The Perception of Morphological Awareness on Reading Comprehension in EFL Students

Erky Zidan[1], Dzul Rachman[2], Rani Herning Puspita[3], Yeni Rahmawati[4]
[1]Universitas Muhammadiyah Kalimantan Timur,
[2,3,4] Universitas Muhammadiyah Kalimantan Timur

Abstract: This study investigates the perception of morphological awareness and its relationship to reading comprehension among EFL university students using a mixed-methods approach. A total of 57 participants completed questionnaires and reading comprehension tests, followed by interviews with 5 selected respondents. The quantitative findings revealed that students generally held positive perceptions of morphological awareness, with mean scores ranging from 2.84 to 3.28, and demonstrated strong reading comprehension performance (M = 80.24, SD = 6.014). A Pearson correlation analysis showed a statistically significant but modest positive relationship between morphological awareness and reading comprehension (r = 0.293, p = 0.027), and the questionnaire used had acceptable internal consistency (Cronbach's Alpha = 0.744). The qualitative results reinforced these findings by illustrating that students frequently used morphological strategies such as word decomposition and contextual guessing to make sense of unfamiliar words. Participants also expressed that these strategies enhanced their reading confidence and reduced reliance on dictionaries or translation tools. Furthermore, many students advocated for greater emphasis on morphological instruction in English reading classes, especially in academic settings. These results suggest that morphological awareness contributes meaningfully to EFL learners' reading development and supports the integration of morphology-based strategies in language education curricula.

Keywords: Morphological Awareness, Reading Comprehension, EFL Students, Vocabulary Strategy, Word Structure

INTRODUCTION

In the field of English education, especially for learners of English as a Foreign Language (EFL), morphological awareness has emerged as a critical skill supporting vocabulary growth and reading comprehension. Defined as the ability to recognize, understand, and manipulate morphemes—the smallest units of meaning in language—morphological awareness helps learners decode unfamiliar words and interpret complex academic texts more effectively (Tareq & Essa, 2025). This is particularly relevant for university-level EFL students who frequently encounter morphologically rich vocabulary in academic reading materials. While native speakers may develop this awareness naturally, EFL learners often require explicit instruction to build the same skills (Aziz et al., 2019).

Despite its proven benefits, morphological awareness remains underemphasized in many traditional EFL curricula, which often prioritize grammar rules and rote memorization of vocabulary over meaningful word analysis (Anggrisia et al., 2024). As a result, many EFL students struggle to infer word meanings in context, hindering their overall reading comprehension and academic success. Moreover, limited attention is given to students' perspectives on the role of morphological awareness in their learning process. Understanding how learners perceive and utilize morphological strategies is essential for improving instructional approaches and tailoring reading programs to support deeper language acquisition.

Although prior studies have highlighted the correlation between morphological awareness and improved reading performance (Anwar & Rosa, 2020) (Al- Qeyam & Alnajjar, 2020). Gaps remain in the literature regarding students' own experiences, strategies, and beliefs about this skill. Without clear

insights into learners' perceptions, educators may miss opportunities to implement effective, student-centered morphological instruction.

Morphological awareness has been widely acknowledged as a critical component of language learning, particularly in supporting vocabulary development and reading comprehension among EFL learners. Research by Aziz et al., (2019), Al- Qeyam and Alnajjar, (2020), and Anwar and Rosa, (2020) has established the strong correlation between morphological knowledge and reading performance. Other studies, such as those by Li and Zhang, (2025), and Anggrisia et al., (2024). Further emphasize that instruction focusing on morphemes, affixes, and root word structures can enhance students' abilities to infer meaning and engage with complex texts. These findings form the conceptual foundation for this study, which seeks to explore not only the impact of morphological awareness on reading comprehension but also students' perceptions and strategies related to morphology in EFL contexts.

Recent studies emphasize the critical role of morphological awareness in vocabulary growth and reading comprehension (Prayuda et al., 2023; Muhamad Iqbal Fauzi and Lilik Yuliawati, 2023). As Zakiyah (2021) notes, the ability to deconstruct words into roots, prefixes, and suffixes enhances students' capacity to infer meaning from context and become more autonomous readers. Morphological awareness functions as a bridge between form and meaning, allowing students to recognize patterns in word construction that support deeper lexical knowledge. This is especially important in EFL settings, where vocabulary gaps often hinder comprehension of academic texts.

Research Question

1. How do EFL university students perceive morphological awareness in the context of English reading comprehension?
2. To what extent is there a relationship between students' morphological awareness and their reading comprehension performance?
3. What strategies do students use when encountering morphologically complex words while reading English texts?

METHOD

This study employed a mixed-methods approach to examine the perception of morphological awareness and its relationship with reading comprehension among EFL university students. The design integrated both quantitative and qualitative data collection and analysis techniques to ensure a comprehensive understanding of the research problem. Quantitative methods involved the administration of a questionnaire and reading comprehension test to 57 students, while qualitative methods utilized semi-structured interviews with five selected participants. The study was conducted at Universitas Muhammadiyah Kalimantan Timur during the academic year 2024/2025.

Research Design and Objectives

This research applied a mixed-methods design combining quantitative and qualitative approaches. The objectives were to assess students' morphological awareness levels. Similarly, Juanisa and Suezdi, (2021) examined the impact of morphological instruction on first-semester university students at Jayabaya University. Their study employed morphological tests and structured interviews, finding that after exposure to morphology-focused lessons, students showed a significant improvement in reading comprehension. examine their reading comprehension performance, and explore their perceptions and experiences regarding morphology in academic reading. The design allowed for a triangulated understanding by integrating statistical results with reflective narrative data.

Population and Sample

The population consisted of EFL students enrolled in an English Education program. A total of 57 students participated in the quantitative phase, selected purposively to ensure they had background knowledge in morphology and reading. Five participants from this group were further selected for interviews based on their communication clarity and willingness to share.

Instruments and Procedures

The research instruments included a Likert-scale questionnaire adapted from previous studies (Aziz et al., 2019; Anwar & Rosa, 2020), a reading comprehension test, and semi-structured interview guides. The instruments were validated through expert review and piloted before data collection. Quantitative data were gathered through classroom-based assessments, while interviews were conducted using mobile phones and microphones.

Data Analysis Techniques

Quantitative data were analyzed using descriptive statistics (mean, standard deviation), Pearson correlation for relationship analysis, and Cronbach's Alpha for reliability testing. Qualitative data were analyzed thematically, following steps of data familiarization, coding, theme identification, and interpretation to uncover students' perceptions, strategies, and experiences related to morphological awareness. Paragraphs contain descriptions of subtitles.

RESULT AND DISCUSSION

Findings
Quantitative Result
Descriptive Statistics of Students' Morphological Awareness Scores

Table 1. Descriptive Statistics of Morphological Awareness Items (N = 57)

No	Item	Mean	Std. Deviation
1	I have studied English consistently over the past few years	3.25	0.544
2	I allocate a significant amount of time weekly to improving my English proficiency	2.98	0.612
3	I have previously received instruction in morphological components	3.19	0.581
4	I understand what a prefix is	3.18	0.468
5	I understand what a suffix is	3.04	0.597
6	I know how to identify the root of an English word	3.09	0.544
7	I can break down a word into prefix, root, and suffix	3.19	0.693
8	I find it difficult to guess the meaning of a word from its parts	2.95	0.639
9	I usually recognize prefixes when I read English texts	3.00	0.627
10	I usually recognize suffixes when I read English texts	3.05	0.610
11	I usually try to guess the meaning of a word by analyzing its parts	3.11	0.724
12	I rarely consider word parts when reading unfamiliar English words	2.84	0.702
13	I think morphological knowledge helps improve vocabulary	2.98	0.612
14	I think understanding prefixes helps me read better	2.91	0.606
15	I think understanding suffixes helps me understand English texts	3.00	0.627
16	I believe analyzing root words helps me guess meaning	2.89	0.673
17	I find prefix knowledge useful in reading comprehension	3.11	0.673
18	I often use a dictionary or translation tool when I find new words	3.28	0.559

19	I can apply my morphological knowledge during reading tasks	3.11	0.618
20	I believe morphology plays a role in improving my reading comprehension	3.05	0.610
21	I am confident in identifying parts of words	3.16	0.560
22	I use morphological knowledge in academic reading	3.11	0.618
23	I believe word formation knowledge improves my vocabulary skills	3.09	0.606
24	I am more confident in reading because I know word structures	3.16	0.591
25	I believe learning morphology helps in other skills like writing	3.21	0.526
26	I often reflect on word parts when I encounter difficult vocabulary	2.98	0.551
27	I am aware of morphology rules in English	3.02	0.612
28	I apply what I know about morphology in daily reading	2.93	0.651
29	I try to explain unfamiliar words using their parts	2.98	0.517
30	I would recommend morphological instruction for fellow EFL learners	3.05	0.580

The descriptive analysis reveals that students generally have a positive perception of morphological awareness, with mean scores ranging from 2.84 to 3.28 across the 30 questionnaire items. This range suggests a generally favorable attitude toward the usefulness of word formation knowledge in supporting reading comprehension. Notably, the highest mean score (3.28) was observed for the statement related to using dictionaries or translation tools (Item 18), indicating that students often rely on external support when encountering unfamiliar vocabulary. However, several other items—such as recognizing prefixes and suffixes, analyzing word parts, and applying morphological knowledge during reading—also showed consistently positive responses.

The small standard deviation values (ranging from 0.468 to 0.724) indicate that students' responses were relatively uniform and not widely dispersed. This implies that most participants shared similar experiences and attitudes toward morphological awareness. Items with lower standard deviations, such as understanding what a prefix is (Item 4, SD = 0.468), suggest high agreement among students on those specific skills. These findings imply that students are not only familiar with morphological components but also recognize their value in supporting reading tasks, vocabulary learning, and academic performance.

Pearson Correlation Between Morphological Awareness and Reading Comprehension

Table 2. Descriptive Statistics for Reading Comprehension Scores

Statistic	Value
N (Valid)	57
N (Missing)	0
Mean	80.24
Standard Deviation	6.014
Variance	36.173

The mean reading comprehension score of 80.24 suggests a generally strong performance across participants. This score indicates that most students were able to comprehend the reading passages at a high level, reflecting adequate exposure to reading instruction and perhaps the application of vocabulary and word recognition strategies. The standard deviation of 6.014 shows that there was

relatively low variability in scores, suggesting that the reading comprehension ability of the group was fairly consistent. This consistency may reflect a shared instructional background or similar levels of academic preparedness among the participants. The variance value of 36.173 further supports this notion of homogeneity within the group, as it confirms that few students deviated significantly from the group average. Overall, these results provide a stable foundation for examining the relationship between reading comprehension and morphological awareness in subsequent analyses. A low standard deviation indicates consistency in students' comprehension abilities, supporting the interpretation that this sample had a relatively uniform level of reading proficiency.

Pearson Correlation Between Morphological Awareness and Reading Comprehension

Table 3. Pearson Correlation Between Morphological Awareness and Reading Comprehension

Variables	Pearson Correlation (r)	Sig. (2-tailed)	Interpretation
Morphological Awareness & Reading Comprehension	0.293*	0.0277	Low positive correlation (significant)

The Pearson correlation coefficient (r = 0.293, p = 0.027) reveals a statistically significant positive relationship between students' morphological awareness and their reading comprehension scores. Although the strength of the correlation is considered low, the direction is positive, suggesting that increased awareness of word structures—such as prefixes, suffixes, and root words—tends to be associated with higher reading comprehension outcomes. This supports the idea that morphological awareness contributes to the decoding and interpretation of complex vocabulary in reading texts. In practical terms, students who are more skilled in identifying and analyzing word parts are likely to experience fewer difficulties understanding unfamiliar words, thus improving their overall reading performance. This aligns with existing research that highlights the role of morphology in enhancing vocabulary knowledge and comprehension, particularly for EFL learners who may encounter many unknown words in academic texts. between students' morphological awareness and their reading comprehension. This means that as awareness of word formation increases, so does the ability to comprehend academic texts.

Reliability Analysis of the Morphological Awareness Questionnaire

Table 4. Reliability Statistics for Morphological Awareness Instrument

Statistic	Value
Number of Items	31
Cronbach's Alpha	0.744
Reliability Level	Acceptable

The Cronbach's Alpha of 0.744 indicates an acceptable level of internal consistency for the 31-item morphological awareness questionnaire. This reliability score suggests that the instrument used to assess students' morphological awareness is consistent and dependable across items, making it suitable for use in educational research. A value above 0.7 generally reflects good internal reliability, which means that the questionnaire items are likely measuring the same underlying construct—students' awareness and application of word structure knowledge. This strengthens the validity of the data collected and supports the use of the instrument in further studies or practical classroom assessments. for the 31-item morphological awareness questionnaire. This means the instrument is sufficiently reliable for use in educational research.

Qualitative Result

The qualitative data from this study provided a deeper understanding of how EFL students perceive, experience, and apply morphological awareness in their reading practices. The interviews explored five key areas, each revealing important themes and learner insights that complemented and enriched the quantitative findings.

Understanding Difficult or Unfamiliar Words During Reading

Theme	Subtheme	Participant Response Example
Strategies for Understanding Unfamiliar Vocabulary	Digital Search & Contextual Guessing	"I search on Google." (R1), "I try to guess from context first, then use dictionary." (R4)

When asked how they typically deal with difficult or unfamiliar vocabulary while reading English texts, students shared a range of strategies. R1 explained that they usually copy unfamiliar words and immediately search for the meaning on Google, relying on digital tools for fast clarification. This response reflects a practical, efficiency-oriented learning habit, common among digital-native learners. In contrast, R4 adopted a more reflective strategy—first attempting to infer the word's meaning using context clues from surrounding sentences. Only if the meaning remained unclear would they consult an online dictionary. This variation highlights a balance between technology use and traditional inference, showing that students are not passive readers but actively engage with the text using strategic thinking. These findings illustrate the students' developing metacognitive skills and their ability to adapt reading strategies based on the situation.

Experience Being Taught About Word Formation

Theme	Subtheme	Participant Response Example
Contribution of Morphological Knowledge to Vocabulary Inference	Formal Instruction Experience	"We learned it in school and it helped me guess new words." (R2, R4)

Regarding whether they had ever learned about how English words are formed (such as through prefixes, suffixes, or root words), both R2 and R4 recalled receiving instruction during high school and early college. Though brief, this instruction was remembered as impactful. For example, R4 mentioned learning that "un" means "not," "re" means "again," and "-tion" is used to form nouns. They noted that even this limited exposure helped them make sense of new words in later academic reading. R2 also emphasized that understanding word structure helped in guessing meanings, even if the guesses were not always precise. These responses suggest that even minimal, focused instruction on morphological components can significantly enhance learners' reading experiences and vocabulary decoding abilities.

Using Word Structure to Understand Meaning

Theme	Subtheme	Participant Response Example
Morphological Awareness as a Strategy for Vocabulary Prediction	Structural Analysis as a Guessing Tool	"I don't need to memorize if I understand the structure." (R3, R4)

Students generally viewed morphological awareness as a helpful strategy for predicting word meanings, particularly when encountering unfamiliar or academic vocabulary. R3 explained that knowing how words are built made it easier to infer meanings without having to memorize entire word lists. For instance, they referred to the ability to recognize parts of words such as "inter," "nation," or "-al," and then connect them to words like "international." Similarly, R4 described how understanding that "tele" means "far" helped them make sense of "telephone" or "teleportation." These reflections reveal how morphological knowledge empowers students to make educated guesses and build word

associations, which in turn facilitates reading comprehension. This also supports the idea that morphology serves as a cognitive shortcut in the absence of dictionary use.

Applying Word Decomposition to Real Reading

Theme	Subtheme	Participant Response Example
Word Decomposition for Meaning-Making	Real-World Application of Word Parts	"'Unbelievable' = un + believe + able, so I can understand it." (R2, R3, R5)

The students' ability to deconstruct words and identify meaningful parts was evident in their examples. R2 recounted encountering the word "unbelievable" and breaking it down into "un" (not), "believe," and "able" (able to), concluding it meant "not able to be believed." R3 mentioned analyzing "decentralization" into parts—"de," "central," and "-ization"—to understand its meaning as a process of removing central power. Even R5, while using a made-up word "unsubable," showed an intuitive understanding of how English word structure operates by identifying the base word and adding affixes. These examples underscore the students' growing competence in morphological processing and show that they are not only learning morphology theoretically but also applying it practically in real reading tasks.

Suggestions for Teaching Morphological Awareness in Class

Theme	Subtheme	Participant Response Example
Importance of Teaching Morphological Awareness in Reading Instruction	Classroom Support & Academic Reading Focus	"It should be taught more so students don't depend on Google Translate." (R1, R2, R5)

When asked whether reading classes should include more focus on morphology, students strongly agreed. R1 pointed out that students learn at different paces, and those who struggle may need repeated instruction to fully grasp how word parts function. R2 emphasized that understanding word structure reduces the need to constantly use dictionaries or Google Translate, ultimately boosting reading confidence and comprehension. R5 noted that while morphology may not always be emphasized in everyday reading, it becomes especially important in academic contexts where precise word understanding is crucial. These responses suggest that students are aware of the long-term benefits of morphological instruction, and they see it as a tool that can enhance not just vocabulary knowledge but also independent learning and academic success.

Discussion

Perceptions of Morphological Awareness

Descriptive statistics showed that students generally held positive perceptions of morphological awareness, with mean scores ranging from 2.84 to 3.28. Higher means on items like using word parts to understand vocabulary indicate students recognize the usefulness of morphology in reading. Interview responses supported this, as participants described using prefixes, suffixes, and root words to infer meanings without relying on translation tools. These results align with prior studies (e.g.,Anwar & Rosa, 2020; Anggrisia et al., 2024) that emphasize the role of morphological knowledge in supporting EFL learners' vocabulary development and reading confidence.

Relationship Between Morphological Awareness and Reading Comprehension

The Pearson correlation ($r = 0.293$, $p = 0.027$) indicates a modest but significant positive relationship between morphological awareness and reading comprehension. This suggests that students with greater awareness of word formation tend to perform better in reading tasks, likely due to their ability to decode unfamiliar vocabulary. These findings are in line with Cognitive Load Theory

(Sweller, 1988), which posits that learners who can break down complex words into meaningful parts reduce cognitive load, thereby processing texts more efficiently. The ability to access word meaning through morphemes can lessen reliance on memory and external aids, supporting smoother comprehension.

This also echoes Nation's (2001) framework on vocabulary knowledge, which highlights morphological knowledge—especially derivational morphology—as essential for depth of vocabulary. Students who can identify affixes and roots are better positioned to expand their lexicon and infer meaning in context, contributing to improved comprehension outcomes.. These results support findings from Aziz et al., (2019) and Al- Qeyam and Alnajjar, (2020) and reinforce the idea that morphological skills play a meaningful role in EFL reading development. The reliability of the instrument (Cronbach's Alpha = 0.744) further validates the accuracy of this connection.

Strategies for Understanding Morphologically Complex Words

Qualitative data revealed that students commonly used word decomposition (e.g., "unbelievable" → un + believe + able) and contextual guessing as strategies for understanding difficult vocabulary. These approaches align with Metacognitive Strategy Theory (Flavell, 1979), which emphasizes the role of planning, monitoring, and evaluating one's own learning processes. Students actively used analysis of word structure and context to make meaning, showing strategic control over their reading.

Moreover, these strategies reflect the Lexical Quality Hypothesis (Perfetti, 2007), which proposes that well-specified word representations—including morphological information—lead to better reading comprehension. By breaking down words into known morphemes, learners strengthen their lexical quality and reduce ambiguity when reading complex texts. Several students also expressed that learning about word parts increased their reading autonomy and confidence, supporting the idea that morphology enhances independent learning. These findings are consistent with Anggrisia et al., (2024), who emphasized the importance of teaching morphology as a practical reading strategy in EFL classrooms.

CONCLUSION

This study investigated how EFL university students perceive morphological awareness and how it relates to their reading comprehension. The findings revealed that students generally have a positive perception of morphological awareness, recognizing it as a useful tool for understanding unfamiliar words in English texts. A significant, though modest, positive correlation was found between morphological awareness and reading comprehension, indicating that students with greater morphological knowledge tend to perform better in reading. Additionally, students reported using strategies such as breaking words into prefixes, roots, and suffixes, as well as guessing meaning from context, showing that morphological awareness supports independent reading and vocabulary inference.

Based on the findings of this study, it is suggested that English language teachers place greater emphasis on explicit instruction of morphological elements such as prefixes, suffixes, and root words during reading lessons. Teaching students how to recognize and break down complex words can help them become more confident and independent readers, especially when encountering unfamiliar vocabulary. Teachers can also integrate morphology-focused activities into reading tasks to encourage students to apply these strategies in real contexts. Additionally, students are encouraged to not only rely

on translation tools but to actively develop their word analysis skills and make use of contextual clues to enhance their comprehension. This approach supports long-term vocabulary growth and deeper engagement with academic texts.

For future researchers, it is recommended to conduct similar studies involving larger and more diverse groups of participants across different educational levels and institutions to improve the generalizability of the findings. Researchers may also consider using experimental or longitudinal designs to examine the effectiveness of specific instructional strategies for teaching morphological awareness. Additionally, future studies could explore how factors such as students' vocabulary size, language exposure, or motivation interact with their use of morphological strategies. Investigating the role of digital tools or blended learning in supporting morphological instruction could also offer new insights for modern EFL classrooms.

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