Bound Morpheme Errors in Undergraduate Research Articles: The Case of an English Education Department

Kesalahan Morfem Terikat dalam Artikel Skripsi: Kasus pada sebuah Jurusan Pendidikan Bahasa Inggris

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ABSTRACT
The graduates of English education departments are supposed to possess an advanced level of English, the knowledge of which is essential when becoming educators. Consequently, it is important to recognize prevailing grammatical errors that they commit, since teaching what is essentially flawed language use may cause damaging consequences. This study examines six undergraduate research articles from an English education department to determine common errors in the use of bound morphemes, which come into focus considering their consistent occurrences. This descriptive qualitative research describes and examines the errors in both inflectional and derivational categories. The result of the study shows that the high number of errors in bound morphemes that mark a plural noun as well as present and past tense can be attributed to the similarly high number of their uses in academic writing. Also, the grammatical issues that need to be addressed are those of non-finite verb phrases and noun phrases. A conclusion that can be drawn is that the bound morpheme errors are largely preventable. Suggestions to avoid the errors are then offered.

Keywords: bound morpheme, inflectional, derivational, error analysis, English education department

INTISARI
Lulusan jurusan Pendidikan Bahasa Inggris diharapkan memiliki pengetahuan berbahasa Inggris tingkat lanjut, yang sangat penting dimiliki apabila menjadi pendidik. Oleh karena itu, diperlukan upaya mengenali kesalahan tata bahasa yang mereka lakukan karena mengajarkan penggunaan bahasa yang keliru berakibat pada penjerumusan. Penelitian ini menelisik enam artikel yang didasarkan pada skripsi dari sebuah jurusan Pendidikan Bahasa Inggris untuk menentukan kesalahan penulisan dalam penggunaan morfem terikat, yang menjadi fokus melihat kemunculannya yang konsisten. Penelitian kualitatif deskriptif ini mendeskripsikan dan mengkaji kesalahan baik dalam kategori infleksi maupun derivasi. Hasil penelitian menunjukkan bahwa tingginya jumlah kesalahan dalam morfem terikat yang menandai kata benda jamak serta present dan past tense dapat dikaikan dengan tingginya jumlah penggunaannya dalam penulisan akademik. Selain itu, masalah tata bahasa yang perlu diperhatikan adalah masalah frasa kata kerja nonfinite dan frasa kata benda. Kesimpulan yang dapat ditarik adalah bahwa kesalahan morfem terikat sebagian besar dapat dicegah. Saran untuk menghindari kesalahan-kesalahan tersebut kemudian dikemukakan.

Kata kunci: morfem terikat, infleksi, derivasi, analisis kesalahan, jurusan Pendidikan Bahasa Inggris

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INTRODUCTION
There is a certain standard of linguistic competence that needs to be met by students of English education departments. After learning the language throughout their undergraduate study, it is subsequently reasonable that they are supposed to possess an advanced level of English by the time of graduation. In the context of academic writing, advanced level means that the language learners can produce clear, well-structured, detailed text on complex subjects. What they write is supposed to be cohesive and coherent, which is a direct implication of mastering morphology and syntax.

However, making errors when learning English is commonplace. In learning a foreign language, learners are involved in the process of estimations to the system used by the native speakers of the language (Brown, 2006). This implies that there are two systems faced by foreign language learners: the system of the learner’s first language and the system of a target language. Learners then undertake a process of comparing the linguistic characteristics of both languages (Corder, 1967), from which a representation of the target language is created (Ellis, 2015). Yet, considering how the rules and logic (see Seuren, 2010) of the learners’ native language and the target language commonly differ in some ways, it may be problematic for them to be able to reach a certain linguistic competence (Selinker, 1970, as cited in Ellis et al., 1994). In the Indonesian EFL context, learners’ native language is either the Indonesian language or one of indigenous languages, which has different rules compared to English. Consequently, errors in language production are expected to happen. This notion puts an emphasis on the need for further studies to find out what kinds of errors are made in terms of target language production as an effort to improve language learning. One of the foremost approaches to conducting such a study is using error analysis.

Error analysis becomes a substantial branch of applied linguistics that has a practical application in language learning. It helps to reveal linguistic deviations in the process of learning a language that are systematic and consistent in occurrence (Norrish, 1983) as well as the learners’ condition and competence at a certain period. It implies how error analysis is necessary as a tool to monitor as well as evaluate a language learning process. This leads to its widespread use in the ESL and EFL context, or in James’ (1998) terms, outer and expanding circle. Studies employing error analysis commonly investigate linguistic errors made by specific groups of learners, at certain academic levels, or in particular kinds of discourses. At the undergraduate level, there were attempts to examine errors made by students of English departments from Indonesia (Angguni, 2020; Manurung et al., 2015), China (Björkegren, 2018), Thailand (Kaweera, 2013; Phetdannuea & Ngonkum, 2016), Saudi Arabia (Alasfour, 2018; Hussain, 2019), Oman (Mahmoud, 2019), Turkey (Köroğlu, 2014; Taşçı & Aksu Atac, 2018), and Iran (Abbasi & Karimnia, 2011), to name a few. The most comparable studies, however, are by (Hidayat, 2015) for the data source, as well as (Mardijono, 2003) and (Zewitra & Fauziah, 2021) in terms of classification of errors.

Despite the varying focus of studies involving error analysis, the amenable concord is that it is done out of necessity to understand the grammatical problems faced by language learners, and its outcome is indeed needed to improve language learning as a whole. Hence, it is especially important to recognize frequent errors made by the graduates of English education departments under the assumption that they will be educators. Teaching what is essentially a flawed or inadequate understanding of language use will cause dire consequences to the students of English education graduates; they will consider everything they have learned as correct, especially if they have not had fundamental understanding of English.

It is therefore the aim of this study to examine morphological errors in undergraduate research articles from an English education department. This study in particular focuses on errors in the use of bound morphemes, namely those involved in inflection and derivation. Bound morphemes are extensively operated within academic writings. Yet, their exact forms
of error are arguably obscured in error analyses despite their importance in showing an author’s linguistic competence and attention to detail. To examine such errors, the data source was undergraduate research articles, which were based on the revised undergraduate theses, so they are essentially one of the last pieces of writing done by English education students before they graduate.

RESEARCH METHODS

This descriptive qualitative study employed a model of error analysis by (Ellis et al., 1997) which has four steps: identification, description, explanation, and evaluation. Data collection was in the stage of identification. The data of this research were errors in the use of bound morphemes in six research articles written by students who graduated between 2019 and 2022 from an English education department of a state university in Yogyakarta. The articles were based on their revised undergraduate research (skripsi), which were required to submit before the students were eligible to graduate. For ethical reasons, the authors of the research articles had given permission for their writings to be used as the data source in this study.

The data were collected through document analysis in which the grammar of the research articles was analyzed. Document analysis was used to allow investigation of a phenomenon within its own context and therefore enabled a study with a natural and authentic dataset (Ary et al., 2013). Analyzing the collected data was in line with the stages of description, explanation, and evaluation in the model of error analysis by (Ellis et al., 1997). Once the errors were identified, they were described qualitatively by classifying them into two main categories, which are linguistic category to identify the morphemic categories and Surface Strategy to recognize the altered form. After an error was determined whether it was inflectional or derivational, its flawed form is then determined whether it is due to omission, addition, misform, or disordering (Dulay et al., 1982). The errors were also calculated and tabulated in order to know how frequently these errors had been made by the authors.

After the errors were classified, there was an explanation phase in which each error was determined as to how it came to be. It was explained which and why a constituent was considered an error in relation to other constituents in a sentence. Afterward, suggested correction was also provided for each error. Evaluation was where the factors causing the errors were determined. The data were shown according to the altered form as well as the morphemic categories. The use of an asterisk (*) before a sample or a sentence will mark the presence of a grammatical error. Also, the constituent considered as an error is written in both bold and italics.

FINDINGS AND DISCUSSION

1) Bound Morpheme Errors

Based on the analysis of errors that were present in the research articles, it is apparent that there are several bound morpheme misuses. The errors occur in both the inflectional and derivational affixes. In omission and misform, the categorization was based on how the correct form is supposed to be while in addition, the categorization was based on what needs to be removed.

Table 1 shows that there are some errors in the use of bound morphemes at both inflectional and derivational categories, despite the stark difference in number. Misuses of inflectional bound morphemes happen to all categories but one, which is superlative. The two highest errors in number made by the authors of the articles are the omission of bound morphemes indicating pluralism and the omission of bound morphemes indicating past tense. Error in suffix indicating superlative is not found in the six research articles. Misuses of
derivational bound morphemes, despite having a much lower number, include derivation of nouns, adjectives, verbs, and adverbs.

<table>
<thead>
<tr>
<th>Table 1. The Number of Bound Morpheme Errors</th>
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<tr>
<td>Omit</td>
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a) Omission

An omission in this study is an error that refers to omitting a necessary bound morpheme from a word. Producing the highest number of errors in terms of the surface form, the following samples show the deletion of bound morphemes that are supposed to exist to form a properly-written sentence that can be found in the undergraduate research articles.

(1) *they faced difficulty during the process of learning English.

(2) *The pre-test showed that students average score was 51.7.

In the inflectional category, the omission of bound morphemes signifying pluralism accounts for the highest number of errors. Sample (1) shows such error as *difficulty needs suffix -s/es given the context of the source material indicates more than one *difficulty were faced by the subject. Errors in possessive bound morpheme become the second highest errors due to omission. Sample (2) shows the phrase *average score has a possessive relation to students, meaning that the plural possessive noun needs the suffix of possession –’ as the noun ends with the letter s.

(3)*the adults may find a deeper and heavy meaning to the jokes

Regarding the comparative bound morpheme, there is a case of parallelism. The term is defined as the repetition of constituents with the same grammatical form in two or more parts of a sentence. In this instance, *heavy needs the suffix -er to be parallel with deeper.

(4)*The study *focus on identifying the effectiveness of the use of movie

(5)*After investigating the problems, the researcher *explore the potential contents

Errors in bound morphemes denoting present and past tense are considered high in number by the cause of omission. Considering the subject is singular, the verb *focus must be singular as well and therefore needs suffix -s/es. Regarding the past tense, as shown by sample (5), the verb *explore needs to have suffix -d/did because it refers to a past event of the research.
(6)*The first move is write the word on the board that matches the picture
(7)*The obtain quantitative data from the expert judgment were descriptively analysed

As shown by sample (6), the verb write must be a gerund as it follows copula be. So, it should be attached by suffix -ing. In the past participle, the verb obtain needs suffix -ed to be a participial adjective describing quantitative data.

(8) *the purpose of learning will lead the students to feel relax in expressing their speaking skill
(9) *Thematic learning is a teaching method which emphasis on choosing a particular theme
(10) *vocabulary is not mere a collection of words

As for derivational bound morphemes, the errors happen to the derivation of nouns, adjectives, and adverbs. As sample (8) displays, the word relax is in the form of a verb. For it to be used correctly as an adjective that describes feel, it needs suffix -ed. Sample (9) demonstrates how the root emphasis must be derived into a verb so that the dependent clause works. Mere is an adjective that needs adverb-forming suffix -ly so that the sentence syntactically makes sense.

b) Addition

Errors of addition are those with an unnecessary additional linguistic element in the form of a bound morpheme. Errors due to addition represent the second highest category of surface form alteration. The following shows the addition of inflectional and derivational bound morphemes that are not supposed to be there.

(11) *English as a means of communication
(12) *The total number of the subject’s is 27 students

The first one is the improper addition of extra inflectional bound morphemes causing unnecessary plural form. The word means needs to lose suffix -s following determiner a so that the phrase makes sense grammatically. As for the unneeded possessive form, subject’s does not need the suffix of possession because there is no other noun with such a relation.

(13) *This is based on the understanding that a word cannot stands alone
(14) *they could not comprehended the text they read

Sample (13 and 14) show that the errors happen because both verbs follow a modal auxiliary. Therefore, stands and comprehended have to lose suffix -s and -ed, respectively. Incorrect use of bound morpheme indicating past tense is the highest form of error due to addition.

(15) *songs are contextually exposing students to the natural stretching of the English speech
(16) *the used of word games in improving the students’ vocabulary mastery

Regarding present and past participles, each sample represents the unnecessary addition of a suffix as both stretch and use are already nouns. Nevertheless, errors in the addition of
suffix -ing occur significantly more compared to that of past participle, which only happens once.

(17) *The indicators and materials developed are relevance with the basic competences

There is only one error in the addition of derivational bound morpheme. Here, the word relevance must be an adjective for the sentence to make sense. Therefore, it needs to lose the adjective-forming suffix -ance.

c) Misformation

Misformation refers to the incorrect use of appropriate linguistic elements. In this instance, improper use of bound morphemes that was not caused by both omission and addition falls in this category. Having the lowest number of errors in comparison to omission and addition, there are 26 errors of bound morpheme attributed to misformation. The highest of the errors are of bound morpheme denoting present tense, as shown in sample (18).

(18) *used to help the learning process becomes easier
(19) *There was data collecting in this phase regarding the research, which including taking photographs

In the sample of error, becomes should have been in the form of an infinitive verb because it follows the causative verb help. Meanwhile, the use of including is rather peculiar because it is supposed to be in the form of past tense which included or simply including without which.

(20) *the technical quality and programing quality are “Very Good”
(21) *According to Kemmis and McTaggart (1988) as cited in Burn (2010: 7)

As for the present participle error in the use of programing, it is due to how the use of suffix alters the sense of the word. Programing signifies ‘broadcasting’ or ‘screening’ while programming refers to ‘software design.’ The context establishes that the latter is to be used. Meanwhile, sample (21) shows how the addition of suffix -ed to verb cite results in an unusual form. This particular error happens repeatedly so it is not due to misspelling, yet it was only found in one article. Therefore, it is a case of personal error rather than a more collective occurrence.

(22) *considered to be the representative of most learners’ choices
(23) *some words that are very closed related to the topic

In the derivational category, representative is already a noun, but it should have used another noun-forming suffix -ion instead of -ative. This error is related to word senses more than it is grammatical. Another case of using an improper suffix happens in sample (23). The word closed should have used suffix -ly to form an adverb as it is supposed to modify an adjective i.e. related.

d) Misordering

As Table 1 suggests, there is no bound morpheme error that can be attributed to misordering. This lack of occurrence is predictable considering the nature of a bound morpheme that attaches to a base or a stem according to their function. A prefix occurs at the beginning of a word or a stem while a suffix at the end. Any kind of misordering in this area would make a newly-formed word nonsensical. The authors of the article, being supposedly advanced users
of English, do not make this error at all. Misordering may occur significantly more at the syntactical level instead of at the morphological level.

2) Discussion

The results of the analysis provide insights into the grammatical issues and challenges that the authors faced during a vital phase of their study. The insights may become a starting point for the issues to be recognized, understood, and then solved. What will be discussed include the regular and predictable occurrence of certain bound morpheme errors, the linguistic aspects still causing issues, and the irregular forms of bound morpheme errors.

A research article based on an undergraduate thesis generally provides the key information about the research and how it is conducted. Considering how all six research articles used as the data source were either action research or research and development, it can be expected that there was extensive use of specific language conventions. Action research needs to explain the subject, the problem, the conducted actions, and the results of implementation while research and development has to describe the needs analysis, the developed product, and the expert judgement. Therefore, the high number of errors in bound morphemes denoting plural nouns, present tense, and past tense are related to the similarly high number of uses in the academic writings.

Regarding errors in the use of plural forms, the issue appears to stem from the inability to decide whether a noun is plural without using a quantifier (e.g., *even when they use simple expression) and indecisiveness of not using the plural form in accordance with other plural nouns (e.g., *nowadays’ students as digital native). The stark difference in number makes this kind of error difficult to trivialize, in addition to the fact that this occurrence is actually in line with several studies. Errors in the use of bound morpheme indicating plural account for almost a fifth of the total error in (Hidayat, 2015) study. Having lower percentages within their respective categorizations, the same errors involving addition, omission, and/or misformation are reported in the studies from Abushihab (2014), Alasfour (2018) Amiri & Puteh (2017), Hamdi (2011), Hashim (2015) Hussain (2019) Kharmilah & Narius (2019), Köroğlu (2014), Mardijono (2003) and Wahyuningsih (2016) to name a few.

As for the present and past tenses, there are indications that picking the correct form between the two is still considered difficult. In theory, an explanation of general knowledge uses present tense while the description of past conduct of research uses past tense but in practice, it seems to be not as easily done (e.g., *the writers decide to modify crossword puzzle; *They designed the phases in cycles). Some studies show similar errors happen in varying degrees of number but share the same trait in their universal occurrences. Such errors can be found in the studies by Abbasi & Karimnia (2011), Abushihab (2014), Amiri & Puteh (2017), Hashim (2015), Hidayat (2015), Hussain (2019), Mardijono (2003), Savitri & Akhiriyah (2016), Subekti (2018), Wahyuni (2014), and Wahyuningsih (2016). The highest number of errors involving tenses, however, is in Hamdi’s (2011) study, a third of which are attributed to this form of error. Alas, the problem of English tenses among second and foreign language learners has been brought up and discussed for decades yet it is still prevalent even among advanced learners on a random basis (Garrido & Romero, 2012; Han, 2002). As Younus (2020) points out, the learners’ first language is just one of the other different reasons causing numerous issues regarding tenses. Therefore, considering the universality of tenses error, grammatical competence cannot be the sole cause but instead, most likely due to lack of control in language use (Myles, 2002).

Putting predictable bound morpheme errors aside, there are grammatical issues that need to be addressed as they happen constantly across the six research articles. The first one is the use of nonfinite verb phrases. English has rules concerning the use of verb-verb formations but the lack of clear-cut and consistent applications may confuse language learners. In this instance,
the errors mostly have something to do with causative verbs and modal auxiliaries. Both groups of verbs dictate how the nonfinite verbs following them behave. For instance, a verb following *make* and *let* has to be in its base form without the addition of *to* in front of it, while a verb following *help* can be in its base form with or without *to*. As for a verb following modal verbs acting as auxiliaries, it must be in its base form. The errors happen when the wrong forms of nonfinite verbs are used (e.g., *This paper will focuses* on major classes, *to help the learning process becomes* easier). The second issue is about noun phrases. Having similar circumstances to the nonfinite verb phrase, no precise rules dictating noun-noun relations. The errors in noun phrases include possessive modifier (e.g., *students interest*), and the head, which happens with or without a noun adjunct (e.g., *learning material*). As there are no precise patterns and categorizations of the verb-verb and noun-noun combination, the simplest way to avoid such errors is by employing online dictionaries and search engines. For instance, Collins Online Dictionary provides the proper form of a nonfinite verb to use following a certain verb while Merriam-Webster Online Dictionary offers plenty of examples of how a word is used in a sentence. Also, as an effort to recognize whether a noun phrase is in the correct form, it can be searched on the internet using, for instance, Google and corpora. If the exact phrase turns out to be commonly used, especially in academic writings, its formation is productive. If not, there are always alternatives to use provided on the search.

The analysis also reveals the existence of several errors whose forms differ significantly from the predictable tendency. This peculiarity is brought into focus considering the irregular forms happen repeatedly. For instance, the supposedly infinitive (e.g., *to asked* about the class condition) and the improper application of past participle (e.g., *as cited* by Hidayat). However, given the low number of these unpredictable errors as well as the inconsistency in form, these irregularities indicate that there were no noteworthy fundamental errors in grammatical knowledge committed by the authors whose articles become the data source for this study. Therefore, without larger data showing these errors happen constantly, there was no cause for concern.

**CONCLUSIONS**

The error analysis used in this study is to examine bound morpheme errors in undergraduate research articles from English education department graduates. The results of the analysis determine that there are still several bound morpheme errors in the research articles, both in inflection and derivation. The study reveals the pattern in the number of errors where the high number of bound morpheme errors reflect the high frequency of their use e.g., in pluralism, present tense, and past tense. Conversely, categories with few to no errors signify decent grammatical competence, e.g., in derivation, or instead, are because of the rarity of uses, e.g., in superlative.

Considering the aforementioned pattern of errors, the sufficient consistency shown by errors in inflectional bound morphemes, and the infrequency of derivational ones, the results suggest that the bound morpheme errors are largely avoidable. To avoid the errors, this study offers three suggestions. First, turning on the language feature on language processing software can help highlight simple grammatical mistakes as well as misspellings. Second, using grammar checker websites allows the authors to recognize the committed errors beyond what language processing software capability. There are several websites that provide such a service without charge. Third, proofreading is necessary to make sure that the writing could deliver the points across. So, it is best done by multiple individuals if possible.
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