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Metalinguistic Awareness on Academic Registers of EFL Higher Education Students

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Abstract

Metalinguistic awareness plays a crucial role in language acquisition, particularly in academic contexts where precise language use is essential. This study investigates the metalinguistic awareness of English as a Foreign Language (EFL) students, focusing on word-specific orthographic awareness. The research explores the current state of students' awareness and identifies factors influencing their ability to recognize and correct orthographic errors in academic writing. Employing a think-aloud protocol and interviews, the study examines students' cognitive processes while engaging in word-specific orthographic tasks. Findings indicate that students demonstrate varying levels of awareness, categorized into intuition, noticing, meta-awareness, and understanding of underlying rules. Key factors influencing their awareness include linguistic background, exposure to English, and academic experience.

Keywords: *Metalinguistic awareness, orthographic awareness, EFL students, word-specific errors, academic register*

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INTRODUCTION

A growing body of research highlights the pivotal role of metalinguistic awareness in language acquisition. It demonstrates that metalinguistic awareness not only enhances learners' ability to consciously engage with language structures but also facilitates a more rapid and effective acquisition process (Ghanmi & Navracsics, 2021; Woll, 2019). In a similar vein, metalinguistic awareness has been a subject of extensive research in applied linguistics, (e.g Karen Roehr-Brackin, 2018; Ke et al., 2023; Wolfgang Klein, 1986) mainly in understanding how learners process and acquire a second language.

Metalinguistic awareness as a subfield of psycholinguistic (Chłopek, 2018) refer to the ability to think about and analyze language as a system, beyond just using it for communication (Bialystok, 2001; Roehr, 2008). This cognitive skill encompasses several major facet, including phonological awareness (the ability to reflect upon and manipulate phonological units in a language), orthographic awareness (the ability to form, store, and access orthographic representations of words), and morphological awareness (the ability to reflect on and manipulate the morphemic structures of words) (Ke et al., 2023)

Word-specific orthographic awareness is essential in academic registers, where precise spelling and adherence to formal conventions are required (Bahr et al., 2020). Academic register refers to the formal style of language used in scholarly writing, research, and professional discourse (Douglas Biber & Susan Conrad, 2009). In academic registers, word-specific orthographic accuracy is crucial since scholarly writing relies on precise spelling and standardized convention (Kontutytė, 2023). Additionally, academic texts often use complex vocabulary and affixes, all of which demand a strong awareness of word-specific orthographic patterns.

This research adopts the four levels of metalinguistic awareness framework proposed by Leow (1997): Intuition, Noticing, Meta-Awareness, and Understanding Underlying Rules. This framework offers a structured approach to analyzing the depth of learners' engagement with metalinguistic awareness. At the intuition level, learners may sense that a word contain error without explicitly identifying the error. The noticing level involves consciously recognizing error, while the meta-awareness level requires learners to articulate why a error has occurred. The final stage, understanding

underlying rules, represents a comprehensive grasp of word-specific orthographic rules, enabling learners to apply correct word-specific errors across different contexts.

Building on these considerations, this study aims to investigate metalinguistic awareness, with a particular focus on word-specific orthographic awareness in academic registers among EFL higher education students. Additionally, this study will explore various factors influencing metalinguistic awareness particularly in word-specific orthographic awareness.

METODE

This research focuses on metalinguistic awareness among EFL (English as a Foreign Language) students specifically investigate their ability to recognize and word-specific errors in a text. The study aims to explore the current conditions of metalinguistic awareness. The participants in this research will consist of EFL students from diverse demographic background, to ensure a representative sample. The research will take place at the English Language Education Study Program, within the Faculty of Letters and Cultures, at Universitas Negeri Gorontalo. As the largest producer of teachers in Gorontalo Province, this university offers a rich environment for exploring metalinguistic awareness, particularly in future educators. With its strong focus on teacher education and its large pool of EFL students, English Language Education Study Program provides an optimal context for investigating metalinguistic awareness in future educators. The participants in this study consist of eight EFL students with diverse linguistic backgrounds, gender, and academic semesters, ensuring a representative sample for analyzing variations in metalinguistic awareness. This diversity is essential for capturing the differences in how students from various backgrounds develop and apply their metalinguistic awareness. By including individuals from multiple academic levels, the study can explore whether metalinguistic awareness naturally progresses over time or if certain factors play a more significant role.

The data of this research are consists of two distinct types of data, with each serving a specific purpose in answering the research questions. The first type of data is gathered through the think-aloud protocol. This approach provides task-based data as participants work on identifying and correcting word-specific orthographic errors. By focusing on real-time decision-making, the think-aloud data captures students' cognitive engagement with language rules, specifically word-specific patterns. The second type of data comes from interviews, which offer reflective and explanatory data that helps to answer the second research question. The interview data focuses on gathering information about external factors influencing metalinguistic awareness, such as the students' linguistic background, gender and academic background. Data collection in this research will utilize verbal protocol specifically think-aloud protocol and interview to gather insights into the metalinguistic awareness of EFL students, specifically focusing on their word-specific orthographic awareness. Think-Aloud Protocol is a verbal reporting technique where students express their immediate thoughts, reasoning, and emotions while engaged in a task (K. A Ericsson, 1998; Woo et al., 2023). In addition to this, the result of interview questions are used to investigate the factors in influencing their metalinguistic awareness. (Misesani, 2019) Verbal protocols are commonly used and later analyzed to identify evidence of metalinguistic awareness (Karen Roehr-Brackin, 2024)

The use of the think-aloud protocol is particularly relevant in this study, despite its focus on word-specific orthographic awareness, since it provides direct insight into how students process and apply their awareness of word-specific in real time. In think aloud protocol process, participants demonstrate how they identify, evaluate, and attempt to correct errors, offering a clearer picture of their metalinguistic awareness.

This research utilized a think aloud-protocol analysis to analyze participants' metalinguistic awareness (Woll, 2018) and thematic analysis to a comprehensive understanding of the factors influencing metalinguistic awareness among the participants (Misesani, 2019). These approaches will be use to systematically describe and interpret the data collected, providing a detailed understanding of how each participant engages with and demonstrates metalinguistic awareness specifically ortographic at word-specific level awareness.

The first analysis will focus on examining the think-aloud data, drawing on Woll's (2018) framework, to address the first research question. This analysis aims to explore the participants' metalinguistic awareness during the word-specific task.

1. The participants' verbalized thoughts during the word-specific task will be transcribed, ensuring that every detail of their responses is captured.

2. The transcripts will be coded according to the students' levels of awareness, distinguishing between Intuition, Noticing, Meta-Awareness and Underlying Rule.
3. The coded responses will be grouped by their levels of awareness and analyzed to identify patterns, focusing on how higher levels of awareness correspond to more accurate task performance.
4. The data will be interpreted to investigate how the students' levels of metalinguistic awareness influence their ability to correct orthographic errors, drawing connections between awareness levels and task outcomes.

The second analysis will address the second research question. This approach will provide a comprehensive understanding of the factors influencing metalinguistic awareness among the participants (Misesani, 2019)

1. The interview recordings will be transcribed.
2. The transcribed data will be reviewed repeatedly to gain familiarity with the content.
3. Key themes and patterns will be identified through a coding process.
4. The coded data will be organized into categories that reflect the main themes observed.
5. An in-depth analysis of the categorized data will be conducted to investigate relationships between categories and interpret their meanings.
6. The results of the analysis will be interpreted to draw conclusions and address the research questions.

RESULTS AND DISCUSSION

Current State of EFL Students Metalinguistic Awareness Particularly in Word-Specific Orthographic Awareness

It is found in this research that EFL higher education students exhibit different levels of metalinguistic awareness. This indicates that students come up with varying levels of understanding of language structures and functions. The tables below provides a detailed representation of the levels of metalinguistic awareness observed among EFL higher education students, categorized according to the semester in which they are enrolled, and the totals responses of metalinguistic awareness task.

Intuition Level

The intuition level in metalinguistic awareness reveals a foundational, reactive approach to identifying word-specific errors, often rooted in familiarity with word forms rather than explicit word-specific orthographic knowledge. In this study, it is found out that two higher-semester participants primarily operated at this level, producing four responses that reflected immediate but unreflective error detection. This instinctive correction process indicates a basic awareness of spelling conventions without any conscious understanding of the linguistic principles involved. The following is the sample of participants statement at the level of intuition:

Participant 5:

'Destany' ...this is also not quite right. Maybe it should use E. Destiny, is it? It should use E. But this come up with A

Participant 7:

Maybe the word "Imbalance"... because... I've never heard of the word "Imbalance," so maybe... um... the correct one is "Inbalance," but... um... the "L" here is also doubled.

The presence of higher-semester students at this level is particularly notable, as it implies that despite their advanced academic background, these students may lack a structured, rule-based knowledge of English word-specific orthography. Their dependence on intuition, rather than analysis, suggests a potential gap in instructional strategies throughout their studies. If higher-semester students are still relying on intuition, it raises concerns about the depth of their metalinguistic awareness and their ability to consistently apply accurate spelling in varied contexts. This reliance on intuition may lead to inconsistencies in spelling corrections, as participants may not recognize errors that do not align with familiar word patterns.

Noticing Level

The noticing level of metalinguistic awareness represents a key transitional stage, where participants can identify specific spelling errors but may struggle to fully explain the rules behind their corrections. In this study, this was observed in eight participants across both lower and higher semesters, who produced a total of 44 responses at this level. While these students can recognize complex elements

in words, such as identifying the mistake in “Benifits” and suggesting it should be “Benefits,” they often cannot provide a comprehensive rationale for why the correction is necessary. This points to partial or fragmented word-specific orthographic knowledge. The following is the sample of Noticing statement revealed in Word-Specific Orthographic Awareness test:

Participant 3:

‘Destany’ should be ‘Destiny’ D, E, S, T, I, N, Y

Participant 6:

This is also wrong... the word ‘unavailible’ should be written here as ‘unavailable’ It should be with an ‘A,’ replacing the letter ‘T’ with ‘A.’

Interestingly, while the majority of participants in the noticing category were from higher semesters, this suggests that their academic progression has not yet led to a deeper understanding of English word-specific orthographic rules. The fact that higher-semester students are still primarily operating at this level—recognizing errors but unable to articulate the underlying rules—indicates a gap in their explicit instruction on spelling. Despite their exposure to English for a longer period, they are not yet able to make a connection between recognizing errors and understanding the principles governing correct spelling. This highlights potential shortcomings in how word-specific orthographic knowledge is taught, as students seem to lack the critical instruction needed to bridge the gap from error recognition to rule-based correction.

Meta-Awareness Level

The meta-awareness level represents a more advanced stage of metalinguistic development, where participants not only recognize spelling errors but can also articulate the reasoning behind their corrections. In this study, three participants—one from lower semesters and two from a higher semester—operated at this level, providing a total of seven responses. This finding is particularly noteworthy, as it demonstrates that some lower-semester students have developed an understanding of spelling conventions that combines instinctive awareness with rule-based knowledge. The following is the sample of participant’s statement at the level of meta-awareness:

Participant 1:

Investment.... there’s ‘T’ between ‘S’ and ‘M’....so it will sound ‘investment’... ‘investme t’...not ‘invesment’.

Participant 8 :

And then the “restriktions” In restriktions, the “K” should be replaced with “C” to make it R-E-S-T-R-I-C-T-I-O-N-S. Well....if its using K or C...it wont make difference on how it pronounce cause they might sound the same but the correct one is using C and not K.

These examples reveal that students at the Meta-Awareness level are increasingly able to connect spelling with pronunciation, analyzing the relationship between form and function. By recognizing how specific letters impact a word’s sound, participants show an understanding beyond surface-level spelling. However, while Meta-Awareness allows for reasoning about specific errors, it does not always lead to a broader understanding of language rules (Leow, 1997). For instance, students may identify that a spelling feels correct without fully articulating the linguistic rules behind their choices.

Underlying Rule Level

The Underlying Rule level represents a theoretical stage where participants would understand and apply explicit linguistic rules to identify and correct errors (Leow, 1997). However, none of the participants in this study reached this level, indicating that they lack comprehensive knowledge of the rules governing English word-specific orthography. The absence of responses at this level implies that participants are unprepared to generalize their language corrections beyond familiar forms, limiting their ability to tackle novel language challenges.

Factors Influencing Students Metalinguistic Awareness Particularly in Word-Specific Orthographic Awareness

It is found that students’ linguistic background plays a crucial role in influencing their metalinguistic awareness. Participants with exposure to multiple languages, whether through speaking, studying, or being immersed in diverse linguistic environments, tend to demonstrate higher levels of awareness. This suggests that interacting with multiple languages enhances students’ ability to analyze and compare linguistic structures, which may contribute to a deeper understanding of word-specific

orthographic conventions. The findings from this study reveal that the extent and nature of student exposure to different languages significantly impact how they approach and understand the structure and function of language. Students who have had diverse linguistic experiences, such as interacting with speakers from different linguistic backgrounds or learning multiple languages, tend to demonstrate higher levels of metalinguistic awareness. These experiences provide them with the tools to analyze and reflect on linguistic structures more deeply, fostering a richer understanding of how language works. For example, Participant 1, who has studied German, Spanish, and other languages, illustrates how exposure to different language systems can enhance metalinguistic awareness. Having been exposed to multiple linguistic structures, Participant 1 is better equipped to compare and contrast the features of different languages, which fosters a greater understanding of language rules. The ability to think critically about language structure across various languages is indicative of a heightened level of metalinguistic awareness. By engaging in cross-linguistic comparisons, such as comparing word order or grammatical forms between German, Spanish, and English, Participant 1 can reflect more effectively on the underlying linguistic principles governing English, thus reaching a higher level of awareness.

Beyond linguistic background, it is found that the type and frequency of exposure to English language itself also play a crucial role in shaping metalinguistic awareness. The research reveals that students who engage with English consistently and meaningfully through a variety of contexts and activities demonstrate higher levels of metalinguistic awareness. This is particularly evident among participants who make English an active part of their daily routines, whether through consuming media, interacting with native speakers, or engaging in academic activities. The following is the table of students' exposure to English Language.

The research reveals that intentional and analytical language use contributes to higher levels of metalinguistic awareness. Participant 1, for instance, demonstrates a high level of metalinguistic awareness largely due to their consistent exposure to English through daily conversations with an international friend, regular reading, and engaging with English-language media. With their mother being an English teacher, Participant 1 has had frequent access to English outside the classroom, which has helped them develop a nuanced understanding of the language. Their ability to learn new vocabulary from sources such as Instagram posts and webpages, alongside regular English interactions, has enabled them to reach the meta-awareness level. The exposure to English in a variety of contexts, both formal and informal, has enhanced Participant 1's metalinguistic awareness, allowing them to reflect more critically on language usage.

DISCUSSION

This research explored the current state of metalinguistic awareness among EFL students and the factors influencing their awareness, particularly focusing on word-specific orthographic awareness. The findings revealed variability in the levels of metalinguistic awareness among higher education EFL students which were shaped by several factor. Metalinguistic awareness is not consistent across learners; rather, it is molded by a variety of factors, including students' linguistic background, and language learning experience (Angelo, 2021; Dian Misesani, 2019; Fernandez-Dalona & Dalona, 2019b; Walla, 2024)

The predominance of the noticing level which categorized as average level of metalinguistic awareness (Leow, 1997) shows that many language learners rely on surface-level recognition rather than deeper analytical processing. Learners with average metalinguistic awareness may face challenges in tasks that require identifying subtle errors (Fernandez-Dalona & Dalona, 2019b). This reliance on familiarity rather than explicit knowledge highlights gaps in the students' metalinguistic awareness. Metalinguistic awareness, which involves the ability to consciously reflect on and manipulate linguistic structures, plays a significant role in the development and use of explicit knowledge (Bialystok, 2001; Karen Roehr-Brackin, 2018)

The limited number of participants demonstrating meta-awareness highlights the potential for some EFL learners to transition from surface-level noticing to deeper analytical understanding of language. This finding aligns with research indicating that multilingual learners often exhibit higher metalinguistic awareness compared to monolingual peers (Hofer & Jessner, 2019; Walla, 2024). Such differences emphasize the impact of linguistic background in shaping metalinguistic awareness, particularly in classroom contexts. Thus, linguistic diversity appears to play a crucial role in facilitating

learners' ability to analyze and understand language structures at an advanced level (M.B. Sanfo et al., 2022)

The findings also suggest that reliance on intuition, observed in several higher-semester participants, indicates gaps in their foundational understanding of word-specific orthographic principles. Intuition, as characterized by Leow (1997), represents the lowest level of awareness, where learners identify errors based on familiarity rather than explicit knowledge. This reliance is concerning, as it reflects a lack of systematic instruction in linguistic rules. Explicit metalinguistic training, as advocated by (Karen Roehr-Brackin, 2018) could help students progress from intuition to more analytical levels of awareness, enabling them to tackle complex language tasks more effectively.

Conversely, it is found in this study, no participant achieved the underlying rule level, which is identified by Leow (1997)'s framework as the highest stage, where learners can articulate formal linguistic rules and systematically analyze language structures. This contrasts with research on Saudi EFL learners by Mohammed et al. (2021) where participants reached highest level of metalinguistic awareness, indicating their ability to recognize and regulate their cognitive processes related to language. Achieving this level means that learners not only identify errors but also provide explicit explanations based on linguistic rules, demonstrating a deep and conscious understanding of how language operates (Bialystok, 2001; Karen Roehr-Brackin, 2018)

Another significant finding of this research is students' academic background did not consistently predict metalinguistic awareness levels, a finding that contrast with notion that advanced students, such as those in higher semesters, typically exhibit enhanced metalinguistic awareness due to their extensive exposure to language structures and rules (Karen Roehr-Brackin, 2018). While some higher semester students demonstrated noticing or intuition levels, certain first-year students achieved meta-awareness, suggesting that factors beyond formal education, such as prior language exposure or personal engagement with English, play a more significant role. This aligns with research by Newton (2021), who found that individual linguistic experiences and early exposure to explicit language instruction significantly influence metalinguistic awareness.

The data analysis revealed from interviews highlighted additional factors influencing metalinguistic awareness, such as linguistic background and exposure to English,. It is found in this study that participants with bilingual or multilingual background tend to exhibit better metalinguistic awareness. These findings support Angelo (2021), Fernandez-Dalona & Dalona (2019b), Spechtenhauser & Jessner, (2024), and Walla (2024) research, which demonstrated that multilingual and bilingual learners often exhibit enhanced metalinguistic awareness due to diverse linguistic experiences.

For instance, Participant 1, who has studied German, Spanish, and other languages, demonstrates a higher level of metalinguistic awareness, reaching the meta-awareness stage. Their ability to reflect on different language structures and compare linguistic features between English, German, and Spanish provides them with a more profound understanding of language rules. This supports the findings of (Torregrossa et al., 2023), who argue that learners from diverse linguistic backgrounds perform better in metalinguistic tasks due to their capacity for cross-linguistic comparison. Similarly, Participant 6, who studies Spanish and Japanese, benefits from exposure to distinct linguistic structures, which enhances their ability to analyze linguistic forms more effectively. The ability to switch between linguistic systems strengthens metalinguistic awareness, as seen in research by (M.B. Sanfo et al., 2022), which highlights how multilingual individuals develop enhanced word-specific orthographic awareness.

On the other hand, participants with limited exposure to other languages, such as Participants 2, 3, and 4, operate primarily at the noticing level. While they can recognize linguistic errors, they struggle to articulate the rules governing them. This finding is consistent with (Leow, 1997), who suggests that students at the noticing level can identify surface-level issues but lack the analytical depth to explain them. Without the cognitive flexibility afforded by multilingualism, these participants rely on familiarity with language forms rather than an in-depth understanding of linguistic principles. Additionally, Participants 5 and 7, who have no significant multilingual background, display the lowest levels of metalinguistic awareness, operating at the intuition-noticing stage. Their reliance on intuition rather than explicit knowledge aligns with (Leow, 1997) which suggests that learners who have not developed explicit metalinguistic skills tend to depend on instinctual responses rather than reasoned reflection.

Furthermore, the study highlights that exposure to the English language itself influences metalinguistic awareness. Consistent with prior research, students who actively engage with English through meaningful and varied interactions tend to develop higher levels of awareness (Karen Roebr-Brackin, 2018). For example, Participant 1, who regularly interacts with English through conversations, reading, and media consumption, reaches the meta-awareness level, demonstrating an ability to reflect critically on linguistic structures. Similarly, Participant 6, who engages with English through academic resources and social interactions, develops strong analytical skills, supporting the argument that learners who engage with English regularly in academic, professional, or social settings tend to demonstrate higher levels of word-specific orthographic awareness and grammatical accuracy (Ke et al., 2023). In contrast, participants with limited exposure, such as Participants 3, 4, 5, and 7, remain at the intuition-noticing level, indicating that passive engagement with English does not significantly contribute to metalinguistic development.

In conclusion, the findings reaffirm that multilingual experience and frequent, meaningful exposure to English contribute to higher levels of metalinguistic awareness. Students who have studied multiple languages or regularly engage with English develop greater cognitive flexibility, allowing them to analyze linguistic structures more effectively. Conversely, students with limited linguistic experience or passive exposure to English remain at lower awareness levels, struggling to move beyond basic error recognition. These findings emphasize the importance of fostering multilingual environments and encouraging analytical engagement with language to enhance metalinguistic awareness in language learners.

CONCLUSIONS

This research investigated the metalinguistic awareness of EFL students, focusing specifically on word-specific orthographic awareness. The study was guided by two research questions: the current state of students' metalinguistic awareness and the factors influencing this awareness. Through think-aloud protocols and interviews, this research has uncovered significant findings regarding both aspects. These findings highlight the complexities and challenges in developing metalinguistic awareness among EFL learners.

The current state of metalinguistic awareness among the participants showed considerable variability. Most students operated at the noticing level, where they could detect orthographic errors but were unable to explain the linguistic principles underlying their corrections. This finding highlights a reliance on surface-level recognition rather than analytical reasoning. Such limitations restrict their ability to generalize their knowledge to more complex orthographic tasks.

Several factors were found to influence students' metalinguistic awareness beyond their academic background. Academic standing, such as semester level, did not consistently predict higher levels of awareness. For instance, some first-year students demonstrated meta-awareness, while certain seventh-semester students remained at the noticing level. These findings highlight the importance of individual differences in shaping metalinguistic development.

Exposure to English beyond formal educational settings emerged as a critical factor influencing metalinguistic awareness. Students who actively engaged with English through media, reading, or conversations with native speakers showed stronger analytical skills. These experiences provided them with practical insights into orthographic conventions. The findings emphasize the value of practical, immersive experiences in enhancing language learning outcomes.

The study reveals a significant gap in the instruction of orthographic rules within the current EFL curriculum. While participants could recognize errors, their limited ability to analyze and explain these errors reflects a lack of explicit orthographic instruction. This gap restricts their progression to higher levels of metalinguistic awareness, particularly the underlying rule level. Addressing this issue requires the incorporation of targeted instruction on orthographic principles in EFL teaching practices.

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