

# The Use of Simulation Techniques to Enhance English Speaking Skills of EFL Secondary School Students

Sornsawan Kamrach<sup>1</sup>, Chuanpit Sriwichai<sup>1</sup>

<sup>1</sup> School of Liberal Arts, University of Phayao, Phayao, Thailand

Correspondence: Chuanpit Sriwichai, School of Liberal Arts, Phayao University, Phayao, Thailand. E-mail: chuanpit.sr@up.ac.th

Received: May 19, 2024      Accepted: July 26, 2024      Online Published: September 19, 2024

doi:10.5430/wjel.v15n1p434

URL: <https://doi.org/10.5430/wjel.v15n1p434>

## Abstract

This study aims to compare the English speaking skills of EFL secondary school students in Thailand before and after using simulation techniques, to investigate the progress of the students' speaking skills, and to study the students' attitudes towards simulation techniques. The study used a quasi-experimental research design with a one-group pre-test and post-test and involved ten grade-eight students in the 2/2021 semester. The participants learned through five simulations: Asking and offering help, Buying and selling, Asking and giving directions, Making a phone call, and Giving suggestions. The data were collected through a speaking pre- and post-test, with a rubric based on pronunciation, fluency, grammar, and vocabulary, and also through semi-structured interviews. The data were analyzed using percentage, mean, standard deviation, inter-rater reliability analysis, Wilcoxon Signed Rank Test, and content analysis. The findings show that the post-test scores were significantly higher than the pre-test scores at  $P < 0.05$  for all simulations. Moreover, the post-test scores for Simulation Five were significantly higher than the post-test scores for Simulation One, indicating the progress of the students' speaking skills. Additionally, the students expressed positive attitudes towards simulation techniques, as they were able to learn new vocabulary, practice real-life situations, and increase their self-confidence. However, learning through simulations could make students anxious when they are worried about finding the correct and appropriate words. This result suggests that it is essential to build students' vocabulary knowledge before having them participate in simulations.

**Keywords:** Simulation techniques, Speaking skills, EFL secondary school students

## 1. Introduction

The influence of globalization on language, particularly English, is evident in Thailand's educational policies. Recognizing its importance in various domains, including the economy and education, the Ministry of Education has integrated English into the core curriculum to foster proficiency amongst students, aligning with national competitiveness goals. This underscores the significance of English proficiency in the Thai context (Khamkhien, 2010).

However, Thailand's English-language education system has faced challenges, especially in speaking and listening. Many students struggle with these skills, according to Inpanya (2012), since educational techniques emphasize reading and writing above speaking and listening, though the latter are crucial to English communication. Thus, students are not well-equipped to speak and are afraid of mispronouncing words due to their strong accent, of forming sentences with incorrect grammar, and of being mocked by friends. In addition to the fear of communicating in English, students lack opportunities to practice English listening and speaking skills. These are the primary reasons why Thai students are not achieving expected English proficiency levels.

According to Chergui (2016), simulation techniques could be a key to developing English speaking skills and addressing the abovementioned issues. Simulation technique is a language learning model that allows students to express themselves to their peers in a group setting. Some benefits of simulation are that it allows students to experiment with new vocabulary and structures and gives them the chance to carry out a task or solve a problem together. Simulations are widely viewed as creating a rich communicative environment (a representation of reality) where students actively become part of some real-world system and function according to predetermined roles as members of that group. Chosen as a method to develop students' speaking skills, this technique provides ample practice using oral English and experience with real-world scenarios (Yanti, 2021).

Chaparro Castro et al. (2013) claimed that using simulation techniques is a top priority when one aims to improve speaking skills, and many scholars have tested this technique with students. In a study involving eighth-grade junior-high students, Prabowo and Yulia (2018) found that by using simulation techniques, students were motivated to learn English and became interested in speaking activities. Additional evidence of the success of using simulation techniques in the classroom has been found in examining university students during their English classes. In this case, the results show that students' English speaking proficiency improved.

The results of the Ordinary National Educational Test (O-NET), which measures students' knowledge in grade 6 at Muengyao Wittaya School, revealed low scores in English conversation (Nation Institute of Education Testing Service Public Organization, 2020). Thus, this research aims to examine the effects of using simulation techniques in improving the speaking skills of EFL secondary school students at

Muengyao Wittaya School. As of yet, no study has focused on using simulation techniques with students at this school. This research will apply the technique to this context, with the expected result of observing whether the method is, indeed, beneficial to learners.

## 2. Literature Review

### 2.1 English Speaking Skills

English language learning requires speaking abilities for one to communicate in social and professional situations. Speaking helps articulate one's thoughts and ideas and is essential to develop grammar, vocabulary, and pronunciation skills (Prajudthasri, 2012). Furthermore, fluency and accuracy in speaking help strengthen listening, reading, and writing abilities. Therefore, language education must prioritize speaking skills to achieve well-rounded linguistic competency.

English-speaking abilities include several oral communication factors, according to Quadir (2014): understanding, grammar, vocabulary, pronunciation, and fluency. Grammar requires accurate phrase formulation and linguistic structures; comprehension involves understanding and responding to spoken language; speech vocabulary is a speaker's variety of words and phrases; pronunciation is their appropriate articulation and intonation; and fluency is linguistic competency marked by fluid, natural speaking (Quadir, 2014). Effective communication in English-speaking situations requires expertise in these components, which are necessary for efficient communication, language development, and academic performance. Comprehending spoken language helps learners communicate and understand complicated topics. A solid knowledge of grammar helps them explain their thoughts and ideas clearly and precisely. A large vocabulary helps speakers express themselves clearly and convey subtle concepts. Accurate pronunciation improves intelligibility and communication, helping speakers be understood. Finally, fluency helps speakers talk clearly and confidently, fostering engaging and productive conversation. Thus, excelling in English-speaking contexts and beyond requires expertise in each of these components.

Oral communication competency can be assessed through numerous methods. Conversations, interviews, role-plays, and oral presentations are common evaluation procedures (Quadir, 2014). Conversations allow for spontaneous discussions on themes of mutual interest and offer the chance to measure speaking abilities naturally. Interviews assess communication ability by having participants answer questions or provide comments. Students perform roles and participate in role-plays to imitate real-life situations. Oral presentations test students' formal speaking abilities by requiring planned discussions on assigned themes. Using multiple evaluation methods, instructors may evaluate students' speaking skills in different circumstances.

English speaking skills are evaluated using established criteria, such as scoring vocabulary, pronunciation, grammar, understanding, and fluency on a scale from "Excellent" to "Few" (Kithinji & Ohirsi, 2022). Furthermore, Kithinji and Ohirsi (2022) added criteria for these language components to provide a complete speaking competency framework, allowing instructors to grade students' communicative skills and suggest areas for growth. This systematic scoring method provides consistency and fairness in English-speaking-ability assessments, enabling meaningful feedback and focused language growth.

### 2.2 Simulation Techniques

Simulation techniques involve the replication of real-world scenarios or environments in educational settings to facilitate learning and skill development. According to Angelini (2021), simulation is defined as an event where participants assume specific roles and interact within a predetermined context. This technique enables learners to engage actively in practical experiences that mimic authentic situations, allowing them to apply theoretical knowledge and problem-solving skills in a realistic setting. By immersing learners in simulated environments, educators can create opportunities for hands-on learning, critical thinking, and decision-making, thereby enhancing the effectiveness of instruction.

Simulation skills are developed on numerous levels using various pedagogical ideas and methods. Simulation organization should include preparation, action, and discussion, according to Angelini (2021); thus, in this methodology, students are informed, engaged, and given feedback when conducting a simulation. Richards and Renandya (2002) also stressed the significance of presentation, methods, and output in conventional language-education lesson plans, which help students go from introduction to autonomous use of new language abilities. Additionally, to create successful learning experiences, Natthayai (2015) stressed the importance of teaching preparation and method, including having clear goals, scenario descriptions, and suitable teaching materials. Simulation learning processes are informed by these viewpoints, which help educators create and execute effective teaching approaches regarding this technique.

Simulation-based learning requires numerous phases to improve skills. First, students learn the situation and goals. This first stage helps learners comprehend the simulation's background and aims, preparing them to participate (Angelini, 2021). After familiarization, students participate in the simulation. This entails taking roles and collaborating with peers or instructors to solve tasks and face obstacles in a virtual setting (Herrera-Pavo., 2021). Active participation allows students to use theoretical knowledge and practical skills in real-life situations, which deepens their learning (Reese et al., 2010). Following the scenario, students reflect and debrief, which helps them assess their performance, identify strengths and weaknesses, and explore ways to improve (Wichaikul, 2015). Metacognitive awareness and self-assessment help students understand and alter their learning processes via reflection (Herrera-Pavo, 2021). Students get direction and support from teachers and peers via feedback and reinforcement, which might be verbal, written, or peer-assessed (Angelini, 2021). This feedback helps students comprehend their progress, correct misunderstandings, and enhance their abilities, promoting mastery (Angelini, 2021). Finally, students practice reinforcing the learning and abilities in question. Repetition helps students assimilate topics, automate performance, and gain confidence (Herrera-Pavo, 2021). Simulation approaches provide a planned and complete approach to language

learning that develops English communication skills and fluency via familiarization, active engagement, reflection, feedback, and repetition.

Advantages of language teaching through simulation techniques are multifaceted, offering benefits to both educators and learners. Mulders et al. (2020) suggest that simulations provide students with a dynamic learning environment where they can apply theoretical knowledge in practical contexts, fostering deeper understanding and retention of concepts. Additionally, simulation-based learning promotes active engagement, collaboration, and problem-solving skills, preparing learners for real-world challenges and professional practice. Moreover, simulations offer educators the flexibility to tailor learning experiences to individual needs and learning styles, facilitating personalized instruction and assessment.

However, despite their benefits, simulation techniques also have limitations that educators must consider. Susikaran (2014) highlights that simulations may not be suitable for all subjects or topics within a curriculum, limiting their applicability in certain educational contexts. Additionally, the implementation of simulation-based activities requires substantial preparation, resources, and technical expertise, posing logistical challenges for educators and institutions. Moreover, simulations may not always align with learning objectives or outcomes, raising concerns about their effectiveness in achieving educational goals. Furthermore, some learners may struggle with simulation-based activities due to factors such as access barriers, technological limitations, or individual learning preferences, potentially hindering their learning experience. Thus, while simulation techniques offer valuable opportunities for immersive and experiential learning, educators must carefully consider their suitability and limitations in educational practice.

### 3. Limitations of the Study

The one limitation that should be taken into consideration regarding the present study is that its scale is small. Given that there were only ten participants, the findings may not be able to be generalized to other groups of participants.

## 4. Method

### 4.1 Research Design

This research employs a quasi-experimental design with a one-group pre-test and post-test format. The participant group comprised EFL secondary school students, and there was no control group. The study utilized pre-tests and post-tests to assess the impact of the treatment (Jitpakdee, 2014). Additionally, mixed-methods research was employed, incorporating both questionnaires and interviews.

The one-group pre-test and post-test design typically involves three steps:

Administering a pre-test ( $o_1$ ) to measure students' English speaking skills before being exposed to the treatment. Applying an experimental treatment using simulation ( $x$ ). And administering a post-test ( $o_2$ ) to measure students' skills after the treatment. By applying a one-group pre- and post-test, the researcher aimed to determine whether there was any significant difference in students' English speaking skills before and after being taught using simulation.

### 4.2 Participants

The study included ten EFL secondary school students from Muangyao Wittaya School in the second semester of 2022. The participants were selected through convenience sampling, as they were assigned to the teacher-researcher's class by the school. The class consisted of two males (20%) and eight females (80%). The participants had the same backgrounds in terms of their mother tongue, grade level, and experience studying English: They were all Thai native speakers, were in grade eight, and have studied English for nine years. In the 2/2021 semester, there were a total of ten students in grade eight of this school, so all students were included in the study. The students' English grades in grade seven were also relatively similar: Three received an A, one received a B<sup>+</sup>, three received a B, and three received a C<sup>+</sup>.

### 4.3 Research Instruments

#### 4.3.1 Lesson Plans

This research implemented a five-step lesson plan comprising preparation, presentation of the simulation, role assignment, practice sessions, and discussions. The five simulations selected based on students' interests were (1) Asking and giving directions, (2) Asking and offering help, (3) Buying and selling, (4) Making a phone call, and (5) Giving suggestions. Each session was conducted for three hours, totaling 15 hours. The lesson plan included objectives; time allocation; teaching materials, such as PowerPoint slides, knowledge sheets, worksheets, and role cards; and a learning-management activity utilizing a five-step simulation technique adapted from Natthayai (2015).

In the preparation phase, the teacher suggested simulations and explained the learning objectives. A clear presentation of roles and rules was provided to avoid confusion, conveying all necessary information. After ensuring each participant's understanding, they engaged in the assigned roles. The role assignment involved student practice, with the teacher offering guidance to enhance language skills and build confidence. During practice sessions, students engaged in simulations while the teacher observed their speaking abilities, noting strengths and weaknesses. Following this, the teacher evaluated the students' communication skills. In the discussion phase, students engaged with the teacher to reflect on decision-making, problem-solving, and key learnings from the simulations, thus consolidating their understanding.

4.3.2 Pre-Test, Post-Test, and Scoring Rubric

The pre- and post-test of English speaking skills consisted of ten role cards, or five pairs of role cards, for the five simulations. Each pair of students discussed their roles and situations and alternated roles (A and B). Students drew a card to select one test. The students' performances were evaluated by two raters based on the scoring rubric "Clerk Criteria."

The scoring rubric assessed students' abilities in four aspects (pronunciation, vocabulary, grammar, and fluency) on a scale of four to one (4 = excellent, 3 = good, 2 = fair, and 1 = should be improved).

4.3.3 Interview Questions

As the number of participants was not large, all ten learners were interviewed to explore their attitudes towards enhancing English speaking skills through simulation. The interview questions were as follows:

Question 1: What do you think about learning to speak English by using simulation techniques?

Question 2: Can simulation techniques improve your English speaking skills? How?

Question 3: Which simulation lesson was your favorite? Why?

Question 4: What are the problems with simulation techniques?

4.4 Validity and Reliability of Research Instrument

The research instruments, including the lesson plans, pre-test, post-test, and interview questions were revised and confirmed for validity by three experts through their implementation of the Index of Item-Objective Congruence (IOC). The IOC for the lesson plan was **0.37**, indicating strong agreement among experts. Similarly, the pre-test and post-test showed an IOC of 0.89. The interview questions had an IOC of 0.93, indicating high agreement. Then, the pre-test and post-test were applied to a pilot study to validate their reliability using Cronbach's alpha coefficient, resulting in an alpha value of .97. This high value indicated excellent reliability, strengthening the validity of the tests' findings (Smith & Jone, 2018).

4.5 Data Collection

The research procedures lasted two months. In the first week, the speaking pre-test was administered. Then, in the second to sixth weeks, simulation techniques were implemented based on five weekly three-hour lesson plans. Each lesson plan utilized one simulation and the lesson was attended one hour at a time, for three days that week. After finishing implementation, in week seven, students were interviewed about their attitudes towards the simulations. Finally, in week eight, the post-test was administered.

4.6 Data Analysis

The data from the pre-test and post-test were analyzed using inter-rater reliability of Krippendorff's Alpha or interval variable. The Wilcoxon's Signed Rank test of non-parametric statistics was used to compare students' pre-test and post-test scores, due to the small sample size. The students' speaking-skill progress was examined by using percentages of their post-test scores across different simulations. The data from these interviews were investigated through content analysis. The data were classified into main themes according to the interview questions. Next, the students' answers were translated into English and carefully reviewed. Finally, the data were categorized into sub-themes.

5. Results

5.1 Comparison of the English Speaking Skills of EFL Secondary School Students Before and After Using Simulation Techniques

Table 1. The comparison of speaking pre-test and post-test mean scores of all participants

Simulation	Speaking test	Inter-rater reliability Krippendorff's $\alpha$ (interval)	$\bar{X}$	SD	Z	p
1. Asking and offering help	Pre - test	.96	9.20	1.94	2.85	.004
	Post - test	.97	13.20	2.02		
2. Buying and selling	Pre - test	.91	8.30	1.87	2.91	.004
	Post - test	.98	12.35	1.90		
3. Asking and giving directions	Pre - test	.98	7.80	1.91	2.92	.004
	Post - test	.98	11.50	1.96		
4. Making a phone call	Pre - test	.93	6.60	1.50	2.84	.004
	Post - test	.94	11.10	1.80		
5. Giving suggestions	Pre - test	.86	6.05	1.57	2.84	.005
	Post - test	.96	10.50	1.73		

n = 10, p < .05

Table 1 shows the results of the comparison of students' pre-test and post-test scores from the five simulations. Overall, the students' post-test scores for all simulations were significantly higher than pre-test scores at the .05 level. This means that students' speaking scores significantly increased after learning through simulation techniques. The inter-rater reliability analysis of all simulations using

Krippendorff’s alpha reliability (interval) ranged from .86 to .98. Based on Landis and Koch (1977, cited in Gwet, 2014), these values show a high level of inter-rater reliability.

5.2 Investigation of the Students’ Progress in Speaking Skills

Table 2. Results of the investigation of the students’ speaking-skill progress

	Post-test scores for Simulation One (Asking and offering help)		Post-test scores for Simulation Five (Giving suggestions)		Progress	
	Score (16)	%	Score (16)	%	Score	%
Student 1	8	50	11	68.75	3	18.75
Student 2	8	50	11.5	71.88	3.5	21.88
Student 3	10.5	65.63	12.5	78.13	2	12.50
Student 4	11	68.75	14	87.5	3	18.75
Student 5	13	81.3	16	100	3	18.75
Student 6	11	68.75	14	87.50	3	18.75
Student 7	12.5	78.13	16	100	3.5	21.88
Student 8	12	75	15	93.75	3	18.75
Student 9	9	56.25	11	68.75	2	12.50
Student 10	10	62.50	11	68.75	1	6.25

Table 2 shows the difference between the post-test scores for Simulation One (Asking and offering help) and Simulation Five (Giving suggestions). Overall, the post-test scores for Simulation Five for all students were higher than their post-test scores for Simulation One, indicating that all students made positive progress after completing the five simulations. The students who showed the most progress were 2 and 7. Student 2 had a post-test score of 8 in Simulation One and 11.5 in Simulation Five, while Student 7 had a score of 12.5 in Simulation One and 16 in Simulation Five, both with an increase of 3.5 points. The student who showed the least progress was Student 10, with a post-test score of 10 in Simulation One and a post-test score of 11 in Simulation Five, only a 1-point difference.

5.3 The Students’ Attitudes Towards Using Simulation Techniques

5.3.1 The Students’ Opinions on Learning to Speak English Through Simulation Techniques

In response to the questions “What do you think about learning to speak English using simulation techniques?” and “Can simulation techniques improve your English speaking skills? How?” the students expressed positive attitudes towards simulation techniques. All believed simulations can improve their English speaking skills, specifically by helping them 1) learn new vocabulary, 2) practice real-life situations, and 3) increase their self-confidence.

1) Learning new vocabulary

Students primarily cited increased vocabulary as the reason why they preferred simulation techniques to other methods. They were able to practice their speaking skills in a realistic context and become more confident in using new vocabulary. For instance, Student 3 and Student 4 stated that “In different situations, I applied newly learned words” (S3) and “I employed newly learned vocabulary in my communication” (S4).

2) Practicing for real situations

The interview results also revealed that the student’s appreciated that simulation techniques allowed them to practice English that they could use in real life. For instance, Student 2 mentioned, “I had a chance to practice English in preparation for a potential real-life situation” (S2). Similarly, Student 5 stated, “I gained experience communicating with a foreigner and had the chance to use my knowledge in real situations. Furthermore, the techniques increased my confidence in speaking. Whether I spoke correctly or incorrectly, the teacher guided me to speak correctly and effectively in English with my friend” (S5).

3) Increasing self-confidence.

In addition, some students stated that they enjoyed this method because it helped them increase their self-confidence when it came to speaking English. Student 1 stated, “It was good and fun, I had a chance to practice English, and the opportunity made me more confident to speak” (S1). Similarly, Student 6 said, “I felt like this technique helped me to become more confident and gave me a chance to use my vocabulary. When I spoke in English to my friends more often, it made me more confident in my speaking skills” (S6). This reasoning is common among the students, as Student 10 also stated, “It was good to practice English and talk with my friends frequently, which made me less shy to use English. Practicing different scenarios taught me what to say in each situation and made me unafraid to talk to foreigners” (S10).

5.3.2 The Preference for Simulation Lessons

In this part, the students were asked “Which simulation lesson was your favorite? Why?” in order to gauge their preferences regarding the simulation lessons.

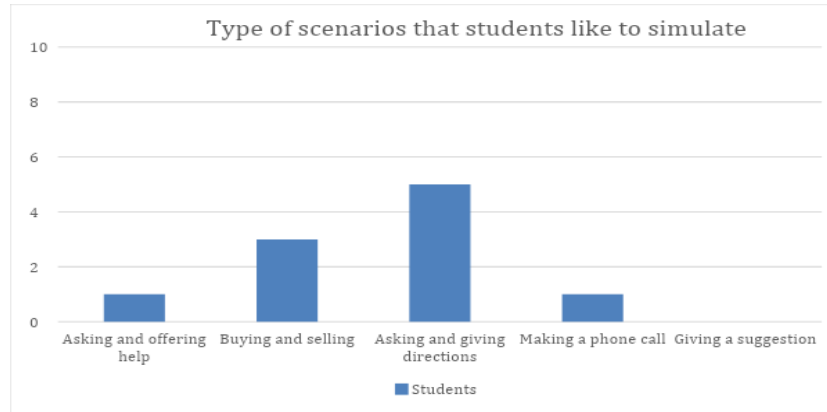


Figure 1. Students’ preferences amongst the simulation lessons

From Figure 1, it can be seen that the most popular activity was “Asking and giving directions,” followed by “Buying and selling,” and then by “Making a phone call,” and “Asking and offering help.”

Five students preferred “Asking and giving directions” because it was exciting, is a common situation students might face, and can be used in everyday life. In greater detail, the five students expressed the following: Student 1 explained, “*Because I practiced imagining different places and spoke using English vocabulary, I used it when I was asked for directions. It was exciting*” (S1). Student 6 stated, “*When we were in a situation where there might be foreigners asking for directions, I could respond to them*” (S6). Student 8 also saw the benefits of these techniques, saying, “*If, in a real situation, we could ask foreigners, and if foreigners came and asked us, we would be able to answer them*” (S8). Student 9 commented that “*Asking for directions is something that can be used in everyday life. If there are foreigners visiting our house, we could give them directions. I had encountered an incident where foreigners asked for directions, and I was shocked and couldn't interpret them. I couldn't tell him the way*” (S9). Finally, Student 10 stated that “*If there would be some foreigners coming to ask for directions, I could talk to them*” (S10).

Three students preferred “Buying and selling,” since shopping is an everyday activity, they could use the language abroad, and they could help their family sell souvenirs. The three students cited their reasoning as follows: Student 4 confidently stated that “*Shopping happens in life every day. If you know more words and have practiced speaking more in simulated classroom situations, you will be able to use them in real situations and speak more fluently*” (S4). Student 5 also voiced a preference for this technique, stating “*I helped my mother sell things at the provincial souvenir market. There were foreigners who came to buy things. It gave me more vocabulary to speak or communicate with foreigners*” (S5). Lastly, Student 7 agreed with both Student 4 and Student 5, saying, “*I was simulated in the situation to go shopping at the department store in case one day I went to travel abroad so that I could have a conversation*” (S7).

One student preferred “Making a phone call” because she liked learning about vocabulary, polite questions, and general questions when talking to people she doesn’t know. Student 2 stated, “*I learned a lot of vocabulary for polite questions and answers when talking to people I don't know. I also had a chance to practice talking on the phone with a company in a formal manner and casually talking with friends*” (S2).

One student preferred “Asking and offering help” because it can be used in his daily life and because he could use his knowledge to help others. Student 3 said, “*It is useful for me. For example, I've practiced speaking English by offering to help friends, teachers, or foreigners I've met. I could apply the knowledge we had learned to speak and offer help in real situations*” (S3).

No student liked “Giving suggestions” since it required a high level of English.

### 5.3.3 The Problems or Difficulties of Learning by Using Simulation Techniques

When asked “What are the problems or difficulties with simulation techniques?” most students addressed the problem of vocabulary. Specifically, many students reported that they did not have sufficient vocabulary to speak in the simulations. Their comments include the following: Student 1 stated, “*I couldn't think of the vocabulary that I wanted to use, making the conversation slow*” (S1), while Student 2 said, “*I had less vocabulary, which made it hard to communicate*” (S2). Student 6 reported, “*I couldn't think of any vocabulary because I knew too few words, and I was scared of using them incorrectly*” (S6). Lastly, Student 8 repeated similar concerns, saying, “*I couldn't think of vocabulary immediately because I had only a few words in my head. Therefore, the conversations were slow when I had to simulate them with my friend*” (S8). Because of insufficient vocabulary range, they lacked self-confidence and were afraid to speak in front of others. For instance, Student 3 mentioned, “*I was not confident to say some words, because I was scared that I could not pronounce them correctly and use them correctly*” (S3). Student 4 also voiced that “*I was not good in English vocabulary, so when my friends asked me, sometimes I could not answer*” (S4). Ultimately, the interview results demonstrated that the students’ main concern is attributed to issues of vocabulary, which led to a lack of self-confidence.

## 6. Discussions

### 6.1 Comparison of the English Speaking Skills of EFL Secondary School Students Before and After Using Simulation Techniques

The findings of the study provide significant insights into the effectiveness of simulation techniques in improving English speaking skills among EFL secondary school students. The results suggest that the use of simulation techniques in teaching spoken English significantly enhances students' speaking abilities, as evidenced by the increase in post-test scores across all five simulations compared to pre-test scores. This indicates that simulation techniques provide students with opportunities to practice speaking, become familiar with various contexts requiring speaking skills, and enable students to actively engage in speaking practice resembling real-life experiences. These findings align with previous studies (Elisa et al., 2019; Syafitri, 2017; Yanti, 2021; Yuwono, 2013). Elisa et al. (2019) noted that simulation techniques led to increased motivation for real-life application and additional practice. Yanti (2021) highlighted that these techniques created a positive classroom atmosphere. Syafitri (2017) observed that students enjoyed studying and felt relaxed using these techniques, which led to an improvement in their speaking abilities. And Yuwono (2013) emphasized the effectiveness of simulation techniques in ameliorating oral communication skills and enhancing pupil engagement in class.

Moreover, the processes of simulation-based learning in this study involved clear steps from preparation to presentation to discussion. These activities prepared students for learning and practicing English speaking skills step-by-step. This approach facilitated students' understanding and application of the material, leading to an observed increase in their scores. According to Nattayai (2015), simulation techniques are effective tools for practicing language skills, critical thinking, and decision-making techniques. The clear steps of simulation-based activities ensured that students were prepared, engaged, and provided with opportunities for reflection and feedback.

In summary, these benefits contribute to increased motivation to make effective decisions and increased role perception, which ultimately lead to greater scores.

### 6.2 Investigation of the Students' Progress in Speaking Skills

As all five simulation techniques were utilized, the results of this study demonstrated a clear progression in student performance, with scores from the fifth (most difficult) simulation being higher than those from the first (easiest). It can be inferred that students' speaking skills significantly improved after being exposed to increasingly difficult simulation methods.

This finding agrees with the research of Hardianty et al. (2013), which observed an increased level of fluency in the post-test, where students' confidence grew and they were able to express their ideas without hesitation, speaking with only minimal and natural pauses. Similarly, this study corroborates the results of Elisa et al. (2019), who found a significant difference in scores between different cycles of simulations, indicating that more cycles of simulation positively impact students' scores.

### 6.3 Students' Attitudes Towards Using Simulation Techniques

All students expressed positive attitudes towards simulation techniques. This could be attributed to various factors. Based on the interview, students found the simulations enjoyable and engaging. They stated that they are "fun" and "exciting." This enjoyment likely contributed to their positive attitudes and increased motivation to participate. Moreover, students found the simulation techniques beneficial for their learning. They reported that the simulations helped them learn new vocabulary, practice real-life situations, and increase their self-confidence. Additionally, students appreciated the guidance provided by the teacher during the simulations. This may have contributed to their positive attitudes towards speaking English. Furthermore, students recognized the importance of some situations that they may experience in their everyday lives. For example, several students preferred the "Asking and giving directions" simulation because they perceived it as a common situation they might face in their real lives.

The students' positive attitudes reaffirmed the effectiveness of simulations that was seen in their post-test scores. The students' enjoyment and engagement increased their motivation to learn, resulting in increased ability.

This finding was in line with a previous study by Syafitri (2017), involving students in simulation-based learning. The students reflected positive attitudes as they experienced an enjoyable learning setting. They felt relaxed and comfortable when learning through simulations. Similarly, Elisa et al. (2019) stated that students felt motivated to learn to speak through simulations as they aimed to handle real-life communication and were more motivated to practice. Yanti (2021) also concluded that students would be more active in learning when they experienced real-life situations in simulations.

Interestingly, certain students mentioned some issues regarding the simulations. Specifically, some reported that they were anxious while participating. Due to a lack of sufficient vocabulary, they found it difficult to find the correct and appropriate words for specific simulations. This made it difficult to speak English in front of their classmates since they lacked self-confidence (Hardianty, 2013; Vitasmoro, 2017; Elisa et al., 2019).

## 7. Conclusion

The purposes of this study were to compare the English speaking skills of EFL secondary school students before and after using simulation techniques, to investigate the progress of the students' speaking skills, and to study the students' attitudes towards simulation techniques. The study employed pre- and post-tests to evaluate the students' speaking skills before and after engaging in the simulations. The simulations included 1) Asking and offering help, 2) Buying and selling, 3) Asking and giving directions, 4) Making a phone call, and 5) Giving suggestions. Following the completion of the five simulations, students' attitudes were explored through semi-structured interviews.

The findings of the study are concluded according to the research purposes. After analyzing each simulation, it was observed that there were significant differences between students' pre- and post-test scores. The post-test scores of all simulations were significantly higher than the pre-test scores. Investigating the progress of students' speaking abilities through the post-test scores of Simulation One and Five showed that the post-test scores for Simulation Five for all students were higher than the post-test scores for Simulation One. This means that students' speaking skills improved after they learned through simulation techniques. In terms of students' attitudes, the findings suggested that the majority of students showed positive opinions about using simulation techniques to enhance their speaking skills. They found the simulations to be enjoyable, engaging, and helpful for developing communication in various contexts. Students preferred the opportunity to practice their English speaking skills in a non-judgmental environment where they felt safe receiving feedback from teachers and friends. Students also felt comfortable and confident when practicing their speaking skills in simulations. They appreciated the immediate feedback from their peers and teachers, which helped them identify areas for improvement. Additionally, they noted the benefit of practicing speaking in different contexts and situations.

However, some challenges were reported in learning through simulations. Namely, anxiety was identified as a significant issue for some students, which hindered their ability to speak. Their anxiety was caused by inadequate vocabulary, as they had difficulty finding the correct words to express their thoughts. Additionally, some students reported feeling uncomfortable or embarrassed when performing in front of others.

### **Acknowledgments**

Thank you to my adviser for their direction and support throughout my independent research, from its beginning to its finish. I appreciate the research fund from the School of Liberal Arts, the University of Phayao. I also would like to thank the experts evaluating the research instruments and offering their excellent ideas to improve them for this study. My research participants' participation and attentiveness are also much appreciated.

### **Authors' contributions**

Sornsawan Kamrach was responsible for the design of the research methodology and instruments, data collection and data analysis. Dr. Chuanpit Sriwichai was responsible for checking and approving the research design and instruments. Sornsawan Kamrach drafted the manuscript and Dr. Chuanpit Sriwichai edited and revised it. All authors read and approved the final manuscript.

### **Funding**

This research was supported by the School of Liberal Arts, University of Phayao [Project Number Sor Sor 67006]

### **Competing interests**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

### **Informed consent**

Obtained.

### **Ethics approval**

The Publication Ethics Committee of the Sciedu Press.

The journal's policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

### **Provenance and peer review**

Not commissioned; externally double-blind peer reviewed.

### **Data availability statement**

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

### **Data sharing statement**

No additional data are available.

### **Open access**

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).

### **Copyrights**

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

### **References**

Angelini, M. L. (2021). *Learning through simulations: Ideas for educational practitioners*. Springer Nature. <https://doi.org/10.1007/978-3-030-65540-2>



- Chaparro Castro, A., Moreno Duque, H., Sánchez Mesa, A. M., Velandia Jiménez, D. A., & Zuleta Quevedo, J. L. (2013). *Improvement of the speaking skill through contextualized simulation activities, considering the task based approach implemented at la salle languages center, in studens from first to fifth level.*
- Chergui, K. (2016). The effect of using simulation activities on developing Algerian EFL students' speaking and listening proficiency. *Journal of Human Sciences*, 27(4), 207-222. <https://doi.org/10.34174/0079-000-046-113>
- Elisa, H., Sada, C., & Sutapa, Y. G. Y. (2019). Teaching speaking through simulation technique to improve the students' speaking ability. *Journal Pendidikan dan Pembelajaran Khatulistiwa*, 8(3).
- Gravesande, J., Richardson, J., Griffith, J., & Scott, F. (2019). Test-retest reliability, internal consistency, construct validity and factor structure of a falls risk perception questionnaire in older adults with type 2 diabetes mellitus: A prospective cohort study. *Archives of Physiotherapy*, 14(1), 1-11. <https://doi.org/10.1186/s40945-019-0065-4>
- Hardianty, N. (2013). Improving speaking skill through the use of simulation technique. *e-Journal of ELTS (English Language Teaching Society)*, 1(2).
- Herrera-Pavo, M. Á. (2021). Collaborative learning for virtual higher education. *Learning, culture and social interaction*, 28, 100437. <https://doi.org/10.1016/j.lcsi.2020.100437>
- Inpanya, C. (2012). *Results of learning activities to speak English for communication Mathayom 1 students using simulation scenarios* (Master's thesis, Mahasarakham University).
- Khamkhien, K. (2010). Thai learners' English pronunciation competence: Lesson learned from word stress assignment. *Journal of Language Teaching and Research*, 1(6), 1-3. <https://doi.org/10.4304/jltr.1.6.757-764>
- Kithinji, W. K., & OHirsi, A. I. (2022). Relating English language proficiency to academic performance among non-English speaking undergraduate students in Kenyan universities. *East African Journal of Education Studies*, 5(1), 66-76. <https://doi.org/10.37284/eajes.5.1.560>
- Mulders, M., Buchner, J., & Kerres, M. (2020). A framework for the use of immersive virtual reality in learning environments. *International Journal of Emerging Technologies in Learning (iJET)*, 15(24), 208-224. <https://doi.org/10.3991/ijet.v15i24.16615>
- Nation Institute of Education Testing Service (Public Organization). (2020). *Nation Institute of Education Testing Service*. Retrieved from <https://www.niets.or.th/th/>
- Natthayai, F. (2015). *Development of the learning process using the concept of construction theory: Use scenarios to improve listening and speaking skills of Mathayom 1 students* (Master's thesis, Mahasarakham University).
- Prabowa, C., & Yulai, Y. (2018). Teaching speaking using simulation to the eighth grade students of junior high school, Universitas Sarjanawiyata Tamansiswa. *Journal of English Language and Language Teaching*, 2, 33-38. <https://doi.org/10.36597/jellt.v2i1.2707>
- Prajudhasri, T. (2012). *Comparison of academic achievement, attitude towards English subjects, and self-esteem of grade 6 students during learning activities by using scenarios and role-playing* (Master's thesis, Mahasarakham University).
- Quadir, M. (2014). Relationships between learners' motivation factors and speaking strategy factors to learn oral communication in English. *The English Teacher*, 43(3).
- Reese, C. E., Jeffries, P. R., & Engum, S. A. (2010). Learning together: Using simulations to develop nursing and medical student collaboration. *Nursing Education Perspectives*, 31(1), 33-37.
- Susikaran, R. S. A. (2014). *Learning through simulated teaching*.
- Syafitri, W. (2017). Improving students' speaking ability through simulation. *Polingua: Scientific Journal of Linguistics, Literature and Language Education*, 6(1), 24-30. <https://doi.org/10.30630/polingua.v6i1.14>
- Vitasmoro, P. (2017). Improving student's speaking competence through simulation technique. *English Education: Journal of English Teaching and Research (JETAR)*, 2, 56-59. <https://doi.org/10.29407/jetar.v2i1.731>
- Wichaikul, W. (2015). *Development of learning activities in speaking English using simulation scenarios: Grade 6* (Master's thesis, Mahasarakham University).
- Yanti, R. A. (2021). The effect of simulation technique on enhancing vocational high school students' speaking skill. *RETAIN (Research on English Language Teaching in Indonesia) (e-Journal)*, 9(1), 187-194. Retrieved from <https://ejournal.unesa.ac.id/index.php/retain/article/view/39682>

**Appendix A Lesson plans****Lesson plan 1****Topic:** Asking and giving directions**Objectives:**

- Students are able to ask the direction by using the expressions, such as, how can I go.....? Excuse me, could you tell me where is.....?
- Students are able to explain the direction to foreigners.
- This activity is to evaluate how confident students communicate in English in terms of asking and giving directions.

**Teaching materials:**

1. Worksheet
2. Role card
3. PowerPoint slides

**Procedure and activities*****Preparation:***

A teacher prepares role cards for students by typing the role task using Microsoft Word and printing them on a small card. A teacher should check the instruction whether it is correct in terms of grammar and lexical use.

***Presenting a simulation:***

- A teacher presents the PowerPoint slides regarding how to ask and give directions, gives an extra sheet to students to study by themselves, and explains to them how to use the expressions.
- A teacher gives a role card to students and lets them practice how to pronounce the word correctly.

***Assign the role:***

- Student Chooses the partner.
- A teacher gives the situation role card. Each pair of students must brainstorm to make a dialogue that corresponds to the situation.

***Practice session:***

- Students work in pairs. They practice the dialogue by themselves.  
A teacher is responsible for giving feedback on their pronunciation.
- Students present their dialogue in front of the class. A teacher evaluates the students' performance.

***Discussion and evaluation:***

A teacher discusses with students regarding their performance and evaluates them by using an evaluation form on the ability of English by using a simulation.

**Exercise:**

- 1) If you want to go to the Central Lampang, how do you ask the direction in English politely and appropriately?
  - a) Excuse me, could you tell me where the Central Lampang is?
  - b) Where is Central Lampang?
- 2) How do you say เลี้ยวซ้าย in English?
  - a) Turn left
  - b) Turn right
- 3) How do you say เลี้ยวขวา in English?
  - a) Turn left
  - b) Turn right
- 4) How do you say ตรงไป in English?
  - a) Go straight

- b) Go across the street
- 5) A: Excuse me, how can I get to Kadkongta walking street?  
B: \_\_\_\_\_

Please choose an appropriate answer

- a) You can go by car or motorcycle.
- b) From the Clock tower intersection, go straight to Bunyawat Road, then you can see Seree Department Store. After that, turn left and go straight. Kadkongta walking street is on the right-hand side.

<b>Asking and giving directions</b>	
<b>Asking directions</b>	<b>Giving directions</b>
<p>- Excuse me   Can   Could you tell me                     where                      .....                     .....is?</p> <p style="text-align: center;"><b>How do I get to.....?</b> <b>Where is.....?</b></p>	<ul style="list-style-type: none"> <li>- Go straight</li> <li>- Go along the street</li>   <li>- Go across the street</li> <li>- It's on your left/ right side of you</li>   <li>- Turn left</li> <li>- Turn right</li>   <li><b>You can go by bus/sky train/underground or subway</b></li> </ul>

**Appendix B Interview**

**(Interview)**

**Research Title:** he Use of Simulation Techniques To Enhance English Speaking Skills of EFL Secondary School Students

Interviewer: \_\_\_\_\_ Date: \_\_\_\_\_

Time: \_\_\_\_\_ Place: \_\_\_\_\_

Interviewee: \_\_\_\_\_ Gender: \_\_\_\_\_

Class: \_\_\_\_\_ Number: \_\_\_\_\_

**(Question)**

1. What do you think about learning to speaking English by using simulation techniques?

.....  
.....  
.....

2. Can simulation techniques improve your English speaking skills? How?

.....  
.....  
.....

3. Which simulation lesson is your favorite one? Why?

.....  
.....  
.....

4. What are the problems or difficulties of simulation techniques?

.....  
.....  
.....