



EFL Students' Orthographic Competence Using Dictation Task (*Kompetensi Ortografi Mahasiswa EFL Menggunakan Tugas Dikte*)

Siti Marwah Daud¹, Suleman Bouti², Fahria Malabar³

^{1,2,3}Department of English Language Education, Faculty of Letters and Culture, Universitas Negeri Gorontalo
sitimarwahdaud2004@gmail.com¹, s_bouti@ung.ac.id², fahria@ung.ac.id³

Article Info	Abstract
Article history: Received: 15 Juli 2026 Revised: 21 Juli 2026 Accepted: 22 Juli 2026	This study investigated EFL students' orthographic competence through a dictation task, focusing on the frequency and distribution of orthographic variations as indicators of grapheme-phoneme correspondence (GPC) mapping competence. A quantitative descriptive design with qualitative interpretation was employed involving 67 fourth-semester students of the English Language Education Study Program at Universitas Negeri Gorontalo selected through purposive sampling. Data were collected using a standardized dictation task consisting of five authentic EFL spoken texts, from which 80 target words representing five orthographic subskills based on Blatt and Prosch's (2014) framework were analyzed: Phonographic-Syllabic (PGS), Morphological (MOR), Peripheral Area (PER), Word Formation (WF), and Syntactic (SYN). Data were analyzed using Arikunto's (2013) percentage formula and qualitative interpretation of recurring error patterns. The analysis identified 1,324 orthographic variations with an overall accuracy rate of 75.30% (Fair). Competence varied across subskills, with SYN showing the lowest performance (28.86%), followed by PGS (59.35%), PER (81.24%), MOR (89.72%), and WF (91.68%). The SYN subskill was mainly characterized by capitalization omissions and literal transcription of spoken punctuation cues, whereas PGS errors reflected cross-linguistic interference from the transparent orthographic system of Indonesian. These findings indicate that EFL orthographic competence is multidimensional and influenced by orthographic memory, cross-linguistic interference, and processing demands. The study recommends regular sentence-level dictation and explicit contrastive orthographic instruction to strengthen orthographic competence.
Keywords: Orthographic competence EFL Dictation Task Grapheme-Phoneme Correspondence Indonesian Learners Kata Kunci: <i>Kompetensi ortografi</i> <i>EFL</i> <i>Tugas Dikte</i> <i>Korespondensi Grapheme-Phoneme</i> <i>Pelajar Bahasa Indonesia</i>	Abstrak Penelitian ini bertujuan menyelidiki kompetensi ortografis mahasiswa EFL (English as a Foreign Language) melalui tugas dikte dengan berfokus pada frekuensi dan distribusi variasi ortografis sebagai indikator kompetensi pemetaan korespondensi grafem-fonem (grapheme-phoneme correspondence/GPC). Penelitian menggunakan desain deskriptif kuantitatif dengan interpretasi kualitatif yang melibatkan 67 mahasiswa semester empat Program Studi Pendidikan Bahasa Inggris Universitas Negeri Gorontalo yang dipilih melalui purposive sampling. Data dikumpulkan menggunakan tugas dikte terstandardisasi yang terdiri atas lima teks lisan EFL autentik. Sebanyak 80 kata target dianalisis berdasarkan lima subketerampilan ortografis menurut kerangka Blatt dan Prosch (2014), yaitu Phonographic-Syllabic (PGS), Morphological (MOR), Peripheral Area (PER), Word Formation (WF), dan Syntactic (SYN). Analisis dilakukan menggunakan rumus persentase Arikunto (2013) disertai interpretasi kualitatif terhadap pola kesalahan yang berulang. Hasil penelitian menunjukkan 1.324 variasi ortografis dengan tingkat akurasi keseluruhan sebesar 75,30% (Cukup). Kompetensi bervariasi pada setiap subketerampilan, dengan nilai terendah pada SYN (28,86%), diikuti PGS (59,35%), PER (81,24%), MOR (89,72%),

dan WF (91,68%). Kesalahan pada SYN didominasi penghilangan huruf kapital dan transkripsi literal isyarat tanda baca lisan, sedangkan kesalahan PGS mencerminkan interferensi sistem ortografi bahasa Indonesia. Temuan menunjukkan bahwa kompetensi ortografis EFL bersifat multidimensi dan dipengaruhi oleh memori ortografis, interferensi lintas bahasa, serta tuntutan pemrosesan. Penelitian ini merekomendasikan latihan dikte tingkat kalimat secara rutin dan pengajaran ortografi kontrastif secara eksplisit.

Corresponding Author:

Siti Marwah Daud
Faculty of Letters and Culture
Universitas Negeri Gorontalo
sitimarwahdaud2004@gmail.com

1. INTRODUCTION

The ability to spell accurately in English remains one of the most persistent challenges for learners of English as a Foreign Language (EFL), particularly those whose first language (L1) employs a transparent orthographic system (Martin, 2024). This difficulty stems from the nature of English as a deep orthography, in which the relationship between phonemes and graphemes is inconsistent, historically layered, and governed by multiple linguistic conventions rather than predictable sound-to-letter correspondences (Katz & Frost, 1992; Schmalz, 2025). Unlike transparent orthographies such as Indonesian, Italian, and Spanish, where phonemes are represented consistently by specific graphemes, English spelling reflects centuries of phonological evolution, lexical borrowing, and morphological development. As a result, identical sounds may be represented by different spellings, while identical spellings may correspond to different pronunciations depending on the lexical context.

For Indonesian EFL learners, this complexity is further intensified by cross-linguistic interference from their L1. Because Indonesian orthography is highly transparent, learners develop an expectation that each sound corresponds directly to a single written form (Winskel & Lee, 2013). When this expectation is transferred to English, learners frequently produce spellings that are phonologically plausible according to Indonesian orthographic conventions but non-standard in English, such as *importent* for *important* or *skedul* for *schedule* (Bassetti et al., 2015; Ziegler et al., 2014). These spellings should not be viewed as random mistakes or carelessness. Instead, they represent systematic attempts to apply familiar phonological strategies to an orthographic system that follows fundamentally different principles.

Understanding these patterns requires a clear conceptualization of orthographic competence. Orthographic competence refers to the ability to transform spoken language into accurate written forms by applying grapheme-phoneme correspondences together with the orthographic rules, irregularities, and conventions of the target language (Limpo et al., 2021). Rather than representing a single ability, orthographic competence is multidimensional, involving knowledge of phonological mapping, morphological spelling rules, irregular word forms stored in visual memory, word-formation patterns, and sentence-level conventions such as capitalization and punctuation. Consequently, learners may demonstrate strength in some dimensions while experiencing substantial difficulty in others, making it necessary to evaluate each component separately to obtain a comprehensive understanding of orthographic development.

To capture this multidimensional nature, the present study adopts the framework proposed by Blatt and Prosch (2014), which conceptualizes orthographic competence as comprising five interrelated subskills: the Phonographic-Syllabic Principle, the Morphological Principle, the Peripheral Area, the Word Formation Principle, and the Syntactic Principle. Each subskill reflects a distinct cognitive process involved in spelling. The Phonographic-Syllabic Principle concerns grapheme-phoneme correspondence; the Morphological Principle addresses the spelling of inflected and derived forms; the Peripheral Area involves irregular and borrowed words that rely on visual orthographic memory; the Word Formation Principle focuses on compounding and derivational structures; and the Syntactic Principle encompasses sentence-level conventions, including capitalization and punctuation. Collectively, these dimensions provide a comprehensive diagnostic framework for identifying not only where learners experience difficulties but also the underlying cognitive processes responsible for those difficulties.

To examine these subskills authentically, this study employs a dictation task as the primary research instrument. Dictation is particularly appropriate for investigating spelling in deep orthographies because many English words cannot be spelled accurately through phonological decoding alone. Words such as *through*,

knight, and *colonel* require learners to retrieve stored orthographic representations from long-term memory rather than relying solely on sound-letter conversion (Bano et al., 2025; Iniesta et al., 2021). When these representations are incomplete, learners typically produce phonologically plausible approximations that reveal the boundaries of their orthographic knowledge. Unlike recognition-based assessments, such as multiple-choice or gap-filling tasks, dictation requires learners to generate written forms independently, thereby providing direct evidence of their orthographic processing.

Despite its diagnostic potential, spelling research in EFL contexts has frequently relied on binary scoring systems that classify responses simply as correct or incorrect (Sagi et al., 2024). Although such evaluations provide an overall measure of spelling accuracy, they fail to capture the diagnostic information embedded in learners' orthographic variations. As a result, little is known about how orthographic competence is distributed across different orthographic subskills among Indonesian EFL learners or which dimensions present the greatest cognitive challenges.

Addressing this gap, the present study treats orthographic variations as meaningful indicators of developing competence rather than merely as errors. By analyzing the frequency, distribution, and characteristics of spelling variations produced during a dictation task, this study seeks to reveal the cognitive strategies learners employ when mapping graphemes and phonemes. Specifically, the study investigates fourth-semester students in the English Language Education Study Program at Universitas Negeri Gorontalo using Blatt and Prosch's (2014) orthographic competence framework.

Accordingly, this study addresses the following research questions:

- 1) What are the frequency and distribution of students' orthographic variations across the five subskills of orthographic competence during dictation?
- 2) How do these orthographic variations reflect students' cognitive strategies in grapheme-phoneme correspondence (GPC) mapping?

2. RESEARCH METHODOLOGY

This study employs a quantitative descriptive design with qualitative interpretation. A quantitative descriptive design aims to systematically describe, measure, and present data in numerical form, enabling the researcher to identify patterns, frequencies, and distributions within the data (Creswell, 2018). The first research question is addressed by calculating the frequency and percentage distribution of orthographic variations across (Blatt & Prosch, 2014) five subskills: Phonographic-Syllabic, Morphological, Peripheral, Word Formation, and Syntactic. The second research question is addressed by interpreting the characteristics and patterns of those variations as representations of students' GPC competence within each subskill dimension.

The population of this study consists of undergraduate students enrolled in the English Language Education Study Program at the Faculty of Letters and Culture, Universitas Negeri Gorontalo. These students are EFL learners who have been exposed to a range of linguistic and skills-based courses, including phonology, morphology, syntax, and academic writing, which constitute a relevant academic background for investigating orthographic competence.

The sample for this study consists of 67 fourth-semester students, selected through purposive sampling of an entire cohort. Fourth-semester students were chosen for two reasons: first, they have completed the foundational linguistic courses mentioned above, which directly support the development of orthographic competence; and second, they are at an intermediate level of English learning where orthographic knowledge is still developing, making spelling variations clearly identifiable and analytically meaningful.

In this study, the researchers used 80 items classified into five subskills of orthographic competence. These words were selected purposefully to represent various levels of difficulty and linguistic domains in the English language. The target items and their subskill assignments are presented in Table 1 below.

Table 1. Target Items Classified by Orthographic Subskill (Blatt & Prosch, 2014)

No	Subskill (Blatt & Prosch)	Linguistic Domain	Target Words	Total (Items)
1	Phonographic-Syllabic	Regular Core (Sound-Letter)	think, work, late, boss, gave, week, next, big, now, new, staff, busy, had, time, need, city, way, job, kind, well, get	21
2	Morphological	Root Stability & Inflection	going, projects, returns, changes, including, moving, hiring, things, meeting, talked,	18

			looks, moved, getting, ready, retire, employees, co- workers, makes have, today, 21 because, hope, schedule, normal, through, office, right, very, about, increase, create, would, what, attract, really, people, they, together, along several, important, 14 interesting, productivity, home/work, balance, wonder, enjoyable, another, instead, background, information, understand, application Roger, Leanne, 6 Peter, [Full Stop], [Comma], [Exclamation Mark]
3	Peripheral Area	Orthographic Irregularities	
4	Word Formation	Complex/Lexical Structures	
5	Syntactic	Sentence-Level Principles	
Total Items			80

Each target item is assessed at the word level. A student's transcription is classified as either correct, if the transcribed form matches the standard English spelling exactly, including appropriate capitalization and punctuation; or variation, the transcribed form deviates from the standard form in any way. All variations are recorded verbatim and assigned to the relevant subskill category based on the type of deviation, as summarized in Table 2 below.

Table 2. Classification Criteria and Variation Types by Subskill

Subskill	Principle	Expected Variation Types	Coding Label
Phonographic Syllabic	GPC mapping; sound-to-letter correspondence	Phonetic substitution, vowel reduction patterns, grapheme cluster simplification, and omission of silent letters	PGS
Morphological	Inflectional & derivational morpheme accuracy	Morpheme omission (missing -s, -ed, -ing), incorrect suffixation, double-consonant variation	MOR
Peripheral	Irregular & loanword spelling	Phonetically-motivated misspelling of irregular items, overgeneralization of regular GPC to irregular words	PER
Word Formation	Compounding & derivational chains	Incorrect spacing in compounds, wrong prefix substitution, and suffix omission	WF
Syntactic	Capitalization & punctuation	Missing capitalization (sentence-initial, proper nouns, pronoun 'I'), missing/misplaced punctuation	SYN

This study analyzes data using a quantitative descriptive approach with qualitative interpretation. The quantitative measurement of orthographic variation frequency and accuracy is followed by a qualitative interpretive analysis of the patterns observed within each subskill. The two components are integrated within a single analytical framework, in which quantitative findings serve as the empirical basis and qualitative interpretation serves as the explanatory layer

3. FINDINGS AND DISCUSSION

Quantitative data were obtained by evaluating each student's dictation worksheet against a standardized scoring key consisting of 80 target items classified into five orthographic subskills: Phonographic-Syllabic (PGS), Morphological (MOR), Peripheral Area (PER), Word Formation (WF), and Syntactic (SYN).

3.1 Frequency and Distribution of Orthographic Variations

Across the 67 participants, a total of 1,324 orthographic variations were identified within the 80 target items. The frequency, distribution, accuracy rate, and competence category for each subskill are presented in Table 3.

Table 3. Frequency and Distribution of Orthographic Variations Across Five Subskills

Subskill	Variations (f)	Target Items (N)	Distribution (%)	Accuracy Rate (%)	Competence Category
Phonographic Syllabic (PGS)	572	21	43.20%	59.35%	Fair
Syntactic (SYN)	286	6	21.60%	28.86%	Very Poor
Peripheral Area (PER)	264	21	19.94%	81.24%	Good
Morphological (MOR)	124	18	9.37%	89.72%	Excellent
Word Formation (WF)	78	14	5.89%	91.68%	Excellent
Total	1,324	80	100.00%	75.30%	Fair

Note: Distribution (%) = $(f \div \text{Total Variations [1,324]}) \times 100\%$. Accuracy Rate (%) = Percentage of correct responses calculated per subskill relative to the evaluation slots ($N \times 67$ students). Competence categories are based on Arikunto (2013).

Table 3 presents two complementary measurements that provide different perspectives on students' orthographic competence. The Distribution (%) column indicates the proportion of spelling variations found in each subskill, showing where students' difficulties are most concentrated among the total 1,324 orthographic variations. In contrast, the Accuracy Rate (%) column reflects students' performance within each subskill by comparing the number of correct responses to the total possible responses in that category.

PGS accounted for the largest proportion of variations ($f = 572$; 43.20%), suggesting that sound-to-letter correspondence may represent the area in which students experience the greatest spelling difficulty. SYN showed the lowest accuracy rate (28.86%; Very Poor). Although it contributed fewer total variations ($f = 286$; 21.60%), this result may reflect the fact that the subskill contained only six target items, meaning that a considerable proportion of the expected correct responses were not produced. In contrast, MOR and WF achieved Excellent accuracy rates of 89.72% and 91.68%, respectively, indicating strong performance in morphological and word-formation knowledge. PER reached the Good category with an accuracy rate of 81.24%.

Although the overall accuracy rate was 75.30% (Fair), this figure conceals a substantial difference of 62.82 percentage points between the weakest subskill (SYN) and the strongest (WF). This gap suggests that students' orthographic competence may not be evenly developed across all domains. A more detailed discussion of the variation patterns within each subskill is presented in Section 4.

3.2 Distribution of Correct Orthographic Responses

To provide a balanced view of students' competence, the distribution of correct responses was also analyzed. Table 4 presents the total correct responses, the mean per student, and the correct response rate for each subskill.

Table 4. Distribution of Correct Orthographic Responses

Subskill	Total Correct (f)	Mean per Student	Correct Rate (%)	Rank
Word Formation (WF)	860	12.84	91.68%	1
Morphological (MOR)	1,082	16.15	89.72%	2
Peripheral Area (PER)	1,143	17.06	81.24%	3
Phonographic-Syllabic (PGS)	835	12.46	59.35%	4
Syntactic (SYN)	116	1.73	28.86%	5
Total	4,036	60.24	75.30%	—

Note. Total Correct (f) = (Target Items per Subskill $\times$ 67) – Total Variations per subskill. Mean per Student = Total Correct $\div$ 67. Correct Rate (%) = $(\text{Total Correct} \div (\text{Target Items per Subskill} \times 67)) \times 100\%$. Subskills are ranked from highest to lowest correct rate.

Table 4 presents the data from a different perspective by focusing on students' correct responses rather than their errors. The Mean per Student indicates the average number of items answered correctly by each student, while the Correct Rate (%) represents the percentage of correct responses relative to the maximum possible score for each subskill.

3.3 Syntactic Subskill (SYN): Very Poor (28.86%)

The quantitative findings indicate that this was the weakest area of students' orthographic competence. The SYN subskill achieved an accuracy rate of only 28.86%, which falls into the Very Poor category, and produced 286 orthographic variations across six target items. Several representative patterns of these variations are presented in Table 5.

Table 5. Summary of Syntactic (SYN) Variation Patterns

Response Status	Target Item	Produced Form
Orthographic Variation	Proper nouns (Roger, Leanne, Peter)	roger, leanne, peter
Orthographic Variation	Punctuation cues (period, comma, exclamation mark)	"period", "comma", "exclamation mark"
Correct Response	Roger, Leanne, Peter / (,) (.) (!)	Roger, Leanne, Peter / (,) (.) (!)

Note. Variation patterns are based on students' responses to the dictation task.

The most prevalent variation in this subskill was the omission of capitalization for proper nouns, with Roger, Leanne, and Peter consistently written in lowercase (roger, leanne, peter). This pattern may suggest that while students likely possess declarative knowledge of the capitalization rule, such knowledge has not been sufficiently consolidated into automatic writing habits. As Ehri (2020) explains, an orthographic convention that has not been fully internalized requires conscious attentional resources to execute. These findings are broadly consistent with previous research on EFL learners' punctuation and capitalization errors, which often attributes such difficulties to the dual-processing demands inherent in real-time auditory writing tasks (Blatt & Prosch, 2014).

3.4 Phonographic-Syllabic Subskill (PGS): Fair (59.35%)

The students achieved an accuracy rate of 59.35% (Fair) in this subskill, indicating that nearly 40% of the PGS target words were spelled incorrectly. This result suggests that phonographic mapping remains a considerable challenge for many learners and continues to be a weak area in their orthographic development. Examples of the orthographic variations identified in this subskill are presented in Table 6

Table 6. Summary of Phonographic-Syllabic (PGS) Variation Patterns

Response Status	Target Item	Produced Form
Orthographic Variation	important	importent, importan, importants
Orthographic Variation	schedule	skedul, shedul, chedule, skejul
Orthographic Variation	boss	pass, bos
Orthographic Variation	through	true, trough, through, throu
Correct Response	schedule, boss, through	schedule, boss, through

Note. Variation patterns are based on students' responses to the dictation task.

The most prevalent variation in this subskill was the omission of capitalization for proper nouns, with Roger, Leanne, and Peter consistently written in lowercase (roger, leanne, peter). This pattern may suggest that while students likely possess declarative knowledge of the capitalization rule, such knowledge has not been sufficiently consolidated into automatic writing habits. (Ehri, 2020) explains, an orthographic convention that has not been fully internalized requires conscious attentional resources to execute. These findings are broadly consistent with previous research on EFL learners' punctuation and capitalization errors, which often attributes such difficulties to the dual-processing demands inherent in real-time auditory writing tasks (Blatt & Prosch, 2014).

3.5 Peripheral Subskill (PER): Good (81.24%)

Unlike the phonographic-syllabic or morphological domains, competence in this subskill does not depend on the productive application of a rule but on the direct retrieval of stored visual word forms from the mental lexicon. An accuracy rate of 81.24% (Good) indicates that students have developed reasonably stable visual-orthographic memory for a substantial portion of common English irregular words, although a meaningful proportion of items remain incompletely stored. Representative variation patterns are presented in Table 7.

Table 7. Summary of Peripheral (PER) Variation Patterns

Response Status	Target Item	Produced Form
Orthographic Variation	through	thru, thought, through, throw

Orthographic Variation	office	ofice, offis, offise, ofis
Orthographic Variation	people	peple, poeple, pepol, peopel
Orthographic Variation (Domain Shifting)	hiring	Heeiring
Correct Response	through, people, office, hiring	through, people, office, hiring

Note. Variation patterns are based on students' responses to the dictation task.

The most prominent pattern observed in this subskill was the use of phonological approximation when students were apparently unable to retrieve the correct spelling from memory. This pattern was particularly evident in the target word through, which appeared in several variations such as thru, thought, and thrugh. These forms may reflect students' attempts to represent pronunciation using regular letter-sound correspondences in the absence of a fully stable visual representation. This observation is broadly consistent with the Orthographic Depth Hypothesis (Katz & Frost, 1992), which suggests that irregular words in deep orthographies such as English may be particularly susceptible to retrieval difficulties, as phonological decoding strategies alone provide limited support for accurate spelling.

3.6 Morphological Subskill (MOR): Excellent (89.72%)

An accuracy rate of 89.72% (Excellent) confirms that morphological knowledge is among the most consolidated components of the students' orthographic competence. Representative variation patterns are presented in Table 8.

Table 8. Summary of Morphological (MOR) Variation Patterns

Response Status	Target Item	Produced Form
Orthographic Variation	moving, hiring	moveing, hireing
Orthographic Variation	getting	geting, gettingt
Orthographic Variation	talked	talk, talkt, talkd
Correct Response	moving, getting, talked	moving, getting, talked

Note. Variation patterns are based on students' responses to the dictation task.

Although students achieved a high level of accuracy in this subskill, several orthographic variations suggest that some morphological processes may not yet be fully automatized. The first pattern relates to the modification of root words before suffix attachment. Variations such as “moveing” and “hireing” demonstrate that students were able to recognize and add the -ing suffix but did not apply the required silent-e deletion rule. Likewise, the form “geting” instead of “getting” suggests that the consonant-doubling rule was not consistently applied. These examples indicate that students generally recognized the appropriate suffixes but may have encountered difficulties in automatically executing the orthographic adjustments required during suffix attachment. This finding is consistent with Blatt and Prosch's (2014) argument that morphological competence involves not only identifying morphemes but also applying the accompanying spelling changes in an automatized manner.

3.7 Word Formation Subskill (WF): Excellent (91.68%)

With the highest accuracy rate of all five subskills at 91.68% (Excellent), word-formation knowledge constitutes the most stable and automatized component of the students' orthographic competence. Representative variation patterns are presented in Table 9.

Table 9. Summary of Word Formation (WF) Variation Patterns

Response Status	Target Item	Produced Form
Orthographic Variation	co-workers	coworkers, co workers
Orthographic Variation	home/work	homework, home work
Orthographic Variation	increase	in crease, increace
Correct Response	co-workers, home/work, increase	co-workers, home/work, increase

Note. Variation patterns are based on students' responses to the dictation task.

The orthographic variations identified in the WF subskill were very limited and mainly involved uncertainty regarding typographical boundaries in compound words. For example, “co-workers” was occasionally written as “coworkers” (without a hyphen) or “co workers” (with an unnecessary space).

Similarly, the slash compound home/work was sometimes simplified into the more familiar form homework. Another isolated variation, in crease for increase, possibly suggests that the prefix “in-“ was mistakenly interpreted as a separate word. These variations were rare and did not appear to reflect a fundamental misunderstanding of word-formation principles. Instead, they may indicate minor difficulties with specific writing conventions related to word boundaries and typographical formatting conventions that are not always clearly specified in classroom instruction.

The findings of this study reveal a highly heterogeneous orthographic competence profile among fourth-semester EFL students at Universitas Negeri Gorontalo. This section synthesizes the quantitative and descriptive findings to address both research questions and discusses their theoretical and pedagogical implications.

Before elaborating on the findings further, it is necessary to first clarify the meaning of the five competence categories used in this study. These categories were established based on the level of accuracy in students' orthographic responses and classified according to (Arikunto, 2013) criteria as follows. First, the Excellent category covers an accuracy range of 86%–100%, meaning that students have consistently mastered the sub-skill domain and their orthographic knowledge has been well consolidated into automatic habits. Second, the Good category covers a range of 76%–85%, indicating adequate mastery with only minor gaps in stored orthographic representations. Third, the Fair category covers a range of 56%–75%, indicating that sub-skill mastery is partial; students succeed on some items but still experience systematic difficulties on others. Fourth, the Poor category covers a range of 40%–55%, reflecting weak and inconsistent mastery, where more items are answered incorrectly than correctly. Fifth, the Very Poor category covers accuracy below 40%, signaling that the sub-skill domain has not developed adequately and students are barely able to reliably execute the associated orthographic conventions. These five categories serve as the benchmark for interpreting all findings in this study.

In response to the first research question regarding the frequency and distribution of orthographic variations across five subskills, the data show that variation is distributed unevenly. PGS accounted for the largest absolute share (43.20%) of all variations, while SYN produced the most severe accuracy deficit (28.86%, Very Poor) despite contributing fewer total variations. MOR and WF, by contrast, generated only 9.37% and 5.89% of all variations and both achieved Excellent accuracy. These figures indicate that orthographic difficulties in this learner population are not evenly distributed across the English spelling system, but are concentrated in specific domains.

In response to the second research question regarding what the variation patterns may reflect about students' GPC mapping competence, the descriptive analysis identified three interrelated tendencies that appear to shape the observed orthographic profile.

The first tendency concerns the possible role of concurrent processing demands in the SYN subskill. The consistent failure to capitalize proper nouns and the phenomenon of writing 'period' and 'comma' as literal words may suggest that when students are occupied by the micro-level task of phoneme-to-grapheme conversion, macro-level syntactic conventions are more likely to be omitted. This pattern is broadly consistent with (Ehri, 2020) account of automatization, which proposes that conventions not yet internalized as automatic habits are more susceptible to omission under demanding task conditions. Similar difficulties with sentence-level orthographic conventions during dictation have been documented in other EFL contexts (Sammour-Shehadeh et al., 2025), suggesting that this pattern may not be unique to Indonesian learners.

The second tendency concerns possible cross-linguistic influence from Indonesian as the L1, which appears to shape the variation profile of the PGS subskill most prominently. Forms such as *importent*, *skedul*, and *true* are all phonologically plausible within Indonesian orthographic logic but non-standard in English; they may indicate that students relied on familiar L1 sound-to-letter mapping strategies in the absence of consolidated English-specific GPC knowledge. This finding is consistent with the Orthographic Depth Hypothesis (Katz & Frost, 1992), which predicts that learners from transparent-orthography backgrounds may encounter particular difficulty with the opaque conventions of English. Cross-linguistic orthographic interference has been similarly documented among Arabic-speaking (Sammour-Shehadeh et al., 2025) and other EFL learners, suggesting that L1 orthographic background is a consistent predictor of English spelling difficulty.

The third tendency concerns patterns of incomplete orthographic consolidation that appear to affect both the PER and MOR subskills in different ways. In the PER domain, this manifests as phonological approximations of irregular word forms (*thru*, *ofice*, *peple*), possibly reflecting the absence of fully stable visual templates in long-term memory. In the MOR domain, it manifests as partial rule application: students correctly recognize and attach morphological suffixes but may not consistently execute the accompanying root modification procedures (*moveing*, *geting*) or activate morphological knowledge independently of acoustic clarity (*talk* for *talked*). Both patterns are broadly consistent with Ehri's (2020) account of partial orthographic mapping, in which incompletely stored representations fail to support fully accurate production under conditions with no visual or contextual support.

Taken together, these three tendencies produce the competence hierarchy observed in this study: SYN (Very Poor) < PGS (Fair) < PER (Good) < MOR (Excellent) < WF (Excellent). This hierarchy reflects the degree to which the demands of each subskill may be met by the cognitive strategies currently available to these learners. This structured pattern demonstrates the diagnostic value of Blatt and Prosch's (2014) multi-subskill framework, which allows researchers to identify not only where students struggle but what types of orthographic knowledge may be involved, providing a theoretically grounded basis for targeted instructional intervention.

From a pedagogical standpoint, these findings suggest that EFL orthographic instruction cannot be reduced to isolated vocabulary memorization or generic spelling exercises. The gap between students' word formation competence (91.68%) and their syntactic competence (28.86%) indicates that word-level accuracy does not automatically transfer to sentence-level orthographic performance. Writing instruction may therefore benefit from incorporating regular live auditory processing activities such as sentence-level dictation with explicit focus on capitalization and punctuation that provide sustained practice in managing word-level and sentence-level conventions simultaneously.

Furthermore, the PGS findings highlight the potential value of contrastive orthographic awareness activities that explicitly address the differences between the transparent conventions of Indonesian and the opaque conventions of English. By making these differences visible and encouraging students to consciously evaluate their L1-based spelling intuitions, teachers may help learners develop more reliable GPC knowledge for English-specific sound-letter correspondences. For the PER domain, extended exposure to irregular word forms through reading and dictation practice may help strengthen visual-orthographic representations of frequently misspelled items such as *through*, *office*, and *people*.

This study makes a contribution to the empirical understanding of EFL orthographic competence by providing a detailed subskill-level profile of spelling performance among Indonesian university students, using a validated multi-dimensional framework (Blatt & Prosch, 2014). Unlike studies that examine spelling accuracy as a single global measure, the present analysis reveals substantial variation across subskills a finding that may have direct relevance for designing targeted orthographic instruction in the Indonesian EFL context. The study also extends the application of Blatt and Prosch's (2014) framework to a Southeast Asian EFL population, demonstrating its utility as a diagnostic tool in contexts characterized by L1 transparent orthography and deep L2 orthography.

4. CONCLUSION AND SUGGESTIONS/RECOMMENDATIONS

4.1 Conclusion

The results identified a total of 1,324 orthographic variations distributed across five subskills: Phonographic-Syllabic (PGS), Morphological (MOR), Peripheral Area (PER), Word Formation (WF), and Syntactic (SYN). The overall mean accuracy rate was 75.30%, categorized as Fair; however, this figure conceals a substantial gap of 62.82 percentage points between the weakest and strongest subskills, indicating that students' orthographic competence is highly uneven across different orthographic domains.

The findings show that the WF subskill achieved the highest accuracy rate (91.68%, Excellent), followed by MOR (89.72%, Excellent) and PER (81.24%, Good). These results indicate that students had developed strong and consolidated knowledge of word-formation structures, morphological rules, and the visual forms of many common irregular English words. In contrast, the PGS subskill dropped to the Fair category (59.35%), with variation patterns such as *important*, *skedul*, and *true* indicating that students frequently applied transparent L1 Indonesian orthographic logic to the opaque conventions of English. The weakest subskill was SYN, which was categorized as Very Poor with an accuracy rate of only 28.86%. Errors in this area were mainly the omission of capitalization for proper nouns and the literal transcription of spoken punctuation cues as words, suggesting that sentence-level orthographic conventions had not yet been sufficiently automatized under the cognitive demands of real-time auditory production.

These results confirm a competence hierarchy of SYN (Very Poor) < PGS (Fair) < PER (Good) < MOR (Excellent) < WF (Excellent). This hierarchy indicates that students' orthographic competence is shaped by the interplay of three factors: the stability of visual-orthographic memory for stored word forms, the degree of cross-linguistic interference from Indonesian orthographic conventions, and the ability to manage simultaneous word-level and sentence-level processing under real-time dictation conditions. Together, these findings confirm the diagnostic value of applying a subskill-differentiated framework to the analysis of EFL orthographic competence.

4.2 Suggestions/Recommendations

Based on the findings of this study, it was found that students' orthographic competence varied considerably across the five subskills, with SYN and PGS showing the most persistent difficulties even though students at this level have completed foundational courses in phonology, morphology, syntax, and academic

writing. In light of this, the following suggestions are addressed to EFL lecturers, EFL students, and future researchers.

For EFL lecturers and educators, the SYN findings suggest that orthographic instruction needs to go beyond the memorization of isolated word lists. Educators are advised to routinely incorporate full-sentence dictation activities into both writing and listening classes, as these tasks require students to manage capitalization and punctuation simultaneously with phonological encoding, directly training the dual-processing demand that the SYN subskill requires. In addition, the PGS findings call for explicit contrastive instruction that highlights the differences between the near-transparent orthography of Indonesian and the opaque conventions of English, helping students recognize when L1-based spelling strategies are unreliable and when stored English-specific knowledge must be applied instead.

For EFL students, the results show that fluent spelling of individual words does not automatically transfer to accurate writing under real-time auditory conditions. Students are encouraged to practice transcribing complete sentences under timed conditions to build the working memory capacity needed to monitor sentence boundaries while simultaneously processing incoming speech. Additionally, students need to strengthen their visual memory of irregular English word forms particularly peripheral items such as through, office, and people to reduce reliance on phonetic approximation strategies that frequently produce non-standard spellings in English.

REFERENCES

- Arikunto, S. (2013). *Prosedur Penelitian: Suatu Pendekatan Praktik*. Rineka Cipta.
- Bano, E. B., Lihawa, K., & Bouti, S. (2025). The Effectiveness of Dictation-Based Supplementary Materials for Improving English Orthography Skill in Junior High School EFL Learners. *International Journal of Research and Review*, 12(5), 48–53. <https://doi.org/10.52403/ijrr.20250506>
- Bassetti, B., Escudero, P., & Hayes-Harb, R. (2015). Second language phonology at the interface between acoustic and orthographic input. *Applied Psycholinguistics*, 36(1), 1–6. <https://doi.org/10.1017/S0142716414000393>
- Blatt, I., & Prosch, A. (2014). *The Assessment of Orthographic Competence*. (NEPS Working Paper No. 50).
- Creswell, J. W. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 5th.
- Ehri, L. C. (2020). The Science of Learning to Read Words: A Case for Systematic Phonics Instruction. *Reading Research Quarterly*, 55(S1). <https://doi.org/10.1002/rrq.334>
- Iniesta, A., Paolieri, D., Serrano, F., & Bajo, M. T. (2021). Bilingual writing coactivation: Lexical and sublexical processing in a word dictation task. *Bilingualism: Language and Cognition*, 24(5), 902–917. <https://doi.org/10.1017/S1366728921000274>
- Katz, L., & Frost, R. (1992). Chapter 4 The Reading Process is Different for Different Orthographies: The Orthographic Depth Hypothesis. In *Advances in Psychology* (Vol. 94, pp. 67–84). North-Holland. [https://doi.org/10.1016/S0166-4115\(08\)62789-2](https://doi.org/10.1016/S0166-4115(08)62789-2)
- Limpo, T., Salas, N., Van Reybroeck, M., & Castro, S. L. (2021). Editorial: Spelling Across Orthographies. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.700604>
- Martin, K. I. (2024). How a phonics-based intervention, L1 orthography, and item characteristics impact adult ESL spelling knowledge. *Education Sciences*, 14(4), 421.
- Sagi, R., Taylor, J. S. H., Neophytou, K., Cohen, T., Rapp, B., Rastle, K., & Ben-Shachar, M. (2024). White matter associations with spelling performance. *Brain Structure and Function*, 229(9), 2115–2135. <https://doi.org/10.1007/s00429-024-02775-7>
- Sammour-Shehadeh, R., Prior, A., & Kahn-Horwitz, J. (2025). Spelling challenges in English as a foreign language: Vowels, digraphs, and novel phonemes. *Reading and Writing*. <https://doi.org/10.1007/s11145-025-10659-3>
- Schmalz, X. (2025). What do we know about reading and spelling in shallow orthographies? *Revista de Investigación En Logopedia*, 15, 7–16. <https://doi.org/10.5209/rlog.101396>
- Winskel, H., & Lee, L. W. (2013). 16 Learning to read and write in Malaysian/Indonesian: a transparent alphabetic orthography. *South and southeast Asian psycholinguistics*, 179.
- Ziegler, J. C., Perry, C., & Zorzi, M. (2014). Modelling reading development through phonological decoding and self-teaching: Implications for dyslexia. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 369(1634), 20120397. <https://doi.org/10.1098/rstb.2012.0397>