The Effects of Explicit and Implicit Syntax Instruction on the Grammatical Accuracy of English Major Students

ผลของการสอนวากยสัมพันธ์แบบชัดแจ้งและแบบนัยต่อความถูกต้องทางไวยากรณ์ของนักศึกษาวิชาเอกภาษาอังกฤษ

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Abstract

The comparative effectiveness of explicit and implicit grammar instruction remains a central issue in second language acquisition. This is especially important in tertiary English as a Foreign Language (EFL) context, where classroom instruction often serves as the main source of linguistic input. This study investigated the effects of explicit and implicit syntax instruction on the grammatical accuracy of second-year English major students in a Thai tertiary context and examined whether learners' perceived instructional effectiveness predicted improvement in grammatical accuracy. The participants were selected because they had a similar level of grammatical proficiency and were enrolled in the compulsory Introduction to Syntax course in the English Program at Phetchaburi Rajabhat University (PBRU) in the first semester of the 2025 academic year. A quasi-experimental pretest–posttest design was implemented with two intact classes (N = 60). The explicit group received rule-based instruction with metalinguistic explanation and structured practice, whereas the implicit group participated in meaning-focused communicative tasks without overt grammatical explanation. Data were analyzed using paired-sample t-tests, analysis of covariance (ANCOVA), effect size calculations, and linear regression.

Results revealed significant improvement in grammatical accuracy in both groups, with the explicit instruction group outperforming the implicit group. Learners' perceived instructional effectiveness was also found to significantly predict improvement in grammatical accuracy. The findings suggest that explicit instruction yields stronger short-term gains in accuracy, while learners' perceptions play an important role in facilitating learning outcomes. However, these findings should be interpreted with caution

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due to the relatively short intervention period and the use of a single performance measure, which may limit the extent to which long-term or multidimensional language development is captured.

Keywords: Explicit instruction, Implicit instruction, Grammatical accuracy, Thai EFL learners, Writing accuracy

บทคัดย่อ

ประสิทธิผลเชิงเปรียบเทียบของการสอนวากยสัมพันธ์แบบชัดแจ้งและแบบนัยยังคงเป็นประเด็นสำคัญในด้านการเรียนรู้ภาษาที่สอง โดยเฉพาะในบริบทการเรียนภาษาอังกฤษเป็นภาษาต่างประเทศ (EFL) ระดับอุดมศึกษา ซึ่งการเรียนการสอนในชั้นเรียนเป็นแหล่งป้อนข้อมูลทางภาษาหลักของผู้เรียน งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาผลของการสอนวากยสัมพันธ์แบบชัดแจ้งและแบบนัยต่อความถูกต้องทางไวยากรณ์ของนักศึกษาชั้นปีที่ 2 สาขาวิชาภาษาอังกฤษในบริบทระดับอุดมศึกษาของประเทศไทย และตรวจสอบการรับรู้ของผู้เรียนต่อประสิทธิผลของการสอนในการทำนายการพัฒนาความถูกต้องทางไวยากรณ์ กลุ่มตัวอย่างนี้ถูกเลือกเนื่องจากมีพื้นฐานทางไวยากรณ์ใกล้เคียงกัน และลงทะเบียนเรียนในรายวิชา Introduction to Syntax ซึ่งเป็นรายวิชาบังคับในหลักสูตรสาขาวิชาภาษาอังกฤษ มหาวิทยาลัยราชภัฏเพชรบุรี (PBRU) ในภาคเรียนที่ 1/2568 งานวิจัยใช้รูปแบบกึ่งทดลอง ที่ได้ทำแบบทดสอบก่อนและหลังเรียน โดยใช้กลุ่มตัวอย่างจากชั้นเรียนจริงจำนวน 2 ห้องเรียน (N = 60) กลุ่มที่ได้รับการสอนแบบชัดแจ้งได้รับการสอนเชิงกฎเกณฑ์ทางภาษาร่วมกับการอธิบายเชิงอภิมโนทัศน์และการทำแบบฝึกหัดที่มีลักษณะเชิงโครงสร้างทางไวยากร ขณะที่กลุ่มแบบนัยเข้าร่วมกิจกรรมการสื่อสารที่เน้นความหมายโดยไม่มีการอธิบายไวยากรณ์โดยตรง ในการวิเคราะห์ข้อมูล ใช้การทดสอบทีแบบกลุ่มตัวอย่างสัมพันธ์กัน (paired-sample t-test) การวิเคราะห์ความแปรปรวนร่วม (ANCOVA) การคำนวณขนาดอิทธิพล (effect size) และการวิเคราะห์การถดถอยเชิงเส้น (linear regression)

ผลการวิจัยพบว่าผู้เรียนทั้งสองกลุ่มมีพัฒนาการด้านความถูกต้องทางไวยากรณ์อย่างมีนัยสำคัญ โดยกลุ่มที่ได้รับการสอนแบบชัดแจ้งมีผลการเรียนสูงกว่ากลุ่มแบบนัย นอกจากนี้ยังพบว่าการรับรู้ของผู้เรียนต่อประสิทธิผลของการสอนมีความสัมพันธ์กับการพัฒนาความถูกต้องทางไวยากรณ์ ผลการศึกษาชี้ให้เห็นว่าการสอนแบบชัดแจ้งช่วยส่งเสริมการพัฒนาความถูกต้องทางไวยากรณ์ในระยะสั้นได้ดีกว่า ขณะที่การรับรู้ของผู้เรียนมีบทบาทสำคัญต่อกระบวนการเรียนรู้ อย่างไรก็ตาม ผลการวิจัยนี้ควรตีความด้วยความระมัดระวัง เนื่องจากระยะเวลาการทดลองที่ค่อนข้างสั้น และการใช้ตัวชี้วัดเพียงรูปแบบเดียว ซึ่งอาจจำกัดขอบเขตในการสะท้อนพัฒนาการทางภาษาในระยะยาวหรือในหลายมิติได้

คำสำคัญ: การสอนแบบชัดแจ้ง, การสอนแบบนัย, ความถูกต้องทางไวยากรณ์, ผู้เรียนภาษาอังกฤษเป็นภาษาต่างประเทศในประเทศไทย, ความถูกต้องในการเขียน

Introduction

Developing grammatical accuracy remains a major challenge for learners of English as a foreign language (EFL), particularly in contexts where exposure to authentic language input is limited (Ellis, 2006; Krashen, 1982). In many EFL settings, including Thailand, classroom instruction constitutes the primary environment in which learners encounter and practice the target language. As a result, instructional approaches play a crucial role in shaping learners' grammatical development and written performance (Ellis, 2006). Among the most debated issues in second language acquisition (SLA) research is the relative effectiveness of explicit and implicit grammar instruction in facilitating language learning (Norris & Ortega, 2000; Spada & Tomita, 2010).

Explicit instruction involves direct explanation of grammatical rules accompanied by metalinguistic information and structured practice activities (Ellis, 2006; DeKeyser, 2007). This approach assumes that conscious awareness of linguistic structures can facilitate more accurate language production. In contrast, implicit instruction emphasizes exposure to language in meaningful communicative contexts without overt rule explanation. From this perspective, learners are expected to internalize grammatical patterns through interaction with input and communicative activities (Reber, 1993; Ellis, 2005).

The debate between explicit and implicit instruction has long been central to SLA research. Some theoretical perspectives suggest that explicit knowledge can contribute to improved language performance through monitoring and controlled production (DeKeyser, 2003). Other perspectives argue that language acquisition is primarily driven by implicit learning processes that operate through exposure and pattern detection (Krashen, 1982; Reber, 1993). Although both approaches have received empirical support, the relative effectiveness of the two instructional methods remains dependent on learning context and instructional conditions (Goo et al., 2015; Spada & Tomita, 2010).

In tertiary EFL environments, grammatical accuracy in academic writing represents an especially important learning outcome. University students are frequently required to produce written texts that demonstrate linguistic precision and structural coherence. However, many learners possess theoretical grammatical knowledge yet struggle to apply it consistently in extended writing tasks (Polio & Shea, 2014; Ellis, 2015). This gap between grammatical knowledge and actual performance highlights the need for instructional approaches that effectively support the development of accurate written production.

Within the Thai educational context, research has consistently reported persistent grammatical difficulties among EFL learners. These challenges include incorrect verb tense usage, word order errors, and incomplete clause structures (Khamkhien, 2010; Noom-Ura, 2013). Such issues are frequently observed among university students, including English major learners who are expected to demonstrate relatively advanced language proficiency. Despite years of formal instruction, many students continue to produce written texts containing frequent grammatical errors.

Furthermore, recent research has emphasized the importance of learner-related factors in shaping instructional outcomes. In addition to cognitive processes, learners' perceptions of instructional effectiveness may influence their engagement, motivation, and attention during learning activities (Dörnyei, 2019; Schmidt, 2001). Positive perceptions of instructional clarity and usefulness may encourage learners to allocate greater cognitive effort to language processing, which can ultimately enhance learning outcomes. Although previous studies have examined grammar instruction across different educational contexts, relatively few studies have experimentally compared explicit and implicit syntax instruction among English major students in Thai tertiary education, particularly in regional university settings. In addition, limited research has examined whether learners' perceived instructional effectiveness predicts grammatical accuracy gains in such contexts. This gap restricts evidence-based pedagogical decision-making regarding grammar instruction for university EFL learners.

To address these issues, the present study investigates the comparative effects of explicit and implicit syntax instruction on the grammatical accuracy of English major students at Phetchaburi Rajabhat University. Using a quasi-experimental design, the study examines whether explicit rule-based instruction leads to greater improvement in grammatical accuracy compared to meaning-focused implicit instruction. In addition, the study explores the relationship between learners' perceptions of instructional effectiveness and their grammatical accuracy gains.

Research Objectives

1. To compare the effects of explicit and implicit syntax instruction on the grammatical accuracy of second-year English major students at Phetchaburi Rajabhat University (PBRU).

2. To examine whether learners' perceived instructional effectiveness significantly predicts gains in grammatical accuracy.

Hypotheses

H1: Students receiving explicit syntax instruction will demonstrate significantly greater gains in grammatical accuracy than those receiving implicit instruction.

H2: Learners' perceived instructional effectiveness will significantly predict gains in grammatical accuracy.

Definition of terms

1. **Explicit Syntax Instruction** refers to a teaching approach in which grammatical rules and sentence structures are clearly explained by the instructor. This approach typically includes metalinguistic explanation, model examples, and structured practice activities that help learners consciously understand and apply grammatical rules in their language production (Ellis, 2006; DeKeyser, 2007).

2. **Implicit Syntax Instruction** refers to a teaching approach in which grammatical structures are learned through meaning-focused communication and exposure to language use without direct explanation of grammatical rules. Learners are expected to internalize syntactic patterns through interaction, practice, and contextualized language use (Ellis, 2005; Reber, 1993).

3. **Grammatical Accuracy** refers to the extent to which learners produce grammatically correct language in written form. In this study, grammatical accuracy is operationalized as the proportion of error-free clauses in students' written texts (Polio & Shea, 2014).

4. **Error-Free Clauses** refer to clauses that contain no grammatical, lexical, or morphological errors. In this study, the percentage of error-free clauses is used as the operational measure of grammatical accuracy (Polio & Shea, 2014).

5. **Thai EFL Learners** refer to students in Thailand who learn English as a foreign language in formal educational settings where English is not used as a primary means of daily communication (Ellis, 2006; Khamkhien, 2010).

6. **Writing Accuracy** refers to the extent to which learners produce grammatically correct language in written texts, including appropriate use of syntax, morphology, and lexical forms. In second language writing research, it is commonly measured by indicators such as the proportion of error-free clauses (Polio & Shea, 2014).

Literature Review

1. Implicit Instruction and the Noticing Hypothesis

Implicit instruction represents an alternative approach to grammar teaching that emphasizes communicative language use rather than direct rule explanation. In implicit instructional contexts, learners are exposed to language input through meaningful communication and are expected to internalize grammatical structures through interaction with the language (Ellis, 2005; Reber, 1993).

One influential theoretical framework underlying implicit learning is Schmidt's Noticing Hypothesis. According to this perspective, learners must consciously notice linguistic features in the input before those features can become part of their developing language system (Schmidt, 1990, 2001). Noticing does not necessarily require explicit rule explanation; instead, it involves the conscious registration of linguistic forms during language processing. Learners may therefore acquire grammatical knowledge by attending to patterns in the input during communicative activities.

Attention and awareness have consequently been considered central components of implicit learning processes. While some scholars argue that language acquisition can occur without conscious awareness (Williams, 2005), others maintain that attentional resources play a crucial role in encoding linguistic information into long-term memory (Robinson, 2003; Schmidt, 2001). From this perspective, even in meaning-focused instructional environments, learners must allocate attention to linguistic forms for acquisition to occur.

Implicit learning is also supported by research on pattern detection mechanisms. Reber (1993) proposed that individuals can acquire complex patterns without explicit knowledge of the underlying rules. In SLA contexts, this suggests that learners may gradually internalize grammatical structures through repeated exposure to language input. Empirical studies have shown that learners can develop sensitivity to linguistic regularities even when they are unable to explicitly articulate the grammatical rules governing those structures (Andringa & Rebuschat, 2015).

Another influential perspective on implicit learning is Input Processing theory. According to VanPatten (2004, 2015), learners tend to prioritize meaning over form when processing language input. As a result, grammatical features may remain unnoticed unless instructional tasks increase their perceptual salience. Instructional techniques such as input enhancement or structured input activities have therefore been proposed as ways of guiding learners' attention toward target forms without providing explicit explanation (VanPatten, 2004).

In classroom practice, implicit instruction is typically implemented through meaning-focused activities that encourage learners to use language in context without explicit rule explanation (Ellis, 2005; Reber, 1993). Instruction often follows a sequence in which learners are first exposed to target structures through input-rich materials, such as dialogues or texts, followed by communicative tasks that require meaningful interaction. During these activities, learners are encouraged to notice patterns in language use through task engagement, interaction, and feedback (Schmidt, 2001). Teachers may also use techniques such as input enhancement, recasts, or task-based activities to draw learners' attention to form while maintaining a primary focus on meaning (VanPatten, 2004).

Empirical research examining implicit instruction has produced mixed findings regarding its effectiveness in promoting grammatical accuracy. Meaning-focused instruction has often been associated with improvements in communicative fluency and overall language use (Wesche & Skehan, 2002). However, gains in grammatical accuracy may be less immediate compared to those observed under explicit instruction. Shintani (2015) found that implicit learning can contribute to grammatical development, although the effects may emerge more gradually.

Despite these limitations, implicit instructional approaches remain an important component of communicative language teaching. By engaging learners in meaningful interaction, implicit instruction encourages the development of intuitive linguistic knowledge and supports natural language use. Such approaches may therefore complement explicit instruction by promoting fluency and communicative competence.

Overall, the studies on implicit instruction highlight its role in promoting communicative fluency and natural language use through meaning-focused interaction (Ellis, 2005; Reber, 1993; Shintani, 2015). These studies suggest that learners can gradually internalize grammatical structures through exposure and interaction, even in the absence of explicit rule explanation. However, compared to explicit instruction, improvements in grammatical accuracy may be less immediate and may require longer periods of exposure.

2. Explicit Instruction and Skill Acquisition Theory

Explicit instruction has long been considered an important approach in second language acquisition (SLA), particularly in instructed learning environments where classroom input constitutes

the primary source of linguistic exposure (Ellis, 2006; DeKeyser, 2007). Explicit instruction typically involves direct explanation of grammatical rules accompanied by metalinguistic information and structured practice activities. In such instructional contexts, learners are encouraged to consciously attend to linguistic forms and apply rule-based knowledge during language production.

The theoretical foundation of explicit instruction is closely associated with Skill Acquisition Theory. According to this theory, language learning involves the gradual transformation of declarative knowledge into proceduralized performance through repeated practice (DeKeyser, 2003, 2007). Learners initially acquire explicit knowledge of grammatical rules and subsequently develop automatic language use through continued exposure and practice. This progression reflects the transition from conscious rule application to fluent performance.

In classroom settings, explicit instruction is often implemented through pedagogical frameworks such as the Present–Practice–Produce (PPP) model, where learners first receive explanations of grammatical structures, then engage in controlled practice activities before applying the target forms in communicative tasks (Ur, 2012; Spada & Lightbown, 2008). Such instructional sequences aim to support the gradual development of grammatical competence while maintaining opportunities for meaningful language use.

Empirical studies have provided considerable support for the effectiveness of explicit grammar instruction. Norris & Ortega (2000), in a large-scale meta-analysis of form-focused instruction, reported that explicit instructional approaches produced larger effect sizes than implicit approaches. Similarly, Spada & Tomita (2010) found that explicit instruction demonstrated consistent advantages across both simple and complex grammatical structures. These findings suggest that explicit attention to form may facilitate faster improvements in grammatical accuracy, particularly in instructional environments where learners rely primarily on classroom-based learning.

More recent research has continued to highlight the importance of metalinguistic explanation in explicit instruction. Metalinguistic feedback enables learners to analyze grammatical structures and understand how linguistic forms function within sentences. This analytical engagement can strengthen learners' ability to monitor their own language production and identify errors during writing tasks (Ellis, 2015).

Contemporary developments in Skill Acquisition Theory also emphasize the role of repeated practice and distributed learning in the proceduralization of grammatical knowledge. DeKeyser (2015)

argues that declarative knowledge acquired through explicit instruction can gradually become automatic through sustained practice and meaningful use. This perspective suggests that explicit instruction may provide an efficient starting point for grammatical development in instructed learning contexts.

Overall, previous studies on explicit instruction consistently demonstrate its effectiveness in improving grammatical accuracy, particularly in form-focused and accuracy-oriented tasks (Norris & Ortega, 2000; Spada & Tomita, 2010). These findings suggest a clear trend in which rule-based instruction, supported by metalinguistic explanation and structured practice, facilitates more immediate gains in learners' grammatical performance. However, the effectiveness of explicit instruction may vary depending on factors such as task type, learner characteristics, and instructional context.

3. Comparative Research on Explicit and Implicit Instruction

Comparative research examining explicit and implicit instruction has been central to debates in SLA regarding the most effective methods for teaching grammar. Numerous experimental and meta-analytic studies have investigated the relative effectiveness of these instructional approaches across different learning contexts.

One of the most influential syntheses in this area is the meta-analysis conducted by Norris & Ortega (2000), which examined the effects of form-focused instruction on language learning outcomes. Their findings indicated that explicit instruction produced substantially larger effect sizes than implicit instruction, suggesting that rule explanation and conscious awareness may facilitate faster learning in classroom contexts.

Subsequent meta-analytic research has generally confirmed these findings. Spada & Tomita (2010) analyzed multiple studies examining grammar instruction and concluded that explicit approaches were more effective than implicit approaches for both simple and complex linguistic features. Similarly, Goo et al. (2015) reported that explicit instruction consistently produced stronger learning outcomes across a variety of SLA contexts.

However, several scholars have emphasized that the apparent superiority of explicit instruction may be influenced by methodological factors. Many studies measure learning outcomes using controlled grammar tests or discrete-point assessments, which tend to favor explicit

knowledge (Ellis, 2009). In contrast, communicative tasks that measure spontaneous language use may reveal different patterns of instructional effectiveness.

Recent classroom-based studies have therefore attempted to examine the effects of explicit and implicit instruction in more authentic educational contexts. Research conducted in university settings suggests that explicit instruction may be particularly beneficial for learners engaged in academic writing tasks that require high levels of grammatical accuracy (Altun & Dinçer, 2020). At the same time, implicit instruction may support the development of more natural language use in communicative contexts (Zhao & Ellis, 2022).

Research on adult learners further indicates that university students often benefit from explicit explanations of grammatical structures due to their analytical learning orientation (Ellis, 2010). Adult learners are generally capable of reflecting on linguistic forms and applying metalinguistic knowledge during language production. As a result, explicit instruction may provide valuable cognitive support for grammatical learning in tertiary education.

Within the Thai EFL context, however, empirical research comparing explicit and implicit grammar instruction remains limited. Previous studies have primarily focused on error analysis or teacher-centered instructional practices (Noom-Ura, 2013). Consequently, there is a need for more experimental research examining how different instructional approaches influence grammatical accuracy among university-level English learners.

The present study seeks to address this gap by comparing the effects of explicit and implicit syntax instruction on the grammatical accuracy of English major students in a Thai tertiary EFL setting. By examining both performance outcomes and learners' perceptions, the study aims to provide a more comprehensive understanding of how instructional approaches influence language learning in university classrooms.

Overall, previous studies can be broadly grouped into two main patterns. A substantial body of research consistently reports that explicit instruction leads to greater improvements in grammatical accuracy, particularly in controlled and form-focused tasks (Norris & Ortega, 2000; Spada & Tomita, 2010; Goo et al., 2015). In contrast, other studies highlight the contribution of implicit instruction to the development of communicative fluency and more natural language use, although gains in grammatical accuracy may be less immediate (Wesche & Skehan, 2002; Shintani, 2015). These contrasting findings suggest that the relative effectiveness of explicit and implicit

instruction may depend on factors such as learning context, instructional design, and the type of outcome measures used.

Methodology

This study employed a quasi-experimental pretest–posttest design to examine the effects of explicit and implicit syntax instruction on learners' grammatical accuracy. Two intact classes of second-year English major students participated in the study (N = 60), with 30 students assigned to the explicit instruction group and 30 to the implicit instruction group. As the study employed a quasi-experimental design with intact classroom groups, potential threats to internal validity, such as selection bias and the lack of random individual assignment, may be present. However, these threats were minimized by ensuring comparable participant backgrounds, equal instructional time, and the use of pretest scores as a covariate in the ANCOVA analysis.

Both groups completed a writing pretest and posttest. Grammatical accuracy was operationalized as the percentage of error-free clauses produced in students' written texts. The explicit instruction group received rule-based teaching with metalinguistic explanation and structured practice, whereas the implicit instruction group participated in meaning-focused communicative activities without overt grammatical explanation.

To control for initial differences between groups, posttest scores were analyzed using analysis of covariance (ANCOVA) with pretest scores as the covariate. Effect sizes were calculated to determine the magnitude of instructional impact, and regression analysis was conducted to examine whether learners' perceptions predicted their gains in grammatical accuracy.

Participants

The participants were 60 second-year English major students enrolled at Phetchaburi Rajabhat University (PBRU), Thailand. Two intact classes were included in the study. The participants had completed foundational English courses in grammar and writing prior to enrolling in the compulsory Introduction to Syntax course, indicating a basic to intermediate level of grammatical knowledge. Their ages ranged from approximately 19 to 21 years. The participants were selected because they shared a similar level of grammatical proficiency and were enrolled in the same compulsory course, providing a consistent instructional context. Participants met the inclusion criteria of being second-year English major students enrolled in the same course; no

exclusion criteria were applied due to the use of intact classroom groups. The participants were considered to have an intermediate level of English proficiency based on their academic background, and this classification was further supported by their pretest performance. The sample was selected using purposive sampling, as participants were drawn from intact classes enrolled in the same compulsory course.

Because individual random assignment was not feasible, the two classes were randomly assigned by lottery to either the explicit instruction group (N = 30) or the implicit instruction group (N = 30). Both classes followed the same curriculum and received equal instructional time. Participation was voluntary, and all participants were informed about the study and anonymized.

Instructional Treatments

The instructional treatments were developed based on the course objectives of the Introduction to Syntax course and relevant theories of explicit and implicit instruction. Both instructional conditions were designed to target the same set of syntactic structures, including sentence structure, verb tense, word order, and clause construction, to ensure comparability across groups. The instructional intervention lasted eight weeks, with approximately three hours of instruction per week, resulting in a total of 24 instructional hours.

Both groups were taught the same target syntactic structures, received equal instructional time, and completed comparable writing tasks to ensure that differences in outcomes could be attributed primarily to instructional approach. Additionally, both groups were taught by the same instructor to ensure consistency in instructional delivery. The instructor was also the researcher, which allowed for close alignment between the research design and classroom implementation. To minimize potential bias, standardized lesson plans, equivalent instructional materials, and consistent teaching procedures were used across both groups.

Research Instruments

The study employed three main research instruments: (1) instructional lesson plans, (2) writing tests, and (3) a perception questionnaire.

First, the instructional lesson plans consisted of two sets designed for explicit and implicit instruction. Both sets targeted the same syntactic structures, including sentence structure, verb

tense, word order, and clause construction. Each lesson was designed in alignment with the course objectives and implemented over eight weeks.

Second, the writing pretest and posttest were parallel tasks requiring students to produce a structured paragraph that elicited the target syntactic structures. The tests were administered under the same conditions, and grammatical accuracy was measured using the proportion of error-free clauses.

Third, the perception questionnaire was used to collect students' views on the instructional approach. The questionnaire consisted of Likert-scale items designed to measure perceived instructional effectiveness.

Data Collection Procedure

Data collection was conducted in four stages. First, all participants completed a writing pretest under standardized classroom conditions to establish baseline grammatical accuracy. Second, both groups received their respective instructional treatments over an eight-week period (approximately three hours per week). The instruction was delivered by the researcher to ensure consistency across groups, with the explicit instruction group receiving rule-based instruction with metalinguistic explanation, while the implicit instruction group engaged in meaning-focused communicative activities without explicit rule explanation. Third, at the end of the intervention, all participants completed a parallel writing posttest under the same conditions as the pretest. Finally, all participants completed a perception questionnaire to report their views on the instructional approach.

The writing pretest and posttest were designed as parallel tasks requiring students to produce a structured paragraph that elicited the target syntactic structures. Both tests were administered under the same conditions to ensure consistency. Students' grammatical accuracy was calculated as the proportion of error-free clauses in their written texts. Specifically, the total number of error-free clauses was divided by the total number of clauses and multiplied by 100 to obtain a percentage score for each student. Students' written texts were analyzed by identifying clauses and determining whether each clause was error-free. A clause was considered error-free if it contained no grammatical, lexical, or morphological errors. Two trained raters independently evaluated the scripts, and any discrepancies were resolved through discussion.

Instrument Validation and Reliability

The instruments were validated by 3 experts in English language teaching and applied linguistics using the Index of Item-Objective Congruence (IOC). For the writing tests, and inter-rater reliability was established using the intraclass correlation coefficient (ICC). For the perception questionnaire, internal consistency reliability was assessed using Cronbach's alpha.

Data Analysis

Data were analyzed to examine differences in grammatical accuracy between the explicit and implicit instruction groups, as well as improvements within each group. To compare posttest performance while controlling for initial differences, analysis of covariance (ANCOVA) was conducted using pretest scores as the covariate. To examine within-group improvement from pretest to posttest, paired-sample t-tests were employed. Effect sizes were calculated using Cohen's d to determine the magnitude of instructional impact. In addition, linear regression analysis was conducted to examine whether learners' perceived instructional effectiveness predicted gains in grammatical accuracy.

Results

1. Descriptive Statistics

Descriptive statistics were calculated to examine the overall performance of both instructional groups. Table 1 presents the means and standard deviations of pretest and posttest grammatical accuracy scores for the explicit and implicit instruction groups.

Table 1 Pretest and Posttest Grammatical Accuracy Scores of Students in Explicit and Implicit Instruction Groups

Group	Test	N	Mean (%)	SD
Explicit Instruction	Pretest	30	62.40	8.15
	Posttest	30	78.65	7.32
Implicit Instruction	Pretest	30	61.85	7.94
	Posttest	30	71.20	8.05

As shown in Table 1, both groups demonstrated comparable levels of grammatical accuracy at the pretest stage (Explicit: M = 62.40, SD = 8.15; Implicit: M = 61.85, SD = 7.94).

At posttest, both groups showed improvement, with the explicit instruction group achieving a higher mean score (M = 78.65, SD = 7.32) than the implicit instruction group (M = 71.20, SD = 8.05).

These results indicate overall gains in grammatical accuracy across both instructional conditions, with greater improvement observed in the explicit instruction group.

2. Within-Group Improvement (Paired-Samples t-test)

Paired-samples t-test were conducted to examine whether each instructional group demonstrated significant improvement from pretest to posttest.

Table 2 Within-Group Comparison of Pretest and Posttest Grammatical Accuracy Scores

Group	Pretest Mean (SD)	Posttest Mean (SD)	Mean Difference	t	df	p
Explicit Instruction	62.40 (8.15)	78.65 (7.32)	16.25	11.84	29	< .001
Implicit Instruction	61.85 (7.94)	71.20 (8.05)	9.35	7.26	29	< .001

The results indicated that both instructional groups demonstrated statistically significant improvement in grammatical accuracy from pretest to posttest (see Table 2). The explicit instruction group showed a larger gain (M = 62.40 to 78.65, $t(29) = 11.84$, $p < .001$) compared to the implicit instruction group (M = 61.85 to 71.20, $t(29) = 7.26$, $p < .001$).

These findings suggest that while both instructional approaches were effective, the explicit instruction group demonstrated greater improvement.

3. Between-Group Differences (ANCOVA)

To examine differences between the instructional groups while controlling for baseline differences, an analysis of covariance (ANCOVA) was conducted using posttest grammatical accuracy scores as the dependent variable and pretest scores as the covariate.

Table 3 Comparison of Posttest Grammatical Accuracy between Instructional Groups Controlling for Pretest Scores

Source	SS	df	MS	F	p	Partial η^2
Pretest (Covariate)	412.58	1	412.58	18.37	< .001	.244
Instructional Type	234.17	1	234.17	10.42	.002	.155
Error	1280.46	57	22.46			
Total	1927.21	59				

The ANCOVA results revealed a statistically significant effect of instructional type on posttest grammatical accuracy, $F(1, 57) = 10.42$, $p = .002$, partial $\eta^2 = .155$ (see Table 3).

After controlling for pretest performance, students receiving explicit syntax instruction achieved significantly higher posttest scores than those receiving implicit instruction.

4. Effect Size

Effect sizes were calculated using Cohen's *d* to determine the magnitude of instructional impact.

Table 4 Effect Sizes of Instructional Impact on Grammatical Accuracy

Comparison	Cohen's d	Magnitude
Explicit Group (Pre–Post)	1.45	Large
Implicit Group (Pre–Post)	0.95	Medium–Large
Between Groups (Posttest)	0.96	Large

As shown in Table 4, both instructional approaches produced substantial effects on grammatical accuracy. However, the explicit instruction group demonstrated a larger effect size than the implicit group, indicating a stronger improvement in grammatical accuracy.

5. Regression Analysis (H2)

To examine whether learners' perceptions predicted grammatical accuracy gains, a linear regression analysis was conducted.

Table 5 Prediction of Grammatical Accuracy Gains Based on Perceived Instructional Effectiveness

Predictor	B	SE B	β	t	p
Perceived Instructional Effectiveness	0.84	0.24	.41	3.52	.001

$R = .41$;

$R^2 = .17$

Adjusted $R^2 = .15$

$F(1, 58) = 12.39$, $p = .001$

To examine whether learners' perceptions predicted grammatical accuracy gains, a linear regression analysis was conducted. The results indicated that perceived instructional effectiveness

significantly predicted gain scores, β = .41, t = 3.52, p = .001, explaining 17% of the variance in grammatical accuracy gains (R^2 = .17; see Table 5).

Discussion

1. Explicit Instruction and Skill Acquisition

In relation to the first research objective, which aimed to examine the effects of explicit and implicit instruction on grammatical accuracy, the results indicated that both instructional approaches led to significant improvement in grammatical accuracy; however, the explicit instruction group demonstrated significantly greater gains than the implicit group. This finding can be explained by Skill Acquisition Theory (DeKeyser, 2007), which suggests that explicit knowledge can facilitate the development of accurate language production through structured practice. In addition, Schmidt's (2001) Noticing Hypothesis supports the idea that explicit instruction enhances learners' awareness of linguistic forms, leading to improved grammatical accuracy.

In the present study, the explicit group received direct rule explanations followed by guided practice and controlled exercises. Such sequencing may have facilitated the proceduralization of grammatical knowledge, enabling learners to apply syntactic rules more consistently in written production. The large effect size observed in the explicit group further suggests that rule-based instruction can produce substantial short-term improvements in accuracy-oriented tasks.

Because grammatical accuracy in this study was measured through the percentage of error-free clauses, explicit instruction may have provided learners with the metalinguistic awareness necessary to monitor their output during writing. This monitoring process may have contributed to the stronger posttest performance observed in the explicit instruction group.

2. Perception, Attention, and Engagement

Building on these findings, the regression analysis indicated that learners' perceived instructional effectiveness significantly predicted grammatical accuracy gains. This finding suggests that instructional outcomes are influenced not only by cognitive processes but also by learners' evaluative and motivational responses. This result may be interpreted in light of the Noticing Hypothesis (Schmidt, 2001), as learners who perceive instruction as clear and effective are more likely to allocate attention to linguistic forms. Moreover, positive learner perceptions may

enhance engagement and cognitive involvement, which are essential for successful language acquisition.

From the perspective of Schmidt's (2001) Noticing Hypothesis, learners who perceived the instruction as effective may have allocated greater attentional resources to target grammatical forms during learning activities. Increased noticing of linguistic features can facilitate the conversion of input into intake, thereby enhancing learning outcomes.

In addition, motivational frameworks (Dörnyei, 2019) suggest that positive perceptions of instructional clarity and usefulness may strengthen learner engagement and effort investment. When learners perceive instructional activities as meaningful and beneficial, they may be more likely to monitor their writing, apply corrective feedback, and actively regulate their learning process.

Although perception significantly predicted grammatical accuracy gains, the proportion of explained variance ($R^2 \approx .17$) indicates that perception represents only one contributing factor. Other variables, including cognitive aptitude, prior knowledge, and instructional design, may also influence learning outcomes.

3. Comparison with Previous Studies

In comparison with previous research, the findings are consistent with major meta-analytic studies reporting stronger accuracy gains under explicit grammar instruction (Norris & Ortega, 2000; Spada & Tomita, 2010). The significant ANCOVA results and larger effect size observed in the explicit group align with these earlier findings, which emphasize the effectiveness of explicit instruction for developing grammatical accuracy.

At the same time, the significant improvement observed in the implicit instruction group suggests that meaning-focused communicative instruction can also contribute to grammatical development. This finding supports previous research indicating that exposure to meaningful input and communicative interaction can facilitate gradual syntactic acquisition (Ellis, 2009; Shintani, 2015).

Taken together, the results do not imply a strict dichotomy between the two instructional approaches. Rather, both approaches appear beneficial, although explicit instruction produced stronger short-term gains in grammatical accuracy within the present tertiary EFL context.

4. Contextual Factors Explaining the Stronger Impact of Explicit Instruction

To further explain these results, several contextual factors may explain why explicit instruction produced stronger short-term gains in the present study.

First, university-level learners typically possess developed analytical abilities and may respond positively to metalinguistic explanations. Explicit rule presentation therefore aligns well with the cognitive learning orientation of adult learners.

Second, the outcome measure used in this study, the percentage of error-free clauses—emphasizes accuracy and controlled language production. Such measures are particularly sensitive to improvements resulting from explicit rule awareness and structured practice.

Third, the relatively short duration of the intervention (eight weeks) may have favored explicit instruction, which is often associated with immediate and measurable improvements. In contrast, implicit learning processes may require longer exposure and repeated communicative experience before producing comparable gains in accuracy measures.

These factors suggest that explicit instruction may be particularly effective for promoting short-term improvement in grammatical accuracy in adult EFL writing contexts.

5. Implications for the Interface Debate

From a theoretical perspective, the findings also relate to the long-standing Interface Debate in SLA theory. The improvement observed in the explicit instruction group during a productive writing task suggests that knowledge gained through explicit instruction can be applied in meaningful language use.

This pattern is consistent with the Weak Interface Hypothesis, which proposes that explicit knowledge may gradually contribute to implicit competence through repeated practice and use. The instructional design used in this study combining rule explanation with structured and communicative practice—may have facilitated this transformation.

At the same time, the results challenge strict interpretations of the No-Interface Position, which argues that consciously learned knowledge cannot convert into acquired competence. Although the study did not directly measure implicit competence, the improvement in error-free clauses within authentic writing tasks suggests that explicit knowledge may play a functional role in language performance.

The findings of this study provide several practical implications for language instructors. First, explicit instruction can be effectively used to enhance learners' grammatical accuracy, particularly through structured explanation and guided practice. Second, implicit instruction may be incorporated through meaning-focused communicative activities to promote natural language use. Therefore, a balanced instructional approach that integrates both explicit and implicit techniques may be beneficial in EFL classrooms. In addition, teachers may consider learners' perceptions of instructional effectiveness, as positive perceptions appear to support greater gains in grammatical accuracy.

Furthermore, the predictive role of perceived instructional effectiveness highlights the importance of attentional engagement. In line with Schmidt's (2001) Noticing Hypothesis, learners who perceive instruction as clear and meaningful may allocate greater cognitive attention to linguistic forms, thereby strengthening the interaction between explicit awareness and performance outcomes. However, it should be noted that grammatical accuracy in this study was measured using error-free clauses, which encompass grammatical, lexical, and morphological aspects; future research may benefit from analyzing these components separately to provide a more fine-grained understanding of learners' language development.

Conclusion

Overall, this study investigated the comparative effects of explicit and implicit syntax instruction on the grammatical accuracy of second-year English major students in a Thai tertiary EFL context. Using a quasi-experimental pretest–posttest design, the results indicated that both instructional approaches led to significant improvements in grammatical accuracy. However, students receiving explicit instruction achieved significantly greater gains and demonstrated a larger effect size compared to those receiving implicit instruction.

These findings suggest that structured rule explanation combined with guided practice can effectively enhance short-term grammatical accuracy in adult EFL learners. At the same time, the improvement observed in the implicit instruction group indicates that meaning-focused communicative activities also contribute to grammatical development, although their impact may be comparatively smaller within limited instructional time.

The regression analysis further revealed that learners' perceptions of instructional effectiveness significantly predicted grammatical accuracy gains. This result highlights the importance of attentional engagement and motivational factors in instructed second language acquisition, suggesting that learning outcomes are shaped not only by instructional methods but also by learners' evaluative responses to classroom experiences.

Overall, the study contributes empirical evidence to the ongoing debate regarding the roles of explicit and implicit instruction in SLA. The findings suggest that explicit instruction can play a meaningful role in improving grammatical accuracy in tertiary EFL writing contexts, particularly when combined with structured practice and meaningful language use.

Future research should examine longer instructional interventions, include delayed posttests, and investigate additional dimensions of writing development in order to better understand the long-term interaction between explicit and implicit learning processes.

Recommendations for Future Research

Future research should consider employing randomized experimental designs with larger and more diverse participant groups to enhance the generalizability of findings. Longer instructional interventions and delayed posttests may also provide deeper insight into the long-term effects of explicit and implicit instruction.

In addition, future studies could examine multiple dimensions of language performance, including syntactic complexity, fluency, and communicative effectiveness, in order to obtain a more comprehensive understanding of instructional impact. Investigating the role of individual learner differences, such as motivation, aptitude, and learning strategies, may further clarify how cognitive and affective factors interact with instructional approaches in second language development.

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