and the listener.

2.5 Derivational Morphology

According to Hamawand (2013), derivation is the morphological process of creating new words from an existing one by adding a bound morpheme. Furthermore, Lieber (2017) defined derivational morphology as a type of word formation process that generates new lexemes by altering the syntactic category (part of speech) of a base or adding substantial, non-grammatical content, or both. For example:

5. The man is an amazing performer.
6. The man performed his act amazingly.

In example (5), the word "performer" is a noun that refers to someone who does an action, while in example (6), "perform" is a verb that refers to the act of doing an action. Thus, derivational morphology changes and creates new lexemes. In the English language, there are more derivational affixes compared to inflectional affixes. Therefore, learners need to practice extensively to master them. This article provides some examples of derivational affixes (Nurjanah, Ramdhaniah & Efransyah, 2018).

Table 2: Derivational Process: to Form Nouns

No	Pattern	examples
	Verb + or/er	Act →actor, trainer
	Adverb + ment	Agree →Agreement
	Adverb + tion	Determine →determination
	Adverb + ity	Unite →Unity
	Adjective + ness	Weak →Weakness
	Adjective + cy	Democratic →Democracy
	Noun + ship	Member →Membership

As seen in Figure 3, adding derivational affixes (i.e., -er, -ment, -tion, -ity, -ness, -cy, and -ship) can create nouns. This word formation process is vital to be learned by ES/EFL learners because it helps them how to use these affixes correctly. For example:

7. She is afraid to talk about her weak.
8. She is afraid to talk about her weakness.

Based on examples (7, 6), knowing how to create a noun from an adjective by adding a derivational suffix creates a correct lexical category and helps the speaker to use the word “weakness” in a correct grammatical context.

Table 3: Derivational Process: to Form Verbs

No	Pattern	Examples
	Noun+ ize	Hospital →Hospitalize
	Noun + ate	Origin →Originate
	Adjective + Ize	Equal →Equalize
	Adjective + en	Bright →Brighten
	Adjective + fy	Identity →Identify

Many derivational affixes create verbs from other lexical categories such as nouns and adjectives. Some examples such as (-ize, -ate, -en, and -ify) are shown in Figure 4. Sometimes, knowing these derivational affixes can assist a learner to create verbs from words which even have not entered dictionaries. For example, if you ask a speaker to take the word “Kurd” as a nation and change it to a verb, they directly add (-ize) to it to form a verb from it and it becomes “Kurdize”, as the process of exile other people and put Kurds in their places.

Table 4: Derivational Process: to Form Adjectives

No	Pattern	Examples
	Noun + ed	Hair → Haired
	Noun + ful	Help → Helpful
	Noun + al	Region → Regional
	Noun + cy	Democratic → Democracy
	Noun + less	End → Endless
	Noun + like	Home → Homelike
	Noun + y	Blood → Bloody
	Verb + ive	Create → Creative
	Verb + ous	Poison → Poisonous

The numbers of adjectival suffixes are not constrained to only the ones which have been shown above. Linguists have provided more in their studies and textbooks. For example, Bauer (2012) mentioned several suffixes that can change from nouns to adjectives i.e., called relational adjectives) such as algebraic mind to refer to someone who can do algebra. Bauer (2012) provides a list of suffixes that are called adjectival suffixes such as (-able, -al, -ary, -ed, -esque, -ful, -ic, -ing, -ish, -ive, -less, -ly, and -ous/ious), and let us take some examples such as perishable, cultural, legendary, empty-headed, picturesque, forgetful, electric, boring, fourteenish, explosive, hopeless, daily, and prestigious).

Let us give another Figure for more information on derivational morphology, and how new words are created by adding derivational affixes.

Table 5: Derivational Process: to Form Adverbs

No.	Pattern	Examples
	Adjective + ly	Happy → happily
	Adjective + ably	Sensible → Sensibly
	Adjective + fully	Care → Carefully

By learning derivational morphology as a word-formation process, learners' vocabulary size will be increased. For example, knowing only the word "happy" as an adjective is considered knowing one word, but if the learner knows how to change "happy" as an adjective to an adverb by adding (-ly) to "happily" is considered as knowing two words, and of course, it crucial to use the correct lexical category in its correct grammatical context. For example:

9. Because I traveled happily, I feel happy.
10. Because I traveled happy, I feel happy.

As explained above, one of the word formation processes is affixation which is a morphological process that which an affix (i.e., a bound morpheme) is added to the base of a word. Generally, two types of affixations are explained: inflectional affixation and derivational affixation. Two types of affixations are

the most common. They are prefixes; bound morphemes preceding the base, and suffixes; bound morphemes following the base (Van Goethem, 2020).

According to Aronoff and Fudeman (2011) apart from morphological affixation, there are other types of derivational processes and word formation processes. Each process has been discussed with examples below.

Compounding is the process of word formation by which two words are combined to form a new word, and Bauer (2012) stated that compounding is the most productive type of word formation process in English, but it is also the most controversial one in terms of linguistic analysis. The reason for compounding is controversial is that the fast the definition says two words are combined, but some examples consist of more than three such as the university teaching award committee member. Hence, the rule of compounding can repeat itself and create the same kind of structure, and this property is called recursively. For example, in great-great-great-grandfather, you can add the word great as many times as you want. Bauer (2012) provided some more examples such as teeth marks, systems analysts, parks commissioners, and pipe-and-slipper husbands. Let us take this example to summarize the term compounding by Aronoff and Fudeman (2011).

11. She's a high-voltage electricity grid system supervisor.

2.6 Derivation Without Affixation

In his book, Bauer (2012) used two concepts for derivation without affixation which are conversion and zero-affixation. He defined conversion as “the derivation of a new word without any overt marking” (p.134). For example, the bottle can be used as a noun, and it also can be used as a verb *to bottle*. More examples are such as *water* (N), *to water* (V), *to guess* (V), and *guess* (N). Conversion can form verbs from nouns such as *the hammer* (N) to *to hammer* (V), *the skin* (N) to *to Skin* (V).

12. Plastic bottles are lighter than glass ones. (Noun)
13. The wine is bottled at the vineyard. (Verb)

Conversion can also form nouns from verbs, for example, to call to a call, to jump to a jump.

14. Do you think we should call the police? (Verb)
15. I got a call from an old college friend last night. (Noun)

Conversion can also form verbs from adjectives and nouns from adjectives such as in:

16. Shall I take the empty bottles for recycling? (Adjective)
17. The place emptied pretty quickly when the fight started. (Verb)
18. She's been blind since birth. (Adjective)
19. He trains to guide dogs for the blind. (Noun)

Analyzing the above example and understanding the word formation processes can play a vital role in learning vocabulary by ESL/EFL learners because the English language is rich in terms of vocabulary size and various ways of forming them.

3. Conclusion, Implications, and Future Directions

The purpose of the current study is to comprehensively explain the role of morphology awareness in vocabulary acquisition, using illustrative examples. The study defines morphology and discusses its main categories, supported by clear examples. Additionally, previous studies are reviewed to explore how morphological knowledge can facilitate vocabulary expansion for learners.

Based on the information presented in this study, it can be concluded that English language learners need to be familiar with morphology and its application as a powerful linguistic tool for creating new words from existing ones. This can be achieved by mastering word formation processes such as morphological affixation, as well as other minor processes like compounding and conversion. Morphological awareness is crucial for ESL/EFL learners to accurately use lexical categories within a grammatical context.

Analyzing the available data, both teachers and learners can infer that morphology should be included as a core component in ESL/EFL curricula. It holds significant pedagogical implications, including its potential use as a condensed morphology textbook for quick and intensive English courses. Teachers can utilize it as a reference book, while students can benefit from it as a required handout, as it explains essential sections and subsections of English morphology using clear and accessible examples.

Although this study provides a theoretical analysis of morphology awareness in vocabulary acquisition, it cannot comprehensively investigate the topic. Future research could employ more practical methodologies to examine the development of morphology awareness and its impact on vocabulary acquisition among ESL/EFL learners. For instance, a study could recruit learners as participants and collect pre-test and post-test data for analysis. Such studies would contribute to the development of more effective teaching strategies and materials for enhancing morphology awareness and vocabulary acquisition in ESL/EFL contexts.

References

- (2022). Retrieved 14 June 2022, from <https://www.merriam-webster.com/>.
- Aronoff, M., & Fudeman, K. (2011). *What is morphology?* (2nd ed.). Blackwell Publishing Ltd.
- Bauer, L. (2012). *English word-formation*. Cambridge University Press.
- Bauer, L., Lieber, R., & Plag, I. (2010). *The Oxford Reference Guide to English Morphology*. Oxford University Press USA - OSO.
- Goundar, P. (2019). Vocabulary Learning Strategies (VLSs) Employed by Learners of English as a Foreign Language (EFL). *English Language Teaching*, 12(5), 177. <https://doi.org/10.5539/elt.v12n5p177>
- Hamawand, Z. (2013). *Morphology in English: Word Formation in Cognitive Grammar* (1st ed.). Bloomsbury.
- Jin, Z., & Webb, S. (2021). Does writing words in notes contribute to vocabulary learning? *Language Teaching Research*, 136216882110621. <https://doi.org/10.1177/13621688211062184>
- Katamba, F. (1994). *English words* (1st ed.). Routledge.

- Kimppa, L., Shtyrov, Y., Hut, S., Hedlund, L., Leminen, M., & Leminen, A. (2019). Acquisition of L2 morphology by adult language learners. *Cortex*, *116*, 74-90.
<https://doi.org/10.1016/j.cortex.2019.01.012>
- Kuo, L., & Anderson, R. (2006). Morphological Awareness and Learning to Read: A Cross-Language Perspective. *Educational Psychologist*, *41*(3), 161-180.
https://doi.org/10.1207/s15326985ep4103_3
- Levesque, K., Kieffer, M., & Deacon, S. (2017). Morphological awareness and reading comprehension: Examining mediating factors. *Journal Of Experimental Child Psychology*, *160*, 1-20.
<https://doi.org/10.1016/j.jecp.2017.02.015>
- Lieber, R. (2022). *Introducing morphology* (3rd ed.). TJ Books Limited, Padstow, Cornwall.
- Lieber, R. (2017). Derivational Morphology. *Oxford Research Encyclopedia of Linguistics*.
<https://doi.org/10.1093/acrefore/9780199384655.013.248>
- Nurjanah, S., Ramdhaniah, A., & Efransyah, M. (2018). affixation of derivational and inflectional process in narrative text entitled the ugly duckling. *PROJECT, Professional Journal Of English Education*, *1*(3). Retrieved 15 June 2022, from
<https://journal.ikipsiliwangi.ac.id/index.php/project/article/view/1217>.
- Nagy, W., Carlisle, J., & Goodwin, A. (2013). Morphological Knowledge and Literacy Acquisition. *Journal Of Learning Disabilities*, *47*(1), 3-12. <https://doi.org/10.1177/0022219413509967>
- Rodgers, M., & Webb, S. (2019). Incidental vocabulary learning through viewing television. *ITL - International Journal of Applied Linguistics*, *171*(2), 191-220.
<https://doi.org/10.1075/itl.18034.rod>
- Shu, H., McBride-Chang, C., Wu, S., & Liu, H. (2006). Understanding Chinese developmental dyslexia: Morphological awareness as a core cognitive construct. *Journal of Educational Psychology*, *98*(1), 122-133. <https://doi.org/10.1037/0022-0663.98.1.122>
- Tokar, A. (2012). *Introduction to English morphology*. P. Lang.
- Van Goethem, K. (2020). Affixation in Morphology. *Oxford Research Encyclopedia of Linguistics*.
<https://doi.org/10.1093/acrefore/9780199384655.013.678>
- Štekauer, P., & Lieber, R. (2005). *Handbook of Word-Formation*. Springer.
- Yadav, M., & Yadav, M. (2021). An Overview on the Impacts and Strategies of Morphology in English Language Teaching to the L2 Learners. *International Journal of Language and Literary Studies*, *3*(1), 262-270. <https://doi.org/10.36892/ijlls.v3i1.550>