

LANGUAGES

The Impact of Morphological Awareness of Affixes on Vietnamese EFL Students' Ability to Infer Word Meaning and Word Class in Reading: A Case Study in VMG English Center

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Abstract

This study investigates the impact of explicit morphological instruction (EMI) of affixes on Vietnamese EFL students' ability to infer word meaning and identify word class while reading. A quasi-experimental design was employed with 60 students (aged 14–17, B1 level) at a private English center, divided into an experimental group ($n = 30$) and a control group ($n = 30$). Both groups completed a pre-test and post-test measuring word-meaning inference and word-class identification; the experimental group received six weeks of EMI targeting prefixes and suffixes, while the control group followed traditional instruction (rote memorization and textbook-based instruction). A 17-item Likert-scale questionnaire (Cronbach's $\alpha = 0.70$ – 0.87) and a classroom observation checklist provided supplementary evidence. Results showed no baseline difference between groups ($p > 0.05$), but after the intervention the experimental group significantly outperformed the control group in both inferring word meaning ($M = 3.58$ vs. $M = 2.19$, $t(58) = 7.20$, $p < 0.001$) and identifying word class ($M = 4.42$ vs. $M = 3.54$, $t(58) = 4.89$, $p < 0.001$). Questionnaire results further indicated strongly positive student perceptions of morphological awareness across cognitive, affective, and behavior dimensions. The findings support explicit affix instruction as an effective strategy for improving vocabulary inferencing and reading comprehension among Vietnamese EFL learners in private-center settings.

Keywords: morphological awareness; affixes; explicit morphological instruction; word meaning inference; word class identification; Vietnamese EFL learners.

Introduction

Reading comprehension requires learners not only to recognize words but also to construct meaning from texts, and vocabulary remains a major obstacle for Vietnamese EFL learners in this process. When students encounter an unfamiliar word derived from a known base through a prefix or suffix, for example, *helpful*, *helpless*, or *unhelpfully* from *help*, they often struggle to infer its meaning or grammatical category, especially where instruction has traditionally emphasized memorization and repetition of individual lexical items rather than the internal structure of words [1].

Morphological awareness (MA), is the learners' ability to recognize, analyze, and manipulate the meaningful components of words, offers a substantial strategy to learn vocabulary and deal with reading tasks. Affixes provide systematic clues to both meaning (e.g., *un-*, *re-*, *dis-*) and grammatical class (e.g., *-ness*, *-tion*, *-able*, *-ly*), potentially allowing learners to move beyond rote memorization toward independent

word-processing strategies. Prior research supports the value of MA for vocabulary development [2–4] and reading achievement [5]. However, explicit morphological instruction (EMI) remains underexplored in Vietnamese EFL contexts, particularly within private English-language centers, where the learning pace, parental expectations, and curriculum control differ from public schools.

This study addresses that gap by examining whether EMI targeting affixes improves Vietnamese EFL students' ability to infer word meaning and identify word class in reading, and how students perceive the usefulness of this instruction. Three research questions guided the study:

- **RQ1:** To what extent does morphological awareness of affixes improve Vietnamese EFL students' ability to infer word meanings in reading?
- **RQ2:** To what extent does morphological awareness of affixes improve students' ability to accurately identify word classes in reading?

- **RQ3:** What are Vietnamese EFL students' perceptions and attitudes towards the usefulness of morphological awareness in supporting reading comprehension?

Literature Review

Morphology, Morphemes, and Affixes

Morphology is the sub-discipline of linguistics concerned with word-internal structure and the rules governing how morphemes (the smallest meaningful units of language) combine to form words [6, 7]. Morphemes are typically classified as *free* (able to stand alone, e.g., *eat*) or *bound* (dependent forms that must attach to a base, e.g., *-ing*), and within bound morphemes, as *affixes* attached before a base (*prefixes*) or after it (*suffixes*) [8]. A further functional distinction separates *inflectional* affixes, which mark grammatical features such as tense or number without changing word class (e.g., *-ed*, *-s*), from *derivational* affixes, which form new words and frequently change meaning and/or grammatical category (e.g., *-ness*, *-tion*, *un-*) [9].

Prefixes in English predominantly modify meaning (negation, degree, time, location) while largely preserving the base's word class, for example, *re-* in *redo* keeps the verb category while shifting meaning to repetition [7]. A smaller set of "class-changing" prefixes (e.g., *a-*, *be-*, *en-*) does alter word class [10]. Suffixes, in contrast, more frequently determine or change grammatical category: nominal suffixes (*-ness*, *-tion*, *-ment*), verbal suffixes (*-ify*, *-ize*), adjectival suffixes (*-able*, *-ful*, *-less*), and adverbial suffixes (*-ly*, *-wise*) each signal a distinct word class, with the outermost suffix in multi-affixed words typically determining the final category [11–13]. This systematic, rule-governed relationship between affix form and both meaning and grammatical function is what makes affixes a plausible resource for inferencing during reading—the central construct examined in this study.

Reading Comprehension and Vocabulary Knowledge

Reading comprehension is widely conceptualized as the construction of a mental representation of a text through the interaction of reader, text, and purpose [14–16]. Scarborough's reading-rope model [17] frames skilled reading as the integration of two strand bundles: word recognition (phonological awareness, decoding, sight recognition) and language comprehension (background knowledge, vocabulary, language structures, verbal reasoning, literacy knowledge). Vocabulary knowledge sits at the intersection of both bundles, supporting accurate word identification and higher-level meaning construction alike.

Vocabulary knowledge itself is commonly described along two dimensions, vocabulary breadth (how many words a learner knows) and vocabulary depth (how well they know each word's meanings, forms, and

relations) [18]. Vocabulary breadth has been shown to explain a substantial share of variance in reading performance [19], and learners typically need mastery of several thousand high-frequency words to read fluently at intermediate-to-advanced levels [20]. Because breadth and depth are closely related, instruction that develops one dimension plausibly supports the other [18, 21].

Morphological Awareness and Explicit Morphological Instruction

Morphological awareness (MA) is learners' ability to recognize, analyze, and manipulate morphemes and to apply this knowledge when interpreting or producing morphologically complex words [22, 23]. Tyler and Nagy [24] distinguish three components of MA: relational knowledge (recognizing links between a word and its morphological relatives, e.g., *love-lover-lovable*), syntactic knowledge (understanding how affixes change a word's grammatical role), and distributional knowledge (understanding which affixes can attach to which bases, e.g., *-ness* attaches to adjectives but not verbs).

MA supports vocabulary growth through mechanisms such as semantic transparency—recognizing that morphologically related words (e.g., *telephone*, *television*, *telescope*) share meaning components, which Tyler and Nagy [24] estimate applies to roughly 60% of unfamiliar words encountered by secondary students—and phonological support, since affixation often shifts stress patterns in predictable ways [25]. For reading specifically, Giazitzidou et al. [26] identify two pathways through which MA operates: a decoding pathway, in which recognizing familiar morphemes speeds up word reading and frees working memory for comprehension, and a meaning pathway, in which morphological analysis supports inferencing of unfamiliar words. Empirically, MA has been shown to predict reading comprehension even after controlling vocabulary knowledge and word-reading ability [27], with consistent effects reported across age groups from early childhood through university [27, 28].

Because MA does not develop automatically from incidental exposure, several scholars advocate explicit morphological instruction (EMI), which is a direct, structured teaching of affix meaning and function, modeled on general explicit-instruction principles of review, clear presentation, guided practice with feedback, and independent practice [29, 30]. Goodwin and Ahn [31] and Hennenfent et al. [30] report that EMI improves not only morphological knowledge but also word reading speed, spelling, vocabulary growth, and reading comprehension.

Morphological Awareness Among Vietnamese EFL Learners

Evidence from Vietnamese contexts shows both promise and difficulty. On the positive side, quasi-experimental interventions with Vietnamese sec-

ondary and university students report significant gains in vocabulary application and reading-related performance following EMI [25], alongside generally positive learner and teacher attitudes toward morphology instruction [32].

However, several challenges are also documented. Structurally, Vietnamese is a monosyllabic, isolating language with minimal inflection, which can produce negative transfer and make English's rich derivational morphology feel unfamiliar and effortful to process [33]. Academically, morphology is not taught enough. The studies show that Vietnamese students, and even English majors how only moderate morphological awareness (around 65%) [4], and that morphology is often treated as a fragmented add-on rather than a systematic component of the curriculum [32, 34]. Psychologically, the sheer number of affixes and the context-dependence of their meanings can increase cognitive load and push learners toward rote memorization rather than structural analysis [4].

Previous Studies and Research Gap

Previous research establishes that MA contributes meaningfully to vocabulary development and reading achievement [2–5], and that Vietnamese learners can benefit from and generally respond positively to EMI [25, 32]. However, relatively few studies explore the specific effect of affix-focused EMI on the two reading subskills of word-meaning inference and word-class identification, as opposed to broader vocabulary or comprehension outcomes. Moreover, this evidence base remains concentrated in school settings, while that of immediate learners in English language centers where curriculum pacing and instructional autonomy are different from public schools are understudied. The present study addresses this gap through a quasi-experimental pre-test–post-test design examining whether six weeks of affix-focused EMI improves Vietnamese EFL students' ability to infer word meaning and identify word class while reading, and a questionnaire on students' perceptions of the intervention.

Theoretical Framework

The theoretical framework integrates morphological awareness, morphological processing, and reading comprehension. It proposes that knowledge of affixes provides learners with semantic and grammatical information when processing unfamiliar words. Prefixes mainly contribute to meaning, while derivational suffixes often signal word class.

Based on this framework, explicit morphological instruction (EMI) was established as the independent variable, while word-meaning inference and word-class identification were the two main dependent variables. The meaning pathway of morphological awareness supports the prediction that affix knowledge can help learners infer unfamiliar word mean-

ings, whereas syntactic and distributional knowledge provides a basis for identifying word classes.

Accordingly, the study hypothesized that EMI would improve students' ability to infer word meanings (H1) and identify word classes (H2). The CAP framework was additionally used to examine students' cognitive, affective, and behavioral perceptions of applying morphological knowledge in reading. Thus, the framework guided the selection of variables, the intervention content, the research hypotheses, and the interpretation of the findings.

Methodology

Design

A quasi-experimental, mixed-methods design was used with two intact groups (non-random assignment), consistent with classroom-based research constraints.

Participants and Setting

Sixty Vietnamese EFL students (aged 14–17, B1 level, working toward IELTS 4.5–5.0) at a private English center were divided into an experimental group ($n = 30$, six weeks of EMI) and a control group ($n = 30$, textbook-based and rote memorization).

Instruments

Vocabulary and reading tests (pre-test/post-test): measured students' ability to infer word meaning and identify word class from affixed vocabulary in context. The number of test items is 30 questions, with the score range was from 0 to 10. However, when the participants took part in the test, the score range of pre-test was from 2.67 to 8.33, meanwhile, that of post-test varied from 3.33 to 10. The item format for the two tests was relatively the same, with the tests being divided into 4 parts: Part 1: Word Meaning inference at the sentence level (Multiple choice), Part 2: Word Classification identification at the sentence level (Multiple choice), Part 3: Word Classification identification at the sentence level (Fill-in-the-blank), and Part 4: Word Meaning inference and Word Classification identification at the text level (Multiple choice).

The test content was judged based on these following criteria: clarity of instruction, appropriateness for level B1 students and level of difficulty. Revision was made according to their constructive feedback before conducting the tests to the students. The scoring and analytical procedures for the instruments have also been clarified. We have also noticed a lack of reliability coefficients and normality analysis for both pre- and post-test, so we have added another table to fully demonstrate this.

17-item Likert-scale questionnaire (three themes A: overall MA, B: word meaning inference, C: word class identification), administered post-intervention;

internal consistency was acceptable to good (Theme A $\alpha = 0.867$; Theme B $\alpha = 0.819$; Theme C $\alpha = 0.700$). This is measured by 5-point Likert scale (1: Strongly disagree, 2: Disagree, 3: Neutral, 4: Agree, 5: Strongly Agree). The CAP scale was adapted with specific modifications to reflect students' metalinguistic awareness (MA), vocabulary knowledge, ability to infer word meaning, and ability to identify word class at the Intermediate level. This adaptation was undertaken primarily to obtain measurable and pertinent data capable of adequately addressing the research questions and the overarching research topic. Each section adheres to a consistent structure, progressing from Cognitive Learning, wherein students assess their own understanding of specific aspects of MA, including roots, prefixes, suffixes, their meanings, and corresponding word class, to Affective Learning, which investigates whether students have developed greater confidence and a more positive attitude toward their existed morphological knowledge, together with their readiness to infer meaning and word class independently. The final component, Behavior Learning, addresses the extent to which students apply this morphological knowledge to practical reading tasks.

To ensure comprehensive understanding, the questionnaire, though originally composed in English, was translated into Vietnamese. This translation enabled students to fully comprehend each item and provide honest, subjective self-evaluations following EMI instruction, thereby further enhancing the validity and reliability of the study.

Procedure

Both groups completed the pre-test in Week 1. The experimental group received six weeks of EMI (explicit teaching of common prefixes/suffixes, guided practice inferring meaning and class from affixed words, embedded reading tasks). The control group continued regular textbook-based vocabulary instruction, and teacher encouraged rote memorization among the control group and they faced the same unit and reading text as the control group. Both groups completed the post-test and, for the experimental group, the questionnaire, at the end of the intervention.

Ethical Considerations

This study was conducted with careful attention to ethical standards. Before data collection process, permission was obtained from the VMG English Center, and consent forms were obtained from the students' parents. Participants were informed about the study's purpose and procedures, and their participation was completely voluntary. They were also told they could withdraw from the study at any time without facing any criticism and threatening behaviors from teachers. To protect participants' privacy, no personal information was collected; data were coded and reported only in combined, anonymous form. All

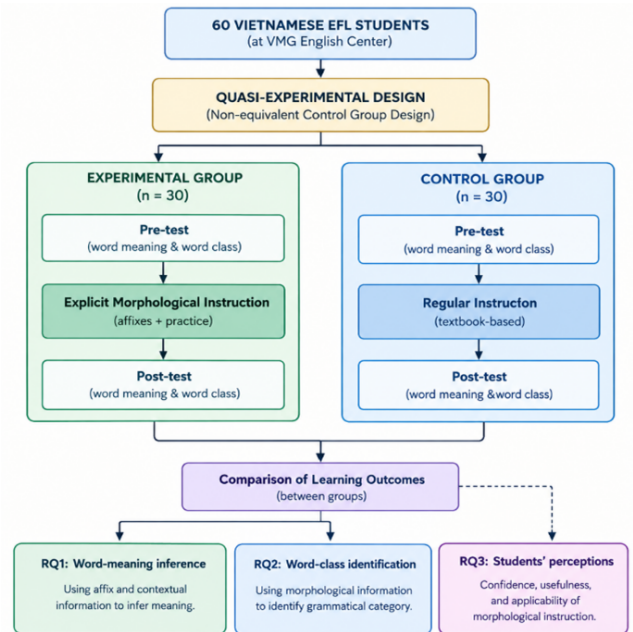


Figure 1: Overall research design and procedure.

information was used solely for academic research and was kept strictly confidential throughout the study.

Data Analysis

Descriptive statistics, independent-samples *t*-tests (between-group comparisons), and paired-samples *t*-tests (within-group pre-post comparisons) were computed in SPSS.

The quantitative analysis of the data collected from the pre-test and post-test was conducted to investigate the impact of Morphological Analysis (MA) instruction through EMI on students' reading comprehension level. The performance of students in both groups was summarized using descriptive statistics, which included mean (*M*), standard deviation (*SA*), and gain scores. SPSS was employed to perform the appropriate inferential statistical tests in order determine whether there were significant differences between the experimental and control groups. The initial comparability of the two groups was determined by examining the pre-test results. Subsequently, the post-test results were compared to identify changes in reading comprehension that occurred after the six-week intervention. The statistical significance level was established at $p < 0.05$, and $t > 1.96$.

Results

Normality Analysis

The normality of the pre-test and post-test scores was assessed using the Shapiro-Wilk test. As the sample size of each group was 30, the Shapiro-Wilk test was considered appropriate for evaluating the normality assumption. For the control group, the pre-test scores were normally distributed, $W(30) = 0.957$, $p = 0.260$, and the post-test scores were also normally

Table 1: Tests of Normality for (Control Group).

CONTROL GROUP	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre-test scores	0.104	30	0.200*	0.957	30	0.260
Post-test scores	0.137	30	0.156	0.964	30	0.397

*This is a lower bound of the true significance. ^aLilliefors Significance Correction.

Table 2: Tests of Normality (Experimental Group).

EXPERIMENTAL GROUP	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre-test scores	0.095	30	0.200*	0.958	30	0.279
Post-test scores	0.135	30	0.175	0.965	30	0.408

*This is a lower bound of the true significance. ^aLilliefors significance correction.

distributed, $W(30) = 0.964$, $p = 0.397$. Similarly, for the experimental group, the pre-test scores showed a normal distribution, $W(30) = 0.958$, $p = 0.279$, while the post-test scores were also normally distributed, $W(30) = 0.965$, $p = 0.408$. Since all significance values were greater than 0.05, there was no statistically significant evidence of departure from normality. Therefore, the normality assumption was satisfied for all four sets of scores, supporting the use of parametric tests in the subsequent analyses.

Baseline Equivalence

Independent-samples t -tests confirmed no significant pre-test differences between groups in word-meaning inference (control $M = 1.97$, $SD = 0.86$; experimental $M = 1.81$, $SD = 0.87$; $t(58) = 0.69$, $p = 0.491$) or word-class identification (control $M = 3.20$, $SD = 0.67$; experimental $M = 3.23$, $SD = 0.71$; $t(58) = -0.19$, $p = 0.853$), establishing comparable starting points.

Paired-samples t -tests showed that the control group made no significant improvement in word-meaning inference, increasing from $M = 1.97$ ($SD = 0.86$) to $M = 2.19$ ($SD = 0.71$), $t(29) = 1.933$, $p = 0.063$, although a significant improvement was observed in word-class identification, from $M = 3.20$ ($SD = 0.67$) to $M = 3.54$ ($SD = 0.81$), $t(29) = 3.839$, $p < 0.001$. In contrast, the experimental group demonstrated significant gains in both word-meaning inference, from $M = 1.81$ ($SD = 0.87$) to $M = 3.58$ ($SD = 0.78$), $t(29) = 14.012$, $p < 0.001$, and word-class identification, from $M = 3.23$ ($SD = 0.71$) to $M = 4.42$ ($SD = 0.56$), $t(29) = 11.242$, $p < 0.001$. These findings suggest that while traditional instruction improved word-class identification, EMI produced significant improvements in both word-meaning inference and word-class identification.

Between-Group Comparison

To establish baseline homogeneity between the control and experimental groups prior to the intervention, an independent-samples t -test was conducted on the pre-test scores. As presented in Table 4, there were no

statistically significant differences between the two groups in either component. Specifically, for word meaning inference, the control group ($M = 1.97$, $SD = 0.86$) and the experimental group ($M = 1.81$, $SD = 0.87$) performed similarly, $t(58) = -0.693$, $p = 0.491$ ($p > 0.05$). Likewise, for word class identification, the pre-test mean scores of the control group ($M = 3.20$, $SD = 0.67$) and the experimental group ($M = 3.23$, $SD = 0.71$) showed no significant variation, $t(58) = -0.186$, $p = 0.853$ ($p > 0.05$). These results confirm that both groups possessed an equivalent level of morphological awareness and reading skills before the EMI intervention commenced.

An independent-samples t -test was conducted to compare the post-test performances of the control and experimental groups across both components. As presented in Table 5, the experimental group significantly outperformed the control group in both inferring word meaning and identifying word class following the intervention.

Specifically, for inferring word meaning, students in the experimental group achieved a substantially higher mean score ($M = 3.58$, $SD = 0.78$) than those in the control group ($M = 2.19$, $SD = 0.71$). This difference was statistically highly significant, $t(58) = 7.196$, $p < 0.001$.

Similarly, about identifying word class, the experimental group demonstrated superior performance ($M = 4.42$, $SD = 0.56$) compared to the control group ($M = 3.54$, $SD = 0.81$), with the difference also showing statistical significance, $t(58) = 4.887$, $p < 0.001$.

These post-test results provide strong evidence to reject null hypotheses H_{01} and H_{02} , thereby confirming H_1 and H_2 . It can be concluded that explicit morphological instruction (EMI) exerted a significant positive impact on enhancing both the word-meaning inference and word-class identification skills of ESL learners.

Student Perceptions

Questionnaire results indicated strongly positive perceptions across all three themes (mean item scores

Table 3: Pre-test and post-test performance by group.

Group	Component	Pre-test <i>M</i> (<i>SD</i>)	Post-test <i>M</i> (<i>SD</i>)	<i>t</i> (<i>df</i> = 29)	<i>p</i>
Control	Word meaning	1.97 (0.86)	2.19 (0.71)	1.93	0.063
Control	Word class	3.20 (0.67)	3.54 (0.81)	3.84	< 0.001
Experimental	Word meaning	1.81 (0.87)	3.58 (0.78)	14.01	< 0.001
Experimental	Word class	3.23 (0.71)	4.42 (0.56)	11.24	< 0.001

Table 4: Independent-samples *t*-test of pre-test scores.

Test component	Control <i>M</i> (<i>SD</i>)	Experimental <i>M</i> (<i>SD</i>)	<i>t</i> (<i>df</i> = 58)	<i>p</i>
Word-meaning inference	1.97 (0.86)	1.81 (0.87)	−0.693	0.491
Word-class identification	3.20 (0.67)	3.23 (0.71)	0.186	0.853

Table 5: Independent-samples *t*-test of post-test scores.

Measure	Control <i>M</i> (<i>SD</i>)	Experimental <i>M</i> (<i>SD</i>)	<i>t</i> (<i>df</i> = 58)	<i>p</i>
Word-meaning inference	2.19 (0.71)	3.58 (0.78)	7.20	< 0.001
Word-class identification	3.54 (0.81)	4.42 (0.56)	4.89	< 0.001

Table 6: Results of the questionnaire.

Theme	Item	<i>M</i>	Interpretation
A (Overall morphological awareness)	Word formation understanding	4.43	Very high
	Common affix understanding	4.53	Very high
	Morpheme understanding	4.20	High
	Word relation understanding	4.13	High
	Confidence with complex word	3.87	High
	Affix application to understanding new word	4.33	High
	Application in reading texts	3.67	High
	Improved reading speed thanks to word formation knowledge	3.77	High
B (Word Meaning Inference)	Improved overall word inference skill	4.47	Very high
	Do not immediately need dictionary	3.40	Moderate
	Simplification of words in reading	3.53	High
	Combination of affix knowledge and context	3.87	High
	Check of the appropriateness of inferred word to context	3.67	High
C (Word Class Identification)	Improved word class understanding	4.77	Very high
	Improved the relationship between affix and word class	4.43	Very high
	Confidence with identifying word class of a difficult word	4.50	Very high
	Improved frequency of using affix knowledge to word identification	4.37	Very high

3.40–4.77 on a 5-point scale). Theme C (about improvement on word class identification) showed the strongest agreement ($M = 4.37$ – 4.77), followed by Theme A (improvement on overall MA, $M = 3.67$ – 4.53); Theme B (word meaning inference) showed somewhat more variation ($M = 3.40$ – 4.47) but re-

mained above the scale midpoint.

Analyzed through a Cognitive–Affective–Psychomotor (CAP) lens, most students reported that from a cognitive perspective, affix knowledge is useful for inferring the meanings of unfamiliar words and identifying their word classes and most

students show their understanding of word formation, common affix, word relations and recorded their vast improvement on such reading subskills.

From an affective perspective, most students reported more confidence and lower anxiety when dealing with unfamiliar or morphologically complex vocabulary, they also noticed that reading texts had become more simplified and their reading speed had improved. However, due to only 6-week exposure, several reported that they still had not gained enough confidence and comfort when facing the similar situation, causing them to partially rely on dictionary when reading (with no immediate dictionary consultation being the lowest of theme B), and some students still illustrated that their MA had not helped them to simplify the reading texts and enhance their speed. However, these factors indicate that MA has generally reduced students' reliance on immediate translation, memorization, or dictionary consultation and for this effect to be more profound for more students, frequent exposure to different affixes with longer intervention period is needed for future research.

From a behavioral perspective, students reported actively applying morphological strategies by breaking complex words into prefixes, bases, and suffixes. Thus, morphological awareness appeared to function not only as theoretical knowledge but also as a practical strategy that students could apply when processing unfamiliar vocabulary. Overall, the findings indicate positive student perceptions of the usefulness of morphological awareness across cognitive, affective, and behavioral dimensions, supporting its potential role in improving reading-related vocabulary processing. These results are also consistent with previous research in the Vietnamese EFL context [25].

Discussion

The findings demonstrate that explicit instruction in affixes meaningfully improves Vietnamese EFL students' ability to infer word meaning and identify word class, two skills central to independent reading comprehension. Unlike the control group, whose gains were minimal (word meaning) or modest (word class), the experimental group's large, statistically significant improvements suggest that morphological structure, when made explicit, gives learners a transferable strategy rather than isolated vocabulary knowledge.

This pattern aligns with Scarborough's reading-rope model, in which morphological knowledge supports both the word-recognition and language-comprehension strands of skilled reading. It also extends prior evidence on MA and vocabulary/reading outcomes [2, 5] into an underrepresented setting, which is the Vietnamese private-center EFL classroom where curriculum control and instructional pacing differ from public schools.

The test and questionnaire results pointed in the same direction, which provides complementary evidence for the findings. Students not only demonstrated

improved performance on the tests but also reported that they found affix analysis useful, felt more confident in using morphological knowledge, and applied the strategy in reading tasks. The consistency between students' actual performance and their reported perceptions suggests that the positive perceptions of the instruction were accompanied by measurable learning gains. Thus, the findings do not simply reflect students' positive attitudes toward the lessons without corresponding evidence of improvement.

Despite these findings, the study has several limitations. First, participants were not randomly assigned to the experimental and control groups because the study used existing classes. Second, the intervention lasted only six weeks, and no follow-up test was conducted after the intervention. Therefore, it remains unclear whether the learning gains will be maintained over a longer period. Third, the study was conducted at only one English language center, which limits the generalizability of the findings to other educational settings. Future research could address these limitations by conducting follow-up assessments to examine the long-term retention of morphological knowledge, recruiting participants from multiple English language centers, and comparing learners at different levels of English proficiency.

Conclusion and Implications

This study provides evidence that explicit morphological instruction in affixes significantly improves Vietnamese EFL students' ability to infer word meaning and identify word class in reading, and fosters positive learner perceptions of the strategy's cognitive, affective, and practical value. Pedagogically, private English centers and classroom teachers can integrate short, systematic affix-focused instruction into existing textbook-based curricula without requiring additional materials or class time. Methodologically, the study underscores the value of combining outcome measures with perception and observation data to build converging evidence for vocabulary-instruction interventions in under-researched private-center context.

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Competing Interests

The authors declare that they have no competing interests.

References

- [1] T. M. D. Huynh, "The influence of Vietnamese culture on English language acquisition: Learners' perspectives," *Multidisciplinary Science Journal*, vol. 7, no. 10, Art. no. 2025487, 2025, doi: [10.31893/multiscience.2025487](https://doi.org/10.31893/multiscience.2025487).
- [2] A. Sukying, "Word knowledge through morphological awareness in EFL learners," *TESOL International Journal*, vol. 15, no. 1, pp. 74–85, 2020.
- [3] N. O. Obeka, "Influence of morphological awareness on the reading comprehension of students at the tertiary education level in Ebonyi State," *British Journal of Education*, vol. 12, no. 4, pp. 33–46, 2024, doi: [10.37745/bje.2013/vol12n43346](https://doi.org/10.37745/bje.2013/vol12n43346).
- [4] P. Q. Vo, D. X. A. Lieu, T. T. V. Nguyen, T. M. C. Nguyen, and T. T. Ngo, "Morphological awareness of students majoring in English studies towards vocabulary learning," *European Journal of Education Studies*, vol. 9, no. 11, 2022, doi: [10.46827/ejes.v9i11.4537](https://doi.org/10.46827/ejes.v9i11.4537).
- [5] J. L. Metsala, R. Parrila, N. J. Conrad, and S. H. Deacon, "Morphological awareness and reading achievement in university students," *Applied Psycholinguistics*, vol. 40, no. 3, pp. 743–763, 2019, doi: [10.1017/S0142716418000826](https://doi.org/10.1017/S0142716418000826).
- [6] M. Aronoff and K. Fudeman, *What Is Morphology?* Malden, MA, USA: Blackwell Publishing, 2005.
- [7] G. Booij, *The Grammar of Words: An Introduction to Linguistic Morphology*, 3rd ed. Oxford, U.K.: Oxford University Press, 2012.
- [8] G. P. Delahunty and J. J. Garvey, *The English Language: From Sound to Sense*. Parlor Press, 2010.
- [9] R. Rugaiyah, "Derivational and inflectional morphemes: A morphological analysis," *J-SHMIC: Journal of English for Academic*, vol. 5, no. 2, pp. 73–85, 2018, doi: [10.25299/jshmic.2018.vol5\(2\).1887](https://doi.org/10.25299/jshmic.2018.vol5(2).1887).
- [10] L. Mirzaeva, "Classification of prefixes in English language," *Journal of Integrated Education and Research*, vol. 1, no. 7, pp. 231–239, 2022. [Online]. Available: <https://ojs.rmasav.com/index.php/ojs/article/view/635>.
- [11] L. Ionică, "Word formation—Using suffixes and identifying difficulties in learning newly-formed words," *Studii și cercetări filologice. Seria Limbi Străine Aplicate*, vol. 21, pp. 64–71, 2022, doi: [10.5281/zenodo.7459027](https://doi.org/10.5281/zenodo.7459027).
- [12] M. Somathasan, "The study of affixes (prefixes and suffixes): An ESL and innovative approach," *International Journal of Applied Research*, vol. 4, no. 11, pp. 1–5, 2018.
- [13] L. J. Brinton and D. M. Brinton, *The Linguistic Structure of Modern English*. Amsterdam, The Netherlands: John Benjamins, 2010, doi: [10.1075/z.156](https://doi.org/10.1075/z.156).
- [14] W. Kintsch, "The role of knowledge in discourse comprehension: A construction-integration model," *Psychological Review*, vol. 95, no. 2, pp. 163–182, 1988, doi: [10.1037/0033-295X.95.2.163](https://doi.org/10.1037/0033-295X.95.2.163).
- [15] C. E. Snow, *Reading for Understanding: Toward an R&D Program in Reading Comprehension*. Santa Monica, CA, USA: RAND Corporation, 2002.
- [16] R. Butterfuss, J. Kim, and P. Kendeou, "Reading comprehension," in *Oxford Research Encyclopedia of Education*. Oxford, U.K.: Oxford University Press, 2020, doi: [10.1093/acrefore/9780190264093.013.865](https://doi.org/10.1093/acrefore/9780190264093.013.865).
- [17] H. S. Scarborough, "Connecting early language and literacy to later reading (dis)abilities: Evidence, theory, and practice," in *Handbook of Early Literacy Research*, vol. 1, S. B. Neuman and D. K. Dickinson, Eds. New York, NY, USA: Guilford Press, 2001, pp. 97–110.
- [18] J. Milton, "The development of vocabulary breadth across the CEFR levels: A common basis for the elaboration of language syllabuses, curriculum guidelines, examinations, and textbooks across Europe," in *Communicative Proficiency and Linguistic Development*, I. Bartning, M. Martin, and I. Vedder, Eds. Eurosla, 2010, pp. 211–232.
- [19] L. S. Stæhr, "Vocabulary size and the skills of listening, reading and writing," *Language Learning Journal*, vol. 36, no. 2, pp. 139–152, 2008, doi: [10.1080/09571730802389975](https://doi.org/10.1080/09571730802389975).
- [20] I. Nation, "How large a vocabulary is needed for reading and listening?" *The Canadian Modern Language Review*, vol. 63, no. 1, pp. 59–82, 2006, doi: [10.3138/cmlr.63.1.59](https://doi.org/10.3138/cmlr.63.1.59).
- [21] S. G. S. Samaraweera, "The influence of morphological awareness and vocabulary depth on academic English writing skills of undergraduates," *Sri Lanka Journal of Social Sciences and Humanities*, vol. 5, no. 1, pp. 35–45, 2025, doi: [10.4038/sljssh.v5i1.128](https://doi.org/10.4038/sljssh.v5i1.128).
- [22] J. F. Carlisle, "Morphological awareness and early reading achievement," in *Morphological Aspects of Language Processing*, L. B. Feldman, Ed. Mahwah, NJ, USA: Lawrence Erlbaum Associates, 1995, pp. 189–209.
- [23] J. F. Carlisle and C. A. Stone, "The effects of morphological structure on children's reading of derived words in English," in *Reading Complex Words: Cross-Language Studies*, E. Assink and D. Sandra, Eds. Dordrecht, The Netherlands: Kluwer Academic Publishers, 2003, pp. 27–52, doi: [10.1007/978-1-4757-3720-2_2](https://doi.org/10.1007/978-1-4757-3720-2_2).
- [24] A. Tyler and W. E. Nagy, "The acquisition of English derivational morphology," *Journal of Memory and Language*, vol. 28, no. 6, pp. 649–667, 1989, doi: [10.1016/0749-596X\(89\)90002-8](https://doi.org/10.1016/0749-596X(89)90002-8).
- [25] T. M. H. Nguyen, "The effects of morphological instruction on morphological awareness and vocabulary knowledge of grade-10 Vietnamese students," master's thesis, British Council, 2021.
- [26] S. Giazitzidou, K. Levesque, and S. H. Deacon, "Getting at how: Testing mediating factors in

- the relation between morphological awareness and reading comprehension in Grade 1," *Reading Research Quarterly*, vol. 60, no. 2, Art. no. e70007, 2025, doi: [10.1002/rrq.70007](https://doi.org/10.1002/rrq.70007).
- [27] K. C. Levesque, H. L. Breadmore, and S. H. Deacon, "How morphology impacts reading and spelling: Advancing the role of morphology in models of literacy development," *Journal of Research in Reading*, vol. 44, no. 1, pp. 10–26, 2021, doi: [10.1111/1467-9817.12313](https://doi.org/10.1111/1467-9817.12313).
- [28] G. Jones, F. Cabiddu, M. Andrews, and C. F. Rowland, "Chunks of phonological knowledge play a significant role in children's word learning and explain effects of neighborhood size, phonotactic probability, word frequency and word length," *Journal of Memory and Language*, vol. 119, Art. no. 104232, 2021, doi: [10.1016/j.jml.2021.104232](https://doi.org/10.1016/j.jml.2021.104232).
- [29] A. L. Archer and C. A. Hughes, *Explicit Instruction: Effective and Efficient Teaching*. New York, NY, USA: Guilford Press, 2011.
- [30] L. Hennenfent, L. J. Johnson, C. Novelli, and E. Sharkey, *Explicit Morphology Instruction to Improve Overall Literacy Skills in Secondary Students*. U.S. Department of Education, Office of Special Education Programs, 2022.
- [31] A. P. Goodwin and S. Ahn, "A meta-analysis of morphological interventions in English: Effects on literacy outcomes for school-age children," *Scientific Studies of Reading*, vol. 17, no. 4, pp. 257–285, 2013, doi: [10.1080/10888438.2012.689791](https://doi.org/10.1080/10888438.2012.689791).
- [32] Q. T. Le, "Teaching and learning morphology in the English language curriculum: An exploration into belief and reality in Vietnam," *International Journal of TESOL and Education*, vol. 3, no. 2, pp. 44–59, 2023, doi: [10.54855/ijte.23324](https://doi.org/10.54855/ijte.23324).
- [33] B. N. Ngo, "The Vietnamese language learning framework. Part one: Linguistics," *Journal of Southeast Asian Language Teaching*, vol. 10, pp. 1–23, 2001. [Online]. Available: <http://seasite.niu.edu/jsealt/past%20issues/volume%2010/VN%20LLF%20Part%20I.pdf>.
- [34] I. Anwar and R. N. Rosa, "The role of morphological awareness and explicit morphological instructions in ELT," *Language Literacy: Journal of Linguistics, Literature, and Language Teaching*, vol. 4, no. 1, pp. 28–37, 2020, doi: [10.30743/ll.v4i1.1825](https://doi.org/10.30743/ll.v4i1.1825).