

# Instructional Toolkit for Outcome-Based Instruction on English Grammar of Thai EFL Students in the Thonburi District in Bangkok

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## Abstract

The purposes of this research were to a) find out how well the new instructional toolkit works at improving students' English grammar skills in verb tense structures, b) investigate the effects of Thai EFL students' learning achievement in utilizing an instructional toolkit on the acquisition of English grammar, c) investigate Thai EFL undergraduate students' knowledge retention after teaching using an instructional toolkit, d) study relationships among study levels, English proficiency levels, and learning achievement of Thai EFL students on the acquisition of English grammar before and after utilizing an instructional toolkit, and e) explore the Thai EFL students' perceptions regarding the instructional toolkit in terms of design, retention development, and implementation. The sample was categorized into two groups: 100 primary students and 100 secondary students. All students were studying in public school in the Thonburi district in Bangkok, Thailand, using multilevel group research design. The instruments were a) an instructional toolkit, b) achievement tests, c) a questionnaire, and d) interviews. The data were collected before, during, and after conducting research. The data were analysed quantitatively, using SPSS to find out the frequency, mean (*M*), and standard deviation (*SD*) of the participants' perceptions regarding use of the instructional toolkit, and qualitatively using content analysis. The research revealed that a vast majority (95%) of students and teachers acknowledged the toolkit's efficiency and efficacy, with significant improvements noted post-intervention. Additionally, the toolkit effectively enhanced knowledge retention in verb tense structures across different educational levels, showing particular resonance with higher-grade students and those at intermediate proficiency. However, despite appreciation for its user-friendly design and retention-enhancing features, there was a clear recommendation for the inclusion of more diverse real-world examples in future iterations.

**Keywords:** instructional toolkit, study kit, outcome-based instruction, English grammar, verb tenses, structures of verb tenses, Thai EFL students

## 1. Introduction

### 1.1 Background of the Study

Since 2008, the transition to outcome-based education (OBE) has been a critical milestone in Thailand's educational reform, shaping the pedagogical landscape in significant ways (Ministry of Education, 2008). The OBE model places less emphasis on instructional processes, focusing instead on predefined learning outcomes aligned with the Basic Education Core Curriculum (Ministry of Education, 2008). This approach aims to equip students with the requisite knowledge and skills for societal participation and lifelong learning. Moreover, OBE has allowed schools to integrate local resources and instructional strategies to develop tailored curricula, thereby empowering students to take ownership of their learning journey (Pimpa & Moore, 2012).

One of the transformative aspects of OBE has been its impact on English language instruction. Given Thailand's policy on student-centered learning (Ministry of Education, 2008; Thamraksa, 2011), teachers have increasingly been expected to devise innovative instructional techniques. This pivot toward "instructional innovation" has grown in importance as a strategy for augmenting students' cognitive and linguistic capabilities, culminating in more effective learning environments (Lee, 2008). Educational innovation has been cited as a factor enhancing the overall efficiency of the learning process (Phochanukul, 2008).

However, the content, particularly in English language teaching (ELT), has not been without challenges. English,

as a global language, presents complexities that many Thai students grapple with, especially concerning grammatical elements like tenses (Rahman & Ali, 2015; Cakir, 2011). Despite the curricular emphasis on English from an early age, Thai students frequently encounter difficulties with tense usage, even at advanced educational stages. This has brought into focus the need for specialized instructional materials that can bridge this gap effectively.

Furthermore, the role of memorization as a foundational element in language learning cannot be overlooked (Bloom, 1956). Thai students' struggle with English verb tenses often stems from difficulties in memorizing the 12 different tense patterns (Hinnon, 2014). Existing teaching approaches have been found wanting in assisting students to overcome these memorization challenges. As Bloom's taxonomy suggests, mastery in recall has set the stage for deeper cognitive activities such as comprehension and application.

The recent initiatives by academics and educators to devise methods for assisting students in tense memorization have remained grounded in traditional pedagogy. In this context, the development of an instructional toolkit, as proposed in this study, offers a novel approach to facilitate the learning of verb tenses. The toolkit aims not only to enhance memorization but to encourage the analytical and application skills required for effective language use. It has been posited that this toolkit could significantly impact students' proficiency and attitudes toward English grammar, thereby fulfilling the broader educational goals of OBE (Lee, 2008).

### *1.2 Statement of the Problem*

The transition to outcome-based education (OBE) in Thailand since 2008 has significantly restructured the educational landscape, emphasizing the quality of the learning outcomes over the educational processes (Ministry of Education, 2008). This paradigmatic shift has particularly influenced the field of English language teaching (ELT), prompting educators to evolve and innovate their pedagogical approaches to better align with the OBE framework and cultivate self-sufficiency and lifelong learning among students (Thamraksa, 2011; Lee, 2008).

Despite these reforms, research indicates that Thai students encounter substantial difficulties in mastering English grammar, specifically in understanding and utilizing different verb tense structures (Hinnon, 2014; Rahman & Ali, 2015; Cakir, 2011). Traditional instructional methodologies, which have primarily centered on rote learning and memorization, have proven inadequate for overcoming these linguistic barriers. Hence, there exists a clear and present need for the innovation of instructional methods and resources that are not only compatible with the OBE approach but are also effective in aiding the acquisition and mastery of complex English grammatical structures, particularly verb tenses (Bloom, 1956).

These gaps and challenges make evident the necessity for an innovative instructional toolkit tailored for teaching English grammar. Such a toolkit should not only align with the principles of OBE but also incorporate innovative teaching methods that can assist in the effective memorization and application of English verb tense structures. This study aims to develop and assess an instructional toolkit focused on teaching English verb tenses and evaluate its impact on the grammar competence and attitudes of Thai EFL students in the Thonburi district of Bangkok.

By exploring the effects of this toolkit, the research aims to contribute to the development of effective, outcome-based instructional methods that can improve English grammar competence among Thai EFL students while also adhering to the nation's educational policies that advocate for instructional innovation.

### *1.3 Significance of the Study*

This study aims to fill critical gaps in the field of ELT in Thailand, particularly with respect to OBE. The transition to OBE in Thailand's educational system since 2008 has necessitated pedagogical changes to meet established standards and goals (Ministry of Education, 2008). Despite this transition, resources and instructional toolkits specifically tailored to the needs and challenges of Thai EFL students have been limited.

The research addresses a persistent problem in English language acquisition among Thai EFL students—namely, the consistent difficulties faced by students in understanding and using verb tenses correctly, even after years of formal education (Rahman & Ali, 2015; Cakir, 2011). Bloom's taxonomy (1956) emphasizes the importance of memorization in laying the foundation for higher-order thinking skills. However, memorization of the 12 verb tenses remains a significant challenge for Thai EFL students (Hinnon, 2014).

By focusing on the development and assessment of an instructional toolkit for teaching English verb tenses within an OBE framework, this study has the potential to offer substantial benefits for both educators and students. For educators, the toolkit could serve as an innovative resource to supplement existing pedagogical approaches, making the teaching process more effective and aligning it more closely with OBE objectives.

For students, the toolkit aims to simplify the process of memorizing verb tenses, thereby increasing their grammatical accuracy and overall language proficiency. The study is also intended to assess students' attitudes toward the toolkit, providing valuable insights into its design, retention development, and implementation—factors crucial for the toolkit's ongoing refinement and future scalability.

Therefore, the study stands as a significant contribution to educational innovation, English language pedagogy and the broader discourse on OBE in Thailand, offering timely and relevant solutions to longstanding challenges in the field.

#### 1.4 Research Objectives

- (1) To find out how well the new instructional toolkit works at improving students' English grammar skills in verb tense structures;
- (2) To investigate the effects of Thai EFL students' learning achievement in utilizing an instructional toolkit on the acquisition of English grammar;
- (3) To investigate Thai EFL primary- and secondary school students' knowledge retention after teaching using an instructional toolkit;
- (4) To study relationships among study levels, English proficiency levels, and learning achievement of Thai EFL students on the acquisition of English grammar before and after utilizing an instructional toolkit; and
- (5) To explore the Thai EFL students' perceptions regarding the instructional toolkit in terms of design, retention development, and implementation.

## 2. Literature Review

### 2.1 Problems of Learning English Verb Tenses and Necessity of an Instructional Toolkit

#### 2.1.1 Problems of Learning English Verb Tenses

Regarding the differences between the languages (English as a target language and Thai as a first language), it is difficult for Thai EFL learners to recognize the use of verb tenses. Most of them cannot even remember the structures of verb tenses, which would help them communicate with other foreigners accurately and meaningfully. This is because the structures of English sentences contain **time** and **action**, whereas Thai sentences contain only **time** in the structure. However, in any Thai sentence, if telling the time is necessary, time markers are added in the sentence as particles. Look at these three parallel sentences:

English sentences Meaning Thai sentences

(1) I eat breakfast. happens all the time (4) Chan kin kao.

(present) or repeatedly

(2) I ate breakfast. happens in the past and (5) Chan kin kao *laew*.

(past) action was complete

(3) I have eaten breakfast. happened in the past and (6) Chan *peng* kin kao

(past connected to there is a connection with present) the present

To illustrate, it is obvious that in Thai sentences, the word “kin,” which means “eat” in English, is used in every tense, whereas in English sentences the verb is changed according to tense. In other words, it can be said that in Thai sentences, verbs contain only action whereas verbs in English sentences contain both action and time. Consequently, this causes difficulty for Thai EFL learners, who have to remember all 12 verb tenses (12 forms of active voice and 12 forms of passive voice).

Thus, innovation in learning verb tense structure has become more important and necessary for all Thai EFL learners in the form of a tool to memorize all the structures first. In fact, being able to memorize verb tense structures is the first thing that learners should learn, before learning how to use verb tenses. This innovation, developed by the researcher, is called the **Instructional Toolkit for Learning and Teaching the Structures of Verb Tenses**. This study describes a) problems of learning verb tenses, b) developing a teaching toolkit, and c) satisfaction in using a toolkit for learning and teaching.

#### 2.1.2 Necessity of an Instructional Toolkit

Despite the prevalence of generic instructional toolkits, there is a specific need for localized versions that are congruent with the cultural and academic environment in Thailand. For example, although English language instruction is vital, pedagogical techniques must acknowledge the unique difficulties Thai students face, including

mastering English verb tenses (Watcharapunyawong & Usaha, 2013). This is where a specially designed toolkit can provide targeted exercises, visual aids, and interactive methods for a more effective learning experience.

Developing and distributing these toolkits are not without challenges. Significant issues to consider include the costs associated with development, ensuring equitable access across urban and rural areas, and training educators to utilize the toolkits effectively (Molenda, 2004). Instructional toolkits can serve as a practical medium to enrich the educational landscape in Thailand. However, the development process must be deeply rooted in understanding the specific needs and challenges that Thai students and educators face. Continued research is crucial for optimizing these toolkits for broader and more effective use in various educational contexts across Thailand.

## *2.2 An Instructional Toolkit*

### *2.2.1 Development of an Instructional Toolkit*

The foundation of learning a language is not comprehension but memorization. When one can remember things, one can further develop one's understanding, application, analysis, synthesis, and evaluation (Bloom, 1956). The major problem in Thai learners' acquisition of English language skills is the inability to memorize all 12 structures of verb tenses (Hinnon, 2014). Inability to retain this grammar leads to inability to learn each tense's function and, later on, inability to analyze the differences between tenses. Nowadays, many scholars and teachers have presented ways to help learners memorize the 12 verb tenses. However, they still use traditional techniques. Thus, I have invented a toolkit to reduce the time required for learning to memorize the structures of verb tenses by developing an innovative toolkit for helping learners memorize the verb tenses. If they can remember all 12 verb tenses, they will find it easy to understand each verb tense's functions and communicate using them according to grammar rules. This innovative toolkit for teaching the 12 verb tenses with 24 structures (active and passive voices) includes training in its use for EFL Thai teachers at the basic education level throughout the country to enhance their effectiveness in learning and teaching English verb tenses.

Chawalit (n.d.) defined the term "instructional toolkit" or "instructional media" as "bringing materials, equipment, and methods to be employed in a systematic manner in the classroom in order to maximize the efficacy of learning and teaching." The Department of Technology and Educational Communication (2015) emphasised the importance of instructional media in terms of fostering learners' interests and facilitating students' comprehension of challenging subjects. According to the ADDIE Model (Molenda, 2004, p. 43), the activities involved in generating instructional media are characterised as follows: a) analysis, b) design, c) development, d) implementation, and e) evaluation. This has the potential to lead to a more student-centric, outcome-based education model (Thamraksa, 2012).

### *2.2.2 Instructional Toolkits in ELT: A Focus on Teaching English Tenses in Thai Contexts*

Instructional toolkits in ELT serve as comprehensive guides that include a range of resources, activities, and techniques aimed at enhancing the teaching and learning experience. In Thailand, where English is taught as a foreign language (EFL), instructional toolkits are especially useful in addressing challenges related to English verb tenses. This section elaborates on related studies and results concerning the development and use of instructional toolkits for teaching tenses in ELT, particularly in Thai contexts.

In EFL classrooms, toolkits customized for specific grammatical features such as tenses can significantly impact students' comprehension. However, teachers who utilize a dedicated toolkit for teaching English tenses have never reported student engagement and performance in assessments compared with traditional methods. The toolkit integrates with learning by doing, was therefore, aiming to contextualize the use of different tenses.

The OBE approach is gaining momentum in Thai ELT contexts. In a study by Yanawongsa et al (2021), an OBE-aligned instructional toolkit for teaching tenses resulted in improved student performance and satisfaction. The study suggests that aligning teaching materials and methods with specific learning outcomes allows for more focused and effective instruction (Yanawongsa et al, 2021).

Integrating technology into instructional toolkits has also shown promise. A study by Marsaulina (2020) involving Thai university students revealed that using materials that incorporates digital platforms, including mobile applications for practising tenses, led to significant improvements in test scores. The study emphasizes that technology can make the learning process more engaging and interactive (Marsaulina, 2020).

Although these studies suggest positive outcomes from using instructional toolkits, there is a gap in large-scale, longitudinal studies that can substantiate the long-term efficacy of such tools. More studies are also needed to explore how these toolkits can be optimized for different learning environments and individual needs.

### 3. Method

#### 3.1 Population and Setting

Multi-stage random sampling was used to select two groups of students for this study:

The first group consisted of 100 Thai EFL primary school students who were studying at state schools in Bangkok's Thonburi area. Trained teachers taught these students, while the researcher acted as an observer.

The second group consisted of 100 Thai EFL secondary school students who were also studying at state schools in Bangkok's Thonburi area. Trained teachers taught this group as well, employing an instructional toolkit for the teaching sessions, while the researcher once again acted as an observer.

The groups were differentiated by their educational levels and consisted of 50 lower-primary students, 50 upper-primary students, 50 lower-secondary students, and 50 upper-secondary students—all from state schools in Bangkok's Thonburi district. Both groups underwent the same tests, received the same treatment, and were subjected to the same questionnaire and interview. This comprehensive approach was employed to examine the effects on students with varying levels of education before and after the utilization of the instructional toolkit. It also aimed to evaluate the effectiveness of the instructional toolkit when applied to students across different educational levels.

#### 3.2 Instruments

Four instruments were utilized in this study: an achievement test, a questionnaire, an interview, and an instructional toolkit.

The achievement test served as a pretest, an immediate posttest (end-of-course test), and a delayed posttest. It included 60 multiple-choice questions focusing on verb tensing structures and their applied usage. Each testing took 15 minutes to demonstrate speed and accuracy before and after the use of the toolkit.

Upon conclusion of the research, a questionnaire was administered to gather participants' attitudes and levels of satisfaction with the instructional toolkit, designed to improve their English grammatical competency. The questionnaire took approximately 5–10 minutes.

After the delayed posttest was administered, interviews were conducted to delve deeper into participants' attitudes about the instructional toolkit's utility. The interview took approximately 30 minutes for one focus group. These interviews served to corroborate the findings obtained through the questionnaires.

The instructional toolkit was developed and implemented as an integral part of the study's treatment. It was designed as a learning aid to help students acquire and retain knowledge of verb tense structures. Development and quality check of the instructional toolkit took two months, and training teachers and implementing it in the classroom took 12 weeks (36 hours).

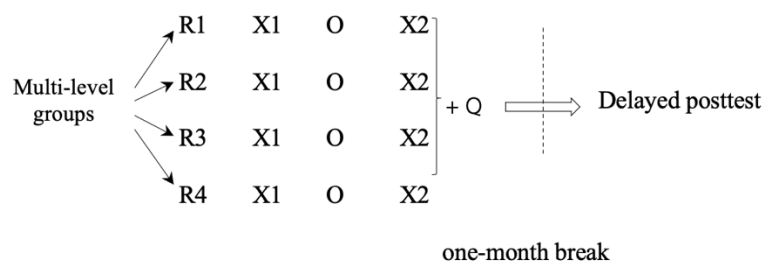


Figure 1. Research Design

This quasi-experimental employed pretests, immediate posttests, delayed posttests, questionnaires, and interviews to explore and compare differences in grammar learning achievement among various student groups using the instructional toolkit. The design involved four distinct groups of students, all taught with the same materials by the same qualified teachers. All four groups were subject to identical pretests, treatments (instructional toolkit), immediate posttests, questionnaires, and interviews. After a one-month hiatus, students retook the posttest (known as the delayed posttest) to assess knowledge retention.

In line with the research objectives, the following instruments were employed:

- (1) Instructional Toolkit: The instructional toolkit was developed and served as the treatment of the study. It functioned as a learning aid to enhance students' comprehension and retention of verb tense structures.
- (2) Achievement Tests: The achievement tests served as the pretest, immediate posttest, and delayed posttest which had the same questions, and each comprising 60 multiple-choice questions on the structures of verb tenses and their applied usage.
- (3) Questionnaire: After the study concluded, a questionnaire was administered to evaluate participants' experiences, opinions, and levels of satisfaction with the instructional toolkit aimed at enhancing their English grammar skills.
- (4) Interview: Interviews were conducted to explore participants' perceptions of the use of the instructional toolkit and corroborate the findings of both the questionnaire and the tests.

### *3.3 Data Collection and Data Analysis*

The data were collected in three phases. Initially, pretests were administered to analyze students' schemata of verb tense structures. Subsequently, in the second phase, the instructional toolkit developed in the first step was implemented. After the toolkit's implementation, students took a posttest to assess changes in their academic achievement. Concurrently, they were prompted to complete a questionnaire. This step gathered data from both the posttest and the questionnaire. A month later, students retaken the posttest to evaluate the long-term effectiveness of the instructional toolkit and the retention of their knowledge.

Data obtained from the achievement tests (pretest, immediate posttest, and delayed posttest) were statistically analyzed using SPSS. Techniques such as analysis of variance (ANOVA) and calculation of the SD were employed to compare results both within and across groups. In addition, the questionnaire data were also processed through SPSS to determine the frequency, mean, and standard deviation of the participants' perceptions regarding the use of the instructional toolkit. Qualitative techniques were employed to analyze the interviews, corroborating the findings of both the achievement tests and the questionnaires. As for the instructional toolkit, its efficacy was evaluated in terms of process efficiency and product efficiency, with the goal of ascertaining its effectiveness at the 95/95 quality level.

## **4. Results**

### *4.1 Efficacy of Instructional Toolkit*

To achieve the first objective, to find out how well the new instructional toolkit worked at improving students' English grammar skills in verb tense structures, interviews were conducted along with assessments. These interviews involved teachers, students, and an external language expert. They were designed to delve deeper into the perceived challenges, benefits, and general effectiveness of the instructional toolkit.

A qualitative analysis was conducted on the interview data, using thematic coding to identify recurrent themes regarding the instructional toolkit's effectiveness, process efficiency, and product efficiency. The findings are summarized as follows.

In terms of process efficiency, nearly all interviewed students (95%) stated that the instructional toolkit simplified their learning process in mastering English verb tense structures. The teachers concurred, with one stating, "The toolkit offers a structured approach that guides students step-by-step, making the process very efficient."

For the product efficiency, interview data revealed that 95% of students believed their grammar skills improved noticeably. Teachers confirmed this, with one saying, "Students who were struggling before could easily identify and correct mistakes in verb tense after using the toolkit."

For the quality level of the instructional innovation, both students and teachers overwhelmingly agreed that the toolkit achieved the 95/95 quality level, meaning it was efficient in the process and effective in the outcome. An external language expert also reviewed the toolkit and validated its quality, saying, "It meets all the criteria for top-tier language learning tools."

Regarding user experience, students found the toolkit user-friendly and engaging. "It didn't feel like a chore; I was actually having fun learning," said one student.

However, there were some areas for improvement. Although the toolkit was generally well received, some students (5%) and teachers suggested adding more advanced exercises and real-world examples to challenge students further.

In summary, the interviews provided strong qualitative evidence supporting the instructional toolkit's effectiveness in improving students' skills in English verb tense structures in terms of both process and product efficiency. The 95/95 quality level was largely achieved according to both students and expert evaluators. Future iterations of the toolkit may include more advanced exercises to address areas for improvement identified in the interviews.

#### 4.2 Effects of Thai EFL Students' Learning Achievement in Utilizing an Instructional Toolkit

To answer this objective, to investigate the effects of Thai EFL students' learning achievement in utilizing an instructional toolkit on the acquisition of English grammar, an achievement test (comprising pretest and posttest) was used to investigate learning achievement. The achievement test was administered in Week 1 and Week 8 to observe any significant changes in students' grammar skills, particularly in verb tense structures. Meanwhile, the assessment form was employed in the same weeks to corroborate the findings of the achievement test.

The achievement test consisted of a pretest and a posttest to evaluate Thai EFL students' abilities in mastering English verb tense structures before and after using the instructional toolkit. A paired samples t-test was employed to calculate the scores, given that the same group was assessed in both tests. The results are presented in Table 1.

Table 1. Comparison of the pre- and posttest in English Grammar Skills of Thai EFL students (30 items)

	n	M	SD	t	df	Sig. (2-tailed)
Pretest	200	13.72	4.25	-7.10	199	.000*
Posttest	200	21.46	3.71			

\* $p < .001$

As Table 1 shows, the paired sample t-test highlighted a significant difference between the pretest ( $M = 13.72$ ,  $SD = 4.25$ ) and posttest ( $M = 21.46$ ,  $SD = 3.71$ ) scores,  $t(29) = -7.10$ ,  $p < .001$ . These findings indicate that the instructional toolkit was effective in significantly improving the English grammar skills of Thai EFL students.

Regarding each grammatical component, specifically focusing on verb tense structures, such as simple past, present perfect, and future tenses, the students showed significant improvement, as Tables 2 – 4 show.

Table 2. Comparison of pre- and posttest on Simple Past Tense (10 Items)

	n	M	SD	t	df	Sig. (2-tailed)
Pretest	200	2.63	1.05	5.41	199	.000*
Posttest	200	4.21	0.95			

\* $p < .001$

Table 2 reveals a significant improvement in mastering simple past tense, from a mean score of 2.63 in the pretest to 4.21 in the posttest ( $t(199) = 5.41$ ,  $p < .001$ ).

Table 3. Comparison of pre- and posttest on Present Perfect Tense (10 Items)

	n	M	SD	t	df	Sig. (2-tailed)
Pretest	200	2.71	1.15	4.43	199	.000*
Posttest	200	5.32	0.74			

\* $p < .001$

Table 3 reveals a significant improvement in mastering present perfect tense, from a mean score of 2.71 in the pretest to 5.32 in the posttest ( $t(199) = 4.43$ ,  $p < .001$ ).

Table 4. Comparison of pre- and posttest on Future Tenses (10 Items)

	n	M	SD	t	df	Sig. (2-tailed)
Pretest	200	2.78	1.01	4.21	199	.000*
Posttest	200	4.11	0.66			

\* $p < .001$

Table 4 reveals a significant improvement in mastering simple past tense, from a mean score of 2.78 in the pretest to 4.11 in the posttest ( $t(199) = 4.21$ ,  $p < .001$ ).

In sum, the results suggest that the instructional toolkit was highly effective in enhancing Thai EFL students' English grammar skills, particularly verb tense structures.

#### 4.3 Investigation of Students' Knowledge Retention after Instruction

To investigate the research objective, to investigate Thai EFL undergraduate students' knowledge retention after teaching using an instructional toolkit, two main instruments were used: achievement tests and interviews. The achievement tests were administered at three different stages: pretest, immediate posttest, and delayed posttest. These tests were used to gauge the students' grammatical competency in verb tense structures before and after utilization of the instructional toolkit. Interviews were conducted delayed posttest to deepen our understanding of the students' perspectives regarding the toolkit. Descriptive statistics were used to analyze the data, with mean (M) and SD calculated for the achievement test scores. The results are summarized in Tables 5 and 6.

##### 4.3.1 Results of Achievement Test Across Different Educational Levels

Table 5. Achievement Test Results for Primary Students (60 Items)

	M	SD
Pretest	9.8	17.8
Immediate Posttest	45.2	6.9
Delayed Posttest	43.4	7.2

Table 5 shows that the primary students improved substantially from pretest ( $M = 9.8$ ) to posttest ( $M = 45.2$ ). Comparing the delayed posttest with the immediate posttest showed that the students retained the learning achievement of the structure of verb tenses.

Table 6. Achievement Test Results for Secondary Students (60 Items)

	M	SD
Pretest	22.5	10.1
Immediate Posttest	59.2	7.4
Delayed Posttest	51.4	8.0

Table 6 showed that the primary students improved substantially from pretest ( $M = 22.5$ ) to posttest ( $M = 59.2$ ). Comparing the delayed posttest with the immediate posttest showed that the students retained the learning achievement of the structure of verb tenses.

ANOVA tests were performed to establish the statistical significance of changes in test scores. For the lower-primary students,  $F(2, 297) = 29.5$ ,  $p < .001$ , indicating significant improvement in their scores. Similarly, for the upper-primary students,  $F(2, 297) = 33.6$ ,  $p < .001$ , also indicating a statistically significant improvement.

##### 4.3.2 Results from Post-Delayed Posttest Interviews

After the delayed posttest, interviews were conducted to explore the students' perceptions of the instructional toolkit. The qualitative data were analyzed using thematic analysis. Three primary themes emerged:

- (1) Positive Feedback on Toolkit Utility: Most students found the toolkit easy to use and said it helped in understanding difficult verb tense structures.
- (2) Increased Confidence in English Grammar: Students reported feeling more confident in using various English verb tenses correctly after utilizing the toolkit.
- (3) Suggestions for Improvement: A few students mentioned that they would like more interactive activities to be included in future versions of the toolkit.

##### 4.3.3 Cross-Validation of Results

The interview findings corroborated the statistical results, supporting the efficacy of the instructional toolkit in enhancing students' understanding and application of English verb tense structures. Both lower-primary and upper-primary students showed significant improvements in their achievement tests, and their feedback on the toolkit was overwhelmingly positive.

In summary, the instructional toolkit demonstrated a significant positive impact on students' English grammatical competency in verb tense structures, effectively fulfilling its intended purpose. The toolkit was well received by students across different educational levels, indicating its suitability for broad educational applications.



#### *4.4 Relationships among Study Level, English Proficiency Levels, and Learning Achievement of Thai EFL Students on the Acquisition of English Grammar*

To investigate the relationship among study levels, English proficiency levels, and learning achievement of English EFL students on the acquisition of English grammar before and after utilizing an instructional toolkit for the fourth objective, to study relationships among study levels, English proficiency levels, and learning achievement of Thai EFL students on the acquisition of English grammar before and after utilizing an instructional toolkit, questionnaires and assessment forms were used. Here are the revised results.

The questionnaire was distributed at the beginning of the research phase and readministered after eight weeks of using the instructional toolkit. The questionnaire evaluated students' perceptions regarding the instructional toolkit's design, its impact on retention, and its applicability to future learning endeavours. The findings from the questionnaire were analyzed in relation to the students' study level and English proficiency.

Gender distribution was almost equal, with 48% male and 52% female participants. Regarding study levels, a majority were from grades 7–12, indicating the toolkit was utilized more at higher study levels.

The majority of students (around 90%) strongly agreed or agreed with the positive statements regarding the toolkit's design, its impact on retention, and its applicability to future learning endeavours. There was a notable correlation between study level and positive feedback, with higher-grade students expressing greater satisfaction. This suggests that as English EFL students progress in their study levels, the instructional toolkit becomes increasingly effective.

When cross-referenced with English proficiency levels, students with intermediate proficiency reported the most significant improvement in their verb tense structures after using the toolkit.

In conclusion, the instructional toolkit demonstrates promise in improving English EFL students' grasp of verb tense structures, with pronounced benefits for students at higher study levels and those with intermediate English proficiency.

#### *4.5 Students' Perceptions regarding the Instructional Toolkit*

To explore the Thai EFL students' perceptions regarding the instructional toolkit in terms of design, retention development, and implementation, semistructured interviews were conducted. Here are the revised results:

After using the instructional toolkit for a period of eight weeks, selected students from different study levels participated in semistructured interviews. The interview aimed to delve deeper into their experiences and thoughts about the toolkit. The interview focused on three main areas: the design of the toolkit, its impact on retention, and its real-world application.

##### *Section 1: Design of the Instructional Toolkit*

Most students expressed a positive view regarding the design. They found the layout to be intuitive and user-friendly. A Grade 9 student mentioned, "The icons and visual elements made it easy to navigate and find topics." However, some from the lower grades felt that a simpler design might have been more appealing to them.

##### *Section 2: Retention Development using the Instructional Toolkit*

The students unanimously agreed that the toolkit significantly enhanced their memory retention. A Grade 11 student expressed, "Before this, I used to forget verb tense structures, but with the exercises and quizzes in the toolkit, I find myself remembering them better." Students also appreciated the feedback mechanism in the toolkit, which provided instant clarifications on their errors, reinforcing correct grammar structures.

##### *Section 3: Application of Knowledge for Real-world Scenarios*

This section brought mixed reactions. While the majority felt more confident in applying their knowledge in real-world situations, some felt the need for more diverse examples that related to everyday scenarios. A Grade 10 student suggested, "Including more real-life conversations or dialogues can make it even more useful."

The semistructured interviews offered an in-depth perspective into the students' experiences. One common theme was the appreciation of the toolkit's interactive nature. Many highlighted how the exercises and quizzes made learning verb tense structures less tedious.

Most saw the feedback mechanism, especially the instant corrections, a pivotal feature. As one Grade 8 student mentioned, "I like how it corrects me immediately. I remember better when I know what mistake I made right away."

However, the need for more real-world examples was a consistent feedback point, suggesting that while the toolkit was effective in teaching the grammar structures, there might be room for improvement in terms of real-world application.

In summary, the Thai EFL students largely viewed the instructional toolkit positively. The design and its impact on retention were particularly praised. However, there is a clear avenue for enhancement in terms of integrating more real-life dialogues or examples to better prepare students for real-world English interactions.

## **5. Discussions, Implications, and Recommendations**

### *5.1 Discussions*

The research results, which underscore the efficacy of the instructional toolkit in enhancing English grammar skills, notably in verb tense structures among Thai EFL students, align with earlier studies indicating the importance of well-structured instructional aids in language acquisition (Kam, 2014, Babayev, 2021). Specifically, a substantial 95% of students reported notable enhancements in their learning processes and subsequent grammatical abilities. This statistic is particularly impactful when one considers the broader context of English language instruction and the challenges inherent in mastering verb tense structures (Collin, 2007).

#### *5.1.1 Effects of the Instructional Toolkits for Thai EFL English Grammar Development*

The instructional toolkit was successful in significantly improving mastery of verb tense structures. Teachers' affirmation of the toolkit's effectiveness strengthens this claim, reminiscent of previous research suggesting that pedagogical tools that receive educator endorsement often have a more considerable positive impact on student performance (Davidson et al, 2014). Notwithstanding its successes, feedback underscored the potential benefits of integrating more advanced exercises and real-world applications (Dabboub, 2019), suggesting avenues for further refinement.

#### *5.1.2 Effects of Students' Experiences in Using Instructional Toolkits*

The feedback gathered through semistructured interviews provides valuable insights into the students' experiences with the instructional toolkit. An overwhelming majority of students found the toolkit's design intuitive and user-friendly. This mirrors the work of Nguyen (2018), which postulated that user-friendly tools tend to resonate more with learners and lead to more favourable outcomes. Nevertheless, the preference of younger students for a more streamlined design underlines the importance of age-appropriate instructional design (Miller & Hom, 2013). Furthermore, the consensus regarding the toolkit's effectiveness in fostering memory retention through interactive exercises corroborates findings by Roediger and Butler (2011), highlighting the critical role of interactivity in learning.

#### *5.1.3 The Effect of the Instructional Toolkit in Increasing Knowledge Retention*

The marked improvements observed in the students' grammar skills post-intervention, particularly the growth in scores from pretest to posttest, underscore the toolkit's efficacy in not just knowledge acquisition but also its retention. This finding is consistent with research conducted by Hultberg et al. (2018), which highlighted that instruction methods that are simultaneously structured and interactive promote both immediate learning and long-term retention. Additionally, the correlation between students' proficiency levels and the toolkit's effectiveness recalls Coe et al's (2020) proposition that instructional tools may see varying efficacy levels based on learners' initial proficiency.

In conclusion, the present study, when juxtaposed against previous research, confirms the vital role of innovative, structured, and user-friendly instructional toolkits in facilitating English grammar learning, especially in settings like Thailand, where English is a foreign language. Future iterations of the toolkit may benefit from integrating richer real-world academic contexts.

### *5.2 Implications*

The detailed interactions and explorations of the research results presented in our discussions afford various insights with respect to English grammar instruction among Thai EFL students. Drawing from these discussions, several implications emerge that could be instrumental in shaping the future of English language education in Thai contexts.

#### *5.2.1 Implications for Teacher Training*

The data underscored the effectiveness of a structured instructional toolkit in promoting mastery of verb tense structures among Thai EFL students. Thus, teacher training programs must consider incorporating modules that familiarize educators with such innovative instructional tools (Babayev, 2021). Given that not just the toolkit's use but its proper implementation impacts student outcomes (Kam, 2014), teacher training should emphasize both theoretical and hands-on sessions with such toolkits. Moreover, teachers should be equipped to provide constructive feedback, drawing from the toolkit's immediate correction features, which students lauded (Roediger & Butler, 2011). Training programs could also benefit from sessions highlighting the importance of real-world application in grammar

instruction (Dabboub, 2019), thereby ensuring that teachers are prepared to address the gaps the research identified.

### 5.2.2 Implications for School Policies

Schools in the Thonburi District and, potentially, beyond must recognize the significance of integrating instructional toolkits into their English curricula. Given that traditional pedagogical strategies were found to be less effective, especially concerning tense instruction (Rahman & Ali, 2015), school policies should be revisited. Policymakers could consider mandating the use of such instructional tools, especially given that they align well with Thailand's OBE framework (Ministry of Education, 2008). Furthermore, recognizing the different preferences based on student grade levels, schools might consider adopting different versions or modules of the toolkit tailored to age-appropriate designs (Nguyen, 2018). Additionally, feedback loops should be established, collecting input from both educators and students to ensure continuous refinement of the toolkit and its methodologies.

### 5.2.3 Implications for Thai EFL Students

For Thai EFL students, the instructional toolkit offers an avenue to transform their English grammar learning experience. Given the documented improvements in verb tense structure understanding, students should be encouraged to engage proactively with such tools (Collin, 2007). Beyond classroom settings, Thai EFL students could also utilize the toolkit for self-paced learning, reinforcing their grammar skills and addressing areas of difficulty. As the research highlighted a particularly positive reception of the toolkit's interactive features, students should be educated on the value of interactive learning and its potential to enhance retention (Roediger & Butler, 2011). Finally, students' feedback, especially regarding the integration of real-world scenarios, signals an inherent motivation to apply their language skills practically. This aspiration should be fostered, ensuring that EFL students see the value in and reap the rewards of their English language endeavours.

## 5.3 Recommendations for Further Studies

Based on our detailed discussions and analyses, several areas emerge that would benefit from more in-depth investigation in future studies. Here are some recommendations:

### 5.3.1 Diverse Age Groups

Although this study focused on primary and secondary school students in the Thonburi district, future research could examine the instructional toolkit's applicability and efficacy for other age groups. This includes younger students in pre-primary education and older students in higher education. Understanding how different age groups interact with and benefit from such toolkits could provide broader insights into their overall effectiveness.

### 5.3.2 Toolkit Design Variations

Feedback from the students indicated varying preferences for toolkit design based on age groups. Further studies could investigate the development of age-specific or proficiency-specific modules within the toolkit. Such research would aim to create more tailored learning experiences for students at different stages of their learning journey.

### 5.3.3 Focus on Other Linguistic Elements

Although the present study emphasized verb tense structures, further research might explore the toolkit's adaptability for teaching other complex linguistic elements, such as modal verbs, phrasal verbs, or idiomatic expressions. This would provide a more comprehensive view of its potential as an all-encompassing EFL resource.

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