

Article

Morpheme Analysis in EFL Learning

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Key Words

Morpheme Analysis
Morpheme Awareness
Vocabulary Acquisition

Outline

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INTRODUCTION

English is increasingly significant globally, serving as a key tool for communication. For learners of English as a foreign language (EFL), mastering word structure and formation is crucial for developing language proficiency. This includes both phonemic awareness, which helps learners recognize sounds and their relationship to spelling, and morphemic awareness, which enables them to analyze word structure and meaning. Together, these skills play a vital role in vocabulary development, grammatical accuracy, and overall language comprehension.

This paper examines how morphemic awareness enhances vocabulary comprehension and retention for Japanese EFL learners. Section 1 defines morphemic analysis and key linguistic theories. Section 2 explores its role in vocabulary acquisition, challenges for Japanese learners, and inquiry-based learning benefits. Finally, Section 3 presents teaching strategies, including explicit instruction, interactive spelling, and technology integration, to strengthen morpheme analysis and English proficiency.

1 General Background

This section provides an overview of morphemic analysis, highlighting its significance in EFL learning and the instructional approaches used to develop students' morphological awareness.

1.1 Concept Overview

Morphemic analysis is the process of breaking words down into their smallest units of meaning, known as morphemes. These morphemes include prefixes, roots, and suffixes, which contribute to word formation and meaning (Al-Haydan, 2020). The root conveys the core meaning of the word, while prefixes and suffixes modify its grammatical function and semantic properties (Halford et al., 2021). By systematically recognizing and applying these elements, learners can improve their ability to decode and construct words in English.

For Japanese EFL learners, morphemic analysis serves as a fundamental tool for vocabulary acquisition and reading comprehension (Rabadi, 2019). However, due to structural differences between Japanese and English, mastering this skill presents

challenges. Japanese primarily uses a logographic and syllabic writing system, which contrasts with the morphologically complex nature of English. As a result, Japanese EFL learners must adopt new analytical strategies to deconstruct English words into meaningful components (Rabadi, 2019).

Developing a strong foundation in morphemic awareness is beneficial not only for vocabulary retention but also for improving overall language processing skills. According to Nation (2001), students who understand morpheme structures can more effectively decipher unfamiliar words by identifying familiar components. Therefore, EFL educators should integrate morphemic analysis into their teaching by providing structured instruction on morpheme recognition, usage, and application. This approach enhances students' ability to analyze word structures, expanding their vocabulary and improving their language proficiency.

1.2 Theoretical Framework

Two key linguistic theories—Input Processing Theory and Processability Theory—offer insights into how learners acquire and process morphemic structures in a second language.

The Input Processing Theory, as described by Khan (2024), emphasizes the role of cognitive mechanisms in second language acquisition, particularly how learners process and retain linguistic input. Explicit instruction in morphemic analysis helps students recognize patterns in word formation, which, in turn, improves their ability to decode and retain vocabulary (Khan et al., 2024). By focusing on how learners prioritize and process different linguistic elements, this theory provides insights into optimizing instructional strategies for effective vocabulary acquisition.

The Processability Theory suggests that language acquisition occurs in stages, with morphemes playing a central role in structural development. This theory underscores the importance of explicit instruction in guiding learners through progressively complex morphological structures, ensuring systematic skill acquisition (Khan et al., 2024). Additionally, it highlights the need for instruction to align with learners' cognitive readiness, allowing them to internalize morphological rules at a pace suited to their

developmental stage.

By applying these theoretical models, educators can design instructional strategies that introduce morphemes in a structured manner, reinforcing both retention and comprehension among Japanese EFL learners.

1.3 Teaching Methodology

To develop students' morphological awareness, educators must incorporate systematic strategies that emphasize morpheme identification and analysis. Sulistyawati et al. (2021) outline three core components of morphological instruction:

1. Understanding the relationship between sound and spelling
2. Distinguishing between inflectional and derivational morphemes
3. Applying phonological processing rules to identify morpheme patterns

The word "**present**" for example can function as both a verb and a noun, with its pronunciation shifting based on its role in a sentence. Recognizing such variations helps learners develop a deeper understanding of word formation, improving their ability to use words correctly in different contexts. Strengthening these analytical skills enables EFL learners to accurately identify prefixes, roots, and suffixes, ultimately enhancing their vocabulary acquisition, reading fluency, and overall English comprehension.

2 Role in EFL Learning

This section examines the impact of morphemic awareness on vocabulary development, the challenges Japanese EFL learners face in mastering morphemic analysis, and the effectiveness of inquiry-based learning in enhancing morphological skills.

2.1 Vocabulary Acquisition

Yuan and Tang (2023) emphasize that morphological awareness is a crucial factor in EFL vocabulary development. Learners who develop strong morphemic analysis skills can effectively decode unfamiliar words by recognizing familiar morphemes. However, research on how Japanese EFL learners acquire and apply morphemic knowledge remains limited.

Morphemic analysis benefits teachers and policymakers by identifying best practices for teaching morphemic awareness. By helping EFL learners analyze complex word structures, these methods support their ability to construct meaning, retain vocabulary, and communicate effectively in English. Implementing these practices will make EFL learning more engaging and increase learners' proficiency in English for better comprehension and communication.

Morpheme awareness is a central constituent of language learning and comprehension. Al-Haydan (2020) found that enhanced morphological awareness aids EFL students in reading words correctly and confidently by recognizing allomorphs in words appropriately. This ability helps students to identify morphemes and bring them together to form vocabulary in their secondary language to advance their understanding and word recognition competencies. Behzadnia et al. (2023) similarly argue that morphemic instruction exposes EFL learners to a wider range of vocabulary, supporting long-term retention and literacy development.

Additionally, Chen and Schwartz (2018) found that morphological awareness advances literacy results by helping learners recognize semantic relationships between words, ultimately improving their reading comprehension. Lee et al. (2024) further highlight its role in advancing vocabulary, spelling, and fluency, all of which contribute to overall language proficiency. While findings show that morphemic awareness offers significant advantages to help EFL learners improve their vocabulary acquisition, Japanese EFL learners often face linguistic and psychological challenges that hinder their ability to apply morphemic analysis effectively. The following section examines these challenges and their impact on language learning.

2.2 EFL Learner Challenges

Japanese EFL learners face several challenges in developing morphemic awareness, primarily due to linguistic differences between English and Japanese, as well as psychological barriers such as anxiety and self-perception.

Research by Muroya (2023) suggests that negative self-perception hinders vocabulary acquisition and communication skills. According to Okada (2018), students who actively

participate in classroom discussions build confidence, reinforcing the importance of positive self-perception in language learning. Oral presentation activities, for example, help improve Japanese EFL students' communication competence by enhancing their self-perception (Long and Zhang, 2024). EFL learners with low self-perception regarding their accuracy may struggle with vocabulary, pronunciation, and reading comprehension, which in turn affects their willingness to learn, communicate in English, and develop strong comprehension skills.

Anxiety also plays a significant role in inhibiting morphemic skill development (Leonet et al., 2019). Japanese learners often hesitate to speak English due to fear of mispronunciation or negative evaluation (Sato, 2024). This reluctance reduces engagement with new vocabulary and impedes progress in morphological awareness. Addressing these concerns through supportive learning environments and confidence-building activities can help students overcome anxiety and enhance their English proficiency.

Sato (2024) found that Japanese learners were apprehensive and anxious when communicating with other students because of fear of negative evaluation. Thus, anxiety is a fundamental factor that drives Japanese EFL learners' unwillingness to learn and communicate in English. Conclusively, internal anxiety fears and anxiety suppress English learning capabilities in Japanese EFL learners, making it necessary to address the fears to promote learning activities.

Multiple studies have acknowledged the role of interlocutors as a situational factor influencing foreign language classrooms. One study found that unfamiliar interlocutors negatively affected English foreign language acquisition (Rotjanawongchai, 2023). In addition, Riasati et al. (2018) noted that Japanese learners were sensitive to interlocutors' opinions about their English language levels. The two studies showed that interlocutors' familiarity with students influences students' willingness to engage in EFL classrooms by informing their impressions, trustworthiness, and sensitivity in language acquisition.

2.3 Inquiry-Based Learning

An inquiry-based learning approach encourages students to engage in problem-solving

activities that enhance their ability to analyze morphemes. By guiding students through the identification of prefixes, roots, and suffixes in real-world vocabulary, this approach fosters deeper word comprehension (Yeung et al., 2025). For example, students may analyze word pairs such as "innovation" and "renovate" to explore the role of prefixes in altering meaning. This method not only reinforces morphemic patterns but also strengthens critical thinking skills by encouraging learners to deduce word meanings independently.

Moreover, inquiry-based learning promotes active participation, helping learners build confidence in applying morphemic knowledge to authentic language use. By shifting the focus from rote memorization to discovery-based learning, this approach can help Japanese EFL learners overcome common barriers to morphemic analysis and develop stronger vocabulary skills.

With these challenges and learning approaches in mind, the next section examines research-backed instructional strategies that can enhance morphemic awareness in EFL classrooms.

3 Effective Teaching Strategies

This section outlines research-based instructional strategies for improving morphemic awareness in EFL learners, including explicit instruction, interactive spelling activities, and technology integration. It evaluates the most effective interventions for Japanese EFL learners, focusing on the link between morphological awareness and reading comprehension. The strategies discussed aim to improve fluency through guided and independent practice.

3.1 Explicit Instruction

Explicit instruction of morphology provides structured guidance in morpheme analysis, ensuring that EFL learners systematically develop their word recognition skills (Khan, 2024). A well-planned lesson includes modeling morphemic patterns, guided practice, and independent exercises to reinforce learning (Hennenfent et al., 2022). Such instruction clarifies morpheme concepts using models, real-world examples, and scaffolded learning techniques to enhance word comprehension.

An explicit instruction lesson typically includes: (1) a former lesson review of prior knowledge, (2) clear learning objectives for the current class, (3) direct modelling of morphemic patterns with examples, (4) guided practice with immediate feedback, (5) reteaching based on identified learning needs, and (6) independent exercise to permit learners to assess (Hennenfent et al., 2022). These steps facilitate learner engagement and commitment to improve their word recognition and pronunciation skills.

Research shows proven advantages of explicit instruction in morphemic analysis to ascertain its efficiency in facilitating Japanese EFL learners in enhancing their English vocabulary. For example, Ong and Padilla (2020) conducted a study to analyze the impact of explicit contextual instruction in building morphemic analysis skills using twelve expert-validated lesson plans within eighteen weeks. The study showed better outcomes in vocabulary and comprehension test scores among learners.

To achieve the goals, instructors utilized direct explanation, modeling, directed exercise, reteaching, and self-instructed exercise until students recorded better results in comprehension of word and their formation. Additionally, learners registered increased engagement with the new language and amplified confidence levels in their capability to gain additional vocabulary using incessant rehearsals (Ong & Padilla, 2020). The researchers confirmed that explicit instruction offers scaffolding for students by instructing them methodically, granting them prompt responses during exercise, and seeking freedom through the proper guidance towards the set goal.

In another study, Martinez et al. (2024) conducted a study to examine the impacts of explicit instruction on elementary Spanish speakers. The participants engaged in a 3-day explicit instruction activity to learn how to pronounce target Spanish words comprising of experimenter-designed suffixes. The program activities involved a one-day direct posttest and a delayed posttest after one week. After the practice, students took tests to measure their skills in prefix-root-suffix identification. Results showed that learners improved their ability to identify suffixes in words.

The study underpins explicit instruction as a principle for gradual morpheme knowledge acquisition in English learning, which requires instruction until learners can

practice the skill independently. The study relates to input processing theory, which shows the use of memory and cognitive abilities in language acquisition. It also underscores the importance of helping learners reach the zone of proximal development where novices accomplish morpheme analysis tasks they could not achieve earlier (Hennenfent et al., 2022) . Ultimately, explicit instruction's goal is to ensure that novice EFL students achieve complete independence in understanding word structure effectively to develop vocabularies correctly.

Accomplishing explicit instruction and its advantages rely on diverse factors. According to Washburn et al. (2018), explicit instruction in morphemic analysis relies on teachers' awareness and skills in morphemic concepts in a language. When instructors face challenges in recognizing morphemes, they fail to successfully guide learners in understanding simple and complex English words.

Bowers et al. (2020) emphasized that educators who had excellent morphological skills instructed learners in reading, spelling, as well as vocabulary formulation when under explicit instruction. Similarly, Asaad et al. (2022) underscored the valued role of morphology instructors in propelling postgraduate students to elevate their morphological awareness, citing their involvement with morphology teaching and instruction to encourage effective vocabulary construction. Thus, educators must increase their awareness of what to do and how to do it to guarantee successful guidance that fosters students' working memory and facilitates their learning and processing of new words through morphemic analysis.

Given these findings, explicit instruction remains a fundamental strategy for improving morphemic awareness among Japanese EFL learners. However, it should be complemented by interactive learning techniques to ensure deeper engagement with morphemic structures.

3.2 Interactive Spelling

Interactive spelling activities and word-building exercises are key strategies for enhancing EFL students' morphological awareness and reading fluency. By incorporating puzzles, games, and word-building exercises, teachers can make morpheme analysis more

engaging and accessible (Zhang et al., 2020). These word reading activities are instrumental in improving EFL learners' morphological awareness and comprehension skills.

Connor et al. (2018) found that digital world knowledge tools – such as e-books with interactive morpheme exercises – can enhance reading comprehension by helping EFL learners understand the structural formation of English words. Through these activities, learners are encouraged to identify and manipulate affixes, roots, and prefixes, thus cultivating their word-building skills and enhancing overall language comprehension.

In addition to word-building activities, Griva and Anastasiou (2020) demonstrated that morphological spelling programs, which use repeated exposure to affixes and root words, significantly improve spelling accuracy and morpheme recognition. Their teaching method involves explicit step-by-step instruction that helps learners recognize patterns in word formation and strengthens their understanding of inflectional and derivational morphology.

Griva and Anastasiou (2020) highlight how their interactive spelling program attracts learners' attention to specific morphemes by using dictation exercises where morpheme patterns appear repeatedly in various words. As learners practice spelling, they become more adept at identifying the components that make up English words, such as suffixes, roots, and prefixes. The program has proven effective in refining students' morpheme analysis and spelling skills.

Griva and Anastasiou (2020) note that by methodically recycling morpheme patterns, learners can recognize structural similarities between words, which helps them internalize these patterns for future word comprehension. The repeated exposure to spelling and pronunciation tasks also encourages students to apply problem-solving skills to improve their morphological processing abilities. However, the success of the program depends heavily on the instructor's ability to implement each of the five proposed steps effectively: prediction, morpho-semantics, morpho-orthographic relations, reflection, self-correction, and verbalizing metamorphological strategies (Griva & Anastasiou, 2020).

The first step involves morphological instruction to raise students' awareness of morpheme analysis. Students are encouraged to segment and categorize morphemes in words, gaining an understanding of how spelling patterns are consistent across various lexical contexts. In the second step, students spell targeted words and justify their choices using different contexts, focusing on the relationships between roots and suffixes. The third step encourages reflection, where students match spelling patterns with their morpheme analysis. In the fourth step, students engage in self-correction with guidance from their instructor, refining their spelling skills. Finally, in the fifth step, students verbalize the morphemes they encounter and reflect on the challenges they face, helping them assess their progress in mastering English language structures.

Though the research on this approach is limited, Griva and Anastasiou (2020) provide evidence-based strategies that are easy to implement in the classroom. Their framework is adaptable to students of varying levels and can be enhanced with the integration of technology tools. Ultimately, the morphological processing spelling approach offers a practical intervention for improving Japanese EFL learners' morpheme analysis skills and boosting their English comprehension. By incorporating a structured interactive spelling program into EFL instruction, teachers can create engaging, student-centered learning environments that foster morpheme recognition, spelling accuracy and overall language comprehension.

3.3 Technology Integration

Integrating technology in EFL classroom activities improves learners' lexical acquisition, which helps them understand the meaning of roots, suffixes, and prefixes as they build words and sentences. Zhang (2022) conducted a study to determine how corpus-assisted vocabulary teaching improved morphological knowledge in EFL learners. Students went through online learning with corpora to learn how to deduce words in prefixes, roots, and suffixes as the foundation to build their vocabularies. The study found that students who engaged with corpus-based tools improved their morphemic awareness through exposure to authentic written and spoken English. Through corpora, students practiced with written and spoken words and their usage in the real world, making it easy for learners to explore morphology and maintain the acquired knowledge to move to the next phase.

In the upper phase, students performed presentations to showcase their morphemic awareness by analyzing words and their structures. Additionally, student participated in self-learning reflections to acknowledge their journey in developing and utilizing English words independently through the right knowledge and skills in morpheme analysis. The study also proved that using technology in morphology classes propagates a student-centric classroom environments to encourage learning depending on students' knowledge and needs on EFL.

In a different study, Ayoub et al. (2024) examined EFL learners' utilization of artificial intelligence (AI) in morphology classrooms in Lebanon. The study focused on the contributions AI has on developing tailored student-centric instructions to EFLs depending on their learning needs and existing strengths and its efficiency in granting real-time response on their advancement to accomplish continuous learning. It also examined whether AI provided satisfactory EFL resources and adaptive texts and acknowledged errors in learners' replies to guide instructors on developing tailored instructional strategies as required.

The strategy's outcomes depended on learners' perceptions toward AI application in refining their EFL knowledge. The study also proved that EFL learners increased their morphology knowledge and skills using AI from its rich information on morphemes, hence ensuring effective learning. Learners also participated in training on effective AI use to ensure that the tools improved active interaction in acquiring and practicing English word structures and developing vocabulary.

Since the research above has provided evidence that technology integration in morphology instructions sharpens morpheme analysis knowledge and skills, understanding the right tools to use is fundamental for instructors to utilize them effectively. O'Brien et al.'s (2019) study determined the role of technology-based tools in improving EFL learners' morpheme awareness to increase their reading accuracy, fluency, and spelling. Surprisingly, the study did not emphasize a specific technology tool to use in classroom instruction. Rather, the researchers showed teachers' role in developing tailored technology-based interventions based on the available technology resources and students' learning needs to achieve desired learning outcomes. For example, the study used tablets

as a gamification medium where students interacted with instructions and resources to guide their EFL learning. While students required tailored instructions to use the tool effectively, it provided a scalable and friendlier environment to interact with and learn about morphemes to improve their English comprehension.

For optimal effectiveness, teachers should select technology tools based on student needs and ensure structured guidance to maximize learning outcomes. The development and introduction of AI technology with individualized student-centered learning applications will help teachers in

CONCLUSION

Research has consistently shown that morphological instruction significantly improves vocabulary retention, word recognition, and spelling accuracy in EFL learners. By developing strong morphemic awareness, students can more effectively analyze, decode, and construct words, leading to greater confidence and fluency in English communication. Learners who receive effective morphemic instruction can apply their knowledge to form vocabulary and engage in conversations more fluently. Morphological awareness, gained through morpheme analysis, is essential for word identification, making it a primary goal for English instructors.

Although research demonstrates positive outcomes from morpheme analysis in Japanese EFL students, the effectiveness of morpheme-based instruction depends on various factors, including instructional approaches, resource availability, learner engagement, student perceptions, technology integration, and teacher expertise. To optimize learning outcomes, EFL educators must tailor instructional strategies to address students' linguistic challenges and psychological barriers while fostering active engagement with morphemic structures.

Further research is needed to explore how different instructional approaches – such as explicit instruction, interactive spelling, and AI-driven language learning tools – can be combined to maximize the effectiveness of morphemic instruction in EFL settings. By continuing to refine these strategies, educators can equip learners with the analytical skills necessary to enhance vocabulary acquisition and achieve greater language proficiency.

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References

- Al-Haydan, D. Y. A. (2020). The effects of morphological awareness on EFL secondary school students' reading comprehension skills. *International Journal of Education and Literacy Studies*, 8(3), 48-58. <https://doi.org/10.7575/aiac.ijels.v8n.3p.48>
- Asaad, H. Q. M., Hasan, M. K., Alidoust, N., Shabdin, A. A., Ounissi, A., & Hossain, M. D. (2022). The impact of morphological awareness intervention in enhancing L2 postgraduate students' productive vocabulary breadth. *Education Research International*, 2022, 5930822. <https://doi.org/10.1155/2022/5930822>
- Ayoub, N. N., Joudi, N. S., Saba, M. S. B., & Saba, A. S. B. (2024). Integrating artificial intelligence in a morphology course: An analytical study of university students' perspectives. *ESI Preprints*, 20(17), 1-1. <https://doi.org/10.19044/esj.2024.v20n17p1>
- Badawi, M. F. A. (2019). The effect of explicit English morphology instruction on EFL secondary school students' morphological awareness and reading comprehension. *English Language Teaching*, 12(4), 166-178. <https://doi.org/10.5539/elt.v12n4p166>
- Behzadnia, A., Ziegler, J. C., Colenbrander, D., Bürki, A., & Beyersmann, E. (2024). The role of morphemic knowledge during novel word learning. *Quarterly Journal of Experimental Psychology*, 77(8), 1620-1634. <https://doi.org/10.1177/17470218231216369>
- Bowers, P. N., Kirby, J. R., & Deacon, S. H. (2010). The effects of morphological instruction on literacy skills: A systematic review of the literature. *Review of Educational Research*, 80(2), 144-179. <https://doi.org/10.3102/0034654309359353>
- Chen, X., & Schwartz, M. (2018). Morphological awareness and literacy in second language learners: A cross-language perspective. *Reading and Writing*, 31, 1685-1694. <https://doi.org/10.1007/s11145-018-9866-1>
- Connor, C. M., Day, S. L., Zargar, E., Wood, T. S., Taylor, K. S., Jones, M. R., & Hwang, J. K. (2019). Building word knowledge, learning strategies, and metacognition with the Word-Knowledge e-book. *Computers & Education*, 128, 284-311. <https://doi.org/10.1016/j.compedu.2018.09.016>
- Griva, E., & Anastasiou, D. (2020). Morphological strategies training: The effectiveness and feasibility of morphological strategies training for students of English as a foreign language with and without spelling difficulties. *Journal of Writing Research*, 1(3), 199-223.
- Halford, S. C., Imbeau, M. B., & Eilers, L. H. (2022). The journey of a word: An action research intervention of morphemic analysis and etymology for a middle school gifted and talented class. *Gifted Child Today*, 45(1), 38-49. <https://doi.org/10.1177/10762175211050699>
- Hennenfent, L., Johnson, L. J., Novelli, C., & Sharkey, E. (2022). *Intensive Intervention Practice Guide: Explicit morphology instruction to improve overall literacy skills in secondary students*. Office of Special Education Programs, U.S. Department of Education. <https://files.eric.ed.gov/fulltext/ED628200.pdf>
- Khan, A. (2024). Transformative impacts of explicit morphological instruction on irregular inflectional acquisition in Saudi EFL learners. *Humanities and Social Sciences*

- Communications*, 11(1), 1-12.
- Lee, J. W., Wolters, A., & Kim, Y. S. G. (2023). The relations of morphological awareness with language and literacy skills vary depending on orthographic depth and nature of morphological awareness. *Review of Educational Research*, 93(4), 528-558.
https://doi.org/10.3102/00346543221123816
- Leonet, O., Cenoz, J., & Gorter, D. (2020). Developing morphological awareness across languages: Translanguaging pedagogies in third language acquisition. *Language Awareness*, 29(1), 41-59. https://doi.org/10.1080/09658416.2019.1688338
- Li, J. T., Tong, F., Irby, B. J., Lara-Alecio, R., & Rivera, H. (2024). The effects of four instructional strategies on English learners' English reading comprehension: A meta-analysis. *Language Teaching Research*, 28(1), 231-252.
https://doi.org/10.1177/1362168821994133
- Long, R. W., & Zhang, R. (2024). Recent challenges for foreign English teachers in Japan. *International Journal of Social Science and Humanity*, 14(2), 65-72.
https://doi.org/10.18178/ijssh.2024.14.2.1195
- Martinez, D., Colenbrander, D., Inoue, T., Falcón, A., Rubí, R., Parrila, R., & Georgiou, G. K. (2024). The effects of explicit morphological analysis instruction in early elementary Spanish speakers. *Journal of Experimental Child Psychology*, 246, 106004.
https://doi.org/10.1016/j.jecp.2024.106004
- Muroya, A. (2023). Interpreting unwillingness to speak L2 English by Japanese EFL learners. *Open Linguistics*, 9(1), 20220227. https://doi.org/10.1515/opli-2022-0227
- Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge University Press.
- O'Brien, B. A., Habib, M., & Onnis, L. (2019). Technology-based tools for English literacy intervention: Examining intervention grain size and individual differences. *Frontiers in Psychology*, 10, 2625. https://doi.org/10.3389/fpsyg.2019.02625
- Okada, R. (2018). Challenges in teaching Japanese EFL students to express themselves logically. *Asian Education Studies*, 3(1), 73. https://doi.org/10.20849/aes.v3i1.335
- Ong, E. S., & Padilla, P. P. (2020). Explicit contextual and morphemic analysis instruction, vocabulary, and reading comprehension among grade four students. *Modern Journal of Studies in English Language Teaching and Literature*, 2(2), 75-104.
- Rabadi, R. I. (2019). Morphological awareness and vocabulary knowledge among English language learners. *Arab World English Journal (AWEJ)*, 10, 1-11.
https://doi.org/10.24093/awej/vol10no3.4
- Riasati, M. J., & Rahimi, F. (2018). Situational and individual factors engendering willingness to speak English in foreign language classrooms. *Cogent Education*, 5(1), 1513313. https://doi.org/10.1080/2331186X.2018.1513313
- Rotjanawongchai, S. (2023). Perceptions of situational factors of willingness to communicate inside and outside the classroom: Thai EFL first-year university students' reflections. *Journal of Language and Education*, 9(3), 128-142.
https://doi.org/10.17323/jle.2023.13245
- Sato, R. (2024). Exploring the silence of Japanese EFL learners: Its relationship with the degree of willingness to communicate (WTC). *Language Teaching Research*.
https://doi.org/10.1177/13621688241291932
- Sulistyawati, E., Nugroho, A., & Bram, B. (2021). Morphological teaching strategies to enhance students' vocabulary knowledge and reading comprehension. *JET (Journal of English*

- Teaching*), 7(2), 179-190. <https://doi.org/10.33541/jet.v7i1.2313>
- Washburn, E. K., & Mulcahy, C. A. (2019). Morphology matters, but what do teacher candidates know about it? *Teacher Education and Special Education*, 42(3), 246–262. <https://doi.org/10.1177/0888406418806649>
- Yeung, S. S. S., Qiao, S., Law, T. S. T., & Savage, R. (2025). Examining the effectiveness of targeted morphological instructions on reading outcomes: A randomized controlled trial involving Chinese EFL learners. *Reading and Writing*, 1–21.
- Yuan, X., & Tang, X. (2023). Effects of morphological intervention on multiple aspects of academic vocabulary knowledge. *Acta Psychologica*, 234, 103869. <https://doi.org/10.1016/j.actpsy.2023.103869>
- Zhang, R. (2022). Developing morphological knowledge with online corpora in an ESL vocabulary classroom. *Frontiers in Psychology*, 13, 927636. <https://doi.org/10.3389/fpsyg.2022.927636>
- Zhang, J., Lin, T. J., Liu, Y., & Nagy, W. E. (2020). Morphological awareness and reading comprehension: Differential mediation mechanisms in native English speakers, fluent English learners, and limited English learners. *Journal of Experimental Child Psychology*, 199, 104915. <https://doi.org/10.1016/j.jecp.2020.104915>

Note

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