

ENHANCING ENGLISH CONDITIONAL SENTENCES AMONG EFL UNDERGRADUATES THROUGH SCAFFOLDING TECHNIQUES

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ABSTRACT

Students have the potential to progress to a higher level in their language learning and development. To test this hypothesis, this research aims to 1) examine how scaffolding techniques improve English as a Foreign Language (EFL) students' understanding of conditional sentences, and 2) investigate the students' attitudes towards the use of scaffolding techniques in the if-conditional instruction. The participants were 27 English major students in a public university in Thailand. Two instruments were used to collect the data: two sets of tests on conditional sentences and a questionnaire. The data were analysed by using the SPSS software (version 20) and were converted into mean scores and standard deviations. The results from a paired t-test demonstrated that there were significant differences between the pre-test and post-test. Thus, it can be indicated that scaffolding techniques, namely, conceptual, metacognitive, strategic, and procedural could reinforce the students' grammatical knowledge of conditional sentences. Additionally, the results from the questionnaire acknowledged that the students had positive attitudes towards the use of scaffolding techniques in the if-conditional instruction. Therefore, scaffolding techniques can be regarded as effective techniques that help EFL students overcome their grammatical difficulties with if-conditionals and reach higher achievement in their language learning.

Keywords: EFL students; grammatical knowledge; if-conditionals; scaffolding techniques

Introduction

Scaffolding techniques have been suggested to be considerably applied in EFL instruction as they have yielded positive outcomes in students' English language learning and development, across four language skills: reading, writing, speaking, and listening (Boonmoh & Jumpakate, 2019; Jiang, 2018; Piamsai, 2020; Viriyapanyanont, 2021). Therefore, instructors use various kinds of scaffolding techniques to improve students' learning, such as conceptual, metacognitive, strategic, and procedural scaffoldings. When instructors employ supportive techniques, students' knowledge and skills develop gradually, preparing them for advanced language learning.

English grammar is crucial for EFL learners because it is the fundamental knowledge for English language learning. The study led by Saengboon (2017) revealed that Thai EFL students were aware of the importance of learning grammar as it was an essential element for communication, and it extended their understanding of sentence structures as well as productively reinforced their academic reading. Nonetheless, it is still a problem for Thai students (Kampookaew, 2020; Khumphee & Yodkamlue, 2017; Promsupa et al., 2017). To successfully communicate, EFL students need to possess grammatical knowledge and the ability to express their thoughts in written texts (Richards & Reppen, 2014). Without grammatical knowledge, the students would not be able to accurately construct sentences to be used for communication. Thus, students are required to have sufficient knowledge of grammar to have effective communication (Thuratham, 2022).

However, EFL students still struggle with grammatical errors in conditional sentences and are unable to get through these difficulties although if-conditionals are significant for students in language learning as these sentences can be applied in their everyday communication, such as giving advice and instructions. Nonetheless, most of previous studies in Thailand emphasised analysing grammatical errors on if-conditionals, but a few studies highlighted methods that help students solve grammatical problems with if-conditionals (Watcharakorn, 2018; Yossatorn et al., 2022) even though these studies have been conducted in the general education of English language curricula in Thailand and have been taught in both secondary and higher education institutions. To develop students' grammatical knowledge and skills with if-conditionals in the present study, a variety of scaffolding techniques (conceptual, metacognitive, strategic, and procedural) were blended and introduced in the EFL classroom. These techniques were examined to determine whether they could facilitate students' understanding of grammatical structures in all types of if-conditionals. As a result, the students would have a strong foundation at the first stage of their undergraduate studies, enabling them to move from their actual position to the potential one in English grammar in later years.

Research Questions

The study examined the effectiveness of scaffolding techniques for the development of EFL students' grammatical knowledge of if-conditionals. The two research questions are:

1. To what extent can scaffolding techniques improve EFL students' grammatical knowledge of conditional sentences?
2. What are the EFL students' attitudes toward the use of scaffolding techniques in the if-conditional instruction?

Scope of the Study

This research only focused on if-conditionals as they have been taught in Thai higher education institutions in general. Thus, four types of if-conditionals, specifically factual conditional (type zero), future predictive conditional (type I), hypothetical conditional (type II) and counterfactual conditional (type III) were investigated. The examples of if-conditionals were adapted from the course and practice books entitled "English for Everyone Level 3 Intermediate" and "Level 4 Advanced", published by Dorling Kindersley Limited (Boobyer, 2016; Hart, 2016; Johnson, 2016; MacKay, 2016). These books were used by the students in this study, as shown in Figure 1.

Figure 1
The Examples of Four Types of If-Conditionals

Factual Conditional Type 0	Future Predictive Conditional Type I
<p>If + present simple, present simple <i>If a glass falls, it breaks.</i></p> <p>Present simple + if + present simple <i>A glass breaks if it falls.</i></p>	<p>If + present simple, future simple <i>If you stay up late, you'll be very tired tomorrow.</i></p> <p>Future simple + if + present simple <i>You'll be very tired tomorrow if you stay up late.</i></p>
Hypothetical Conditional Type II	Counterfactual Conditional Type III
<p>If + past simple, subject + would + infinitive <i>If I knew your phone number, I would contact you.</i></p> <p>Subject + would + infinitive + if + past simple <i>I would contact you if I knew your phone number.</i></p>	<p>If + past perfect, subject + would have + past participle <i>If Nadia had not taken the compass, she would have got lost.</i></p> <p>Subject + would have + past participle + if + past perfect <i>Nadia would have got lost if she had not taken the compass.</i></p>

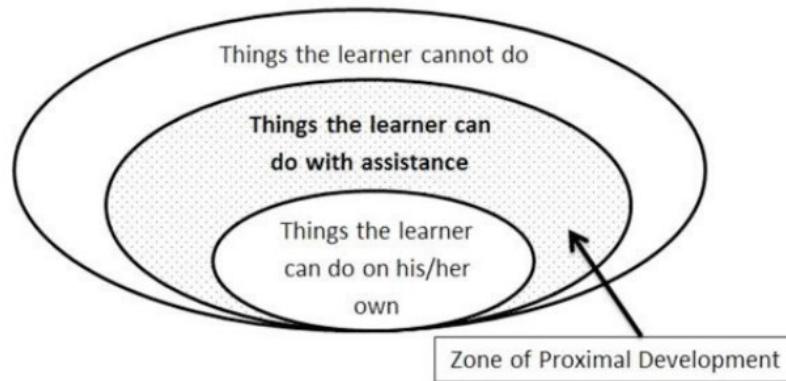
Literature Review

Scaffolding Techniques

The present study used scaffolding techniques in the sociocultural theory proposed by Lev Vygotsky. In other words, children interact with people around them, and they absorb knowledge and develop skills more effectively when guided by facilitators in their learning. This gap between a learner's current development and the potential development is known as the "zone of proximal development (ZPD)" (Vygotsky, 1978) as illustrated in Figure 2.

Figure 2

The Zone of Proximal Development (Bekiryazıcı, 2015)



As instructors play roles in language teaching as facilitators, the instructors are required to consider and employ effective methods to support students in language learning to achieve success in language development. Therefore, four types of scaffolding categorised by Hannafin et al. (1999) were used in this study, that is, conceptual, metacognitive, strategic, and procedural. First, conceptual scaffolding helps students consider and prioritise important concepts to handle learning problems. Second, metacognitive scaffolding helps students manage their thoughts to solve problems during learning. Third, procedural scaffolding helps students by giving advice on how to use learning methods effectively. Finally, strategic scaffolding helps students utilise strategies or alternative methods to solve problems in learning.

Many studies revealed positive outcomes from the implementation of scaffolding techniques in classrooms which developed students' English skills (Boonmoh & Jumpakate, 2019; Jiang, 2018; Majid & Stapa, 2017; Piamsai, 2020; Viriyapanyanont, 2021). Regarding reading skills, Viriyapanyanont (2021) found that scaffolding techniques could encourage English major students to read, so the students could follow the reading steps and have a better understanding of the contents of stories as

well as gain more vocabulary from reading. For the writing skill, Piamsai (2020) employed scaffolding techniques – specifically conceptual, metacognitive, and affective- in an academic writing classroom with non-English major students. The results confirmed that the scaffolding techniques facilitated students in academic writing as their post-test scores were higher than the pre-test scores, and the students revealed positive attitudes towards applying scaffolding techniques in the writing class. A study led by Majid and Stapa (2017) acknowledged that the scaffolding technique using Facebook in a blended learning ESL class supported the students to better learn and develop their writing process and descriptive writing performance. As for the speaking skill, Boonmoh and Jumpakate (2019) affirmed that scaffolding was an effective approach to develop students’ speaking skill from the self-study group called “Let’s Speak” through presentation activities, so they felt more confident to speak English. Moreover, Jiang (2018) found that applying a scaffolding strategy with authentic teaching materials like news from VOA programs, could enforce EFL Chinese students’ development in listening skills, as the students gradually improved their listening comprehension.

If-Conditionals

If-conditionals are used to describe the results of real or unreal situations under conditions. Each conditional sentence is comprised of a subordinate clause and a main clause. Generally, the subordinate clause starts by “if” as for a condition, and the main clause or an independent clause introduces the result of that condition. In English, conditional sentences are divided into four types. It is basically known as zero, first, second, and third conditionals. To start with, the zero conditional is used to talk about general truths or scientific facts, and the first conditional is used to describe the future results of possible situations. However, the second conditional is used to describe the present results of imaginary or unlikely situations, and the third conditional is used to talk about regrets for unreal situations in the past. Thus, the students can apply their knowledge of if-conditionals in everyday communication.

Even though if-conditionals have been taught in English language curricula from secondary to higher education in Thailand, EFL students still struggle with using conditional sentences grammatically and meaningfully. Yossatorn et al. (2022) showed that Thai EFL students lacked abilities to use the past counterfactuals (third type) of if-conditionals, and their grammatical errors on structures may be found over the whole task. Katip and Gampper (2016) also studied Thai students’ errors using if-conditionals, and the results indicated that the students struggled with written problems in tenses used in conditional sentences, especially present and future simple tenses. They produced the subject and verb agreement incorrectly. For spoken errors, the future simple tense was the most problematic one.

Similarly, Taka (2020) found that some Indonesian students did not know how to use conditional sentences in their everyday conversation even though they had

learned them before. Fatimah (2019) also found major problems with if-conditionals that made Indonesian students confused and unable to construct conditional sentences, including tenses, structures, and meanings. Moreover, Rdaat and Gardner (2017) examined whether Arab students in Coventry University understood the types and structures of conditional sentences correctly or not, and the results from questionnaires revealed that more than half of the students were unable to identify conditional sentences and explain their meanings and functions.

Methodology

Research Design

This experimental research used a single group pre- and post-test design. The students were administered the pre-test before applying the scaffolding techniques in the if-conditional instruction. Then, the post-test was given to examine whether scaffolding techniques could improve the students' grammatical knowledge in conditional sentences or not. To examine the effectiveness of using scaffolding techniques in the if-conditional instruction, the students' attitudes were explored.

English as a Foreign Language undergraduate students who graduated from high school are required to attend a compulsory course on the subject "English for Undergraduate Students" in the first semester of every academic year. Based on the researcher's teaching experience, she has found that the students need a strong foundation in English grammar, with if-conditionals. In this regard, it is very important to equip these students with productive methods to strengthen their grammatical knowledge in this area so that the students can move up another step when they study English grammar in later years. Also, there is a belief that the students have potential to move to a higher level of language development. This idea is based on Vygotsky's (1978) idea that children can move from their actual position to the potential one by scaffolding students along the way of their learning. To help EFL students to achieve that level, this study will demonstrate how four types of scaffolding techniques work.

Participants

The participants were English as a Foreign Language undergraduate students who were required to attend a compulsory course on the subject "English for Undergraduate Students" in the first semester of every academic year. The 27 participants were first-year students from the Department of English for International Communication in the Faculty of Humanities and Social Sciences at a public university in Thailand.

This course was required for only English major students. This was the fundamental subject for students to develop a strong foundation, especially in grammatical knowledge of if-conditionals which would profitably extend their understanding and further support their English skills as well as their studies in later

years. The male and female students whose ages were above 18 years old were included in the study, and they voluntarily participated in the experiment throughout the study. The students who did not participate in all class activities or students who decided to withdraw from the study were excluded from the study. Additionally, this study was approved by the Research Ethics Review Committee for Research Involving Human Research Subjects of Rajamangala University of Technology Tawan-ok, Thailand on 25th November 2021 (COA No. 037, RMUTTO REC No. 058/2021).

Instruments

The data of this study was collected from two instruments, namely, the tests of grammatical errors on conditionals and a questionnaire. First, the pre- and post-tests focused on structures (set A) and types of conditionals (set B).

The questionnaire comprised 20 close-ended statements to gather data on their background information and attitudes toward the use of scaffolding techniques in conditional sentence instruction. The questionnaire covered four types of scaffolding techniques: conceptual, metacognitive, procedural, and strategic.

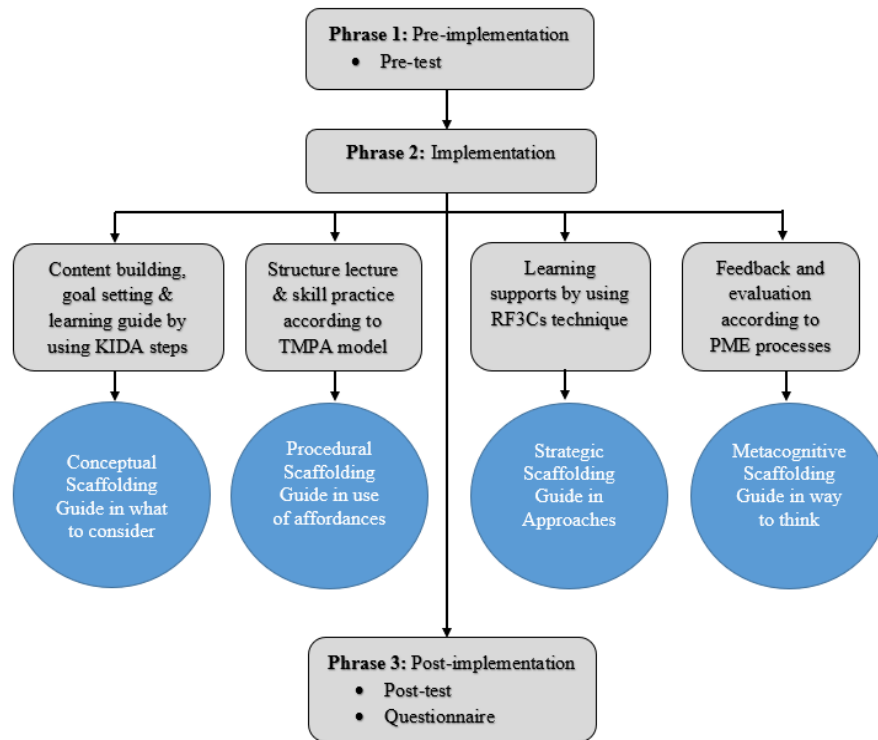
Data Collection Procedures

This study followed the framework of scaffolding instruction adapted from Spycher (2017), so the study was divided into three phases as illustrated in Figure 3.

Phases of implementation

For Phase 1, Pre-Implementation, the first week was planned to identify students' grammatical errors with if-conditionals so that the teacher could prepare the appropriate lesson plans for their needs. In this regard, the students were assigned to take two sets of the pre-test of if-conditionals to find out their grammatical errors with structures and types of conditional sentences before participating in the scaffolding instruction. The test set A was the gap-filling task, and the test set B was the identifying task. The contents of the testing were mainly adapted from the exercises in the course and practice books, entitled "English for Everyone Level 3 Intermediate" and "Level 4 Advanced", published by Dorling Kindersley Limited. The contents of the testing were checked and evaluated by three experts in English departments using the Index of Item-Objective Congruency (IOC) for the reliability and validity of the questionnaire. Then, the contents were adjusted according to their advice. The results of the pre-test were collected and kept until the final phase of the study to compare with the results of the post-test.

Figure 3
Research Procedure



Phase 2, Implementation, took place after the pre-test was administered. The students then participated in the if-conditional instruction. The instruction was organised according to the lesson plans which were designed to cover grammatical knowledge of four types of conditional sentences, so the instruction consisted of four lessons. The contents and exercises used in the lesson plans were adapted from the course and practice books entitled “English for Everyone Level 3 Intermediate” and “Level 4 Advanced”, published by Dorling Kindersley Limited. Thus, the students took part in each lesson for three hours a week with 12 hours in total, so the instruction separate from the course. The instruction had been designed only for teaching if-conditionals and was completed in four weeks. Phase 3, Post-implementation, took place at the end of the study, when the students took the post-test, which had the same sets of test items as the pre-test, including the gap-filling task (set A) and the identifying task (set B). Subsequently, both tests were compared to assess any improvement in students’ grammatical knowledge of conditional sentences following the implementation of scaffolding techniques in the study. Following the assessment, a questionnaire was distributed among the students to collect information about their background information and attitudes towards the utilisation of scaffolding techniques

in if-conditional construction. The questionnaires covered the four categories of scaffolding techniques.

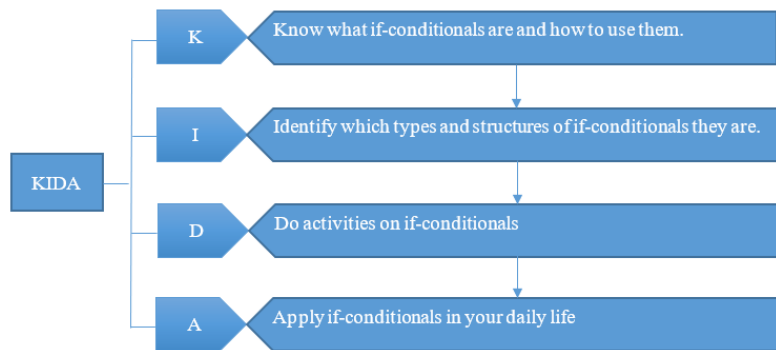
To ensure the reliability and validity of the questionnaire contents, they were reviewed and approved by three experts from the English department. The Index of Item-Objective Congruency (IOC) was employed to assess reliability and validity. Students' attitudes were measured based on the 5-point Likert scale, ranging from 'strongly agree = 5' to 'strongly disagree = 1' as it was easily utilised, and confirmed by the respondents. To avoid language barriers, the questionnaires were translated into Thai to ensure that the students understood all the details in the questionnaires.

Stages of Scaffolding Techniques

The scaffolding techniques were grouped into four stages adapted from Spycher (2017) to meet the aim of the present study.

In the first stage, conceptual scaffolding was initiated by introducing students to the content information regarding conditional sentences and the learning objectives. Subsequently, students were instructed to follow KIDA steps as shown in Figure 4, which constitute a learning technique designed to guide their approach to learning if-conditionals. These steps assist students in effectively organising their concepts for successful learning.

Figure 4
Stage 1: KIDA Steps

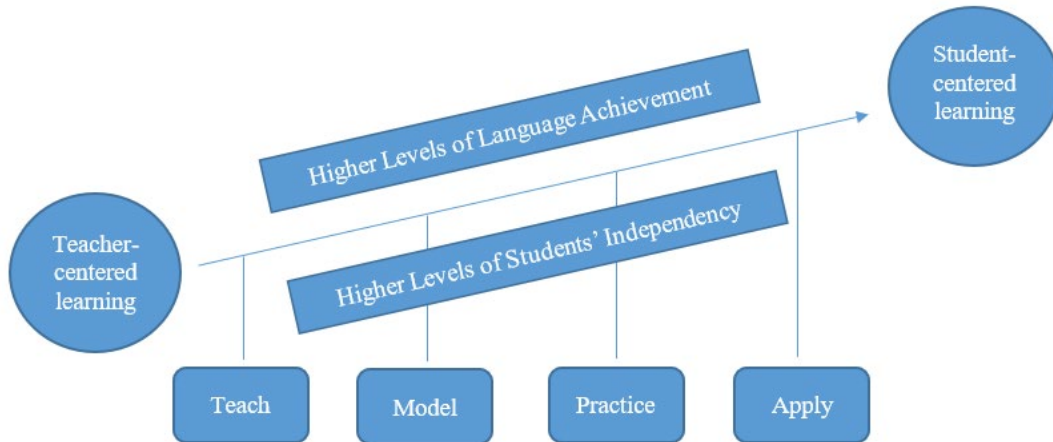


Next, the teacher implemented procedural scaffolding in the instruction of if-conditionals using the TMPA model as illustrated in Figure 5, which emphasises Teach, Model, Practice and Apply (Echevarria et al., 2010). Initially, the teacher delivered lectures on if-conditionals to the students, following the teaching steps (Teach). Teaching tools, such as PowerPoint, audio files, and visual aids, were utilised to aid students' comprehension of if-conditionals (Model). Subsequently, students engaged in practical exercises to apply their grammatical knowledge of if-conditionals. This includes asking and responding to questions, as well as participating in group discussions

(Practice). To assess their understanding, students were tasked with searching for news articles containing different types of if-conditionals and creating conditional sentences according to provided structures, translating them into Thai (Apply). This approach is believed to empower students to take control of their learning independently.

Figure 5

Stage 2: TMPA Model (Adapted from Echevarria et al., 2010)



In the strategic scaffolding stage, students were tasked with correcting structures and distinguishing between types of if-conditionals. When students hesitated or faced difficulties in providing answers, they received support through the RF3Cs technique as presented in Figure 6. This technique was developed to assist students in effectively resolving errors in conditional sentences.

Finally, metacognitive scaffolding was employed by the researcher to enhance the students' metacognition during the Planning, Monitoring, and Evaluating (PME) processes in the if-conditional instruction as shown in Figure 7. This technique enabled students to gain a deeper understanding of if-conditionals and correct their own errors, ultimately helping them achieve their learning goals.

Figure 6
Stage 3: The RF3Cs Technique

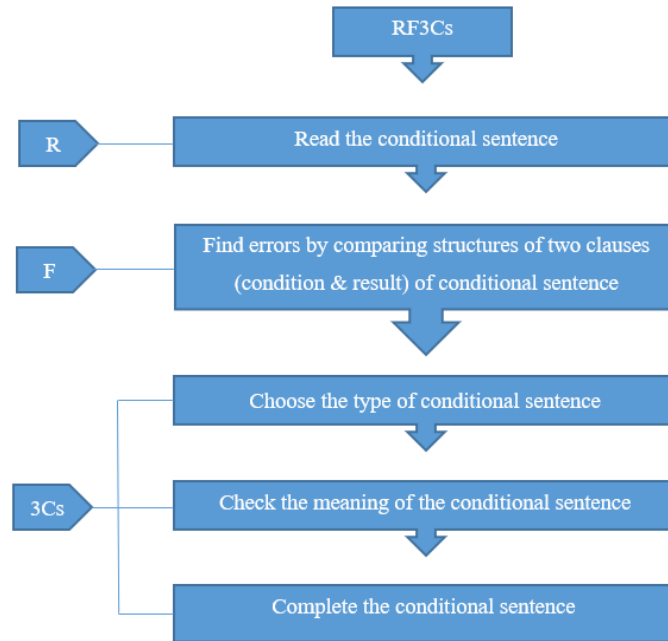
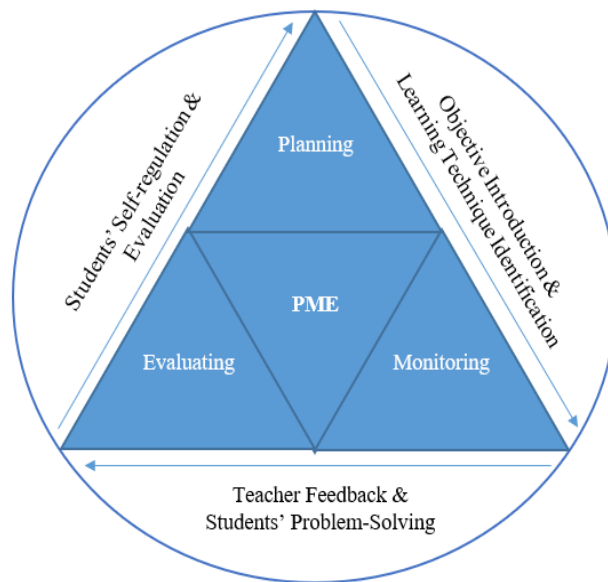


Figure 7
Stage 4: PME Processes (Adapted from Hannafin et al., 1999)



Data Analysis Procedures

The pre-test and post-test scores were collected, compared, and analysed by using a paired t-test to reflect the development of students' grammatical knowledge of conditional sentences within groups before and after implementing a treatment.

For quantitative analysis, the students' attitudes were analysed by using the SPSS software (version 20) for mean and standard deviation as it helps researchers obtain appropriate results to report research (Cronk, 2019). Also, the five-point Likert scale, ranging from "strongly agree" to "strongly disagree", was used to interpret the degrees of students' agreement. If the value was higher than 3.00, it can be implied that the students had positive attitudes towards scaffolding techniques (Alkurdi & Alghazo, 2021).

Results

Effect of Scaffolding Techniques on EFL Students' Grammatical Knowledge on Conditional Sentences

Table 1 shows that students had improved their grammatical knowledge of if-conditionals after the if-conditional instruction using scaffolding.

Table 1
The Pre-Test and Post-Test Results of Set A and Set B

Pre-test and Posttest	N	\bar{X}	Std. Deviation	Std. Error Mean	Paired Differences		t	df	Sig. (2-tailed)
					95% Confidence Interval of the Difference				
					Lower	Upper			
Pre-test & Post-test (set A)	27	-5.074	3.802	.732	-6.578	-3.570	-6.935	26	.000
Pre-test & Post-test (set B)	27	-3.185	3.138	.604	-4.427	-1.944	-5.274	26	.000

* $P < .05$

According to Table 1, the results from the paired t-test showed that there were statistically significant differences between the pre-test and post-test scores at 95% confidence level. In other words, the students' post-test scores were higher than the pre-test scores in both sets of tests on if-conditionals, focusing on structures (set A: $t = -6.935$, $df = 26$, $p < .05$) and types (set B: $t = -5.274$, $df = 26$, $p < .05$) respectively. The scaffolding techniques, namely conceptual, metacognitive, procedural, and strategic were effective methods that could help students gain a better understanding of grammatical knowledge on if-conditionals.

EFL Students' Attitudes Towards the Use of Scaffolding Techniques in the If-Conditional Instruction

The questionnaire results (Table 2) showed that students had positive attitudes towards the use of scaffolding techniques in the if-conditional instruction as the mean scores of all types of scaffolding techniques were above 3.00. Additionally, mean scores that were above 4.20 were interpreted as "strongly agree" (Sözen & Güven, 2019).

Table 2

The Students' Overall Attitudes Towards the Use of Scaffolding Techniques

No.	Statements	\bar{X}	Std. Deviation	Interpretation
1	Conceptual Scaffolding (KIDA steps)	4.42	0.52	Strongly Agree
2	Metacognitive Scaffolding (PME processes)	4.35	0.49	Strongly Agree
3	Procedural Scaffolding (TMPA model)	4.43	0.53	Strongly Agree
4	Strategic Scaffolding (RF3Cs technique)	4.32	0.55	Strongly Agree

The most effective type of scaffolding technique was procedural scaffolding as its mean score ($\bar{X} = 4.43$) ranked the highest. It was followed by conceptual scaffolding ($\bar{X} = 4.42$), metacognitive scaffolding ($\bar{X} = 4.35$) and strategic scaffolding ($\bar{X} = 4.32$). The students strongly agreed that all types of scaffolding techniques helpfully eradicated their errors and increased their grammatical knowledge on conditional sentences.

Table 3 shows that the levels of agreement were slightly different for the items, ranging from 4.15 (agree) to 4.70 (strongly agree).

Table 3

The Students' Attitudes Towards the Use of Scaffolding Techniques by Item

No.	Statements	\bar{X}	Std. Deviation	Interpretation
Conceptual Scaffolding				
1	Students were introduced learning steps prioritised by the teacher which reduced complexity in learning conditionals.	4.56	0.58	Strongly Agree
2	Students were recommended to follow KIDA steps in learning conditionals.	4.44	0.64	Strongly Agree
3	Students understood the structures of conditionals visualised by the teacher.	4.30	0.67	Strongly Agree
4	Students were given hints when students hesitated to correct conditionals.	4.56	0.64	Strongly Agree
5	Students were reminded to follow RF3Cs technique to solve grammatical errors on conditionals.	4.26	0.66	Strongly Agree
Metacognitive Scaffolding (PME)				
6	Students understood the objectives of tasks on conditionals. (Planning)	4.15	0.60	Agree
7	Students used technique guided by the teacher to achieve	4.26	0.66	Strongly Agree

	their tasks on conditionals. (Planning)			
8	Students knew their grammatical problems on conditionals from teacher' comment. (Monitoring)	4.22	0.64	Strongly Agree
9	Students used suggestions from teacher to revise their tasks on conditionals. (Monitoring)	4.41	0.57	Strongly Agree
10	Students checked their tasks on conditionals before submitting to the teacher. (Evaluating)	4.70	0.54	Strongly Agree
<hr/>				
Procedural Scaffolding (TMPA)				
11	Students were taught conditionals according to learning steps. (Teach)	4.44	0.58	Strongly Agree
12	Students were taught contents of conditionals by PowerPoint slides and were provided opportunities to do activities from zero to third conditionals. (Model)	4.56	0.64	Strongly Agree
13	Students had opportunities to practise grammatical knowledge on conditionals by asking and responding to the questions. (Practice)	4.52	0.58	Strongly Agree
14	Students had opportunities to discuss about conditionals together in the class. (Practice)	4.22	0.70	Strongly Agree
15	Students could review types and structures of conditionals from the templates (searching for news and writing sentences structures and translating their own sentences) created by the teacher. (Apply)	4.41	0.64	Strongly Agree
<hr/>				
Strategic Scaffolding				
16	Students were asked to correct structures and differentiate types of conditionals on each item on exercise before receiving answers.	4.37	0.63	Strongly Agree
17	Students were supported by using the RF3Cs technique to achieve conditionals during exercise.	4.19	0.62	Agree
18	Students knew how to solve the errors in conditionals exemplified by the teacher.	4.33	0.62	Strongly Agree
19	RF3Cs technique helped students notice and analyse errors in conditional sentences.	4.30	0.67	Strongly Agree
20	RF3Cs technique helped students solve grammatical errors on conditional sentences.	4.41	0.64	Strongly Agree

The students strongly agreed with all items of conceptual scaffolding. The mean scores of items 1 and 4 stayed about the same at 4.56. By way of explanation, the students thought that the learning steps given by the teacher could reduce their complexity in learning conditional sentences. Also, when they felt hesitant to make corrections on conditional sentences, they received hints from the teacher which facilitated their learning. The next highest mean scores were for items 2 ($\bar{X} = 4.44$), item 3 ($\bar{X} = 4.30$) and item 5 ($\bar{X} = 4.26$). The students thought that they were recommended to follow KIDA steps in learning if-conditionals at the beginning of the instruction which guided their ways of learning conditional sentences. The students could understand the structures of conditional sentences simplified by the figures on the PowerPoint slides. When the students were unable to solve errors on conditional sentences, they followed the RF3Cs technique which helped them reduce the number of errors.

As for metacognitive scaffolding, the students strongly agreed with four items (Items 7, 8, 9 and 10). Item 6 was rated as “agree”. To put it simply, the highest mean score was 4.70 as the students greatly viewed that they checked their tasks on conditional sentences before submitting them to the teacher (item 10). When the students were required to revise their tasks on conditional sentences, they used suggestions from the teacher to guide their way (item 9, $\bar{X} = 4.41$). The students agreed that they used the RF3Cs technique to help them complete their tasks (item 7, $\bar{X} = 4.26$). The students thought that they knew their grammatical mistakes in conditional sentences from the teacher’s comment (item 8, $\bar{X} = 4.22$). However, the lowest mean score was item 6 which indicates that the students understood the objectives of these tasks ($\bar{X} = 4.15$).

As for procedural scaffolding, the results show that the students strongly agreed with all items. Item 12 ranked the highest ($\bar{X} = 4.56$). The students agreed that they learned the contents of if-conditionals from the PowerPoint slides. The next highest rank was item 13 ($\bar{X} = 4.52$). The students thought that they also had opportunities to practise their grammatical knowledge on conditional sentences through question-and-answer activities. The next mean score was item 11 ($\bar{X} = 4.44$). The students firmly agreed that they followed the learning steps taught by the teacher to learn conditional sentences. The students felt that they could review types and structures of if-conditionals from the templates created by the teacher (item 15, $\bar{X} = 4.41$), and they had opportunities to discuss conditional sentences with their peers in the class (item 14, $\bar{X} = 4.22$).

With respect to strategic scaffolding, the students strongly agreed with all items, except item 17. The highest mean score went to the item 20 ($\bar{X} = 4.41$). The students viewed that the RF3Cs technique helped them solve grammatical errors on conditional sentences. The second highest score was item 16 ($\bar{X} = 4.37$). The students thought that they were asked to correct structures and differentiate types of conditional sentences in exercises before knowing the answers. It was followed by items 18, 19 and 17 respectively. The students believed that they knew how to solve the errors in conditional sentences from the examples given by the teacher (item 18, $\bar{X} = 4.33$). When using the RF3Cs technique, the students strongly agreed that they could find and analyse errors in conditional sentences (item 19, $\bar{X} = 4.30$). As for item 17, the mean score ranked the lowest at 4.19. The students agreed that the RF3Cs technique could facilitate them to achieve conditional sentences when doing exercises.

Discussion

This study highlighted how scaffolding techniques, specifically conceptual, metacognitive, strategic, and procedural improved EFL students’ grammatical knowledge of if-conditionals. The students felt positive that the instruction helped to develop their grammatical knowledge.

Scaffolding techniques have been applied in language learning in various forms of instruction to support and develop students’ language skills effectively (Jiang, 2018;

Majid & Stapa, 2017; Piamsai, 2020; Safa & Motaghi, 2021; Safdari et al., 2019). By the same token, scaffolding techniques have been found to support students' learning autonomy and help them optimise their skills with different types of tasks. As a result, the students could go beyond their perceived limits to complete tasks that seemed to be difficult for them (Kim et al., 2018). However, a few studies in Thailand highlighted methods that helped students improve grammatical knowledge of if-conditionals in higher education. In the present study, mixed scaffolding techniques, including conceptual, metacognitive, strategic, and procedural were employed. The results of this study showed significant improvement in students' grammatical performance after the if-conditional instruction.

Regarding the structures of if-conditionals, the students improved their grammatical knowledge of counterfactual conditional (type III) the most even though this conditional type was considered the most problematic for EFL students in terms of use and comprehension (Katip & Gampper, 2016; Rdaat & Gardner, 2017). The other types included hypothetical conditional (type II), factual conditional (type 0) and future predictive conditional (type I). The future predictive conditional (type I) had the least improvement compared to other types of if-conditionals as a considerable number of studies revealed that students had the least error of if-conditionals in line with the structure of type I (Katip & Gampper, 2016; Kholilah, 2020).

On the other hand, when types of conditional sentences were compared, the findings showed that the students enhanced their grammatical knowledge of hypothetical conditional (type II) the most. The following types included factual conditional (type 0), counterfactual conditional (type III) and future predictive conditional (type I) sequentially. It can be presumed that the students would be confused about the meanings of conditional sentences between the future predictive conditional (type I), the most problematic type for comprehension supported by Katip (2015) and the factual conditional (type 0). When these two types of sentences were interpreted from English into Thai, their meanings were quite similar. Thus, it would be possible for students to get confused about the meanings of conditional sentences between the factual conditional (type 0) and the future predictive conditional (type I) after they were interpreted into Thai. Consequently, it can be inferred that L2 would have effects on L1 in terms of grammar (Haman et al., 2017) and interpretation, so students would have difficulty selecting and identifying the correct types of conditional sentences.

Regarding the students' attitudes towards the use of scaffolding techniques in the if-conditional instruction, the results from the questionnaire ascertained that the students had positive attitudes towards the mixed scaffolding techniques in all aspects. The most effective technique was procedural scaffolding, followed by conceptual scaffolding, metacognitive scaffolding and strategic scaffolding subsequently. Regarding procedural scaffolding, it consisted of the TMPA model, that is, teach, model, practice and apply which was one of the scaffolding strategies that was practical for EFL students (Echevarria et al., 2010). Therefore, scaffolding would be useful for students when it

provides opportunities for them to participate in class activities and practise (Sari & Rozimela, 2020). The more the students practise, the better their language skills.

Moreover, the students fully acknowledged that they were introduced to if-conditionals and recommended to follow the KIDA steps in the study which reduced their confusion in learning if-conditionals. The students also paid attention to the visual structures of conditional sentences. When they lacked confidence in grammatical use and hesitated to correct the errors in conditional sentences, they were given hints and reminded to follow the RF3Cs technique which helped them solve grammatical errors in conditional sentences successfully. Conceptual scaffolding helped students consider and prioritise important concepts in learning. When their concepts are well-organised, the students can understand the target knowledge and deal with problems in learning (Hannafin et al., 1999).

Besides, if the students understood the task objectives with conditional sentences and were guided in learning (planning), they would be able to manage their thoughts to solve the problems during learning (Hannafin et al., 1999). Then, the students would be able to notice their grammatical errors (monitoring) and re-examine their tasks before submitting them to the teacher (evaluation). As a result, the students would accomplish their tasks as the feedback or comments from the teacher were important and could influence students' development in language learning. Thus, metacognitive scaffolding, which was composed of PME processes such as planning, monitoring, and evaluating (Hannafin et al., 1999) was evidently accepted by the students to help them gain grammatical knowledge with conditional sentences. Many studies also affirmed that metacognitive scaffolding had a positive impact on the development of four language skills (Berenji, 2021; Jafari et al., 2021; Rahmat et al., 2021; Safa & Motaghi, 2021).

In addition to strategic scaffolding, students had opinions that the RF3Cs technique used in this study could help them notice, analyse, and solve grammatical errors in conditional sentences exemplified and simplified by the teacher in the task activities. Strategic scaffolding helps the students utilise strategies or alternative methods to solve problems in learning (Hannafin et al., 1999). Moreover, strategic scaffolding could also motivate EFL students in language learning. In simple terms, when students apply various language learning strategies in the classroom, they become more proficient language learners (Rezaee et al., 2018).

Conclusion

This study shows that blended scaffolding techniques, namely, conceptual, metacognitive, strategic, and procedural can be used as effective methods for improving EFL students' grammatical knowledge of if-conditionals. The findings shed light on the students' improvement in structural knowledge of if-conditionals on counterfactual conditional (type III) the most, followed by hypothetical conditional (type II), factual conditional (type 0) and future predictive conditional (type I). However, the results from

identifying types reversed the structural results of if-conditionals. To clarify, the students developed their grammatical knowledge on hypothetical conditional (type II) the most. Following type II were factual conditional (type 0), counterfactual conditional (type III) and future predictive conditional (type I) sequentially. Moreover, the results from the questionnaire affirmed that the blended scaffolding techniques had very positive effects on the students' development of grammatical knowledge with if-conditionals led by procedural scaffolding, conceptual scaffolding, metacognitive scaffolding, and strategic scaffolding. Therefore, the study shows that the blended scaffolding techniques are productive methods to help students eliminate their errors and gain a better understanding of structures and types of if-conditionals. Thus, the students had the potential to move from their actual position to the higher position of development aligned with the ZPD constructed by Vygotsky (1978). As a result, the students can finally achieve the target knowledge, and they would have a strong foundation to move to another step of their learning, especially in English grammar in later years of education. However, the findings on the benefits of blended scaffolding techniques among Thai undergraduates for if-conditionals need to be verified in further studies applying these techniques or an individual scaffolding technique to different grammatical issues in EFL contexts.

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References

- Alkurdi, R., & Alghazo, S. (2021). Teacher's misbehaviours in class and students' reactions: A case study. *IAFOR Journal of Education: Language Learning in Education*, 9(3), 97-114. <https://doi.org/10.22492/ije.9.3>
- Bekiryazici, M. (2015) Teaching mixed-level classes with a Vygotskian perspective. *Procedia-Social and Behavioral Sciences*, 186(13), 913-917. <https://doi.org/10.1016/j.sbspro.2015.04.163>
- Berenji, S. (2021). Enhancing metacognitive scaffolding and comprehension ability through problem-based learning in an EFL context. *Education Research International*, 2021, Article ID 6766793, 1-9. <https://doi.org/10.1155/2021/6766793>
- Boobyer, V. (2016). *English for everyone course book: Level 4 advanced*. Dorling Kindersley Limited.
- Boonmoh, A., & Jumpakate, T. (2019). Using scaffolded instructions to improve students' skills. *rEFLECTIONS*, 26(6), 1-16.

- Cronk, B. C. (2019). *How to use SPSS®: A step-by-step guide to analysis and interpretation*. Routledge. <https://doi.org/10.4324/9780429340321>
- Echevarria, J., Vogt, M. E., & Short, D. J. (2010). *Making content comprehensible for secondary English learners: The SIOP model*. Pearson Education.
- Fatimah, S. (2019). *Analysing students' problems in understanding and constructing English conditional sentences* [Bachelor's thesis, University in Banda Aceh]. Banda Aceh. <https://repository.ar-raniry.ac.id/id/eprint/11245/>
- Haman, E., Wodniecka, Z., Marecka, M., Szewczyk, J., Białecka-Pikul, M., Otwinowska, A., Mieszkowska, K., Łuniewska, M., Kołak, J., Miekisz, A., Kacprzak, A., Banasik, N., & Forys-Nogala, M. (2017). How does L1 and L2 exposure impact L1 performance in bilingual children? *Frontier in Psychology, 8*, 1-21. <https://doi.org/10.3389/fpsyg.2017.01444>
- Hannafin, M. J., Land, S., & Oliver, K. M. (1999). Open learning environments: Foundations, methods, and models. In C. Reigeluth (Ed.), *Instructional-design theories and models: Volume II* (pp. 115-140). Lawrence Erlbaum.
- Hart, C. (2016). *English for everyone practice book: Level 4 advanced*. Dorling Kindersley Limited.
- Jafari, S., Talebinejad, M. R., & Ketabi, S. (2021). Comparative effects of technology, motivational, and metacognitive-based scaffolding on male and female Iranian adult advanced EFL learners' speaking. *Research in English Language Pedagogy, 9*(2), 259-282. <https://dx.doi.org/10.30486/relp.2021.1912273.1229>
- Jiang, Q. (2018). The practice of English listening comprehension teaching. *Proceedings of the 3rd International Conference on Humanities Sciences, Management and Education Technology (HSMET 2018)*, 237, 543-546. <https://doi.org/10.2991/hsmet-18.2018.108>
- Johnson, G. (2016). *English for everyone course book: Level 3 intermediate*. Dorling Kindersley Limited.
- Kampookaew, P. (2020). An analysis of grammatical errors made by Thai EFL university students in an EAP writing class: Issues and recommendations. *rEFLections, 27*(2), 246-273.
- Katip, P. (2015). *Thai EFL learners' comprehension and production of English if-conditionals* [Master's thesis, Thammasat University]. Bangkok. http://ethesisarchive.library.tu.ac.th/thesis/2015/TU_2015_5621030559_4756_2822.pdf
- Katip, P., & Gampper, C. (2016). English as a foreign language student productive conditional verb form errors in Thailand. *LEARN Journal: Language Education and Acquisition Research Network Journal, 9*(2), 1-13.
- Kholilah, N. (2020). *Students' errors in using conditional sentences at SMK Farmasi Ikasari Pekanbaru* [Bachelor's thesis, State Islamic University of Sultan Syarif Kasim Riau]. Riau. <http://repository.uin-suska.ac.id/29019/2/UPLOAD.pdf>
- Khumpee, S., & Yodkamlue, B. (2017). Grammatical errors in English essays written by Thai EFL undergraduate students. *Journal of Education, Mahasarakham University, 11*(4), 139-154.

- Kim, N., Belland, B. R., & Axelrod, D. (2019). Scaffolding for optimal challenge in K-12 problem-based learning. *Interdisciplinary Journal of Problem-Based Learning*, 13(1), 1-24. <https://doi.org/10.7771/1541-5015.1712>
- MacKay, B. (2016). *English for everyone practice book: Level 3 intermediate*. Dorling Kindersley Limited.
- Majid, A. H. A., & Stapa, S. H. (2017). The use of scaffolding technique via Facebook in improving descriptive writing among ESL learners. *3L: The Southeast Asian Journal of English Language Studies*, 23(4), 77-88. <http://doi.org/10.17576/3L-2017-2304-07>
- Piamsai, C. (2020). The effect of scaffolding on non-proficient EFL learners' performance in an academic writing class. *LEARN Journal: Language Education and Acquisition Research Network Journal*, 13(2), 288-305.
- Promsupa, P., Varasarin, P., & Brudhiprabha, P. (2017). An analysis if grammatical errors in English writing of Thai university students. *HRD Journal*, 8(1), 93-104.
- Rahmat, N. H., Aripin, N., Razlan, Z., & Khairuddin, Z. (2021). The influence of metacognitive scaffolding on learning academic writing online. *International Journal of Education*, 13(3), 48-63. <https://doi.org/10.5296/ije.v13i3.18902>
- Rdaat, S., & Gardner, S. (2017). An analysis of use of conditional sentences by Arab students of English. *Advances in Language and Literary Studies*, 8(2), 1-13. <https://dx.doi.org/10.7575/aiac.all.v.8n.2p.1>
- Rezaee, A. A., Farahani, A. A. K., & Mubarak, L. A. (2018). Scaffolding and EFL learners' use of language learning strategies in the Iraqi language teaching context. *Teaching English Language*, 12(2), 89-116. <https://dx.doi.org/10.22132/TEL.2018.75382>
- Richards, J. C., & Reppen, R. (2014). Towards pedagogy of grammar instruction. *RELC Journal*, 45(1), 5-25. <https://doi.org/10.1177/0033688214522622>
- Saengboon, S. (2017). English grammar and Thai university students: An insurmountable linguistic battle? *English Language Teaching*, 10(11), 22-36. <https://doi.org/10.5539/elt.v10n11p22>
- Safa, M. A., & Motaghi, F. (2021). Cognitive vs. metacognitive scaffolding strategies and EFL learners' listening comprehension development. *Language Teaching Research*, 28(3), 987-1010. <https://doi.org/10.1177/13621688211021821>
- Safdari, S., Ghadiri, M., & Kashkouli, Z. (2019). The types of scaffolding used by EFL teachers in Isfahan. *Journal of Modern Research in English Language Studies*, 8(2), 199-220. <https://dx.doi.org/10.30479/jmrels.2020.11753.1462>
- Sari, D. K., & Rozimela, Y. (2020). The implementation of scaffolding strategies at speaking English course in Kampung Inggris Pare East Java. *Proceedings of the Ninth International Conference on Language and Arts*, 539, 51-56. <http://dx.doi.org/10.2991/assehr.k.210325.010>
- Sözen, E., & Güven, U. (2019). The effect of online assessments on students' attitudes towards undergraduate-level geography courses. *International Education Studies*, 12(10), 1-8. <http://dx.doi.org/10.5539/ies.v12n10p1>

- Spycher, P. (2017). *Scaffolding writing through the “teaching and learning cycle”*. WestEd.
- Taka, S. D. (2020). The efficacy of using pair work technique in teaching conditional sentences to Indonesian English as Foreign Language (EFL) students. *Journal of Language Teaching and Learning, Linguistics and Literature*, 8(2), 602-610. <http://dx.doi.org/10.24256/ideas.v8i2.1690>
- Thuratham, W. (2022). Individual, pair and group EFL activities for aviation students at a Thai university: A closer look at language achievement and attitudes. *LEARN Journal: Language Education and Acquisition Research Network Journal*, 15(2), 892-921.
- Viriyapanyanont, T. (2021). Scaffolding improving vocabulary skill and enhancing reading confidence: The scaffolding reading approach. *Journal of Legal Entity Management and Local Innovation*, 7(5), 311-326.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Watcharakorn, W. (2018). *Effect of guided inductive and deductive instruction on grammar learning in an EFL context*. [Master’s thesis, Prince of Songkla University]. Thailand. <https://kb.psu.ac.th/psukb/bitstream/2016/12834/1/432443.pdf>
- Yossatorn, Y., Binali, T., Chokthawikit, S., & Weng, C. (2022). Thai EFL university students’ productions of the English past counterfactuals and their influences from interlanguage fossilization. *SAGE Open*, 12(1), 1-12. <https://doi.org/10.1177/21582440221079892>