

THE EFFECT OF READERS THEATER ON THAI PRESERVICE ENGLISH
TEACHERS' IMPROVEMENT OF PRONUNCIATION IN THAILAND

A Dissertation

Presented to

The Faculty of the School of Teaching and Learning

Sam Houston State University

In Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

by

Pimrawee Ruengwatthakee

May, 2021

THE EFFECT OF READERS THEATER ON THAI PRESERVICE ENGLISH
TEACHERS' IMPROVEMENT OF PRONUNCIATION IN THAILAND

by

Pimrawee Ruengwatthakee

APPROVED:

Lory Haas, EdD
Committee Chair

Mary Petron, PhD
Committee Co-Chair

Macie Kerbs, PhD
Committee Member

Melinda Miller, PhD
Committee Member

Chase Young, PhD
Committee Member

Stacy Edmonson, PhD
Dean, College of Education

DEDICATION

To Thai students and those who are dedicating themselves to growing the seeds of education in Thailand. May literacy, along with democracy, fully bloom in the Thai society one day.

ABSTRACT

Ruengwatthakee, Pimrawee, *The effect of readers theater on Thai preservice English teachers' improvement of pronunciation in Thailand*. Doctor of Education (Literacy), May, 2021, Sam Houston State University, Huntsville, Texas.

This mixed methods study aims to investigate the effect of readers theater, a drama-based activity whether it could help enhance preservice English teachers' English pronunciation as well as reduce their anxiety when pronouncing English. The participants ($N = 49$) were sophomores majoring in the English of Education program, who enrolled in a Phonetics and Phonology for Teachers of English course in the academic year 2020 in Thailand. Data were synchronously collected quantitatively and qualitatively.

Regarding the quantitative research phase, the quasi-experimental design was specifically used to explore the effects of readers theater in the improvement of the participants' English pronunciation, particularly on two segmental features (i.e., /l/ and /r/). The participants were randomly divided into the control group ($n = 26$) and the experimental group ($n = 23$). While readers theater was implemented to the experimental group for one hour a week over 12 weeks, the control group received a traditional teaching method. The pre-test and post-test were administered to both groups before and after intervention.

The speech perception was assessed using minimal pairs. The sound production assessment consisted of picture naming and interviews in a spontaneous speech setting. Five English native speakers judged the participants' voice recordings. Generally, the data from statistical analysis indicated that the participants in the experimental group made significant gain in the sound perception test ($p < .05$) with a large effect size ($d >$

0.8), while there was no significant difference found in the sound production test between either group.

In a qualitative phase, three different sources of data were collected from the online survey, open-ended questions, and an anecdotal record from the experimental group after the 12 weeks of intervention. In general, most of the participants perceived that readers theater is a fun activity. They enjoyed reading scripts with peers, which helped motivate them to practice and gain more confidence when pronouncing English words.

Overall, the primary results from this study suggested that readers theater could be used as an effective teaching tool to engage and improve Thai preservice English teachers' English pronunciation and prepare them prior to teaching in their own classrooms.

KEY WORDS: Comprehensibility pronunciation, Phonetics, Second language pronunciation, Preservice teacher, Readers theater, English as a foreign language, Foreign language anxiety, Mixed methods research design

ACKNOWLEDGEMENTS

First and foremost, I would like to express my deepest gratitude to my beloved and wonderful family. Thank you for my mother and father who always have my back and give me freedom to study what I wish. Special thanks to my first and the only one big brother for taking the best care of our parents and our sweet dog, Summer, while I was so far away from home.

I owed my deepest appreciation toward my co-chairs, Dr. Lory Haas and Dr. Mary Petron for joining the journey with me from the beginning to the end. It was wonderful working collaboratively with you. Thank you so much for believing in me, being patient with me, and always being there. You are knowledgeable, responsive, hardworking, humble, and you worked with me repeatedly until I understood what I needed. I am most appreciative for your invaluable comments and feedback on my dissertation. Without your guidance and persistent help, I could not have completed my study.

I would like to offer my special thanks to Dr. Chase Young, Dr. Melinda Miller, and Dr. Macie Kerbs for serving as committee members of my dissertation. I appreciate your comments, expertise, and supports.

Dr. Chase Young, thank you very much for introducing readers theater to my class, which inspired me to develop my dissertation topic. Thank you for the fun and fruitful classes.

Dr. Hannah Gerber, Dr. Patricia Durham, Dr. Melinda Miller, Dr. Lory Haas, Dr. Chase Young, Dr. Nancy Votteler, Dr. Donna Cox, Dr. Benita Brooks, thank you very much for making me better realize the value of education and how democracy cannot be

made without literacy. You all never put pressure on me and always showed great, positive energy and leadership to students. You all made me want to be a good and inspirational teacher.

I would like to express my deep gratitude to my graduate research assistant supervisor, Dr. Salim Sehlaoui, for providing me opportunities to learn tremendous things and trying to train me to grow academically and work professionally in several ways.

My special thanks are extended to Dr. Andrey Koptelov for your care of my well-being and enthusiastically trying to pull me out of my comfort zone, watching me spreading my wings, and see me grow academically and personally.

Dr. Leonard Breen, thank you very much for always spending time answering a lot of my questions, giving me advice, sharing ideas and laughs with me.

Special thanks to Dr. Debra Price for offering me a great opportunity to open the new window in my education life at SHSU. Without you, I would still be in the whirlpool of thoughts, not knowing which direction to take for pursuing my highest degree.

Dr. Peg Pinto, thank you so much for your care, encouragements, advice, and wonderful meals which helped keep me stepping forward. Dr. Melinda Miller, thank you very much for always open the door for me, giving warm hugs, and listening to me when I am weary.

Thank you, my classmates, from Cohort 12 for a great learning community and rich discussing on educational research and philosophy of literacy.

Special thanks to Dr. Fadia Braktia, Dr. Marcela Montenegro and Dr. Dana Van De Walker for moral and academic support. I have great benefits from discussing and exchanging ideas academically with you. It means a lot to me.

I would like to offer my special thanks to the Thai students who were willing to be participants in my research, Dr. Sharon Lynch, Dr. Ed Davis, and Dr. Craig Henderson for spending tremendous time and work tirelessly on judging pronunciation for my dissertation, and the Berthelsens and the Hendersons for voice recordings for readers theater scripts. Without all of you, my dissertation would not have been completed.

I am particularly grateful for Dr. Rachada Pongprairat for allowing me to implement the intervention in her class, sharing ideas, and giving thoughtful suggestions on my dissertation.

I owe my deepest gratitude to my Texas family, especially Mr. Don and Mrs. Virginia Coleman for your love, kindness, and care. Thank you for always being concerned about my well-being and make sure I am doing good physically and mentally throughout my journey at SHSU.

I would like to show my deep appreciation to Professor Emeritus Dr. Amara Prasithrathsint, my beloved linguist professor from Chulalongkorn University, Thailand who always gave me wisdom and support. You are always the light at the end of my tunnel.

I would like to sincerely thank my dearest friend, Dr. Kosin Panyaathisin, for long friendship, inspiration, support, guidance, and kindness. Discussion with you has always been illuminating my life personally, academically, mentally, and keeps me moving forward.

I always received generous support, kindness, and friendship from the Thai friends and families in Huntsville Dr. Marcus, P' Pom Gillespie, and Nong Asia, Mr. Joe and P' Koi, Nong Nui and family, and Nong Ning and Dr. Craig. Special thanks go to

Kun Pa Kai, a Thai Barn restaurant owner in Trinity, who dropped off goodies every single month for me.

Thank you Aom, my beloved cousin, for always giving me encouragements, sharing wisdom, and feelings with me especially during my rough times.

My heartfelt appreciation goes to Bridges International at SHSU for embracing and providing a safe space and great support for international students. Dr. Craig Henderson, Dr. Ken and Mrs. Jan Smith, Mrs. Elizabeth and Mr. Vern Van Rooy, Emma, Adam, Karlysha, Kubra, and Alperen, thank you for your sincerity and strong friendship, particularly through the Bluebell night! Also, thank you Texas families and friends from Elkins Baptist Church and BSM for friendship and support.

I am so thankful for Emma Berthelsen, my best friend forever, for your kindly help, support, and consideration academically and mentally. You are a friend indeed and one of the amazing young ladies I have ever met.

I would like to thank you my colleagues from Thepsatri Rajabhat University for encouragement. A special thank you goes to Dr. Kanya Kongsoongnoen for support and motivation, Dr. Somchai Watcharapunyawong for kindly help, invaluable suggestions, and always being there for me when I was struggling with my studies and Assistant Professor Suwanna Pansang for her help and support.

Special thanks also go to Professor Shigehiro Nakamura, Dr. Joyce McCauley, Grandma Alice, Dr. Watit Poomyoo, Dr. Ram Ture, P' Sommai, Noina, Poppy, Dr. Jill Pagels, the Busby, Na Maew and Na Sayam, Yai Phao, Yai Nuai, Khunta Surat and Kunyai Meaw, Kunta Sakchai, Na Songpol, Pha Jook, Pha Pha, and Dr. Wallapak Bennette, Mon, P' Ew, Dr. Somchai Chuachan, Je Muai, all my literacy program friends,

all my relatives and Thai friends, Sarah Pearsall, and my beloved American sister, Kathryn Glenn, for your kind support.

Thank you, Hurricane Harvey, Covid-19, Hurricane Laura, and snowstorm in Texas for making me stronger and more resilience. I had it all!

Thank you tutors from the Academic Success Center, Mathematics Center, librarians from the Library, and staff from the Office of International and the Graduate School, SHSU for being part of my success.

Thank you, the Graduate School and the Department of Literacy, Sam Houston States University very much for scholarships.

Lastly, studying abroad is very challenging for me linguistically, culturally, and mentally. I am so thankful and proud of myself for not giving up along the way and strongly making it through to the end of my doctoral journey. Without determination, grit, passion, perseverance, patience, and positive thinking, I would never achieve my goal and see the beautiful things in a road ahead. Through these precious experiences, I have high determination to promote literacy in my home country, Thailand. Thank you each and every one of you who have come and painted more colors in a wonderful chapter of my life. Eat 'Em Up Kats!

TABLE OF CONTENTS

	Page
DEDICATION	iii
ABSTRACT.....	iv
ACKNOWLEDGEMENTS	vi
TABLE OF CONTENTS.....	xi
LIST OF TABLES.....	xv
CHAPTER I: INTRODUCTION.....	1
Background of the Study.....	2
Statement of the Problem	8
Purpose of the Study.....	10
Significant of the Study.....	11
Definitions of Terms.....	11
Theoretical Frameworks.....	13
Literature Review Search Procedure.....	16
Research Questions.....	17
Delimitations.....	17
Limitations.....	18
Assumptions.....	18
Organization of the Study.....	19
CHAPTER II: LITERATURE REVIEW	20
Empirical Studies on Thai EFL Students' English Pronunciation Problems.....	20
First Language Interference.....	27

Interlanguage.....	28
The Critical Period Hypothesis.....	30
Phonological System in English and in Thai.....	35
Repeated Reading.....	43
Readers Theater and Reading Skills.....	44
Readers theater and speaking skills.....	49
Readers Theater in the Thai EFL Context.....	51
Foreign Language Anxiety.....	53
Summary.....	59
CHAPTER III: METHODOLOGY.....	60
Research Questions.....	60
Research Design.....	61
Research Procedure.....	67
Quantitative research (Phase I).....	67
Qualitative Research (Phase II).....	87
Ethical Considerations.....	92
Summary.....	94
CHAPTER IV: RESULTS.....	95
Quantitative Results.....	95
Qualitative Results.....	109
Summary.....	140
CHAPTER V: DISCUSSION AND IMPLICATIONS.....	141
Summary of the Study.....	141

Discussion of Quantitative Results.....	144
Discussion of Qualitative Results.....	147
Connections to the Theoretical Frameworks.....	152
Implications.....	153
Limitations.....	154
Recommendations for Future Research.....	156
Recommendations for Implementing Readers Theater in the EFL Classroom.....	159
Conclusion.....	162
REFERENCES.....	163
APPENDIX A.....	186
APPENDIX B.....	189
APPENDIX C.....	193
APPENDIX D.....	197
APPENDIX E.....	200
APPENDIX F.....	207
APPENDIX G.....	208
APPENDIX H.....	211
APPENDIX I.....	213
APPENDIX J.....	214
APPENDIX K.....	215
APPENDIX L.....	216
APPENDIX M.....	218

VITA.....	220
-----------	-----

LIST OF TABLES

Table	Page
1 International Phonetic Alphabet for English Consonants.....	36
2 English Vowel Phonemes.....	37
3 International Phonetic Alphabet of Thai Consonant Phonemes	39
4 Thai Vowel Phonemes	40
5 Bangkok Thai Tones	41
6 Summary of English and Thai Phonological Features.....	42
7 The Demographic Data of the Participants in the Control and the Experimental Groups.....	65
8 Nonequivalent Comparison-Group Design.....	68
9 Comparing of Control Group and Experimental Group Weekly Teaching Plan Outline.....	75
10 Control Group and Experimental Group 16-week Teaching Plan Outline.....	76
11 Implementing Readers Theater in the Class Outline.....	79
12 The Flesch Reading Ease Score on the Scale.....	81
13 Intraclass Correlation Coefficients for All Groups in the Production Pretest and Posttest.....	87
14 Comparison of the Sound Perception Pretest and Posttest within the Control and the Experimental Group.....	96
15 Comparison of the Sound Perception Pretest and Posttest between the Control and the Experimental group.....	98

16	Comparison of the Picture-Naming Pretest and Posttest within the Control and the Experimental Group.....	100
17	Comparison of the Picture-Naming Pretest and Posttest between the Control and the Experimental Group.....	102
18	Comparison of Pretest and Posttest within the Control and the Experimental Group.....	105
19	Comparison of the Interview Pretest and Posttest between the Control and the Experimental Group.....	107
20	Percentages, Mean, and Standard Deviations of the Responses.....	110

CHAPTER I

Introduction

Prior to coming to the United States of America to pursue my Ed.D., I was a lecturer of English at the University in the Central Thailand. I taught English as a Foreign Language (EFL) to undergraduate students for seven years. Apart from teaching and conducting research, I was also a supervisor of preservice teachers who are majoring in English. One of the primary concerns from my observations during their teaching practicum was that almost all Thai preservice English teachers rarely used English when teaching. Moreover, most of them could not pronounce English words correctly, resulting in their students repeating or imitating the vocabularies incorrectly as well. I still remember well that the word “bread”, which is commonly taught in the classroom, oftentimes is mispronounced as “bed” by Thai preservice English teachers. One day after a class observation, I asked one of the elementary students how to pronounce “bread”, he said “bed”. I then asked how to pronounce the thing that we use for sleeping. The same boy said “bed” and then he immediately looked at me surprisingly as he realized that those two words were not supposed to be pronounced in the same way. This story demonstrates a cause that might lead to a serious problem in terms of literacy or language proficiency.

Moreover, Thai preservice English teachers should be a role model for their future students in terms of language use in all skills. Although there is no requirement for Thai preservice English teachers to use or speak English when teaching, they are asked by supervisors to use English as much as they can. Nevertheless, most of them still ignore the suggestion. This issue led me to conduct a pilot study, “Thai preservice English

teachers' perceptions towards using English as a foreign language in a teaching practicum in Thailand". Interestingly, all participants agreed that they do not feel comfortable using English in the classroom because they think their English pronunciation is poor (Ruengwatthakee & Haas, 2021). As a result, I wish I could help them improve their pronunciation, reduce anxiety, and gain more confidence when teaching during their teaching practicum and when they become a full-time teacher. The role and responsibilities of preservice English teachers are very crucial that they should be well-prepared prior to teaching in schools and be a role model for students in the future (Jamjuree, 2017; Mumford & Dikilitaş, 2020; Oeamoum & Sriwichai, 2020).

Background of the Study

As I have a strong interest in the area of English pronunciation and I used to teach Practical English Phonetics as a compulsory course for Thai preservice English teachers in Thailand, I found that most of them had difficulty pronouncing English words. They even found it more challenging when learning how each sound is produced based on articulatory phonetics.

Apart from drills after each lesson, each year I tried to implement an intervention or activity that could help support my students in terms of motivation, engagement, and building confidence (i.e., giving a speech, sing songs, telling stories). However, from my direct experience, giving a speech and singing songs were not an effective instructional tool for them. They even felt more stressed when giving a speech as they had to memorize the whole passage. Singing songs made them feel more relaxed, but when they had to sing in front of the instructor or their peers, they were very shy and had anxiety that they could not pronounce well or forgot the lyrics.

However, I found that story reading yielded positive effects on my students' English pronunciation scores. According to my pilot study in 2021 (Ruengwatthakee, 2021) on the improvement of Thai college students' use of final /s/ in English words increased through story reading, students had an opportunity to select a folktale from a country in Southeast Asia and practiced both in and out of the classroom and sent their voice recording via Line application to a researcher. The final /s/ of English words and the variants from the voice recordings were counted and results showed that after six weeks of intervention, there was a significant difference between pre and posttest. Moreover, the magnitude of the effect was large ($d = 1.11$).

In the past decade, several attempts have been made to investigate Thai EFL students' English pronunciation problems. Researchers have reported that Thai college students have difficulty articulating English words in segmental level (i.e., consonants, vowels) and suprasegmental level (e.g., word stress, intonation) (Boonkaew, 2018; Imamesup, 2011; Khamkhien, 2010; Kitikanan, 2017; Narksomepong, 2007; Nimnuch, 2011; Pongpirat, 2011; Sridhanyarat, 2017; Yangklang, 2013). Additionally, in order to develop competence or to improve students' English-speaking skills, teachers play a vital role to scaffold EFL learners by integrating various activities in the classroom for students to practice their oral communication skills more frequently (Boonkaew, 2017; Lucarevschi, 2018; Nakin & Inpin, 2017; Sahatsathatsana, 2017).

In Thai EFL context, previous research examined the effects of an intervention or a teaching model on the improvement of Thai college students. Boonkaew's (2017) revealed that an autonomous learning model provided students more opportunity to practice English final consonant sounds in words and sentences outside the classroom.

The results did not show any significant difference in students' pretest and posttest, however, students had positive perceptions through this model. Imamesup (2011) claimed that Audioarticulation Method (AAM) is an effective method in the improvement of Thai college students' English fricative sounds, namely /v/, /θ/, /ð/, /z/, and /s/. For example, veil, thank, then, zea, and sportsz respectively. Fricative sound is a type of consonant that produced when the airstream is forced to release through a narrow gap made in the mouth by closing two articulators together. Regardless of proficiency level, it was found that all participants significantly improved their pronunciation of the fricative sounds. Also, most of participants had high positive attitude regarding the AAM method. Students enjoyed and were motivated by this method as there are various kinds of activities provided during the course, such as minimal pair drill, songs, tongue twisters, and games that was incentive and enjoyable for students to learn and practice the target sounds.

Taken together, the previous research to date has tended to focus on the problems of English sounds or prosody that Thai college students pronounce incorrectly and the investigating of the effects of interventions or teaching models that may foster Thai students to develop English pronunciation skills. Although there is an increasing number of research studies in the area of Thai students' English pronunciation, until recently, there has been no reliable evidence that focuses on Thai preservice English teachers' English pronunciation.

Among several types of English language instructional methods, readers theater has been claimed by a vast number of researchers that it can be used as an effective educational tool to promote and enhance students' literacy, especially reading proficiency (Bruckman-Laudenslager, 2019; Young, Durham, Miller, et al., 2019; Young, Polk,

Durham, & Kerbs, 2020; Rasinski et al., 2016; Schoen-Dowgiewicz, 2016; Young & Rasinski, 2018; Young, Stokes, & Rasinski, 2017). Readers theater is an evidenced-based practice that provides students the opportunity to engage in reading aloud activities. Based on a repeated reading method (Samuel, 1979), when implementing readers theater in the classroom, a student or a group of students will be given a great deal of time to practice the scripts and perform their role afterwards. Unlike other kinds of reading performances (i.e., storytelling, musical plays), readers theater is a unique method because students can always hold the script when performing, while props, costumes, and stage setting are not required. The scripts can be any genre of text (i.e., story, song, speech, poem). Additionally, this intervention benefits students of all ages, educational levels, and learner status, including native and non-native speakers of English, struggling learners, and students with special needs to improve their reading abilities (Bruckman-Laudenslager, 2019; Lekwilai, 2014; Merritt, 2015). Readers theater also helps students gain self-confidence, reduce anxiety and motivate them to be enthusiastic to read as it provides enjoyable time to practice and perform together with peers with a script in their hand (Bruckman-Laudenslager, 2019; Marshall, 2017; Schoen-Dowgiewicz, 2016; Young, Durham, Miller, et al., 2019; Thienkalaya, & Chusanachoti, 2020).

Although readers theater was not originally designed for the specific purpose of enhancing pronunciation skills, as previous studies indicated that students' reading fluency and reading comprehension were increased through this literacy instructional tool, pronunciation, however, is also a part of reading skills. Based on the theory of automaticity by LaBerge and Samuels (1974), students need to achieve three elements of reading fluency, namely: word accuracy, word recognition, and oral expression in order

to reach the point of reading comprehension (Rasinski et al., 2016). Taking this into account, pronunciation is embedded in speaking skills, which also requires the abovementioned reading components as a basis.

Nevertheless, there has been little discussion pertaining to the application of readers theater as an intervention to improve students' English skills in the EFL context, especially in the aspect of second language pronunciation. Readers theater has been found to be an effective and fun intervention for improving Iranian students' reading fluency (Moghdam & Haghverdi, 2016). In Singapore, Patrick's study (2008) indicated that students had positive attitudes toward readers theater in the improvement of oral communication skill. He also pointed out that during practicing the scripts, students not only improved reading comprehension and building confidence, but also developed pronunciation skills, particularly suprasegmental level. Readers theater also has a substantial impact on enhancing Japanese students' English skills including English pronunciation. Readers theater helped create a relaxing and enjoyable English classroom environment for students and incentivized them dramatically to practice oral communication skills (Patrick, 2008). Furthermore, Lin (2015) reported that readers theater was beneficial to Taiwanese elementary students and teachers. Even though, there was no significant change found in students' pre- and posttest of English learning, English reading, and cooperative leaning, students and teachers expressed that readers theater had influence on motivating students to engage more in the English classroom.

In Thailand, for the past decade, there have been only a few research studies found on readers theater and were conducted by the same authors (Lekwilai, 2014; Lekwilai, 2016; Thienkalaya & Chusanachoti, 2020). In his review of utilizing readers

theater in the Thai EFL context, Lekwilai (2014) introduced and addressed the advantages of readers theater as an alternative tool for promoting students' reading fluency and inspired students to engage in a repeated reading method. Two years later, the results from his mixed method research (Lekwilai, 2016) demonstrated that 20% of Thai college students' reading fluency had a positive gain, especially on phrasing, after six weeks of readers theater intervention. Also, most of students reported that they enjoyed practicing their scripts in and outside the classroom and readers theater helped them build more confidence when reading aloud (Lekwilai, 2016). Besides, in the recent study by Thienkalaya and Chusanachoti (2020), the effectiveness of readers theater was investigated on the improvement of Thai college students' prosody. It was found that participants' prosody scores were significantly increased the following six-weeks of treatment. Moreover, qualitative results revealed that readers theater motivate most participants to read the text repeatedly until they can read fluently, and some of them enjoyed working collaboratively with peers while practicing the text (Thienkalaya & Chusanachot, 2020).

According to the aforementioned research studies, it can be clearly stated that readers theater enhances Thai college students' reading skill, however, this type of alternative teaching tool is not well known among language teachers, educators, and researchers in Thailand. More specifically, no previous research to date has investigated the impact of readers theater on Thai preservice English teachers' development of English proficiency.

As an English lecturer and a researcher, I would like to investigate the effects of readers theater to determine if it could be an effective instructional tool for improving

Thai preservice English teachers' English pronunciation and reduce anxiety when speaking English. Additionally, I would like to gain insight into the perceptions of Thai preservice English teachers on their experience using readers theater as an intervention in the Phonetics and Phonology for Teachers of English course.

Statement of the Problem

Preservice English teachers who will become future teachers should be role models for students and be professional in their career in terms of language use. However, Thai preservice English teachers have difficulty pronouncing English words and oftentimes avoid speaking English when teaching during practicum. Ruengwatthakee and Haas (2021) revealed that Thai preservice English teachers perceived that they have poor pronunciation and that led to experiencing anxiety when speaking English in the classroom. Anxious students reported that they regularly used short sentences to communicate with students. The findings support the idea of Horwitz (1986) that students with a high level of anxiety are likely to avoid using difficult language structure. Further, there is a gap in the literature wherein little to no research studies exist on enhancing Thai preservice English teachers' pronunciation, as well as ways to help them cope with anxiety. This is especially true regarding using readers theater as an intervention to better prepare Thai preservice English teachers' English pronunciation prior to teaching in schools.

A great number of researchers have reported that pronunciation is one of the most difficult areas in English proficiency for EFL teachers to teach and for EFL learners to acquire (Hu, 2017; Khansir & Pakdel, 2016; Moedjito, 2016; Saito, 2007). Isaacs and Trofimovich (2016) stated that pronunciation is "by its nature, interdisciplinary drawing

on research traditions in psycholinguistic, sociolinguistic and speech science and strongly, interfacing with work in Second Language Acquisition (SLA) and L2 pedagogy” (p. 4). Based on the aforementioned notion, teaching and learning pronunciation, especially in the EFL context has been neglected by EFL teachers in the English classrooms in Thailand (Imamesup, 2011; Lekwilai, 2014; Ruengwattthakee & Koptelov, 2019; Yangklang, 2006).

In the 21st century, English has been spoken as a lingua franca that speaking like an English native speaker is not necessary. However, to be successful in English communication, speakers are required to have comprehensible pronunciation. Fraser (2000) pointed out that “with good pronunciation, a speaker is intelligible despite other errors; with poor pronunciation, a speaker can be very difficult to understand, despite accuracy in other areas” (p. 7). Speaking with comprehensible pronunciation can cause many problems, such as miscommunication or communication breakdown in any forms of communication. It can also lead to less opportunity for employment and pursuing further degrees (Fraser, 2000; Gardiner & Deterding, 2017; Kim & Billington, 2018; Wadsorn & Panichkul, 2014). Additionally, it should be noted here that comprehensible and intelligible pronunciation can be used interchangeable, while some pronunciation specialists use comprehensible pronunciation, others may use intelligible pronunciation.

In educational context, preservice English teachers should be prepared well before teaching practicum and prior to becoming professional in-service teacher. As Stronge (2018) stated that “Teachers have a powerful long-lasting influence on their students. They directly affect how students learn, what they learn, and how much they learn, and the ways in which they interact with one another, and the world around them” (p. 3).

Purpose of the Study

The purpose of this study is twofold: (a) to investigate the impact of readers theater as an instructional tool on the development of Thai preservice English teachers' English pronunciation in Thailand and (b) to examine Thai preservice English teachers' perceptions on using readers theater in Practical English Phonetics for Teachers of English course in the university in Thailand. It was hypothesized that if participants engaged in a weekly intervention for 12 weeks, their English pronunciation (i.e., /l/ and /r/) would increase from pretest to posttest.

Previous research revealed that readers theater is an effective method to enhance literacy, particularly reading fluency and reading comprehension of all ages and educational levels, including students with learning disabilities (Clementi, 2010; Rasinski et al., 2017; Schoen-Dowgiewicz, 2016; Worthy & Prater, 2002; Young, Durham, Miller, et al., 2019). However, there are few studies which have investigated the benefits of readers theater as an intervention for fostering speaking skills, especially of young adults EFL learners (Moghdam & Haghverdi, 2016; Patrick, 2008; Patrick, 2010; Patrick & Boucher-Yip, 2010; Thienkalaya & Chusanachoti, 2020). More specifically, there has not been research elucidated on the impact of readers theaters on the improvement of English pronunciation of preservice English teachers who speak English as a foreign language in Thailand. Therefore, the goal of this current study is to fill the gap in the literature by investigating the effects of readers theater on the improvement of Thai preservice English teachers' English pronunciation of specific segmental features (i.e., /l/, /r/) that are addressed by researchers as a challenging for Thai students to pronounce (Boonkaew, 2017; Imamesup, 2011; Khamkhien, 2010; Kittikanan, 2016; Narksompong, 2007;

Nimnuch, 2011; Noobutra, 2019; Sahatsathatsana, 2017; Sridhanyarat, 2017; Yangklang, 2006; Yangklang 2010; Yangklang, 2013).

Significance of the Study

Acknowledging Thai preservice English teachers in Thailand have difficulty pronouncing English and do not feel comfortable speaking English during teaching practicum, this current study aims to offer a significant contribution in the development of Thai preservice English teachers' English pronunciation. Also, this study aims to provide further evidence in readers theater's potential to motivate Thai preservice English teachers' engagement to practice English pronunciation and build confident when speaking English in and outside the classroom (Lekwilai, 2016; Thienkalaya & Chusanachoti, 2020).

Additionally, the results from this empirical study may provide information regarding to what extent Thai preservice English teachers could benefit from engaging with readers theater. This information can be used to prepare preservice teachers before teaching in schools, as well as to improve English curriculum and instruction in Thailand. Furthermore, this study hopes that incorporating readers theater in the classroom could help Thai preservice English teachers gain more confidence or reduce anxiety.

Definitions of Terms

The following terms are significant to the current study. The definitions given below are provided to the reader for clarity and consistency.

Readers Theate.

Readers theater is a group performance in which readers are allowed to hold a

script while reading aloud. Readers will practice rereading their roles and perform their parts, whereas props, costumes, or scenery are not required (Young, Durham, Miller, et al., 2019).

English as Foreign Language (EFL)

EFL refers to the teaching and learning of English in a country where English is not the dominant language. Consequently, the frequency of using English in a daily basis is less, but not limited to educational and business context.

Teaching Practicum

Teaching practicum refers to the duration of teaching training of preservice teachers at a public school before graduation.

Comprehensible Pronunciation

Comprehensible pronunciation refers to “Perceived degree of difficulty experienced by the listener in understanding speech” (Munro & Derwing, 2015, p. 14).

Phonetics

Stemming from linguistics, phonetics studies human speech sounds scientifically (Ogden, 2017).

Interlanguage

Interlanguage refers to a second language learner’s developmental language that is separated from the native language (L1) and the second language (L2). The characteristics of interlanguage are influenced by both L1 and L2 and can vary individually depending on learners’ linguistic competence (Selinker, 1972).

Intervocalic /r/

The “r” sound that occurs in between vowel sounds in a word, such as in hero or parents.

Medial /r/

The “r” sound that occurs after a vowel sound and proceeds a consonant sound in a word, such as in thirty or cartoon.

Phoneme

Phoneme is the smallest unit of human speech sound. Each phoneme is represented in a symbol (i.e., / /). For example, “car” consists of three phonemes include /k/, /a:/, and /r/.

Theoretical Frameworks

As Johnson and Christensen (2017) stated that theory “refers to an explanation or an explanatory system that discuss how a phenomenon operates and why it operates as it does” (p. 18). This section provides two theoretical frameworks that are used as lenses to explain and understand this current study under investigation: (a) Socio-Cultural Theory and (b) Social Cognitive Theory.

Sociocultural Theory

According to a Social Constructivist, Lev Semionovich Vygotsky (1978), who initially developed Sociocultural Theory, the key concept of this theory is that children learn and develop their cognitive skills through their social interactions (Tracey et al., 2017). Schunk (2012) explained that the role of social environment that children have actions or interactions with other people, such as language, symbols, signs, and culture have influence on children’s learning. Also, Schunk (2012) pointed out that “The way

that learners interact with their worlds—with the persons, objects, and institutions in it—transforms their thinking” (p. 243). Additionally, Swain et al., (2011) asserts that “Sociocultural theory emphasizes Vygotsky’s insistent focus on the relationships between the individual’s physiological aspects and the social and culturally produced artifacts that transform the individual’s cognitive or mental functions” (p. xiv).

One of the most significant key concepts of Sociocultural theory by Vygotsky is the Zone of Proximal Development (ZPD). The ZPD can be described as “the ideal level of task difficulty needed to facilitate learning” (Tracey et al., 2017, p. 167). According to Vygotsky, this notion can be utilized to assist children to be successful in their learning development by providing them task or assignment that is not too difficult or too easy to avoid lack of accomplishment or tedious. Rather, teachers or caretakers should provide children with opportunity to do a challenging task that is more advance than their proficiency, but they can achieve the task with support, guidance or scaffolding techniques from knowledgeable or experienced teachers or adults (Tracey et al., 2017).

Regarding the development of second language or L2 pronunciation, Foote & Trofimovich (2018) addressed that “Sociocultural theory tends to focus on mediated experiences in an instructional context, that is, how learners and teachers co-construct knowledge as teachers help scaffold instruction and create learning opportunities for their learners in the ZPD” (p. 85). In this study, readers theater was used as a scaffolding intervention to foster the improvement of Thai preservice English teachers’ comprehensible English pronunciation. Last past decade, there have been a few empirical studies investigated the impact of readers theater on the development of ESL or EFL learners’ English pronunciation. However, readers theater has been demonstrated as an

effective tool and has been suggested use for enhancing second language pronunciation skills (Patrick, 2008; Shrum & Glisan, 2016; Tanner & Chugg, 2018; Thienkalaya & Chusanachoti, 2020). In the social environment, essentially students who are engaging with readers theater in the class will be motivated to be active learners, work corroboratively with their peers as well as getting feedback on their English pronunciation from their teachers.

Social Cognitive Theory

Albert Bandura (1977, 1989, 1994) created Social Cognitive theory, which is grounded from the combination of the Behaviorism with social leaning perspective. The primary assumption of Social Cognitive theory is that humans' learning opportunities occurs from observing others' behaviors, actions, and performance, such as their styles, achievement, and perseverance (Schhuk, 2012; Tracey et al., 2017). Additionally, humans learn from observing other people's actions as they are our models and the cognition or thinking process also works greatly during observation learning. Bandura (1977) stated that "Humans have evolved an advanced capacity for observational learning that enables them to expand their knowledge and skills on the basis of information conveyed by modeling influences" (p. 21).

According to Bandura (1977), the observational learning comprises of four stages: (a) attentional process involves what information observers see or notice and can draw out from the models, (b) retention process refers to the active process of remembering by transforming the information from observation, (c) reproduction process is when observers reconstruct the behavior from observed modeling, and (d) motivation process

involves when observers repeat modeled behaviors if they are motivated by others' accomplishment.

Base on Socio Cognitive theory, Bandura (1994) also developed Self-Efficacy perspective, which is defined as:

People's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave. Such beliefs produce these diverse effects through four major processes. (Bundara, 1994, p. 2)

Additionally, Bandura (1994) noted that people who highly believe in their self-efficacy tend to put effort and success more at a task than people who slightly believe in their self-efficacy. The use of readers theater activity in this study focuses on supporting Thai preservice English teachers to develop their English pronunciation skills specifically words that contain /l/ and /r/, build their confidence when pronouncing English words and prepare them to become a good role model for students in their own classroom.

Literature Review Search Procedure

Regarding the purpose of this current study, literature review associated to readers theater, preservice English teachers, comprehensible pronunciation, second language acquisition, and foreign language anxiety were examined. Keywords and phrases that were used to find relevant literature included readers theater, EFL, preservice English teachers, pronunciation, oral communication skill, speaking skill, foreign language anxiety, and Thailand. Initial search for previous research studies was conducted through

the EBSCO Host as a main database to search for scholarly peer-reviewed journals as well as thesis and dissertation related to this current study.

Research Questions

Research Question 1

What is the effect of readers theater on the improvement of pronunciation production of segmental features (i.e., /l/ and /r/) by Thai preservice English teachers in Thailand?

Research Question 2

What are the perceptions of Thai preservice English teachers regarding the effect of participation in reader theater on their motivation to practice and improve their English pronunciation?

Research Question 3

What are the perceptions of Thai preservice English teachers regarding the effect of participation in readers theater on reducing anxiety when pronouncing English?

Based on research question 1, the researcher hypothesized that the implementation of the readers theater intervention would have an effect on the improvement of pronouncing /l/ and r/ in English of preservice English Teachers in Thailand.

Delimitations

This study was delimited to the recruitment of sophomores majoring in English of Education who enrolled in a Phonetics and Phonology for Teachers of English course in a university in Central Thailand, which was in session from June through October, 2020. Purposive sampling was used, students from two intact classes ($N = 49$) were selected to participate. One class was the control group ($n = 26$) and the other class was

the experimental group ($n = 23$). These classes were taught via distance learning by the main instructor. Quantitative data were collected employing quasi-experimental design and were followed up by qualitative data collection. Lastly, the target sounds that were the focus of this study for quantitative data are /l/ and /r/ in American English only.

Limitations

Potential limitations of this current study include: (a) due to the small number of participants, the results of the study may not be generalized to the target population, (b) a possible lack of effect of readers theater on participants' pronunciation improvement may occur because of the limited length of the study, (c) participants in the control and the experimental group were not measured by their level of English proficiency prior to the study, and (d) due to the Coronavirus outbreak, Practical English Phonetics for Teachers of English course was taught online. As a result, there were potential issues in online connections, as well as communication that may defer from face-to-face interactions. Lastly, participants may respond differently through online readers theater experiences than they would in a face-to-face experience, which can impact data collection, and the results.

Assumptions

The current study includes the assumption that the participants would not withdraw from the study. Also, the researcher assumed that all participants would provide truthful responses on the questionnaire and interview for the qualitative part.

Additionally, the researcher assumed that the results of the mixed methods study cannot be generalized to a larger population. Lastly, the researcher assumed the necessity to

address the threats of credibility, reliability, and trustworthiness of the study (Creswell & Poth, 2018; Onwuegbuzie & Leech, 2007).

Organization of the Study

This current study is organized in five chapters. Chapter I introduced the background of the study, purpose of the study, significance of the study, the statement of the problem, the theoretical and conceptual frameworks, delimitations, limitations, and assumption that will guide this investigation. Chapter II provides a review of the literature associated with the area of this study, Chapter III detailed the research methodology for this current study include research design, study location, sample selection, data collection, and data analysis. Chapter IV presented the results of the study quantitatively and qualitatively. Lastly, chapter V discusses the findings of the study, pedagogical implications, as well as recommendations for future research.

CHAPTER II

Literature Review

The aims of this study is twofold: (a) to investigate the impact of readers theater as an instructional tool on the development of Thai preservice English teachers' English pronunciation in the university in Thailand, and (b) to examine Thai preservice English teachers' perceptions on experiencing readers theater in Phonetics and Phonology for Teachers of English course in the university in Thailand.

In this chapter, the literature review consists of ten sections: (a) Empirical Studies on Thai EFL Students' English Pronunciation Problems, (b) First language Interference, (c) Interlanguage, (d) The Critical Period Hypothesis, (e) Phonological System in English and in Thai, (f) Repeated Reading, (g) Readers theater and Reading Skills, (h) Readers Theater and Speaking Skills, (i) Readers Theater in the Thai EFL Context, (j) Anxiety, (k) Foreign Language Anxiety, (l) Foreign Language Speaking Anxiety, and (m) Speaking Anxiety of Thai Preservice English Teachers.

Empirical Studies on Thai EFL Students' English Pronunciation Problems

A number of previous studies have been conducted on Thai EFL Students' English pronunciation problems both in segmental and suprasegmental features. Also, several researchers attempted to seek for effective methods to improve Thai EFL learners' English pronunciation through various effective interventions (Boonkaew, 2018; Imamesup, 2011; Khamkhien, 2010; Kitikanan, 2017; Narksomepong, 2007; Nimmuch, 2011; Nusartleart & Pattanasorn, 2015; Sahatsathatsana, 2017; Sridhanyarat, 2017; Wadsorn & Panichkul, 2014; Yangklang, 2006; Yangklang, 2013). The results from these previous research studies elucidated that pronunciation development of Thai

students may be associated to various factors (e.g., age, gender, English proficiency level, L1 interference, motivation).

In Narksompong's study (2007), the researcher analyzed the phonological system of Thai from scholarly research and compared it with the phonological system of English. Narksompong found the common features Thai students have difficulties in English pronunciation are in both segmental and suprasegmental levels particularly, consonants, stress, and intonation. It is clearly illustrated that the difference between Thai and English phonological systems cause Thai EFL students' English pronunciation problems. These results were confirmed by Nimnuch (2011). Nimnuch reported that pronunciation is one of the main problems of Thai adult learners in English communication. According to the results, more than 50% of participants reported they desire to improve their speaking skills. Interestingly, 40% of participants indicated they could not pronounce English words accurately which caused their ineffective speaking skills.

In 2013, Yangklang assessed Thai young adult learners' English word stress and intonation. The results revealed that after four weeks of using an e-learning program, students improved their English pronunciation and the e-learning program motivated them to learn pronunciation by themselves. Likewise, in Khamkhien's study (2010), 90 college students were assessed regarding their English pronunciation competence by identifying the stress syllable in 40 words excerpted from the textbooks. He found that the lowest test scores from the word assignment are five-syllable words. Interestingly, the results also revealed that gender is the main factor, which influences on pronunciation scores. In other words, female participants were found to make significantly gain higher than male students (Khamkhien, 2010).

In an empirical study by Sahatsathatsana (2017), it was indicated that Thai college students enrolled in an English Phonetics course faced the problem of English pronunciation. Specifically, there are two sounds that they could not perform well include / θ / and / ð / at the segmental level (e.g., think, father). Also, the participants found it difficult to link the sounds between words. It was also noted that language interference from L1 to the target language, individual's pronunciation ability, and prior experience of learning English pronunciation can affect learners' English pronunciation competence.

Boonkaew (2018) conducted a 14-week case study to investigate four Thai collage students' perceptions on an autonomous learning model in learning English pronunciation. Specifically, the final consonant sounds in 49 single words and ten sentences in English were the focus and the study include a pre- and posttest. The quantitative data revealed that the posttest scores were not substantially higher than the pretest. However, the participants had positive perceptions on applying an autonomous learning model into their English language learning including improving pronunciation outside the classroom context. The study suggested that a lack of providing feedback could be a significant factor that causes minor improvement of participants' English pronunciation, as they were required to learn and practice pronunciation by themselves through this model (Boonkaew, 2018).

Imamesup (2011) investigated the effects of the Audioarticulation Method (AAM) on the improvement of Thai college students' English fricative sounds. AAM is the pronunciation teaching method created by Demirezen (2010b). It is specifically used for teaching, correcting and treating fossilized pronunciation of English language learners. This model allows students to practice their pronunciation consistently every

week. Also, there are various kinds of activities provided during the course, such as minimal pair drill, songs, tongue twisters, and games that motivated and encouraged students to learn and practice the target sounds. In this study, Imamesup collected data from eight students who took an AAM based course voluntarily. The course emphasized on training pronunciation especially fricative sounds including /v/, /θ/, /ð/, /z/, and /s/, which occur both in onset and coda position. For example, veil, thank, then, zeal, and sportss respectively. Fricative sound is a type of consonant produced when the airstream is forced to release through a narrow gap made in the mouth by closing two articulators together. The pronunciation tests consisted of reading words and sentences aloud. The findings showed that after a 12-week course, all participants significantly improved their pronunciation of the fricative sounds regardless of students' proficiency level. The qualitative data also revealed that the majority of participants had a very positive attitude regarding the AAM model. Taken together, these results show that this pronunciation training model could enhance English proficiency of Thai and EFL students from either high or low proficiency levels. However, in future research, it was suggested that the course and exercises should be provided at students' proficiency level, rather than as a group (Imamesup, 2011). Moreover, Thai students were shy to pronounce words in front of their peers in the class, as a result, the group activities would be more effective and could help them build their confidence if the words were at their individual proficiency level. Also, the meaning of the words and sentences in the tests should be provided in order for learners' better understanding of the meanings (Imamesup, 2011).

With regard to the difficulty of pronouncing /l/ and /r/ by Thai students, Yangklang (2006) investigated the effects of a Computer Assisted Instruction (CAI)

program on the improvement the final /-l/ of Thai high school students. High and low English proficiency groups of participants were tested by English words ending with /l/ in word level and sentence level. Six weeks following the implementation of CAI, it was found that the final /-l/ pronunciation ability of both groups was higher significantly. Although, the majority of participants revealed the CAI could dramatically motivate them to learn and practice English pronunciation, the students with poor pronunciation proficiency did not show high improvement in the sentence level. The results also demonstrated that participants could not pronounce the final /-l/ well on the English borrowing words because of the influence of L1 interference that speakers often replace /-l/ with /-n/. For example, “file”, “foil”, and “mile” were pronounced as /fai/, /fɔi/, and /mai/ respectively (Yangklang, 2006, p. 58).

The difficulty of pronouncing English /r/ and /l/ by Thai EFL students was also confirmed by Wadsorn and Panichkul (2014). Based on the fact that English has become a lingua franca for people to communicate among 10 countries in the Association of Southeast Asian Nations (ASEAN) community in 2015 including Thailand, Wadson and Panichkul addressed the concern about intelligibility pronunciation issue made by Thai EFL learners. They found that Thai college students often substitute /r/ with /l/ in the onset position as well as omitting /r/ in cluster in the sentence. For example, ‘read’ /ri:d/ was pronounced as /le:d/ and ‘grow’ /grəʊ/ as /go/. Also, participants often dropped /l/ in the coda position, such as ‘while’ /waɪl/ as /waɪ/. Wadsorn and Panichkul (2014) reported that the average scores of mispronouncing of /r/ and /l/ in English of Thai students were very low and led to a great deal of misunderstanding the meaning of sentences by listeners who are selected from countries in ASEAN as informants. However, /l/ was

investigated only in one out of 10 sentences, which it cannot clearly be claimed by the result that /l/ is considered an accurately problematic sound for Thai students. The findings of this study indicated that Thai students are struggling with English pronunciation and this issue should be addressed more (Wadsorn & Panichkul, 2014).

Panichakul (2018) investigated Thai speakers of English's problematic consonant sounds and sound variations in three different speech styles. Data were collected from 30 Thai airport ground staff in Bangkok. It was found that the most difficult English consonant sounds by the participants were fricative, namely /z/, /v/, /ð/ and /ʃ/ (e.g., zero, vouchers, this, changed) at onset position, /ʒ/, /dʒ/, /v/, /ʃ/, /z/ (e.g., pleasure, apologize, invite, vouchers, reasons) at medial position, and /z/, /v/, and /ð/ (e.g., please, have, smooth) at coda position. Also, the most problematic English clusters of the participants included /k^ht^h/, /nd/, /st^h/ (e.g., contact, ground, Buddhist), ed-ending consonant cluster: /zd/, /ndʒd/ (e.g., caused, changed), and s-ending consonant clusters: /nz/, /nt^hs/ in final position (e.g., conditions, moments). In terms of variation, it was found that participants could pronounce standard variant sounds when reading word lists, which is more formal, better than when reading long texts and when speaking in conversations. However, the pronunciation scores were not varied by English language experience of participants (Panichakul, 2018).

Kitikanan (2017) employed an acoustic phonetics to analyze the English fricative sounds' production of Thai speakers of English who resided in an English-speaking country for a while, while this research was conducted. Two sets of fricative sounds occurred in the onset position in the word list were investigated, namely the sounds that occurred both in English and Thai phonological system or the shared fricatives, namely,

/f/ and /s/ (e.g., staff, assistance) and the non-shared fricatives, namely, /v/, /θ/, /ð/, /z/, /ʃ/ (e.g., arrival, north, the, zero, special), which only found in the English phonological system.

Data were analyzed based on two models, the Contrastive Analysis Hypothesis (CAH) model, which focuses on target-likeness and the Speech Learning Model (SLM), which emphasizes measuring native-likeness sound production. The study revealed that in general, Thai learners of English could perform the shared-fricative sounds well in both target-like and native-like manner (Kitikanan, 2017).

Regarding the vowel production, Thai EFL learners also have difficulties in pronunciation. Nusartleart and Pattanasorn (2015) explored the production and the perception of two English back vowels /u/ and /ʊ/ among Thai college students. For example, pool and bull respectively. The analysis from an acoustic phonetics approach was employed and the results explicitly showed that most students mispronounced /u/ and /ʊ/ and could not differentiate these two sounds.

The study of Sridhanyarat (2017) also confirms that fricative sounds cause difficulty for Thai college students to acquire. He found that participants from advanced English level proficiency could pronounce /s/, /f/, and /ʃ/ correctly (e.g., bus, leaf, crush) both initial and final position. However, all students from three levels have difficulty acquiring /v/, /z/, /θ/, /ð/, and /ʒ/ (e.g., view, zoo, death, they, garage) as they do not occur in Thai phonological system, particularly in the spontaneous speech comparing to word list and sentence list, which are more formal styles. Interestingly, the results showed that more variants of fricative phonemes were found in the low proficiency group of participants than those who are in the higher levels. For example, the final /v/ was

substituted by /f/ /s/, and /b/, the final /z/ were substituted by /s/, /d/, and /t/, and the final /ʒ/ was substituted by /dʒ/, /ʃ/, /tʃ/, /s/, and /d/.

Ruengwatthakee and Koptelov (2019) stated that teaching and learning pronunciation has received little attention in all grade levels in English curriculum in Thailand. Surprisingly, in an undergraduate level, there is only one fundamental course in English phonetics and phonology provided to English major students, which is not enough. Moreover, most of English teachers in Thailand lack phonetics knowledge; therefore, they are not able to help students correct their pronunciation. They further suggested that English teachers, both Thai and native speakers of English in Thailand, should have intensive English pronunciation training in order to increase their phonetic and phonological awareness.

Due to the aim of this current study is to investigate the improvement of comprehensibility English pronunciation of Thai preservice English teachers through readers theater, it is essential to explain the important theories pertaining to second language acquisition and pronunciation namely first language interference, interlanguage, and the critical period hypothesis in order to understand the phenomenon under investigation.

First Language Interference

Giving that pronunciation is the focus of this study, it is crucial to discuss the influence of the first language on EFL students' English pronunciation skills. It is widely recognized that first language or L1 is one of the significant factors that has substantial influence on second language learning and acquisition (Ellis, 1990; Krashen, 1981). Language learners often have difficulties on performing second language as a result of

their first language that has a great impact on any language areas (e.g., phonology lexicon, morphology, syntax, semantics, discourse) in both spoken and written language (Gass & Selinker, 1983). Regarding the domain of pronunciation, the concept of first language or language transfer can lead students to overgeneralize the rules or patterns of the target language. In English pronunciation, for example, most of Thai students often omit /r/ at the end of English words. This can be explained that in the Thai phonological system, /r/ is only allowed to occur at the beginning of the words, but not the final position.

Interlanguage

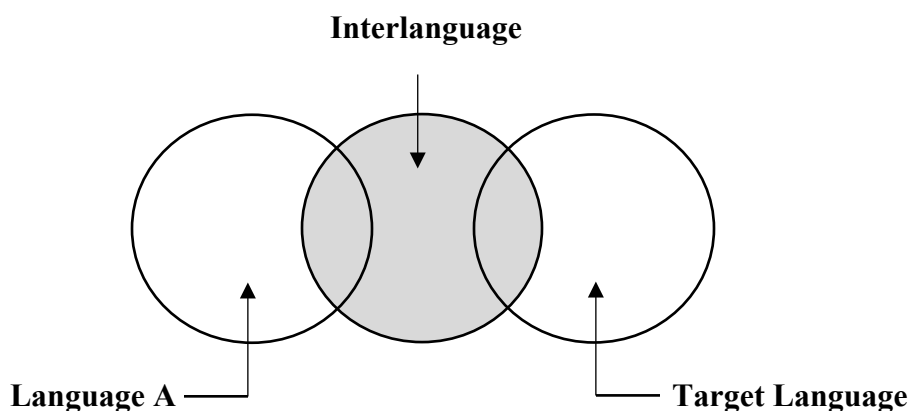
Given that scholars and second language teachers have always been seeking the methods to shed light on second language acquisition, interlanguage is one of the theories that play a crucial role in the field of applied linguistics. The theory is grounded from the approaches of interlingual identification (Weinreich, 1953), latent language structure (Lenneberg, 1967), and idiosyncratic and error analysis (Corder 1981), which are in the psycholinguistic orientation. The term “interlanguage” was not used until 1972 when it was first coined by Larry Selinker, an American linguist.

Selinker (1972) defined interlanguage as “a separate linguistic system based on the observable output which results from a learners’ attempted production of a target language (TL) (norm)” p. 214. Drawing on the aforementioned definition, this theory can be considered as second or foreign language learners’ developmental language that is separated from their native language (L1) and second language (L2). This developmental language encompasses all domains of language including phonology. Therefore, the characteristics of interlanguage are influenced by both L1 and L2 and can vary

individually depending on learners' linguistic competence)Selinker, 1972(. Figure 1 demonstrates the overlapping areas of the first and the target language with interlanguage)Corder, 1981, p. 17(.

Figure 1

The Overlapping Areas of the First (L1) and Target Language (L2) with Interlanguage.



Note. (Corder, 1981, p. 17)

Additionally, Selinker)1972(proposed five significant processes of second language learning:)a(language transfer,)b(transfer of training,)c(strategies of second language learning,)d(strategies of second language communication, and)e(overgeneralization of TL linguistics rules. Furthermore, he suggested that in order to analyze second language learner's interlanguage behavior, one or more of the processes should be identified)Selinker, 1972(.

With regard to pronunciation, the concept of interlanguage illustrates the outline of constructing second language pronunciation which is affected by the sound system of

L1 and L2. In other words, ESL or EFL students' pronunciation skills are still under the developing process.

The Critical Period Hypothesis

In neuroscience, Mayberry and Kluender (2018) stated that a critical period refers to a “unique type of learning when an animal or human is exquisitely sensitive to a particular stimulus in the environment during development” (p. 886). However, she pointed out that the duration, the onset, and the end of a critical period in humans and animals vary. In terms of second language acquisition, there have been questioning among scholars, such as ‘Does the critical period exist in language learning?’, ‘Will adults ESL learners be able to achieve a native-like language proficiency?’, and ‘Between what year of age is the ideal for second or foreign language learning?’ These questions have long been debated among applied linguists on second language acquisition. The notion behind this subject is the critical period hypothesis (CPH), which was developed by Eric Heinz Lenneberg, a German born linguist and neurologist in 1967. He hypothesized that the optimal time to acquire the first language is approximately at age two until puberty or around age 10 to 14. He postulated that following the cerebral lateralization, which is the process of the two hemispheres of brain were established, a language is most likely difficult to be acquired by learners in all linguistics areas (e.g., phonology, morphology, syntax, lexicon).

This hypothesis is also applied in second and foreign language acquisition and has been elucidated by a great deal of previous scholarly research, however, merely the aspect of phonology was strongly supported (Dollman et al., 2020; Mayberry & Kluender, 2018; Moyer, 2014a; Moyer, 2014b; Scovel, 1969). While Lenneberg (1967)

stated the age of the beginning and the ending of the critical period of language acquisition as mentioned earlier, most scholars nowadays do not specify the age of the starting stage (Vanhove, 2013). In addition, some researchers placed the ending stage of the critical period at different years of age (i.e. between 12 to 18) depending on the linguistic features (Munoz & Singleton, 2011). In phonology, however, some scholars claimed that the deterioration process of language learning starts earlier (i.e., approximately six or nine year of age) than other language domains, such as syntax and morphology (Long, 1990; Penfield & Roberts, 2014).

Evidence of Supporting the Critical Period Hypothesis in Second Language

Pronunciation

Over the last half century, several studies attempted to provide evidence and account for the negative correlation between age and acquisition of second language pronunciation. Scovel (1969) postulated that after 12 years of age, it is less possible or even unachievable to speak second language without a foreign accent as a result of the cerebral lateralization not being fully developed. In 1991, Thompson demonstrated that age is the main factor affecting a degree of foreign accents. He examined the reading and speaking skills of 36 native speakers of Russian fluent in English who moved to the U.S. at different ages. Their pronunciation was evaluated by reading English sentences and a prose passage and spontaneous speech. The participants who arrived the U.S. between ages of four to 10 years were found to speak with less foreign accent comparing to those who arrived later. Thompson also indicated that other factors including gender, ability to mimic, and global speaking proficiency in English have an impact on second language pronunciation (Thompson, 1991).

In a recent study, similar results were obtained by Dollman et al., (2020). The analysis from their longitudinal research confirmed the existence of the critical period. The immigrants who were born or moved to Germany earlier at a young age from below one up to 10 year were found to perform with a near or native-like accent higher than those who arrived in Germany after age 10 or older. In another study, Hung and Jun (2011) investigated the effect of age of arrival on the acquisition of second language prosody of 10 Mandarin-speaking immigrants in the United States. Participants' speech production was measured using reading tasks and was rated by English native speakers. The results indicated that adult arrivals' speech production scored significantly lower than those of child arrivals including speech rate, foreign prosody, the frequency of pitch accents, and the frequency of high boundary tones. However, the results cannot be generalized because of the small sample size and the sample's homogeneous L1 background.

Although there was some evidence supporting the critical hypothesis, researchers also found that it is even less possible for early learners to acquire a native-like accent.

In Hung's study (2009), the researcher tested the speech production of 118 Chinese immigrants in the U.S., who speak mandarin as a first language. It was found that age plays a considerable role on the production of L2 phonology. However, Hung suggested that starting to learn a second language in an early age does not mean that learners will be successful in a native-like accent because of the influence of other factors such as language input.

Abrahamsson and Hyltenstam (2009) conducted a study to support that age associated with a near native-like second language acquisition. They tested 195

immigrants in Sweden, who were advanced L1 speakers of Spanish and considered themselves as nativelike Swedish speakers. The participants had different age of onset of acquisition ranging from younger than one year up to 47 years. The study consisted of two parts: part one tested a native-listener's perception of nativelikeness and part two measured various linguistic domain included pronunciation, speech perception, grammar, and formulaic language. Overall, the results from the first part, showed that merely a small number of participants who started their L2 acquisition after age 12, but most of those with an age of onset below 12, were actually perceived as native speakers of Swedish by Swedish native judges. In part two, the participants who passed the test in part one ($n = 41$) were tested by several linguistics domains. Interestingly, it was indicated that none of the adult learners and only a few of the early learners performed with nativelike proficiency. Based upon the results, Abrahamsson and Hyltenstam (2009) claimed that it is impossible for late second language learners to reach a nativelike ultimate attainment of a second language. However, it is also most likely that early second language learners cannot achieve a nativelike proficiency either.

Evidence of Supporting Native-Like Pronunciation after the Critical Period

While some researchers provided strong evidence to support the critical period hypothesis, especially in the domain of pronunciation, others rejected the assumption and argued that after puberty, it is possible that second language pronunciation or a native-like accent can be acquired under preconditions.

In the same study conducted by Dollman et al., (2020), apart from the confirmation of the critical period hypothesis in the first part of the study, in the second part, the researchers justified that after the critical period, it is possible that adults second

language learners can achieve a native-like accent under the condition of having high cognitive test scores and having large exposure to an English environment. In this longitudinal study, the researchers investigated the relationship between age and cognitive ability of 1,843 immigrants in Germany. The findings indicate that both young and adult participants with higher cognitive outcomes pronounced German with less foreign accent. Similarly, it was also found that, with exposure to native language environment, both young and adult participants spoke with less foreign accent.

Likewise, Abu-Rabia et al., (2004) also found that participants who started to learn second language at a very late age can succeed a native-like Hebrew pronunciation. They investigated 10 immigrants in Israel ages ranging from 10 to 60 years old. The participant's Hebrew accent were measured by interview and reading aloud tasks and were judged by native speakers. The results indicated that more than half of participants' accent were judged to have a slight foreign accent, especially in spontaneous speech test. Abu-Rabia et al. (2004) suggested that talent in language, exposure to native language environment including other skills, such as sports, music, and the ability to mimic are important factors for exceptional second language learners who can acquire a nativelike accent. Similarly, Abrahamsson and Hyltenstam (2008) confirmed that language aptitude is a major factor that enhanced adult second language learners to attain a near-native language proficiency. However, Abrahamsson and Hyltenstam (2008) noted that the results did not provide sufficient evidence to reject the critical period hypothesis since the exceptional cases of reaching nativelikeness of adult learners are rare.

Taken together, it can be clearly seen, particularly in the phonology domain, that this issue is still controversial amongst the SLA researchers. Acquiring native-like

pronunciation is relatively limited to an individual's age as well as other factors, such as sex, mimic ability, educational background, and exposure to a second language.

Therefore, in this current study, comprehensibility pronunciation was set as a cornerstone dependent variable, rather than a native-like pronunciation. Thus, while a native-like accent may be unattainable, pronunciation can change moving toward great comprehensibility.

Phonological System in English and in Thai

The phonological structures of the Thai language are distinct from English's phonological structure both segmental level and suprasegmental level as follows.

Phonological System in English

Segmental Level.

Consonants. In English, there are 21 consonant letters, but 24 consonant sounds can be produced (Freeman & Freeman, 2004; Narksompong, 2007). Table 1 demonstrates international phonetic alphabet for English consonants. All consonant sounds can occur at the onset or the initial and at the final position of the words (Narksompong, 2007). There are only a few consonant sounds in English that are not allowed to occur at the beginning or at the end of the words. Namely, /ŋ/ can only found at the coda position and /y/ and /w/ can appear merely at the onset position (Narksompong, 2007).

Similar to the individual consonants sounds, the consonant clusters in English are allowed to produce in the beginning and in the end of the words. A consonant cluster refers to “a side-by-side sequence of consonants without intervening vowels” (Kanoksilapatham, 2013, p. 52). For example, the consonant clusters in the word ‘school’ /skul/ consist of two sounds include /s/ and /k/. The initial cluster in English are

commonly composed by two consonants, such as ‘class’ /klass/, ‘tree’ /tree/, ‘through’ /θru/, and ‘smile’ /smaɪl/. Moreover, the initial clusters of three consonant sounds are allowed to form in the phonological system. The first sounds always begin with /s/, the second sound is /p/, /t/, or /k/ and the third sound is /r/, /l/, or /w/ (Kanoksilapatham, 2013). For example, ‘spring’ /sprɪŋ/, ‘strong’ /strɒŋ/, and ‘scrutinize’ /ˈskrut(ə)n aɪz/. Final consonant clusters in English can compose from one up to four sounds. For example, ‘dog’ /dɒg/, ‘lunch’ /lʌntʃ/, ‘next’ /nekst/ and ‘attempts’ /əˈttempts/.

Table 1

International Phonetic Alphabet for English consonants.

Manner of articulation	Place of articulation													
	Bilabial		Labio dental		interdental		Alveolar		Alveolar palatal		Palatal	Velar		Glottal
Voicing	vl.	vd.	vl.	vd.	vl.	vd.	vl.	vd.	vl.	vd.	vd.	vl.	vd.	vl.
Stop	p	b					t	d				k	g	
Fricatives			f	v	θ	ð	s	z	ʃ	ʒ				h
Affricates									tʃ	dʒ				
Nasals		m						n					ŋ	
Lateral								l						
Retroflex								r						
Semivowels		w									y (i)			

Note. Adapted from Roach (2009). vl = voiceless, vd. = voiced

Vowels. Vowels in English is classified into two groups include monophthongs and diphthongs. There are 11 monophthongs and three diphthongs are produced in

English (Narksomepomg, 2007). Table 2 demonstrates English vowel phonemes. Within one syllable, the former group has only one vowel sound, for example, ‘cat’ /kat/, ‘book’ /buk/ and ‘think’ /θɪŋk/, whereas the latter group is comprised of two vowel sounds, for instance, ‘time’ /taim/, ‘snow’ /snou/, and ‘boy’ /boi/.

Table 2

English Vowel Phonemes.

	Front	Central	Back
High	ɪ y, ɪ	ɪ	uʷ, u
Md	ey, ɛ	ə, ʌ	ow, oy
Low	æ		a, ay, aw

Note. (Freeman & Freeman, 2004)

Suprasegmental.

Syllable Structure. Based on the phonotactic patterns, the syllable structure in English can be formed as follows: (C) (C) (C) V (V) (C) (C) (C) (C). A vowel must be present in every syllable, but the number of consonants and additional vowels vary (Ogden, 2017).

Stress. In English, each word contains at least one stress, which is pronounced longer and louder than other syllables (Roach, 2009). For example, ‘honey’ /'hʌni/ has a stress on the first syllable and ‘giraffe’ /dʒə' ræf/ has a stress on the second syllable. Besides, as stress plays a vital role in a spontaneous speech in English sentence, English is considered a stress-timed language. In other words, the duration from one stressed syllable to the next is about the same (Kanoksilapatham, 2013; Roach, 2009).

Table 3

International Phonetic Alphabet of Thai Consonant Phonemes.

Manner of articulation	Place of articulation										
	Bilabial		Labio dental		Alveolar		Alveolar palatal	Palatal velar	Velar		glottal
Voicing	vl.	vd.	vl.	vd.	vl.	vd.	vl.	vd.	vl.	vd.	vl.
Stop	p p ^h	b			t t ^h	d			k k ^h		ʔ
Fricatives			f		s						h
Affricates							c c ^h				
Nasals		m				n				ŋ	
Lateral						l					
Trill						r					
Semivowels		w						j			

Note. Adapted from Narksompong (2007). vl. = voiceless, vd. = voiced

Vowels. In Thai, there are 18 monophthongs and six diphthongs include /ia/, /iia/, /ua/, /uua/, /ua/, and /uua/ (Narksompong, 2007). Table 4 shows Thai vowel phonemes.

Table 4*Thai Vowel Phonemes.*

	Front	Central	Back
High	i	u	u
	ii	uuu	uu
Mid	e	ɤ	ow
	ee	ɤɤ	oy
Low	ɛ	a	ɔ
	ɛɛ	aa	ɔɔ

Note. Adapted from Narksompong (2007).

Suprasegmental Level.

Syllable structure. Based on the phonotactic patterns, the syllable structure in Thai can be formed as follows: (C) (C) V (V) (C). A vowel must present in every syllable, but the number of consonants and additional vowels vary. (Narksompong, 2007).

Tone. Thai falls into the Tai-Kadai language family and considered as a tonal language as the pitch can differentiate the meaning of the words. There are five tones in a standard Thai language, namely mid, low, high, rising (Thepboriruk, 2009). Table 5 shows Bangkok Thai tones. According to Thai sound system, each syllable marked with a fixed tone, resulting in there is no stress pattern and intonation in the Thai language (Narksompong, 2007).

Table 5*Bangkok Thai Tones.*

Thai	IPA	Tones	Gloss
กฐ	k ^h a:	Mid	n. ‘type of grass’, adj. ‘stuck, ajar’
กฐ	k ^h à:	Low	n. ‘galangal root’
กฐ	k ^h â:	Falling	n. ‘price, cost’
กฐ	k ^h á:	High	n. ‘commerce’, v. ‘to sell’
กฐ	k ^h ǎ:	Rising	n. ‘leg’

Note. (Thepboriruk, 2009, p.1) IPA = International Phonetic Alphabet

It is notable that, in English, all consonant sounds can occur in the final position of the words except glottal /h/, and two semivowels /y/ and /w/ (Narksomepomg, 2007). However, in Thai words, there are only eight consonant sounds that are allowed to occur in the final position as mentioned above (Narksomepomg, 2007). Therefore, Thai EFL learners have difficulties when pronouncing syllable-final sounds in English. For example, “ball” is pronounced as /bon/, /r/ in “car” is omitted, “bus” is pronounced as /bud/. The different phonological features in English and Thai can be summarized as follows. Table 6 demonstrates summary of English and Thai phonological features.

Table 6*Summary of English and Thai Phonological Features.*

	English	Thai
Segmental level		
Consonant	24 sounds	21 sounds
Initial sounds	All consonant sounds, except /ŋ/	All consonant sounds
Final sounds	All, except /w/, and /y/	All, except /k ^h /, /c/, /c ^h /, /s/, /t/, /t ^h /, /p/, /p ^h /, /f/, /r/, /l/
Two Initial cluster consonants	Yes	yes
Three Initial cluster consonants	Yes	no
Two to four Final cluster consonants	Yes	no
Monophthongs	11 sounds	18 sounds
Diphthongs	3 sounds	6 sounds
Syllable structure	(C) (C) (C) V (V) (C) (C) (C) (C)	(C) (C) V (V) (C)
Suprasegmental level		
Stress	Yes	no
Tone	No	yes
Intonation	Yes	no

Repeated Reading

The repeated reading method serves as a framework for readers theater. It was first introduced by Samuels (1979), which was rooted from automaticity theory (Lagerberg & Samuels, 1974). The milestone of repeated reading is to develop reading fluency for learners in all levels of reading skill, particularly those who are struggling readers. Samuels (1979) claimed that when students have an opportunity to reread a short-selected passage or story that they are interested multiple times, their reading speed tends to increase, while the number of word recognition errors tends to decrease. According to Samuels (1979), the criterion rate for reading fluency is when student can read 85 word per minutes. However, he pointed out that reading speed should be more emphasized than accuracy in order to avoid readers' fear of making errors.

Additionally, Samuels (1979) addressed that repeated reading not only build fluency, but also comprehension. In other words, after student practice their reading the same text several times including answering comprehensive questions related to the text, their reading comprehension will be improved. As he stated that "As less attention is required for decoding, more attention becomes available for comprehension" (Samuels, 1979, p. 378).

Base on the method of repeated reading, readers theater is an effective instructional activity that targets on reading fluency and reading comprehension. Engaging in a group performance, which provides a safe environment, readers are enthusiastic to practice their script and gain more confidence (Clementi, 2010; Samuels, 1979; Worthy & Prater, 2002; Young, Durham, Miller, et al., 2019; Young, Polk, Durham, & Kerbs, 2020).

Readers Theater and Reading Skills

Over the past decade most empirical research on implementing readers theater in the language classroom has emphasized the benefits of this intervention on improving all levels of students' reading skills both native and non-native speakers of English. (Allen, 2016; Bruckman-Laudenslager, 2019; Clementi, 2010; Lin, 2015; Rasinski et al., 2017; Suggs, 2019; Worthy & Prater, 2002; Young, Durham, Miller, et al., 2019). Essentially, engaging in readers theater, students not only have to reread the text in the script several times, but they also are required to make a text in their role to become more meaningful. In their major quasi-experimental study, Young, Durham, Miller, Rasinski, and Lane (2019) confirmed that readers theater yielded positive effect on reading comprehension. To determine whether the intervention has an impact on improving students' reading skills, a non-random assigned 76 American second graders were selected as samples and divided into the control group and the treatment group. Interestingly, the readers theater format used in this research was modified from the traditional way by providing students various activities on reading comprehension and vocabulary to engage. Students spent daily 15 to 30 minutes practicing reading aloud the scripts for 18 weeks. In order to assess students' word decoding, word knowledge, and overall reading comprehension, the pretest and posttest were delivered. Young, Durham, Miller, Rasinski, and Lane (2019) discovered that students' posttest scores in the treatment group made higher significant progress than the control group in all three aspects of reading. These results provide further support for the hypothesis that repeated reading is one of the effective approaches that enhances students' reading automaticity. Additionally, readers theater should be applied more in the classroom not only in the language class, but also other

course as it is a pleasurable activity and an instructional tool to promote reading proficiency (Young, Durham, Miller, Rasinski, and Lane, 2019).

Mraz et al. (2013) suggested that struggling readers' reading fluency and reading comprehension can increase through readers theater. After the six-week intervention, they found that 19 American third graders from the whole class showed a substantial gain on the posttest scores in all aspects of reading include word recognition accuracy, word recognition automaticity, and prosody. Overall, the class reading comprehension increased from 49% to 86%. Students also reported positive attitude toward their reading during the intervention (Mraz et al., 2013).

Readers theater was proven to be an effective and supportive teaching strategy for English language learners and teachers as well. In a qualitative multiple case study conducted by Bruckman-Laudenslager (2019), fourteen English language learners from different ethnic backgrounds from grades three, four and five, and six teachers in the United States were recruited as participants. The data were collected through class observations, and open-ended interviews. The results from students revealed that after practicing the script four times a week for three weeks and performing in front of the class, they felt nervous, excited, and attentive. Bruckman-Laudenslager (2019) pointed out that some students did not feel comfortable performing in English in front of their peers. As one student expressed his concern that "I do not like to read out loud, because I'm learn English. I scared" (p. 84). It was suggested by Bruckman-Laudenslager (2019) that the level of anxiety after students experience readers theater should be explored in order to discover both benefits and negative effect of this intervention.

Additionally, teachers stated that their students are more engaged while participating in readers theater and it allows students to show their creativity in oral reading. As one teacher addressed that “Reader’s Theater is used in whole class and small group. It’s used to develop fluency orally. It develops intonation and expression and reader’s voice and cadence of their reading. It helps them to understand character development” (p. 90).

Similarly, Allen (2016) conducted a qualitative research on the perceptions of two elementary school teachers after implementing readers theater in the classroom in the United States. According to the interview data, it was revealed that overall, readers theaters was an effective teaching tool in the integrations the arts, especially drama and the visual arts. Participants indicated that students’ reading fluency, comprehension, creativity, and motivation improved through this intervention. Even though most students enjoyed readers theater, however, it was also reported that there was a shy student who was unwilling to participate and perform in front of their peers. It was suggested by one participant that teachers need to pay close attention for such student and help them with reading difficult words (Allen, 2016).

In addition, Merritt (2015) conducted an action research and also found that readers theater yielded positive gain on developing reading fluency in American students with dyslexia. The sample were 20 second through fourth graders diagnosed as having dyslexia. Readers theater was implemented 30 minutes a day and five days a week. After 12 weeks of intervention, it was indicated that the experimental group outperformed the control group significantly on the posttest. According to the qualitative data, 90% of participants’ attitudes on reading in the treatment group were changed dramatically from

the dislike to the love of reading and performing following the intervention. Dyslexia students substantially engaged in the reading class and could read fluently with more expression and confidence. As a student mentioned “Are we going to go on the stage so everyone can see and hear us? (Merritt, 2015, p.78).”

More recent attention has focused on the impact of readers theater on students’ reading fluency in the United States. In an action research study, Suggs (2019) found that readers theater yielded positive results on elementary students’ overall reading performance following four weeks of implemented intervention. Specifically, in the quantitative phase, the one-group pretest and posttest were utilized to collect data from 15 fifth graders. The results indicated that word accuracy scores in the posttest was higher than the pretest significantly and increased by 1.7%. Also, the scores of the word accuracy were increased by 16.75 words per minute (Suggs, 2019).

Moreover, the results from open-ended questions revealed that students not only loved and enjoyed practicing scripts and performing readers theater, but also they were encouraged to work collaboratively with their peers. As a student mentioned that “My favorite part of reading activities was reading with a group because I can practice more with people, I know who are going to read with me” (p. 88). According to participants’ responses, readers theater also helps them with self-reflection improvement and self-confidence. Additionally, the teacher who implemented readers theater in this research pointed out that one of the main reasons behind this successful intervention is that students have more time to practice as well as teachers have more time to give feedback to students on their reading. Another wonderful point of view from the teacher was that

students gradually placed the value more on reading and some shy students became more confident after intervention (Suggs, 2019).

In the EFL context, Lin (2015) investigated the effects of readers theater on Taiwanese elementary students' reading comprehension. After 44 days of implementing readers theater, however, this study was unable to demonstrate that students could make significant gain in their reading performance. The posttest scores were slightly higher than pretest, but they were not significantly different. Lin (2015) pointed out that the length of time to utilize the intervention is too short and that could affect to the results. Nevertheless, the qualitative findings are consistent with those of other studies that readers theater provided students great opportunity to engage in reading activities that enabled students to appreciate English textbooks. Also, working in groups while practicing reading aloud motivated students to learn English enthusiastically (Lin, 2015).

Integrating readers theaters in the classroom also helps promote reading skills of students with special needs. In a qualitative research case study, Schoen-Dowgiewicz (2016) attempted to gain insight into two elementary school teachers' experiences and perceptions after implementing readers theater with students with disabilities in the United States. Overall, they agreed that they used readers theater regularly in the class and students are more willing to engage in reading with their classmates in a group because they enjoyed rotating their role in the script. As one teacher noted that "We try and change the character up so that each student has more lines and more to read, because, if we really want them read, they need to practice" (p. 62). Participants also reported that students with disabilities improve not only reading fluency through readers theater, but also English language usage (e.g., punctuation marks, capitalization). In

addition, it was found that students gained more confidence from practicing reading the script out loud and become more fluent in reading as they tried to read well among their peers when performing (Schoen-Dowgiewicz, 2016).

Readers Theater and Speaking Skills

In the past decade, there has been a small amount of research investigating the effectiveness of readers theater on speaking skills including second language pronunciation. In a quantitative study, Moghdam and Haghverdi (2016) investigated the role of Readers theater on the improvement of Iranian students' oral communication skills. A total of 60 female students from 10 to 15 years old were selected as participants. Half of them were in the control group whereas the rest of participants were in experimental group and were implemented by readers theater. Both groups were pre and post tested by an oral interview to measure their complexity, accuracy, and fluency. After completing the treatment phase by having students practice reading short scripts from seven selected stories, the results of the posttest showed positive effect on the areas of complexity and fluency. Accuracy, however, there was no significant different between pre and posttest.

In the Singapore EFL context, based on the concern that students have difficulty with giving presentations and speeches, Patrick (2008) observed the experience in engaging with readers theater of sophomores majoring in engineering. After the intervention was used consistently for 12 weeks as a part of the Effective Communication course, students responded positively toward readers theater in the improvement of their oral communication skills. Additionally, Patrick (2008) pointed out that during rehearsing the scripts, students not only improved reading comprehension and built confidence, but

also enhanced pronunciation, particularly suprasegmentally level, which is an essential aspect for making passage become more meaningful.

Given that Japanese students speak English as a foreign language and are shy to speak English in the classroom, Patrick (2010) carried out a mixed method study aims to get insight into the attitudes of students toward using readers theater as an instructional method to improve their speaking skills. 69 freshmen majoring in an English program who enrolled in a speaking course were recruited for this study. The results obtained from the questionnaire indicated that more than 80% of students expressed that readers theater has a dramatically impact on developing their English skills including English pronunciation. In summary, readers theater helped create an enjoyable English classroom for students and motivated them substantially to practice oral communication skills (Patrick, 2010).

In the same year, Patrick and Boucher-Yip (2010) explored the benefits of readers theater in the development of Japanese college students' oral proficiency. As students had the opportunity to practice reading and writing script, and performed, they reported positive attitude toward this intervention. These attitudes include motivation for improving their pronunciation in order to deliver their speech livelier. Patrick and Boucher-Yip (2010) indicated that readers theater is a kind of effective drama group activity that allows students to actively immerse and participate in a safe English classroom environment.

Moreover, in a quantitative research, Mansouri and Darani (2016) investigated the effects of readers theater in students' speaking proficiency include fluency, accuracy, and complexity and vocabulary knowledge in Iran. Participants were 75 female students in

middle schools. It was found that following the intervention, the treatment group outperformed and the control group. Specifically, the experiment group gained higher scores than the control group significantly in fluency, complexity and also vocabulary.

Readers Theater in the Thai EFL Context

A large and growing body of literature has investigated the effect of Reader Theater on improving L1 and L2 learners' English language skills. Specifically, a number of researchers have reported a positive impact on reading fluency or reading comprehension (Moghdam & Haghverdi, 2016; Tanner & Chugg, 2017; Young, Durham, Miller, et al. 2019). However, to determine the effects of readers theater in the EFL context in Thailand, recently merely a few studies have been found (Lekwilai, 2014; Lekwilai, 2016; Thienkalaya & Chusanachot, 2020).

Lekwilai (2014) stated that enhancing Thai EFL students' reading fluency has been neglected in curriculum and instruction, resulting in students lack of practicing extensive reading. Much of previous studies up to now has been focused on various strategies to foster learners' reading comprehension. Accordingly, he proposed the benefits of readers theater as an alternative reading instructional method that helps Thai students become a fluent reader. He claimed that applying readers theater together with the traditional teaching methods in the classroom could improve Thai students' reading speed, word recognition, phrasing, and expression or prosody as they are required to practice and reread their scripts over and over. Additionally, readers theater is a fun activity that motivates students to read and build more confident on their oral communication skills (Lekwilai, 2014).

In his seminal study, Lekwilai (2016) conducted a mixed methods research, the results showed that after six weeks of readers theater intervention, Thai college students could perform their reading fluency better approximately 20% especially on phrasing. It was also reported by a majority of students that they enjoyed practicing their scripts in and outside the classroom. Readers theater also helped them gain more confident in reading aloud. However, Lekwilai (2016) points out that students did not improve much on the areas of expression and volume as well as mispronunciation have frequently found during the intervention. Consequently, pronunciation lessons should be provided along with reader theater in order to rise students' phonological awareness.

Likewise, in a more recent study conducted by Thienkalaya and Chusanachoti (2020), Thai sophomore non-English majors were found to make significant gain on reading prosody. In this study, a one-group pretest-posttest design was employed to investigate the effectiveness of readers theater on the prosody development. After 6 weeks of using readers theater intervention in an English for communication course, the results indicated that the overall scores of participants' prosody were significantly increased from pre- to posttest include phrasing and intonation but not volume. Moreover, qualitative results revealed that readers theater motivated most participants to read the text repeatedly until they can read fluently and some of them enjoy working collaboratively with peers while practicing the text (Thienkalaya & Chusanachot, 2020). However, since the researchers employed a one-group pretest-posttest design, without the control group, it is hard to determine if the effect on the improvement of pronunciation outcome is from whether the intervention or the explicit input in the classroom.

Foreign Language Anxiety

Foreign language anxiety (FLA) can impede students' second language learning, especially on listening and speaking (Horwitz et al., 1986). Horwitz et al. (1986) stated that FLA is a specific anxiety since it is typically found in the language classroom and defined Foreign language anxiety as “a distinct complex of self-perceptions, beliefs, feeling, and behaviors related to classroom language learning arising from the uniqueness of the language learning process (p. 128). Horwitz et al. (1986) presented conceptual foundations of foreign language anxiety in three aspects: a) communication apprehension can be described as “a type of shyness characterized by fear of or anxiety about communication with people” (Horwitz et al., 1986, p. 127), b) test-anxiety is a type of performance anxiety occurs with EFL students who fear of failure when they take a test or a quiz, and c) fear of negative evaluation refers to “apprehension about others' evaluations, avoidance of evaluative situations, and the expectation that others would evaluate oneself negatively” (Horwitz et al., 1986, p. 128).

Foreign Language Speaking Anxiety

In recent years, there have been several investigating of foreign language speaking anxiety in the EFL context. Previous research has reported that most of EFL students have English speaking anxiety in the classroom. Implementing intervention or providing speaking training to students can help them overcome their speaking anxiety. (Basilio & Wongrak, 2017; Bozkirli, 2019; Coskun, 2017; Hamzaoğlu & Koçoğlu, 2016; Ka-kan-dee & Al-Shaibani, 2018; Kana, 2015; Mede & Karairmak, 2017; Sadighi & Dastpak, 2017; Subekti, 2018).

In the Turkish EFL context, in Kana's (2015) study, the levels of speaking anxiety of 540 senior Turkish preservice teachers from various departments were examined. He found that overall, the participants perceived that they have high anxiety in public speaking (e.g. panel, conference, and symposium), but have less anxiety when using body language or eye contact. Also, it was reported that participants who were majoring in Turkish language teaching and English language teaching experienced higher level of anxiety than other majors. Kana (2015) suggested that the language training needs to be given to preservice teachers in order to be well-prepared prior to being future teachers.

Hamzaoglu & Koçoğlu's study (2016) undertook a mixed method study to determine the effects of podcasts in Turkish high school students' oral communication skills and speaking anxiety. The results demonstrated that after 12 weeks of intervention, there was a negative relationship between students' oral performance scores and speaking anxiety levels. In other words, the experimental group's oral performance scores were higher, and the anxiety level was lower than those who were in the control group following the treatment. Students suggested that podcasts had a substantive impact on the improvement of their English-speaking skills, particularly pronunciation and vocabulary, and reduced their stress and anxiety (Hamzaoglu & Koçoğlu, 2016).

While there are numerous other studies from the Turkish context. In this study, however, the empirical research on foreign language speaking anxiety conducted in East Asia will be the focus. Subekti (2018) found a negative correlation between Indonesian EFL learners' foreign language anxiety and English-speaking performances. He suggested that teachers should play an important role to help lower students' anxiety,

such as asking students to work in a group instead of in front of the class, when speaking English.

In the Thai EFL context, there is a consensus among Thai researchers that most of Thai college student have moderate to high anxiety in English oral communication. It was also reported that Thai students were extensively afraid of making mistake and having negative evaluation. Last past decade, however, there has been little discussion about Thai collage students' English-speaking anxiety.

Basilio & Wongrak (2017) carried out a research employed by Park's (2014) Foreign Language Classroom Anxiety Scale (FLCAS). In an investigation into the foreign language anxiety factors of 274 Thai EFL college students, the results showed that communicative apprehension was scored highest followed by test anxiety, fear of negative evaluation, and foreign language classroom anxiety. Basilio & Wongrak (2017) asserted that "Thai EFL students are in general apprehensive to communicate, and this is because they are most of the time unsure of the accuracy of the content and context of the foreign language (English) they are using" (p. 595). Also, teachers and researchers should seek out the root problems that cause foreign language anxiety of Thai students in English classrooms and find the effective strategy to help students overcome their fear.

Thai EFL students' speaking anxiety and fluency were explored by Un-udom et al. (2017). In this study, Computer Mediate-Communication (CMC) was employed as an intervention. 40 Thai college students were recruited as participants. The results presented that there was a significant difference in post test scores of students' speaking performance and level of anxiety in the experimental group after intervention. An implication of this empirical research is the possibility that when students were provided

opportunity to prepare and practice English speaking task by having synchronous conversation with their instructors before taking test, they could enhance their speaking production as well as reducing speaking anxiety. However, the current study has only examined the intervention for a short period of time and lack of triangulation of data collection (Un-udom et al., 2017). This study also related to the study of Boonkit (2010) as he stated that “once each speaking task was well-prepared, this preparation became an effective strategy to minimize anxiety, and thus minimize speaking confidence” (p. 1308).

In his major study, Akkakoson (2016) attempted to seek out Thai students’ level of speaking anxiety and sources of speaking anxiety in an English conversation course. Data were collected from 88 university students. The results obtained from a Foreign Language Classroom Anxiety Scale (FLCAS) modified from Horwitz et al. (1986) revealed that participants have a moderate level of speaking anxiety. However, the results from semi-structured interview showed that students have positive attitude toward their English speaking, however, they were worried about knowing insufficient vocabulary the most.

In his seminal study, Tanielian (2014) examined levels of anxiety from 424 Thai students from grade seven to twelve from immersion and non-immersion program. He reported that regardless the type of program, overall students manifested foreign language classroom anxiety at a moderate to high level. The results also indicated a low, negative correlation between students’ FLCA and English-speaking test scores. Tanielian (2014) asserted that even though Thailand is a monocultural society, cultural responsive pedagogy should be applied in the immersion classroom curriculum and instruction in

order for Thai students to gain more understanding on the diversity of English native speakers that could be a possible way to help students decrease their anxiety.

Similarly, Chinpakdee (2015) found that Thai university students have high anxiety in foreign language classroom in general. Specifically, being afraid of failure in English course and being nervous when speaking in English class without preparation were rated highest among all statements in Horwitz et al.'s FLCAS. There were four factors urging students' foreign language classroom anxiety found namely in academic evaluations, negative evaluations, comprehension problems, and instructors' use of English. In addition, participants indicated that a more relaxing classroom environment as well as instructors being more supportive and friendly could minimize their anxiety (Chinpakdee, 2015).

In a mixed methods study, Ka-kan-dee and Al-Shaibani (2018) investigated the level of anxiety among 45 Thai university students majoring in Tourism. McCroskey's (1970) the Personal Report of Communication Apprehension (PRCA) and the Personal Report of Public Speaking Anxiety (PRPSA) questionnaires were modified and used as research instruments. The results from PRCA questionnaire showed that participants reported to experience high level of communication apprehension in all four contexts include group discussion, meetings, interpersonal conversations, and public speaking. The results from PRPSA questionnaire also indicated that participants have a high level of oral presentation anxiety in the English for Tour Guide course. Moreover, a great deal of participants revealed that they do not like giving oral presentations because they felt nervous and intimidated that they will forget the content. Lack of good pronunciation was

indicated by participants as an area that is an anxiety-provoking factor (Ka-kan-dee & Al-Shaibani, 2018).

In addition, Boonkit's qualitative study (2010) found that a task-based approach is an alternative way to enhance Thai students' speaking skills and reduce anxiety. He suggested that providing students with various topics and freedom of topic choice allow students to gain more confidence when speaking English. Also, participants indicated that confidence is the most important factor that fosters them to develop their English-speaking skills. However, pronunciation and grammar were found as unsatisfied areas that students need to improve (Boonkit, 2010).

Speaking Anxiety of Thai Preservice English Teachers

Last past decade, there is relatively little research on speaking anxiety of Thai preservice English teachers. In a mixed methods study, Kriangkrai (2012) investigated the effect of a Video-Based Blog Peer Feedback Model (VBPF) on the levels of public speaking class anxiety. He developed a Public Speaking Classroom Anxiety Scale (PSCAS) and used it to measure 40 English Education major students' anxiety degrees in the university in Thailand. The findings indicated that the majority of students experienced moderate level of anxiety and there was no significant difference in anxiety level before and after intervention. However, students reported that a VBPF model helped motivate them to practice public speaking skills. Also, anonymity in peer feedback yielded positive feedback for them to gain more confidence and improve their English speaking (Kriangkrai, 2012).

In a survey study, Hayaramae (2016) investigated the degrees of public speaking anxiety of 30 graduate students in English language teaching program in Thailand. The

Personal Report of Public Speaking Anxiety (PRPSA) questionnaire by McCrosky (2003) was adapted and used as a data collection tool. The results showed that a major psychological factor that caused them a high degree of speaking anxiety was when participants were asked questions pertaining to their selected topic. Moreover, most participants strongly agreed that a self-selected topic and adequate preparation for giving speech can reduce their anxiety (Hayaramae, 2016).

Furthermore, Tantihachai (2016) indicated that in general, fear of failure in the English class and peer pressure were major anxiety-provoking factors among university students majoring in English at the university in Thailand. The reason behind this is because Thai students care much about self-image or saving face. Students reported that sitting or working in group can help lower their anxiety (Tantihachai, 2016).

Summary

In this chapter, I provided the overview of empirical research on Thai EFL students' English pronunciation problems and the comparison of phonological system in English and in Thai. Additionally, I discussed about previous studies on the roles and the effects of readers theater on the development of students' language skills. Moreover, I examined research studies on the impacts of foreign language anxiety on EFL students' language performance, particularly English pronunciation. Chapter III, I addressed the research questions, research design, study location, sample selection, data collection, and data analysis.

CHAPTER III

Methodology

This chapter presents details of the research methodology of this study. The aims of this study is twofold: (a) to investigate the impact of readers theater as an instructional tool on the development of Thai preservice English teachers' English pronunciation in the university in Thailand and (b) to examine Thai preservice English teachers' perceptions of using readers theater in a Phonetics and Phonology for Teachers of English course in the university in Thailand. The chapter will begin by providing research questions, followed by research design, study location, sample selection, data collection, and data analysis.

Research Questions

The following questions aim to determine if the outcome of participants in the experimental group who use readers theater will be significantly different from participants in the control group who do not experience readers theater. Also, this study aims to gain insight into participants' perceptions on using readers theater in the course as a strategy to support English pronunciation and reduce language anxiety.

Research Question 1

What is the effect of readers theater on the improvement of pronunciation production of segmental features (i.e., /l/ and /r/) by Thai preservice English teachers in Thailand?

Research Question 2

What are the perceptions of Thai preservice English teachers regarding the effect of participation in reader theater on their motivation to practice and improve their English

pronunciation?

Research Question 3

What are the perceptions of Thai preservice English teachers regarding the effect of participation in readers theater reducing anxiety when pronouncing English?

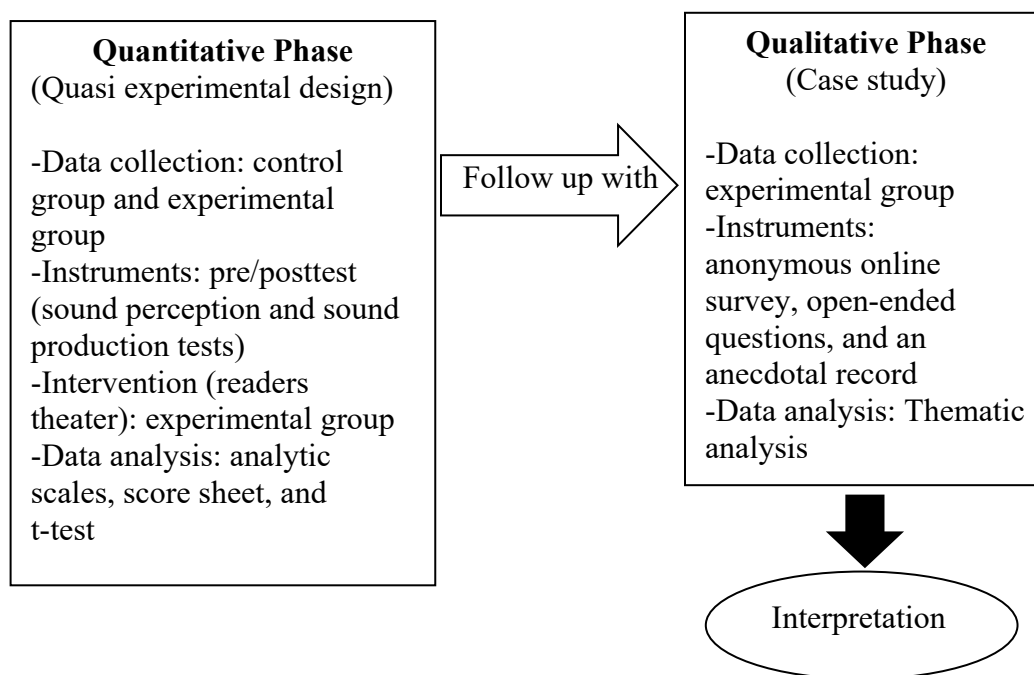
Research Design

In order to address the research questions of this study, a mixed methods design was employed as a methodology. A mixed methods research allows researchers to integrate data collection and data analysis from both quantitative and qualitative inquiry in a single study (Creswell, 2014; Duke & Mallette, 2014). By using mixed methods, Creswell & Clark (2017) states that “Its central premise is that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach alone” (p. 5). Furthermore, data from more than one source can be triangulated to increase validity (Onwuegbuzie & Frels, 2016).

Specifically, an explanatory sequential mixed methods design (Creswell, 2014) was used in this study as demonstrated by Figure 2. According to Creswell (2014), the explanatory sequential mixed methods design consists of two phases. In phase I, quantitative research which is dominant in this study, a quasi-experimental design was used for data collection and data analysis to in-depth investigate the effect of readers theater in the improvement of Thai preservice English teachers’ English pronunciation. In phase II, qualitative research, a case study design was employed to gain insight into the experience and perceptions of Thai preservice English teachers when using readers theater as an intervention in the classroom.

Figure 2

An Explanatory Sequential Mixed Methods Design.



Note. Adapted from Creswell (2014, p. 220).

Study Location

This study was conducted in the university located in the central of Thailand. The university's primary mission is to prepare preservice teachers. This institute serves as a community-based university with approximately 7,500 undergraduate students in six colleges namely, Education, Science and Technology, Management Science, Humanities and Social Sciences, Information Technology, Industrial Technology, and Management Science. The university provides a full time and a part time (weekend) program for bachelor's degree, master's degree and doctoral degree. An academic year is divided into two semesters and each semester lasts for 16 weeks.

Regarding the course, Phonetics and Phonology for Teachers of English, that the intervention was utilized in this research, the latest curriculum of the university mandated in 2018 that this course is a three-credit specific requirement course that all students in the bachelor's degree of English of Education program are required to enroll. The aim of this course is to study sound system, phonetics and phonology, phonological rule, phonetic symbols and pronunciation, be able to conduct activities concerning English pronunciation.

Sample Selection

Based on the purposes of this current study, Thai preservice English teachers were selected via homogenous sampling (Pajo, 2017). It is a subtype of purposive sampling that "...participants are chosen based on a trait or characteristic of interest to the researcher" (Pajo, 2017, p. 144). To recruit the participants, after the researcher received the approval from the International Review Board (IRB) of Sam Houston State University, on the first week of the course, each student was provided with participants informed consent document. The document explains in details of the purposes of this research study and the rights of being participants. Benefit, risk, and confidentiality was addressed in each document. Each participant was asked to sign the participants informed consent form online. The researcher informed the participants in the Phonetics and Phonology for Teachers of English course that the results from this research will be confidential and will be used for research purposes only. Also, their participation in the class and their responses to the online survey would not affect their grade and degree.

The target population were sophomores majoring in the bachelor's degree of English of Education program, college of Humanities and Social Sciences with age

ranging from 18-22 years. The total participants of this study were 49 sophomores who enrolled a Practical English Phonetics for Teachers of English course in the first semester of the academic year 2019 starting from June 2019 to September 2019. The gender of participants included 26.4% male and 73.6% female. All participants are Thais and speak English as a Foreign Language.

The Participant's Background

After the recruitment process, the participants were asked to complete a background questionnaire (See Appendix C) on the first week of the course. Since the participants speak English as a foreign language, the questionnaire was translated into Thai language in order to ensure they clearly understand the instructions and all questions. The questionnaire consists of nine questions and was answered by all participants in the control group ($n = 26$) and the experimental group ($n = 23$). Table 7 includes the demographic details of the participants ($N = 49$).

Table 7*The Demographic Data of the Participants in the Control and Experimental Groups.*

No.	Descriptor	Group	
		Control	Experimental
		Group (<i>n</i> =26)	Group (<i>n</i> = 23)
1	Age		
	18-20 years old	92% (<i>n</i> = 24)	87% (<i>n</i> = 20)
	more than 20 years old	8% (<i>n</i> = 2)	13% (<i>n</i> = 3)
2	Gender		
	Female	85% (<i>n</i> = 22)	61% (<i>n</i> = 14)
	Male	15% (<i>n</i> = 4)	39% (<i>n</i> = 9)
3	Prior to coming to study at this present university, where did you live?		
	Province where the university		
	located or nearby province	100% (<i>n</i> =26)	78% (<i>n</i> = 18)
	Other regions of Thailand	0	22% (<i>n</i> = 5)
	Bangkok Metropolitan region	0	0
4	When did you start learning English?		
	Kindergarten	73% (<i>n</i> = 19)	65% (<i>n</i> = 15)
	Elementary school	27% (<i>n</i> = 7)	35% (<i>n</i> = 8)
5	What was your major in high school?		
	Science-Math	54% (<i>n</i> = 14)	48% (<i>n</i> = 11)
	English-another subject	23% (<i>n</i> = 6)	26% (<i>n</i> = 6)

(continued)

No.	Descriptor	Group	
		Control	Experimental
		Group (n =26)	Group (n= 23)
	Other	23% (<i>n</i> = 6)	26% (<i>n</i> = 6)
6	Were you a transfer student?		
	Yes	0	0
	No	100% (<i>n</i> = 26)	100% (<i>n</i> = 23)
7	Have you ever been in an exchange program or study abroad?		
	Yes	0	4% (<i>n</i> = 1)
	No	100% (<i>n</i> = 26)	96% (<i>n</i> = 22)
8	Have you been an English tutor?		
	Yes	4% (<i>n</i> = 1)	96% (<i>n</i> = 22)
	No	96% (<i>n</i> = 25)	4% (<i>n</i> = 1)
9	Have you attended English proficiency contest?		
	Yes	54% (<i>n</i> = 14)	43% (<i>n</i> = 10)
	English speech contest	31% (<i>n</i> = 8)	28% (<i>n</i> = 5)
	English Story telling contest	23% (<i>n</i> = 6)	11% (<i>n</i> = 2)
	English song singing contest	19% (<i>n</i> = 5)	11% (<i>n</i> = 2)
	Other	27% (<i>n</i> = 5)	50% (<i>n</i> = 6)
	No	46% (<i>n</i> = 12)	57% (<i>n</i> = 13)

Validity of the Background Questionnaire

Prior to giving the questionnaire to the participants, the questions were corrected and adjusted according to feedback and recommendations from two professors in a College of Education. After revision, the questionnaire was translated into Thai and was evaluated by two Thai college professors, who were in a field of teaching English as foreign language in Thailand. In order to verify the content validity, the Index of Item-Objective Congruence (IOPC) was utilized for the two Thai experts to rate the items in the questionnaire based on the score range from -1 to 1. The overall score was at 1, which indicates that all questions were clearly measured by the raters.

Research Procedure

In this mixed methods research design, data collection and data analysis in each method were collected and presented separately in a quantitative research phase followed by a qualitative research phase as follows.

Quantitative Research (Phase I)

Quantitative Research Method and Sampling Design

In this phase, quantitative research was conducted based on the research question 1: What is the effect of readers theater on the improvement of pronunciation production of segmental features (i.e., /l/ and /r/) by Thai preservice English teachers in Thailand? A quasi-experimental design was specifically applied in this study. The quasi-experimental design is a type of experimental research that aims to investigate the cause and effect relationship of manipulation and does not employ random assignment in condition (Duke & Mallette, 2014; Johnson & Christensen, 2017). More specifically, the nonequivalent comparison-group design was employed in this current study. This design consisted of

distributing a pretest to an experimental and a control group and followed an intervention to the former group, a posttest has been given to both groups as illustrated in Table 8 (Johnson & Christensen, 2017). In this study, two intact classes were used as a control group and an experimental group. Both groups were taught the same way, except that only the experimental group received readers theater as a treatment.

Table 8

Nonequivalent Comparison-Group Design.

Group	Pretest Measure	Intervention	Posttest Measure
Experimental	O1	X2	O2
Control	O1	X2	O2

Note. Adapted from Johnson and Christensen (2017).

Participants

Selections. Participants were recruited from two intact Phonetics and Phonology for Teachers of English classes of sophomores majoring in English Education. Class enrollment in each class is determined by date and time of registration. Class A consisted of 26 students and the participants' gender ratio is 15% male and 85% female. Class B had 23 students and the participants' gender ratio is 39 % male and 61 % female. In order to select the group of participants, the two strips of paper labeled class A and class B were placed in a bowl, the first strip chosen was the experimental group and the remaining strip was the control group.

Quantitative Instruments

The research instruments used for the quantitative phase mainly composed of pretest and posttest. The details of the pronunciation testing instruments are presented as follows.

Pretest and Posttest. The pretest and posttest contained two main parts include a sound perception test and a sound production test. The pretest and posttest were designed the same.

Sound Perception Test. Drawing on the second language pronunciation assessment, participants, who are second or foreign language learners, will be able to produce sounds if they can perceive or hear the specific phonemes or sounds clearly (Barlow & Gierut, 2002; Haghighi & Rahimy, 2017). The sound perception assessment in this current study consists of 30 minimal pairs (see Appendix A) obtained from Merriam-Webster online English dictionary (<https://www.merriam-webster.com>).

Minimal pairs are a pair of words that vary merely one sound. For example, ‘pray’ /preɪ/ and ‘play’ /pleɪ/ are differentiated by only the sound /r/ and /l/ respectively. This minimal pair approach is widely used in linguistics and applied linguistics as an instrument tool to determine or assess language learners’ sound perceptions (Barlow & Gierut, 2002; Haghighi & Rahimy, 2017; Levis & Cortes, 2008; Lin et al., 2004). In the test, there were the total of 30 minimal pairs of words contain /l/ and /r/ in different position (i.e., initial, initial cluster and final) as well as another 10 pairs of words that distinct by other sounds, that will be used for avoiding participants’ awareness of testing /l/ and /r/. During the assessment online, participants listened to the voice recordings by a native speaker of English and circle the correct words.

Sound Production Test. The second part of the pretest, the sound production test, was used for the assessment of participants' ability to pronounce the target sounds /l/ and /r/ in the natural speech settings. In order to elicit /l/ and /r/ from the participants, the production test consists of two sections namely picture naming and spontaneous speech.

Picture Naming. The testing stimuli consisted of 24 pictures used for eliciting English words containing /l/ and /r/ from the participants. The researcher showed each participant 24 picture cues. In each picture, participants were asked to say a word aloud, that contained the target sounds /l/ and /r/ that they see from each picture cue. The participants' voices were recorded. The total of 24 pictures (24 words) were selected based on the position of the target sounds as follows:

Testing of /l/ consists of four positions:

Initial /l/: 'leaf' /li:f/, 'leg' /leg/, 'lion' /'laɪən/

Final /l/: 'football' /'fʊt,bɔ:l/, 'swimming pool' /'swɪmɪŋ pu:l/, 'bell' /bel/

Initial cluster: 'black' /blæk/, 'flag' /flæg/, 'blue' /blu:/

Final /l/ cluster: 'belt' /belt/, 'milk' /mɪlk/, 'golf' /gɒlf/

Testing of /r/ consists of four positions:

Initial /r/: 'rainbow' /reɪn,bəʊ/, 'rice' /raɪs/, 'red' /red/

Final /r/: 'car' /kɑ:r/, 'guitar' /gɪ'tɑ:r/, 'computer' /kəm'pjʊ:tər/

Initial cluster: 'three' /θri:/, 'green' /gri:n/, 'frog' /frɒg/

Final /r/ cluster: 'bird' /bɜ:rd/, 'nurse' /nɜ:rs/, 'horse' /hɔ:rs/

Spontaneous Speech. After the testing of the picture naming, the interview test was employed. This is an individual interview that was assessed how well participants can pronounce English words in a natural speech setting compared to the wordlist from

the picture naming, which is more conscious (See Appendix G and H). In this procedure, participants were informed the topic and a few questions related to the topic will be asked by the researcher. Each participant had five minutes to explain the answer.

Validity of the Tests

Regarding the sound perception test, a native speaker of English was carefully chosen to record the voice for the minimal pairs. The native speaker of American English was born and raised in the United States and was a senior elementary education major. Prior to the actual pretest, the sound perception test and the sound production test were evaluated and received the comments by five literacy professors in the college of Education. Five Thai college students in Thailand, who were English majors voluntarily to try out the tests. The tests were revised according to the feedback and comments from the literacy professors and Thai students.

Quantitative Data Collection Procedures

The participants in the experimental were examined whether the intervention readers theater has a significant gain on the outcome after a Practical English Phonetics for Teachers of English course. Within the 16 weeks of the course, the control group were taught regularly by the main instructor without a treatment, whereas the experimental group was implemented with readers theater by the researcher for 12 weeks. While the main instructor and the participants were in Thailand, the researcher was in the United States.

Quantitative research data was gathered from a pretest and a posttest, which were the same type of test (See Appendix F, G and H). Essentially, participants' comprehensible pronunciation was assessed through these pretests and posttests online.

Specifically, an online synchronized meeting (Zoom) took place, so that the researcher and students were able to communicate and discuss about the assessment.

Pretest. The pretest was administered to the control group and the experimental group via Zoom in the first week of semester following the researcher received the consent form. The perception test was done and followed by the production test. Regarding the perception test, the participants in each group were asked to complete the test online at the same time. They had 15 minutes to listen to the audio files and chose the correct answers in the test. After the perception test, the participants in each group made an appointment with the researcher for the one on one production assessment. This process took three days for collecting data from each group. The production test started with the picture naming, which took approximately 2-3 minutes. In this test, the participants were allowed to say each word only once. In case the same word was said more than once, the first one was reserved. After the picture naming test, the spontaneous speech test (interview) was continually done. Each participant had five minutes to answer the questions. During the data collection process, the participants were not required to turn the camera on, and their voice were recorded via Zoom, Apple iPhone 8, and the voice recorder.

Posttest. The posttest in quantitative phase was administered to the control group and the experimental group in the week of 15. The posttest is identical with the pretest, which contains two main parts include a sound perception test and a sound production test as mention above. The aim of the posttest is to investigate the effect of the intervention on the participants' English pronunciation outcome.

Confidentiality in Data Collection

Data collection for the sound production test was done via a synchronous online meeting (Zoom) so the teacher and students had face-to-face interaction. The video was also digitally recorded during the assessments individually. More specifically, to ensure that my online classed via Zoom will not be disrupted and all data from video recording of the assessments, class, and readers theater implementing will be secured, the researcher strictly followed the following procedure. First and foremost, when hosting the class, the classroom meeting link with passwords was sent directly to my students via email. My Personal Meeting ID (PMI) was not be used to avoid unwanted attendees to join my class. The Waiting Room feature provided by Zoom was set up for protecting and monitoring my virtual classrooms. Essentially, prior to starting the class, the Waiting Room option allowed me to screen out those who were not my students. In other words, I could accept only students who were attending my class (a Phonetics and Phonology for Teachers of English course) or remove strangers or unknown people who sneaked to my class individually. Also, by using the Waiting Room, in case I invited a guest speaker to join my class, they could be placed in the waiting list on the screen until I admit them to join. Most importantly, screening sharing and video recording on Zoom was strictly managed by using the option “host only” to make sure that only the researcher who has a permission to share content as well as to record and to keep video recordings during the class.

Teaching Context

A 16-week Practical English Phonetics for Teachers of English course was taught through Zoom, a cloud-based video conferencing by the main instructor. Each week, the

classes last for 3 hours. The experimental group and control group was taught on different days format 8:30 a.m. to 11:30 a.m. (Thailand local time), which is 8:30 p.m. to 11:30 p.m. (U.S. local time). Teaching materials include PowerPoint, handouts, worksheet, mobile application, and video clips that are related to American English pronunciation. Edmodo and Facebook, a distancing learning tool will also be used as an education platform to allow students and a teacher to connect and access to the teaching and learning material resources each week. In terms of the content, the first half semester focuses on segmental level (i.e., consonants and vowels) and the second half semester focuses on suprasegmental level (e.g., word stress and intonation). Each class started with the lecture, which was the content about English Phonetics and followed by traditional drill, which is a reading aloud activity. Traditional drill allows students to practice pronouncing words and sentences in English. Participants were asked to repeat words after the instructor or the audio files. Both experimental group and control group were taught the same way, except that in the experimental group had a less time working on traditional drills and the remaining time was devoted to readers theater. When students perform readers theater in the class, video was recorded via Zoom and was kept as confidential. More details on the measures of confidentiality when recording the intervention and how to implement readers theater are presented in the next section.

Intervention

Implementing Readers Theater in the Class. Readers theater was utilized by the researchers as an intervention for 12 weeks to investigate the experimental group's improvement of pronunciation. Readers theater was implemented with the experimental group from week two to week 13 during in the Phonetics and Phonology for Teachers of

English course. Furthermore, the readers theater sessions included three-week sessions using the same scripts and there was a total of four scripts practiced and presented by the students throughout the intervention. More specifically, both control and experimental group were taught the same way, except that the extra time was given to the experimental group for implementing readers theater. Table 9 illustrates comparing of control group and experimental group weekly teaching plan outline.

Table 9

Comparing of Control Group and Experimental Group Weekly Teaching Plan Outline.

Weekly Teaching Plan			
Control Group (3 hours)		Experimental Group (3 hours)	
lecture	1.20 hours	lecture	1.20 hours
break	15 minutes	break	15 minutes
traditional drill	1.15 Hours	traditional drill	15 minutes
-	-	readers theater	60 minutes
wrap up	10 minutes	wrap up	10 minutes

Each week, the class lasts for three hours for both control and experimental group. In the experimental group, the class began with the lecture for one hour and 20 minutes. After a 15-minute break, traditional drill will last for 15 minutes before implementing readers theater one and an hour. Similarly, in the control group, the lecture will be also delivered for one hour and 20 minutes. However, after a 15-minute break, a traditional drill was used for one and a half hour and reader theater was not be implemented. Table 10 illustrates control group and experimental group 16-week teaching plan outline.

Table 10*Control Group and Experimental Group 16-week Teaching Plan Outline.*

Week	Topics	Activities (Control group)	Activities (Experimental group)
1	-Course introduction -Pretest	-Lecture (power point) -Handout -Pretest	-Lecture (power point) -Handout -Pretest
2	-Introduction to Phonetics and Phonology -Speech organs -Place and manner of articulation - Phonetics alphabets	-Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion -Drill	-Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion -Drill *Readers theater
3	-English initial consonants	-Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion	-Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion *Readers theater
4	-English initial consonant clusters	-Lecture (power point, video clips, mobile application) -Handout and worksheet- Discussion	-Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion *Readers theater
5	-English final consonants	-Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion	-Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion *Readers theater
6	-English final consonant clusters	-Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion	-Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion *Readers theater
7	-English consonants wrap up	-Lecture (power point, video clips, mobile application)	-Lecture (power point, video clips, mobile application)

(continued)

Week	Topics	Activities (Control group)	Activities (Experimental group)
8	-English vowels (monophthongs)	-Handout and worksheet -Discussion -Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion	-Handout and worksheet -Discussion *Readers theater -Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion *Readers theater
9	-English vowels (Diphthongs)	-Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion	-Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion *Readers theater
10	-English vowels (monophthongs & Diphthongs)	-Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion	-Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion *Readers theater
11	-Syllable structure	-Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion	-Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion *Readers theater
12	-Word stress -Vowel reduction	-Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion	-Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion *Readers theater
13	-Pause, thought group, and linking	-Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion	-Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion *Readers theater

(continued)

Week	Topics	Activities (Control group)	Week (Experimental group)
14	-Intonation -Wrap up	-Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion	-Lecture (power point, video clips, mobile application) -Handout and worksheet -Discussion
15	-Posttest	-Posttest	-Posttest -Online survey
16	-Final examination		

As this course was taught remotely; therefore, readers theater was implemented through a synchronized online application in which the teacher and students in each group meet each other at the same time. Readers theater was used as an intervention for experimental group once a week for 12 weeks starting from week two to week 13. More specifically, there were four readers theater interventions throughout the 12-week period, each intervention consisted of a three-week cycle. The first week of the cycle is introductory includes week two, five, eight, and 11. The second week of the cycle, which is practicing includes week three, six, nine, and 12. The third week of the cycle, which is performing includes week four, seven, 10, and 13. Table 11 demonstrates the outline of implementing readers theater in the class.

Table 11*Implementing Readers Theater in the Class Outline.*

Introductory week (Week 2, 5, 8, 11)	Duration (1 hour)
Review the scripts (listening to the audio files of scripts and discussion)	25 minutes
Choosing a script	10 minutes
Choosing a role	10 minutes
Practice	35 minutes
Practicing week (Week 3, 6, 9, 12)	
Practice and discussion	60 minutes
Performing week (week 4, 7,10, 13)	
Performing and giving feedback	60 minutes

Additionally, students were asked to use the same script to practice pronunciation for three weeks (one cycle) before changing the new script in the next cycle. More specifically, in the introductory week, the intervention began with students and a teacher review and discuss about the plot, characters, and words meaning of two scripts for 25 minutes. During the reviewing, students also listened to an audio files of two scripts recorded by native speakers of English. After that students have 10 minutes for choosing a script base on their interest and they have 10 more minutes for choosing a role. Finally, students will spend last 35 minutes for practicing a script.

On the second week of the cycle, practicing week, students only practiced the script in the classroom with their peers in the group. Students also had a chance to discuss about articulations and how to pronounce words with their peers and a teacher.

On the third week of the cycle, 60 minutes was spent for performing and giving feedback. After each group finished performing, the researcher gave students feedback on their pronunciation, particularly /l/ and /r/, which are the target sounds of this study. Students were allowed to give feedback to their peers as well. Additionally, students' readers theater performances were video recorded via Zoom. The confidentiality measures noted above in data collection procedures was adhered to when recording the intervention to maintain confidentiality.

It is also important to note here that students could listen to the audio recordings as often as they could during the classroom. However, they were not allowed to listen to the audio recording outside the classroom, to avoid extraneous variables that could impact the findings.

Readers Theater Scripts. The scripts were retrieved from the websites and were adapted by the researcher. There were two to four different scripts for students to select for each week. Overall, there were 12 scripts in total used during the 12-week intervention. There were various sources of stories and include classical children stories and folktales from English speaking countries and Asian countries for the participants to choose. The websites that the researcher used to create the readers theater scripts were: www.thebestclass.org, www.teachingheart.net, [www. Kidsonco.com](http://www.Kidsonco.com), and www.storiestogrowby.org.

Validity and reliability of the scripts. The scripts were proofread by two English native speakers. The researcher ensured that scripts that were used in each cycle were similar in terms of text length, reading level, and the number of characters. There were extensive amount of words contained /r/ and /l/ sounds. Furthermore, each script contained approximately the same number of /r/ and /l/. More specifically, there were at least 20 words contained /r/ and at least 20 words contained /l/ in each script. Moreover, the stories were checked for the readability level as measured by the Flesch Reading Ease Formula([https://readability formulas.com](https://readability-formulas.com)). Based on the Flesch Reading Ease score and the grade Level of the 12 scripts, the results indicated that in grade three, four scripts were between a score of 90-100 and in grade four, eight scripts were between a score of 80-89 (Kincaid et al., 1975). Table 12 depicts the Flesch Reading Ease score on the scale.

Table 12

The Flesch Reading Ease Score on the Scale.

Score	Readability level	U.S. Grade
90-100	very easy to read	5 or below
80-90	easy to read	6
70-80	fairly easy to read	7
60-70	easily understood	8-9
50-60	fairly difficult to read	10-12
30-50	difficult to read	Undergrade student
0-30	very difficult to read	Graduate student

Note: Adapted from Kincaid et al., (1975)

Audio Files of Scripts. After the scripts were completely done, they were proofread by two English native speakers and were digitally recorded by seven native speakers. The audio files were used for the purpose of practicing pronunciation for the participants in the experimental group during the intervention. The seven native speakers who voluntarily recorded their voices were from two families. All of them were born and have always lived in the United States. The first family members included a 46-years-old female, a 23-years-old female, a 19-years-old male, a 14-years-old female, and a 14-years-old male. The second family members were a 51-years-old male, a 49-years-old female, and a 12-years-old female.

Quantitative Data Analysis

The participants in the control group and the experimental group took two main types of pretests, including sound perception and sound production. The same data analysis procedure was used for pretest and posttest. The details are presented as follows.

1. The Scoring of the Perception Test. The test scores were calculated via survey software (i.e., Qualtrics) using frequency count, means, and standard deviation.

2. The Scoring of the Production Test. After all participants in the control and experimental group completed the pretest, the recordings of participants from the picture naming test and the interview test were transcribed verbatim by the researcher. The words containing the target sounds (i.e., /l/ and /r/) in various positions were listed in the score sheet (see Appendix J and K). Three native speakers of English who speak American English as a first language judged the participants' level of comprehensible pronunciation, using a five-point scale adapted from Isaacs, et. al, (2018) (see Appendix

I). The three judges held a doctoral degree. They were born and have always lived in the United States. Two of them were males, and the other one was a female.

More specifically, the picture naming test, three judges listened to the participants' voice recording of 24 words containing the target sounds /l/ and /r/ and rated the participants' English pronunciation comprehensibility in the score sheet (see Appendix E). In total, there were 2,352 words containing /r/ and /l/ were evaluated. Frequency count, mean, and standard variation were calculated as a statistical analysis.

With respect to the spontaneous speech test, the same three judges listened to the participants' voice recording of words containing the target sounds (i.e., /l/ and /r/) and rated the participants' English pronunciation comprehensibility in the score sheet. The numbers of /r/ and /l/ were varied by each participants' answers. In addition, words contained r and l derived from the interview from the control and the experimental group were analyzed and grouped according to the positions. Overall, there were 3,568 words containing /r/ and /l/ elicited from the interview assessments. There were ten positions of /r/ found in total included initial /r/ (e.g., room, road), initial /r/ cluster (e.g., from, friend), final /r/ (e.g., car, mother), final /r/ cluster (e.g., years, sportr), intervocalic /r/ (e.g., favorite, hero), medial /r/ (e.g., university). There were eight positions of /l/ found in total included initial /l/ (e.g., long, less), initial /l/ cluster (e.g., play, blue), final /l/ (e.g., football, temple), final /l/ cluster (e.g., old, play), intervocalic /l/ (e.g., relax), medial /l/ (e.g., salty, bulding). However, words in the initial /r/, intervocalic /l/, and medial /l/ including words that did not fall under positions mentioned above (e.g., world, girl, problem, employ, improve, bedroom) were excluded because there were not enough

data for performing statistical tests. In total, there were 3,294 words containing /r/ and /l/ were evaluated.

After all participants in the control and experimental groups completed the posttest in week 15, the data analysis procedure was done the same way.

The Statistical Tests

The quantitative data from 15 weeks of pretest and posttest scores from the control and experimental groups were analyzed, beginning with testing for normality distribution, performing statistical test, and calculating for the effect size. The details are presented below.

The scores of the pretest and posttest of the control group and the experimental group, after being rated by three native speakers and categorized by the researcher, were compared by using the Statistical Package for Social Science (SPSS) version 22. Specifically, the effect of readers theater on the improvement of Thai preservice English teachers' English pronunciation was determined by analyzing descriptive statistics and conducting *t*-tests to compare pretest and posttest scores between and within the control and experimental groups. Schwartz et al. (2019) stated that this type of statistic is “a set of statistical procedure that are used for evaluating hypotheses that proposes a difference between two means” (p. 277). In this study, the independent variable, which is readers theater, and the dependent variables, which are the means scores of the /l/ and /r/ sounds, were examined whether there is a significant difference between two means.

Initially, testing for normality distribution was done. Calculations of several coefficients were computed which verified deviation from normality in distribution of scores (Onwuegbuzie & Daniel, 1999). Examinations of histograms and quantile-

quantile (Q-Q) plots for the variables, specifically the /r/ and /l/ scores from the pretest and posttest of the control and experimental groups as measured by the perception and production assessments, illustrated some deviation from normality. The standardized skewness coefficient (i.e., the skewness value divided by the standard error of skewness) along with the standardized kurtosis coefficient (i.e., the kurtosis value divided by the standard error of kurtosis) revealed two sets of data (i.e., perception test and picture naming test) were within the range of normality, -3.00 and +3.00. However, the coefficients of spontaneous speech test (i.e., interview) was not normally distributed. Therefore, the non-parametric tests (i.e., Wilcoxon signed rank test and Mann-Whitney U test) were used for the perception and picture naming tests. The parametric tests (i.e., paired sample t-test and independent sample t-test) were used to compare means scores between the control and experimental groups of the interview assessment.

Furthermore, Wilcoxon signed rank test, which is a nonparametric test used for the analysis of the mean scores within the group (Gibbons et. al, 2020; Wilcoxon et, al, 1970; Woolson, 2007). In this research, Wilcoxon signed rank test was computed to compare the mean scores of pre and posttest for the perception and the production tests of the control and experimental group. Mann-Whitney U test is a nonparametric test used for the analysis of the mean scores between two independent samples. (Mann et al., 1947; Nachar, 2008). Additionally, Mann-Whitney U test was conducted to compare the pre and posttest scores of the perception and production tests from the control and experimental group in order to analyze the effect of readers theater on the pronunciation improvement.

In terms of the effect size, the mean differences between the control and experimental groups from the significant values were analyzed using r (i.e., the test value is divided by the square root of the total sample size), or $r = Z/\sqrt{N}$ in order to determine the relationship between two variables. The effect size ranges from small (0.3), between moderate (0.3 to 0.5), and large (more than 0.5) (Field, 2013; Rosenthal, 1994). The details of data analysis and the results are presented in chapter IV.

With respect to the parametric test, a paired sample t-test was used to compare the mean scores of the pre and posttest for the perception and production tests that are collected within the control and experimental groups. An independent sample t-test was performed to compare the mean scores of the pre and posttest for the perception and production tests between the control and experimental groups. In terms of the effect size, the mean differences between the control and experimental group from the significant values were analyzed using Cohen's d (i.e., subtract the mean of the control group from the experimental group and divide the result by the standard deviation in order to determine the relationship between two variables). The effect size ranges from small (0.2) moderate (0.5), and (0.8) large (Cohen, 1969; Goulet-Pelletier & Cousineau, 2018). The details of data analysis and the results are presented in chapter four.

Reliability of the Test Scores

Since there were three judges who evaluated the production pretest and posttest of the control and experimental groups, the Intra-class correlation coefficient was used to measure the agreement among the judges. Specifically, Chronbach's alpha (α), which is a measure of scale reliability, was conducted (Koo & Li, 2016). The Chronbach's alpha (α) values were found to be higher than .70, which indicated the inter-rater reliability was

excellent for all measures except the picture naming of the experimental group, which was still considered acceptable as depicted in table 13.

Table 13

Intraclass Correlation Coefficients for All Groups in the Production Pretest and Posttest.

Testing Instruments (Production Test)	Control Group (n=26)	Experimental Group (n=23)	Control Group (n=26)	Experimental Group (n=23)
	Pretest		Posttest	
	α	α	α	α
Picture naming	0.94	0.91	0.93	0.70
Interview	0.99	0.98	0.99	0.98

Note: A reliability coefficient value < 0.50 = poor; 0.50 - 0.75 = moderate; 0.75 - 0.90 = good; > 0.90 = excellent (George and Mallery, 2003).

Qualitative Research (Phase II)

Qualitative Research Method and Sampling Design

This qualitative research phase aims to explore the participants' perceptions on their experience engaging readers theater activities based on the research questions 2 and 3 as follows.

Research Question 2. What are the perceptions of Thai preservice English teachers regarding the effect of participation in readers theater in the improvement to practice and improve their English pronunciation?

Research Question 3. What are the perceptions of Thai preservice English teachers regarding the effect of participation in readers theater reducing anxiety when pronouncing English?

Moreover, this phase of research needs to be done to following up the quantitative results because for the past decade, there were only two research studies on using readers theater as an instructional tool found in the Thai EFL context (Lekwilai, 2014; Lekwilai, 2016). Moreover, these previous studies investigated readers theater in the area of reading comprehension rather than the development of pronunciation, which is new phenomena in teaching English as a foreign language in Thailand. Previous researchers also mentioned that qualitative research inquiry allows a researcher to gain insight into participant's perspective on their pronunciation learning experience (Thomson & Derwing, 2015; Lucarevschi, 2018).

In this qualitative research phase, case study will be utilized as a research method to obtain insight into participants' perceptions on their experience after using readers theater to improve English pronunciation and to reduce anxiety when pronouncing English words. Specifically, an intrinsic case study was employed in this study. Stake (1995) pointed out that an intrinsic case study is appropriate to use in an educational research when "... a teacher decides to study a student having difficulty, when we get curious about a particular agency, or when we take the responsibility of evaluating a program" (p. 3). In this study, all participants in the experimental group ($N = 23$) were asked to complete an anonymous online survey and open-ended questions. Also, an anecdotal record was done by the researcher.

Qualitative Instruments

The qualitative instruments were composed of an anonymous online survey, open-ended questions, and anecdotal records. The details of the instruments were described as follow.

Anonymous Online Survey. The online survey consists of 10 questions based on participants' perceptions on experiencing using readers theater during a Phonetics and Phonology for Teachers of English course. All participants in the experimental group were asked to rate each statement using a 4-level Likert scale item from (1) strongly disagree to (4) strongly agree (see Appendix I).

Open-Ended Questions. There are five questions related to participants' perceptions on experiencing using readers theater during a Phonetics and Phonology for Teachers of English course (See Appendix M). All participants in the experimental group will be asked to write the answers.

Anecdotal Record. Every week, the researcher observed the participants' reactions and feelings in general during using readers theater and jotted down as a record.

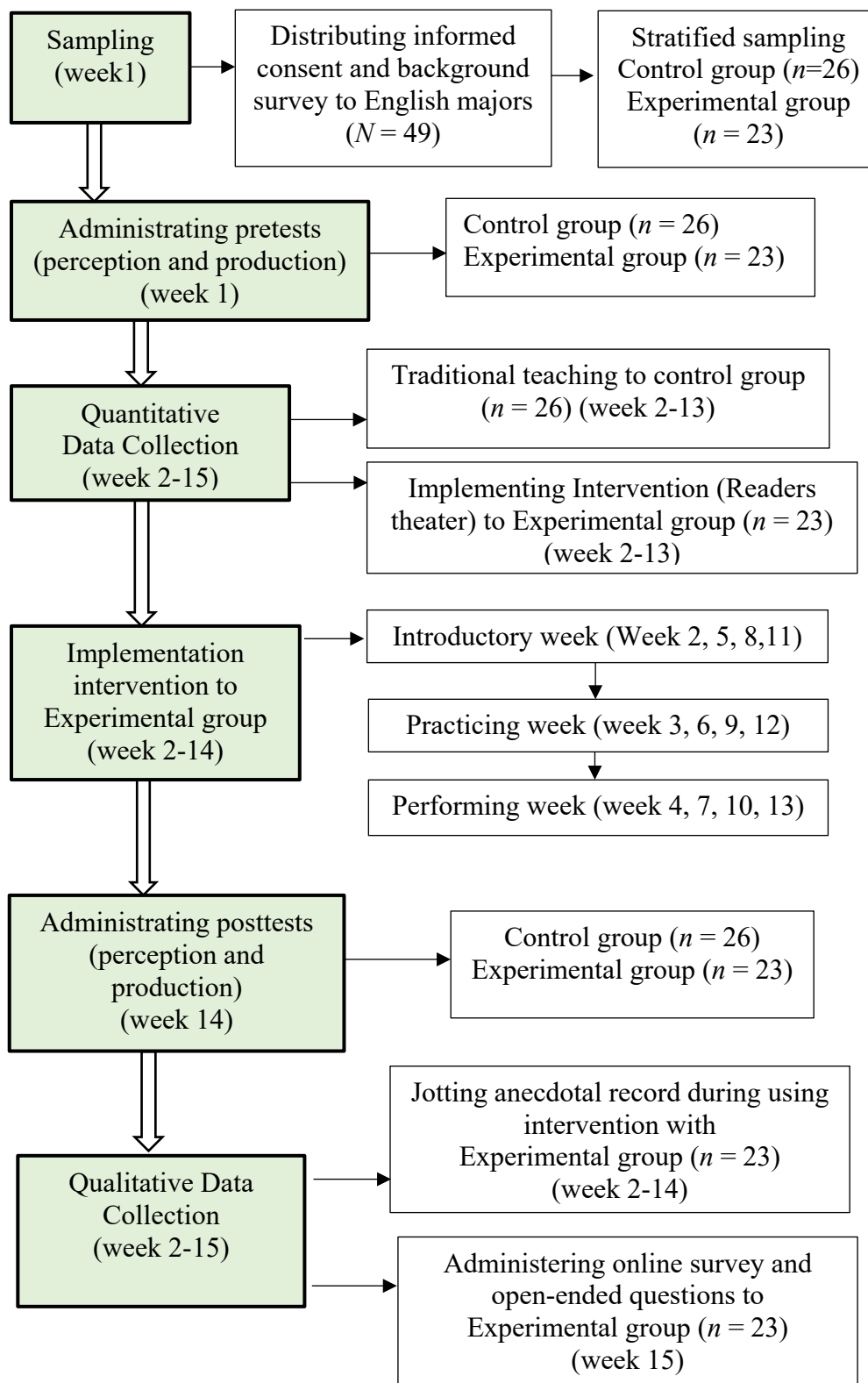
Validity of the Anonymous Online Survey and Open-Ended Questions. Prior to distributing the survey questions and the open-ended questions to the participants in the experimental group, they were corrected and revised according to feedback and recommendations from two professors in the College of Education. After revision, the questionnaire was translated into Thai and was judged by two Thai college professors, who are in a field of teaching English as foreign language in Thailand. In order to find the content, the Index of Item-Objective Congruence (IOC) was utilized for the two Thai experts to rate the items in the questionnaire based on the score range from -1 to 1. The overall score was at 0.8, which indicated that all questions were clearly measured. The survey and questions were revised based on additional feedback from the experts.

Qualitative Data Collection Procedure

Data were collected from an anonymous online survey and open-ended questions. In week 15 of the course, the researcher informed all participants in the experimental group about this purpose of this qualitative data collection procedure and asked them to complete an anonymous online survey and open-ended questions. Regarding the anecdotal records, each week during and after using the intervention, the researcher jotted down.

Qualitative Data Analysis

An autonomous online survey was analyzed using frequency count, percentage, means, and standard deviation. Data from open-ended questions and an anecdotal record were analyzed via thematic analysis. According to Braun and Clarke (2006), thematic analysis can be used to analyze the data or text to discover emerging categories and themes through coding technique. The coding can be found based on the features of the data that pertaining to the research questions (Braun & Clarke, 2006). Additionally, Invivo coding was utilized in this research in order to identify and reveal the participants' voice and worldview through emerging themes (Saldana, 2013).

Figure 3*Quantitative and Qualitative Data Collection Procedures.*

Ethical Considerations

Ethics in research is rules and principles that researchers should take into account in order to avoid or minimize harm caused by conducting research and to protect participants' human rights (Bogdan & Biklen, 2003; Coe, Waring, Hedges, & Arthur, 2017; Lichtman, 2010). Ethical issues can occur in all types of research that involves human subjects including online educational orientation. As Gerber et al. (2016) addressed "Privacy settings and the public-private continuum must be fully considered when a researcher enters an online space for the purpose of conducting a study" (p. 145). Furthermore, ethical issues can be found before, during, and after research process (Creswell, 2018). Atkins and Wallace (2012), asserted that "an ethical approach should pervade the whole of your study. At each stage you should be asking yourself: is this action ethical? Is it honest and moral? Is it respectful of others and of key values?" (p.30).

Therefore, in order to avoid unethical issues in this study, I followed guidelines that literacy researchers should keep in mind based on the following scholars

Do No Harm

I ensured that there was no potential harm to participants during conducting research as participants had fully right to make decision to or not to participate in this research voluntary and can give up whenever they want. The proposal of this study was sent to Sam Houston University Institutional Review Board (IRB) to approve whether the research under studied involving risk of harm to participants (Johnson & Christensen, 2012; Pajo, 2017). The proposal provided information pertaining to the principal investigator, significant and purposes of the study, research questions, and methodology.

Additionally, approval from the head of bachelor's degree of Education program was obtained.

Informed Consent

As a researcher should be aware that participants can always withdraw from the research at any time and a researcher has to respect their decision (Aktins & Wallace, 2012; Bogdan & Biklen, 2003). Thus, before the data collection process, participants were given a consent form and sign in. In the informed consent, the important details about research topic was provided clearly so that students can make decision to agree or disagree to participate as a volunteer. Moreover, students were informed in the consent from that if they decided not to participate in this research, their decision will not affect their grades or future relations with the university.

Privacy and Anonymity

The name of all selected research participants and university were not be identified. To protect the privacy, a pseudonym was given to an individual participating in this study (Coe et al., 2017)

Confidentiality

All information provided by participants include pre and posttest recordings were kept confidential. All collected data were stored in my laptop and will be destroyed after the study is completely done (Curtis et al., 2013). Additionally, participants were informed that data will be disseminated to the public after the end of the study, however it is impossible that their personal data would be traced.

Intrusiveness

As a researcher should be aware not to intrude participants' personal space, I was careful not to be too close to participants no matter what gender and how old they are (Lichtman, 2010).

Data Interpretation

It is a moral that a researcher has to report all findings honestly. Therefore, I included ethical issues found during data collection in a discussion part to show my loyalty because it will be useful for future research (Coe et al., 2017).

Summary

This chapter presented the methodology that was used in this research study. A mixed methods design was employed as a methodology to address the research questions of this study. In phase I, a quasi-experimental design was employed for data collection and analysis to in-depth investigate the effect of readers theater in the improvement of Thai preservice English teachers' English pronunciation. In phase II, qualitative research followed a case study design was used to gain insight into the experience and perceptions of Thai-preservice English teachers when using readers theater as an intervention in the classroom.

CHAPTER IV

Results

This mixed methods study was designed to investigate whether the use of readers theater as an intervention, with Thai preservice English teachers, would yield positive results on the improvement of their English pronunciation. The study consisted of two phases: a quantitative research study phase and a qualitative research study phase. In this chapter, the results from two phases will be presented and discussed based on the research questions as follow:

Research Question 1

What is the effect of readers theater on the improvement of pronunciation production of segmental features (i.e., /l/ and /r/) by Thai preservice English teachers in Thailand?

Research Question 2

What are the perceptions of Thai preservice English teachers regarding the effect of participation in reader theater on their motivation to practice and improve their English pronunciation?

Research Question 3

What are the perceptions of Thai preservice English teachers regarding the effect of participation in readers theater reducing anxiety when pronouncing English?

Quantitative Results

Sound Perception Test

Minimal Pairs. Calculations of several coefficients were computed which verified no deviation from normality in distribution of scores (Onwuegbuzie & Daniel,

1999). Examining of histograms and quantile-quantile (Q-Q) plots for the variable examined, specifically, the /l/ and /r/ scores from the pretest and posttest from the control and experimental groups as measured by the perception assessment showed no deviation from normality. The standardized skewness coefficient and the standardized kurtosis coefficient were within the range of normality (i.e. -3.00 and +3.00) for the pretest scores from the control and experimental group from the perception test at 0.65 and 0.38 respectively. The standardized skewness coefficient and the standardized kurtosis coefficient were within the range of normality for the posttest scores from the experimental group from the perception test at 0.5 and 0.13 respectively. The parametric tests included paired sample *t*-test and independent sample *t*-test were computed as follows.

Table 14

Comparison of the Sound Perception Pretest and Posttest within the Control and the Experimental Group

Position of target consonants	Group	<i>n</i>	<i>Paired Sample t-Test</i>				
			Pretest		Posttest		Effect Size
			<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
20 words	Control	26	13.69	3.34	14.27	3.19	-
	Experimental	23	12.48	1.85	13.78	2.07	0.52
Initial /l/	Control	26	4.00	0.93	3.77	1.21	-
	Experimental	23	4.09	0.90	5.13	0.81	1.01
Initial /l/ cluster	Control	26	2.85	1.28	2.96	1.45	-
	Experimental	23	2.39	0.89	2.48	1.08	-
Initial /r/	Control	26	3.65	1.06	3.73	0.96	-
	Experimental	23	2.39	0.89	3.48	0.66	1.20
Initial /r/ cluster	Control	26	3.19	1.16	3.81	1.02	0.40
	Experimental	23	2.74	0.96	4.43	1.08	1.11

A paired-samples *t*-test was conducted to compare pretest and posttest scores of the perception test in the control group. Means and standard deviations are presented in Table 14. There was no significant difference in the scores for pretest and posttest in all conditions of /l/ and /r/, except in the initial /r/ cluster condition. There was a significant difference in the scores from the pretest ($M = 3.19$, $SD = 1.16$) to posttest ($M = 3.81$, $SD = 1.02$) in the initial r cluster condition; $t(25) = 2.21$, $p < .05$. These results indicated that the participants in the control group perceived more words containing initial /r/ cluster accurately in the posttest. For practical significance, mean difference effect size was computed. The magnitude of the effect in the initial /r/ cluster condition in the control group was small ($d = 0.4$).

Regarding the experimental group, there was no significant difference in the pretest and posttest scores in the initial /l/ cluster conditions. Means and standard deviations are presented in Table 14. However, there were significant differences in the pretest and posttest scores in the 20 words, initial /r/, initial /r/ cluster, and initial /l/ conditions as follow: Firstly, there was a significant difference in the scores from the pretest ($M = 2.39$, $SD = 0.89$) to posttest ($M = 12.48$, $SD = 1.85$) in the 20 word condition; $t(22) = 2.53$, $p < .05$. Secondly, there was a significant difference in the scores from the pretest ($M = 2.39$, $SD = 0.89$) to posttest ($M = 3.48$, $SD = 0.66$) in the initial /r/ condition; $t(22) = 5.79$, $p < .05$. Thirdly, there was a significant difference in the scores from the pretest ($M = 2.74$, $SD = 0.96$) to posttest ($M = 4.43$, $SD = 1.08$) in the initial /r/ cluster condition; $t(22) = 5.34$, $p < .05$. Lastly, there was a significant difference in the scores from the pretest ($M = 4.09$, $SD = 0.90$) to posttest ($M = 5.13$, $SD = 0.81$) in the initial /l/ condition; $t(22) = 4.89$, $p < .05$. These results suggest that readers theater has an

effect on the pronunciation improvement of the /r/ in the 20 words, initial and initial cluster positions and the /l/ in the initial position for the experimental group. For practical significance, mean difference effect size was computed. The magnitude of the effect in the 20 words condition was moderate ($d = 0.52$), in the initial /r/ condition was large ($d = 1.20$), in the initial /r/ cluster condition was large ($d = 1.11$), and in the initial /l/ condition was large ($d = 1.01$).

Table 15

Comparison of the Sound Perception Pretest and Posttest between the Control and the Experimental Group

Position of target consonants	Group	<i>n</i>	<i>Independent Sample t-Test</i>					
			Pretest			Posttest		
			<i>M</i>	<i>SD</i>	Effect size	<i>M</i>	<i>SD</i>	Effect Size
20 words	Control	26	13.69	3.34	-	14.27	3.19	-
	Experimental	23	12.48	1.85		13.78	2.07	
Initial /l/	Control	26	4.00	0.93	-	3.77	1.21	0.37
	Experimental	23	4.09	0.90		5.13	0.81	
Initial /l/ cluster	Control	26	2.85	1.28	-	2.96	1.45	-
	Experimental	23	2.39	0.89		2.48	1.08	
Initial /r/	Control	26	3.65	1.06	1.28	3.73	0.96	-
	Experimental	23	2.39	0.89		3.48	0.66	
Initial /r/ cluster	Control	26	3.19	1.16	-	3.81	1.02	0.59
	Experimental	23	2.74	0.96		4.43	1.08	

An independent-samples *t*-test was conducted to compare the perception pretest scores in the control and the experimental group. Means and standard deviations are presented in Table 15. There was no significant difference in the scores for pretest in all conditions of /l/ and /r/, except in the initial /r/ condition. There was a significant difference in the pretest scores for the control group ($M = 3.65$, $SD = 1.06$) and experimental group ($M = 2.39$, $SD = 0.89$) in the r initial condition; $t(47) = 4.48$, $p < .05$.

These results showed the participants in the control group performed higher scores for /r/

in the initial position than the experimental group in the pretest scores on the picture naming assessment. For practical significance, mean difference effect size was computed. The magnitude of the effect in the initial /r/ condition was large ($d = 1.28$).

Regarding the posttest, there were no significant differences in the scores for posttest in all conditions, except in the initial /r/ cluster and the initial /l/ conditions. Firstly, there was a significant difference in the posttest scores for control group ($M = 3.81$, $SD = 1.02$) and for experimental group ($M = 4.43$, $SD = 1.08$) in the initial /r/ cluster condition; $t(47) = 2.08$, $p < .05$. Secondly, there was a significant difference in the posttest scores for the control group ($M = 3.77$, $SD = 1.21$) and experimental group ($M = 5.13$, $SD = 0.81$) in the initial /l/ condition; $t(47) = 4.5$, $p < .05$. These results suggested that readers theater has an effect on the pronunciation improvement of the participants in the experimental group, which means they performed higher scores for the initial /r/ cluster and the initial /l/ position than the control group in the posttest scores in the picture-naming assessment. For practical significance, mean difference effect size was computed. The magnitude of the effect in the initial /r/ cluster condition was medium ($d = 0.59$) and in the initial /l/ condition was small ($d = 0.37$).

Sound Production Tes

Picture Naming. Calculations of several coefficients were computed which verified no deviation from normality in distribution of scores (Onwuegbuzie & Daniel, 1999). Examining of histograms and quantile-quantile (Q-Q) plots for the variable examined, specifically, the /r/ and /l/ scores from the pretest and posttest from the control and experimental groups as measured by the perception assessment showed no deviation from normality. The standardized skewness coefficient and the standardized kurtosis

coefficient were within the range of normality (i.e. -3.00 and +3.00) for the pretest scores from the control and experimental group from the perception test at 2.79 and 2.50 respectively. The standardized skewness coefficient and the standardized kurtosis coefficient were within the range of normality for the posttest scores from the experimental group from the perception test at 2.20 and 1.18 respectively. Therefore, the parametric tests included paired sample *t*-test and independent sample *t*-test were computed as follows.

Table 16

Comparison of the Picture-Naming Pretest and Posttest within the Control and the Experimental Group

Position of target consonants	Group	<i>n</i>	<i>Paired Sample t-Test</i>				
			Pretest		Posttest		Effect size
			<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Overall scores	Control	26	12.81	1.47	13.23	1.04	-
	Experimental	23	13.22	0.86	13.00	0.92	-
Initial /l/	Control	26	13.38	2.44	13.51	2.89	-
	Experimental	23	14.42	0.86	13.99	1.28	-
Final /l/	Control	26	14.85	14.44	13.29	9.95	-
	Experimental	23	14.47	8.95	14.97	9.20	-
Initial /l/ cluster	Control	26	8.23	3.44	8.82	3.52	-
	Experimental	23	8.58	3.48	9.19	3.18	-
Final /l/ cluster	Control	26	11.15	2.29	12.71	1.33	0.7
	Experimental	23	12.01	1.34	11.99	1.44	-
Initial /r/	Control	26	13.12	2.37	13.35	2.69	-
	Experimental	23	12.01	3.157	10.68	4.11	0.5
Final /r/	Control	26	12.92	0.96	12.99	0.95	-
	Experimental	23	13.01	0.85	12.84	1.05	-
Initial /r/ cluster	Control	26	10.83	2.03	11.37	2.38	-
	Experimental	23	10.96	1.63	11.48	1.25	-
Final /r/ cluster	Control	26	12.81	1.47	13.23	1.04	-

(continued)

Experimental	23	13.22	0.86	13.00	0.92	-
--------------	----	-------	------	-------	------	---

A paired-samples *t*-test was conducted to compare pretest and posttest scores of the production test, specifically the picture-naming assessment in the control group. Means and standard deviations are presented in Table 16. There was no significant difference in the pretest and posttest scores in the overall scores and some positions of /l/ and /r/ in the words. However, there was significant difference in the pretest and posttest scores in the final /l/ cluster condition. There was a significant difference in the scores from the pretest ($M = 11.15$, $SD = 2.29$) to posttest ($M = 12.71$, $SD = 1.33$) in the final /l/ cluster condition; $t(26) = 3.53$, $p < .05$. These results indicated that the participants in the control group produced more words containing final /l/ cluster accurately in the posttest. For practical significance, mean difference effect size was computed. The magnitude of the effect in the final /l/ cluster condition in the control group was medium ($d = 0.7$).

Regarding the experimental group. There was no significant difference in the pretest and posttest scores in the overall scores and some positions of /r/ and /l/ in the words. However, there was significant different in the pretest and posttest scores in the front /r/condition. There was a significant difference in the scores from the pretest ($M = 12.01$, $SD = 3.15$) to posttest ($M = 10.68$, $SD = 4.11$) in the front /r/ condition; $t(22) = 2.67$, $p < .05$. These results suggest that readers theater has an effect on the pronunciation improvement of the front /r/ positions in the experimental group. The magnitude of the effect in the initial /r/ condition in the experimental group was moderate ($d = 0.5$).

Table 17

Comparison of the Picture-Naming Pretest and Posttest between the Control and the Experimental Group

Position of target consonants	Group	<i>n</i>	<i>Independent Sample t-Test</i>					
			Pretest			Posttest		
			<i>M</i>	<i>SD</i>	Effect size	<i>M</i>	<i>SD</i>	Effect size
Overall scores	Control	26	12.81	1.47	-	13.23	1.04	-
	Experimental	23	13.22	0.86		13.00	0.92	
Initial /l/	Control	26	13.38	2.44	-	13.51	2.99	-
	Experimental	23	14.42	0.86		13.99	1.28	
Final /l/	Control	26	14.85	14.44	-	13.29	9.95	-
	Experimental	23	14.71	8.95		14.97	9.20	
Initial /l/ cluster	Control	26	8.23	3.44	-	8.82	3.52	-
	Experimental	23	8.58	3.48		9.19	3.18	
Final /l/ cluster	Control	26	11.15	2.29	-	12.71	1.33	-
	Experimental	23	12.01	1.34		11.99	1.44	
Initial /r/	Control	26	13.12	2.37	-	13.35	2.69	0.8
	Experimental	23	12.01	3.15		10.68	4.11	
Final /r/	Control	26	12.92	0.96	-	12.99	0.95	-
	Experimental	23	13.01	0.85		12.84	1.05	
Initial /r/ cluster	Control	26	10.83	2.03	-	11.37	2.38	-
	Experimental	23	10.96	1.63		11.48	1.25	
Final /r/ cluster	Control	26	12.81	1.47	-	13.23	1.04	-
	Experimental	23	13.22	0.86		13.00	0.92	

An independent-samples t-test was conducted to compare the production pretest scores for the picture presented in Table 17. There were no significant differences in the scores for pretest in all conditions of /r/ and /l/ in both groups.

In terms of posttest scores for the picture-naming assessment in the control and experimental group, there was no significant difference in the scores for the posttest in all conditions, except for the initial /r/ position. Means and standard deviations are presented in Table 17. There was a significant difference in the posttest scores for the control group ($M = 13.35$, $SD = 2.69$) and experimental group ($M = 10.68$, $SD = 4.11$) in the initial /r/

condition; $t(47) = 2.71, p < .05$. These results suggest that readers theater has an effect on the pronunciation improvement of the /r/ in the initial position in the experimental group. For practical significance, mean difference effect size was computed. The magnitude of the effect in the initial /r/ condition was large ($d = 0.8$).

Interview. Calculations of several coefficients were computed which verified deviation from normality in distribution of scores (Onwuegbuzie & Daniel, 1999). Examining of histograms and quantile-quantile (Q-Q) plots for the variable examined, specifically, the /r/ and /l/ scores from the pretest and posttest from the control and experimental groups as measured by the perception assessment showed deviation from normality. The standardized skewness coefficient and the standardized kurtosis coefficient were outside the range of normality (i.e. -3.00 and +3.00) for the pretest scores from the control and experimental group from the perception test at 3.41 and 4.21 respectively. The standardized skewness coefficient and the standardized kurtosis coefficient were outside the range of normality for the posttest scores from the experimental group from the perception test at 4.41 and 7.43 respectively. Therefore, the nonparametric tests were computed as follows.

Following the test of normality, Wilcoxon signed rank test was performed for the analysis of the mean scores from the pre and posttest within the control group from the spontaneous test (i.e., interview). Means and standard deviations are presented in Table 18. Regarding the control group ($n = 26$), the results showed that there was no significant difference between pretest and posttest in conditions on the following outcome measures: (a) initial /l/ ($Z = 2.37, p = 0.18$); (b) final /l/ ($Z = 0.12, p = 0.90$); (c) initial /l/ cluster ($Z = 0.94, p = 0.34$); (d) final /l/ cluster $Z = 0.40, p = 0.68$); (e) initial /r/ cluster ($Z = 0.96, p$

= 0.33); (f) final /r/ cluster ($Z = 0.92, p = 0.35$); (g) intervocalic /r/, ($Z = 1.79, p = 0.07$); and (h) medial /r/ ($Z = 0.97, p = 0.33$). However, there was a significant difference between pretest and posttest in the final /r/ position ($Z = 2.26, p < 0.05$). For practical significance, mean difference effect size was computed. The magnitude of the effect in the final r were medium to large ($r = 0.44$) and ($r = 0.55$) respectively. These results indicated that the participants in the control group pronounced more word containing /r/ in the final position accurately in the posttest after received a traditional teaching method.

In terms of the experimental group ($n = 23$), the results illustrated that there was no significant difference between pretest and posttest in conditions on the following outcome measures: (a) overall ($Z = 0.85, p = 0.39$); (b) final /l/ ($Z = 0.06, p = 0.95$); (c) initial /l/ cluster ($Z = 0.36, p = 0.71$); (d) final /l/ cluster $Z = 0.19, p = 0.84$); (e) final /r/ ($Z = 1.15, p = 0.24$); (f) initial /r/ cluster ($Z = 1.49, p = 0.13$); (g) final /r/ cluster ($Z = 1.09, p = 0.27$); (h) intervocalic /r/, ($Z = 0.10, p = 0.92$), and (i) medial /r/ ($Z = 0.10, p = 0.91$). However, there was a significant difference between pretest and posttest in the initial l position ($Z = 3.63, p < 0.05$). For practical significance, mean difference effect size was computed. The magnitude of the effect in the initial l condition was large ($r = 0.75$). These results suggest that following 12 weeks of intervention, readers theater had an effect on the production improvement in the initial /l/ position in the experimental group.

Table 18

Comparison of the Interview Pretest and Posttest within the Control and the Experimental Group

Position of target consonants	Group	<i>n</i>	<i>Wilcoxon Signed Rank Test</i>								Effect size
			Pretest		Posttest		Sum of negative ranks	Sum of positive ranks	<i>Z</i>	<i>P</i>	
			<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>					
Overall scores	Control	26	141.71	60.81	166.21	62.09	8.88	15.56	2.65	0.00	0.51
	Experimental	23	134.74	44.99	142.97	43.52	10.00	13.83	0.85	0.39	-
Initial /l/	Control	26	23.99	16.20	34.81	19.89	10.25	14.94	2.37	0.18	-
	Experimental	23	12.32	10.51	32.57	17.13	3.70	14.31	3.63	0.00	0.75
Final /l/	Control	26	14.85	14.40	13.29	9.95	12.91	11.17	0.12	0.90	-
	Experimental	23	14.71	8.95	14.97	9.20	10.72	9.35	0.06	0.95	-
Initial /l/ cluster	Control	26	6.73	6.45	8.54	7.42	11.54	15.18	0.94	0.34	-
	Experimental	23	5.19	5.73	6.16	7.66	12.60	11.54	0.36	0.71	-
Final /l/ cluster	Control	26	4.92	5.29	6.46	9.15	7.73	13.13	0.40	0.68	-
	Experimental	23	4.59	5.32	5.46	6.24	8.06	10.06	0.19	0.84	-
Final /r/	Control	26	39.96	15.49	50.51	18.71	9.61	15.56	2.26	0.02	0.44
	Experimental	23	48.03	22.02	42.42	20.48	13.54	10.00	1.15	0.24	-
Initial /r/ cluster	Control	26	15.96	10.11	13.68	9.78	12.41	14.06	0.96	0.33	-
	Experimental	23	20.36	14.87	14.68	8.77	11.50	11.50	1.49	0.13	-
Final /r/ cluster	Control	26	5.69	5.32	8.40	9.68	9.77	14.04	0.92	0.35	-
	Experimental	23	8.75	7.99	6.68	6.02	12.25	9.23	1.09	0.27	-
Intervocali c /r/	Control	26	9.91	10.78	14.95	12.76	10.67	14.31	1.79	0.07	-
	Experimental	23	10.59	8.69	11.17	8.14	11.56	8.86	0.10	0.92	-
Medial /r/	Control	26	7.24	8.89	8.58	7.97	15.14	10.63	0.97	0.33	-
	Experimental	23	4.33	4.74	4.96	3.72	12.50	9.88	0.10	0.91	-

Pretest. A Mann-Whitney U test was conducted to compare the interview pretest scores between the control and experimental group. Means and standard deviations are presented in Table 19. The results showed that there was no significant difference in the scores for pretest in all conditions of /r/ and /l/, except in the initial /l/ and final /l/ cluster conditions. There was no significant difference in the scores for pretest in the following conditions: (a) overall scores ($U = 284.50$, $Z = 0.29$, $p = 0.77$); (b) final /l/ ($U = 263.00$, $Z = 0.72$, $p = 0.47$); (c) Initial /l/ cluster ($U = 263.50$, $Z = 0.72$, $p = 0.46$); (d) final /r/ ($U = 227.50$, $Z = 1.43$, $p = 0.15$); (e) initial /r/ cluster ($U = 250.00$, $Z = 0.98$, $p = 0.32$), (f) final /r/ cluster ($U = 247.00$, $Z = 1.05$, $p = 0.29$), (g) intervocalic /r/ ($U = 260.50$, $Z = 0.77$, $p = 0.43$), and (h) final /r/ cluster ($U = 267.50$, $Z = 0.66$, $p = 0.50$).

There was, however, a significant difference in the pretest scores between the control group and the experimental group in the initial /l/ position ($U = 173.50$, $Z = 2.51$, $p < 0.05$) and the final l cluster position ($U = 277.50$, $Z = 0.44$, $p < 0.05$). For practical significance, mean difference effect size was computed. The magnitude of the effect in the initial /l/ condition was medium ($r = 0.49$) and the magnitude of the effect in the final /l/ cluster condition was small ($r = 0.08$). These results indicated the participants in the control group performed higher scores for the initial l and final l position than the experimental group in the pretest scores in the interview assessment.

Table 19

Comparison of the Interview Pretest and Posttest between the Control and the Experimental Group

Position of target consonants	Group	n	<i>Kruskal-Wallis</i>													
			Pretest							Posttest						
			<i>M</i>	<i>SD</i>	Mean Rank	<i>U</i>	<i>Z</i>	<i>p</i>	Effect size	<i>M</i>	<i>SD</i>	Mean Rank	<i>U</i>	<i>Z</i>	<i>p</i>	Effect size
Overall scores	Control	26	141.71	60.81	25.56	284.50	0.29	0.77	-	166.21	44.99	27.40	236.50	1.25	0.21	-
	Experimental	23	134.74	44.99	24.37					142.97	43.52	22.28				
Initial /l/	Control	26	23.99	16.20	29.83	173.50	2.51	0.01	0.49	34.81	19.89	25.46	287.00	0.24	0.81	-
	Experimental	23	12.32	10.51	19.54					32.57	17.13	24.48				
Final /l/	Control	26	14.85	14.40	23.62	263.00	0.72	0.47	-	13.29	9.95	23.12	250.00	0.98	0.32	-
	Experimental	23	14.71	8.95	26.57					14.97	9.202	27.13				
Initial /l/ cluster	Control	26	6.73	6.45	26.38	263.00	0.72	0.46	-	8.54	7.42	27.65	230.00	1.39	0.16	-
	Experimental	23	5.19	5.73	23.43					6.16	7.66	22.00				
Final /l/ cluster	Control	26	4.92	5.29	25.83	277.50	0.44	0.65	0.08	6.46	9.15	25.04	298.00	0.21	0.98	-
	Experimental	23	4.59	5.32	24.07					5.46	6.24	24.96				
Final /r/	Control	26	39.96	15.49	22.25	227.50	1.43	0.15	-	50.51	18.71	27.83	225.50	1.47	0.14	-
	Experimental	23	48.03	22.02	28.11					42.42	20.48	21.80				
Initial /r/ cluster	Control	26	15.96	10.11	23.12	250.00	0.98	0.32	-	13.68	9.78	23.69	265.00	0.68	0.49	-
	Experimental	23	20.36	14.87	27.13					14.68	8.77	26.48				
Final /r/ cluster	Control	26	5.69	5.32	23.00	247.00	1.05	0.29	-	8.40	9.68	25.40	288.50	0.21	0.83	-
	Experimental	23	8.75	7.99	27.26					6.68	6.02	24.54				

(continued)

Intervocalic /r/	Control	26	9.91	10.78	23.52	260.50	0.77	0.43	-	14.95	12.76	26.52	259.50	0.79	0.42	-
	Experimental	23	10.59	8.69	26.67					11.17	8.14	23.28				
Medial /r/	Control	26	7.24	8.89	26.23	267.00	0.66	0.50	-	8.58	7.97	27.65	230.00	1.39	0.16	-
	Experimental	23	4.33	4.74	23.61					4.96	3.72	22.00				

Posttest. In terms of posttest scores between the control and experimental group, the results showed that there was no significant difference in the scores for posttest in all conditions of /r/ and /l/. Means and standard deviations are presented in Table 19. There was no significant difference in the scores for pretest in the following conditions: (a) overall scores ($U = 236.50$, $Z = 1.25$, $p = 0.21$); (b) the initial /l/ ($U = 287.00$, $Z = 0.24$, $p = 0.81$); (c) final /l/ ($U = 250.00$, $Z = 0.98$, $p = 0.32$); (d) Initial /l/ cluster ($U = 230.00$, $Z = 1.39$, $p = 0.16$); (e) final /l/ cluster ($U = 298.00$, $Z = 0.21$, $p = 0.98$); final /r/ ($U = 225.50$, $Z = 1.47$, $p = 0.14$); (f) Initial /r/ cluster ($U = 265.00$, $Z = 0.68$, $p = 0.49$), and (g) final /r/ cluster ($U = 288.50$, $Z = 0.21$, $p = 0.83$). intervocalic /r/ ($U = 259.50$, $Z = 0.79$, $p = 0.42$), and medial /r/ ($U = 230.00$, $Z = 1.39$, $p = 0.16$). These results showed the participants in the control and the experimental group did not perform higher scores on the final /l/ cluster and initial /r/ position in the posttest than on the pretest on the interview assessment.

Qualitative Results

The first part of qualitative data results were from the survey questionnaires used four-point Likert scale ranging from 1 (Strongly disagree) to 4 (Strongly Agree). The survey questionnaires were administered to participants in the experimental group in order to get in sight into their experience following 12 weeks of participating readers theater in the Phonetics and Phonology for English of Teachers Course. Table 20 illustrates percentages, mean, and standard deviations of the responses.

Table 20*Percentages, Mean, and Standard Deviations of the Responses.*

Statement	Strongly disagree 1	Disagree 2	Agree 3	Strongly agree 4	<i>M</i>	<i>SD</i>
1. Readers theater helps me improve English pronunciation.	0	8.70%	52.17%	39.13%	3.65	0.48
2. Readers theater motivates me to practice English pronunciation in the class.	0	0	43.49%	56.51%	3.57	0.50
3. Readers theater motivates me to practice English pronunciation outside the class.	0	13.04%	65.22%	21.74%	3.09	0.58
4. Readers theater helps build my confidence when pronouncing English.	0	0	60.87%	39.13%	3.39	0.49
5. Readers theater helps me reduce anxiety when pronouncing English.	4.35%	0	73.91%	21.74%	3.13	0.61
6. When practicing the reader theater script in small groups I have less anxiety than when performing in a whole class.	4.35%	17.39%	47.83%	30.43%	3.04	0.81
7. Readers theater encourages me to work collaboratively with my peers.	0	0	30.43%	69.57%	3.70	0.46
8. Readers theater scripts are interesting.	0	0	52.17%	47.83%	3.48	0.50
9. The audio files help me improve English pronunciation.	0	4.35%	52.17%	43.45%	3.39	0.57
10. Overall, I enjoyed using readers theater.	0	8.70%	52.17%	39.13%	3.30	0.62

The results of descriptive analyses revealed that all the participants rated all the 10 items positively as the mean scores for all items were within the upper third of the normative distribution (3-4). Specifically, further analysis indicated that the highest mean score ($M = 3.70$, $SD = 0.46$) was obtained for item 7 (Readers theater encourages me to work collaboratively with my peers) whereas the lowest mean score ($M = 3.04$, $SD = 0.81$) was obtained for item 6 (When practicing the reader theater script in small groups I have less anxiety than when performing in a whole class).

The second part of the survey questionnaire included open-ended questions to gain more understanding pertaining to participants' experience using readers theater in the class for the experimental group

Open-Ended Questions

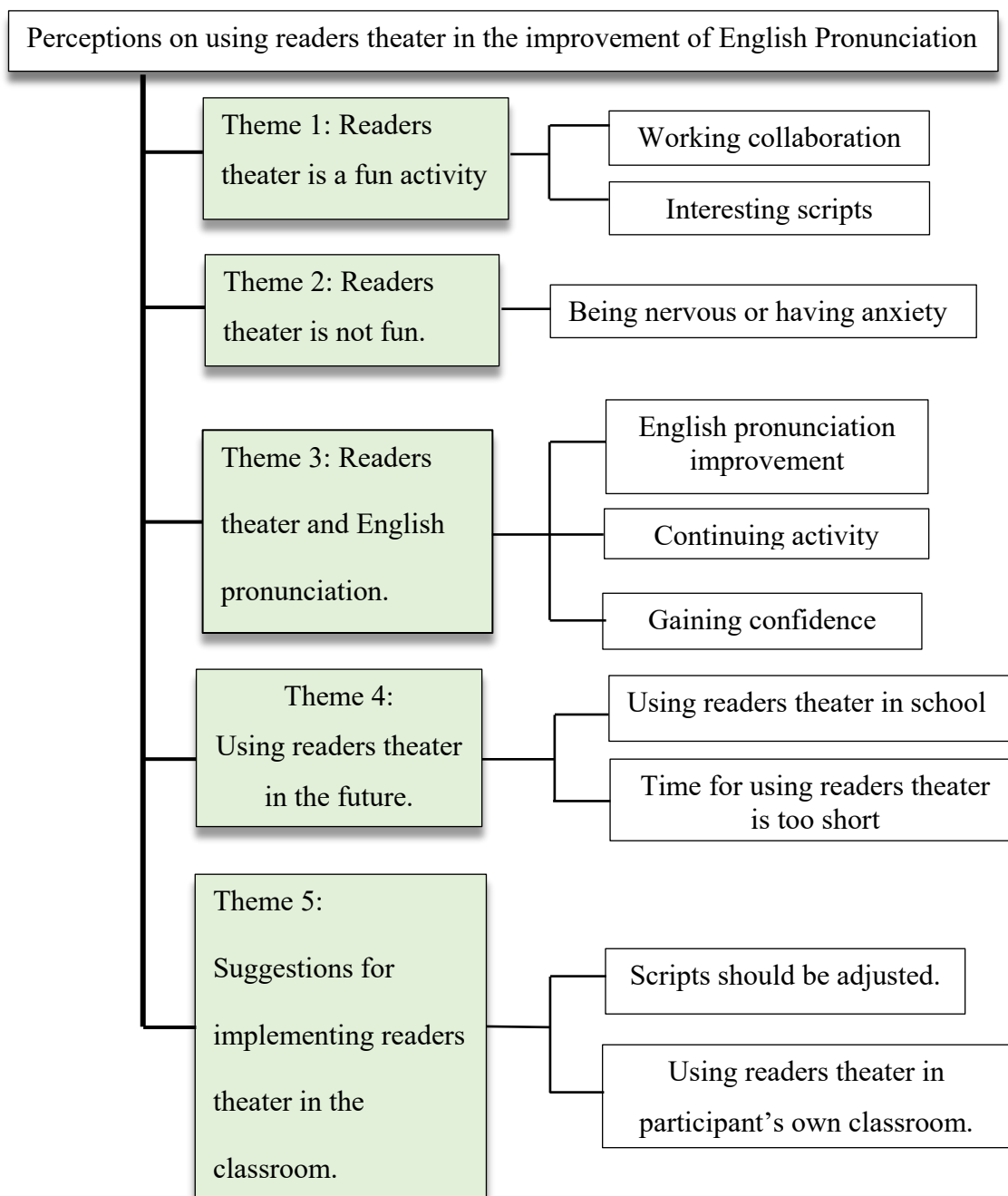
1. Did you enjoy doing readers theater activities? Why or why not? Please explain and give some examples.
2. Do you think that, in general, readers theater activities have helped motivate you to improve your English pronunciation? Why or why not? Please explain and give some examples.
3. Do you think that, in general, readers theater activities have helped you build confidence when pronouncing English? Why or why not? Please explain and give some examples.
4. Do you think that, in general, readers theater activities have helped you reduce anxiety when pronouncing English? Why or why not? Please explain and give some examples.

5. What suggestions can you give to make the use of readers theater more efficient to develop English pronunciation? Please explain and give some examples.

Data Analysis of Open-Ended Questions

The data from five questions from each participant were coded manually by using thematic analysis method in order to find emerging themes and subthemes. The names of the participants were kept confidential by using pseudonyms in order to protect their privacy and identity. Themes emerging from participants' responses were: readers theater is a fun activity, readers theaters is not fun, Being nervous or having anxiety, readers theater and English pronunciation, using readers theater in the future, and suggestions for implementing readers theater in the classroom.

All responses were answered in the Thai language because participants speak Thai as a first language and English is spoken as a foreign language. Therefore, participants could express their opinions and ideas clearly and easily by using Thai.

Figure 4*Themes and Subthemes.*

Theme 1: Readers Theater is a Fun Activity

“จากวันแรกที่เริ่มทำกิจกรรมรู้สึกว่ามันไม่ค่อยโอเคเท่าไร แต่พอได้เริ่มเรียนรู้และพัฒนาขึ้นเรื่อยๆ ก็รู้สึกสนุกมากขึ้น” (*From the first day of doing activity [readers theater], I didn't really feel okay. But after I got to learn and keep improving, I felt enjoy a lot.*) ~ Emma.

According to participants' responses from the open-ended questions, the analysis of the data revealed that in general, the majority of participants perceived they enjoyed participating in the readers theater activity. Sarah stated, “Readers theater is an enjoyable and interesting activity.” Nicole reported, “Personally, this activity is pretty fun.” Kathryn said, “I felt I enjoyed and was excited to participate in readers theater activity because I got to practice my English pronunciation.”

Readers theater was utilized in this research as a teaching-and-learning tool to investigate the participants' English pronunciation improvement. Specifically, this activity aimed to engage the participants in reading aloud and performing their role in the story. The scripts purposefully included many words containing “r” and “l” sounds, which are the target sounds in this research. These inclusions of words containing “r” and “l” sounds caused the pronunciation activity to be more challenging. As a result, readers theater proved to be an alternative way for the participants to practice and show their pronunciation improvement to the class. This use of readers theater not only made the research participants more appreciative and enthusiastic, but also “proud” and “challenged” at the same time. To this Claire added, “...the readers theater activity enabled students to enjoy and take pride in their ability. Sandra expressed, “I enjoyed it and was challenged.” In addition, a few participants said that readers theater also de-stressed the activity of reading and pronouncing English. Victoria shared, “Overall, after

participating in readers theater activities, I really enjoyed it because I liked the activity as a different way to read and practice pronouncing English very much. It was not stressful.”

In addition to providing a non-threatening way to practice pronunciation skills, this readers theater activity also allows the participants to engage in practicing other areas of English skills, such as reading and listening at the same time. Two participants expressed that they enjoyed readers theater activities because, along with pronunciation, they could also improve other English language skills. Claire said, “Overall, readers theater is an activity that engaged students to develop enjoyable English listening and speaking skills.” Michael reiterated, “Generally speaking, I enjoyed readers theater activity because this activity allowed me to improve many foundational English skills, such as pronunciation, listening, and reading.”

Moreover, a few participants also remarked that readers theater was fun and exciting because it was a new activity that they have experienced in terms of learning pronunciation. For example, as Jasmine mentioned, “I really enjoyed readers theater. It presented a brand-new tool for learning correct pronunciation.” James said, “I felt excited and enjoyed doing readers theater activity because it is a new activity that is not common in Thailand.”

Based on the aforementioned views of the participants, it is clear that they saw readers theater as a fun activity. The purposes of this activity that academically supported and developed the participants’ English pronunciation also challenged participants to engage in reading aloud and practicing accurate pronunciation consistently. To achieve these purposes, participants had to go through the process of learning by practicing a great deal during the intervention, lasting 12 weeks. Participants who felt overwhelmed in

the beginning saw the significant improvement in their pronunciation skills at the end of the activity. To illustrate this, Emma said, “From the first day of doing this activity [readers theater], I didn’t really feel okay. But after I saw I was learning and kept improving, I enjoyed the readers activity a lot.” According to participants’ responses, there were two emerging subthemes: The value of working in collaboration and the difference of enjoyment when readers theater scripts were interesting.

Working Collaboration. Since readers theater is not an individual activity, peers play an important role in this activity. Each week of the intervention, participants were asked to work in a small group of five to seven people, depending on the scripts. In these small groups, they practiced their roles. At the conclusion of the activity, participants said they found that working collaboratively with peers as beneficial for learning and practicing pronunciation. Specifically, some participants agreed that working with peers was not only fun, but also a great way to exchange ideas, build friendships among peers, giving suggestions about how to pronounce words, as well as giving support and encouragement to each other that reduced pressure and/or anxiety.

Generally, a plurality of participants reported that they enjoyed participating in readers theater activity because they could practice pronunciation from scripts with peers in a small group and received support from them. Sarah mentioned, “When doing activities with peers, it helped build rapport as they supported each other.” As Oscar reported, “I enjoyed this activity because I got to practice the scripts with my peers, spent quality time with my peers, and exchanged ideas with them.” He then added, “Working in a group with peers was enjoyable and joyful. From feeling pressure at the beginning, after working with peers, I was happy and would like to continue doing it.”

Readers theater is a kind of drama-based activity that allows students to choose their role in the script, practice reading aloud and perform reading in a group to the class. Unlike any other types of drama activity that require memorization of lines, readers theater allows participants to hold and read the scripts, which helps students avoid pressure or stress. Also, in each script, there are several characters for participants to choose from, based on their individual interests.

In addition, there were a few participants who mentioned that they enjoyed readers theater because they were thrilled to play particular roles in the stories. As Brianna shared, “I enjoyed readers theater a lot because it’s like I got to practice meditation and pronunciation clearly. It’s like I was in another world, the world of drama. I also used my ability in the role play.” Nicole said, “Personally, I felt that this activity [readers theater] was pretty fun. I like practicing the roles of the characters in the scripts. I got to express the feelings of the characters, use accents, and so many more challenges which were in this activity. I enjoyed every practice.” As Bridget mentioned, “I had fun with the roles I got because it was new and interesting. I enjoyed pronouncing the different sound of the different characters.” Sandra reiterated, “We could play the role of characters from those stories that we enjoyed most.”

Even though there were only a few participants who perceived that they enjoyed the readers theater activity because of the role play or storytelling, it illustrated another important factor for tapping into participants’ perceptions on using readers theater activity to improve their English pronunciation.

According to the responses presented by the participants above, it can be inferred that participants emphasized their satisfaction with using readers theater because it was enjoyable, and they felt safe when they worked together with peers.

Interesting Scripts. The second subtheme emerging from the open-ended responses was that the readers theater scripts were interesting. Some participants indicated in their responses that they enjoyed readers theaters because scripts were interesting. For this intervention, readers theater scripts were carefully selected and adjusted by the researcher in order to improve participants' pronunciation, particularly "r" and "l" sounds as well as to motivate them to read. Additionally, scripts were different in terms of story and length and were changed every cycle (three weeks). By providing variety, participants were excited and looked forward to reading new words from scripts every cycle. As William explained, "This activity was special because reading scripts was a change from what we usually do in the class. The scripts that the professor provided us have been quite interesting and not monotonous." Mackenzie mentioned, "I enjoyed this activity because some of the scripts in each week are different." Melody added, "Before the activity began, I wondered if the scripts would be hard or not. Will there be any words that I haven't seen before?" Victoria mentioned, "The scripts are fun and relieve stress."

Furthermore, in order to motivate students to engage and enjoy readers theater activity, readers theater scripts were carefully selected and modified from the original stories by the researcher in order to make it fun and draw participants' attention. For example, at the end of the Snow White story, the cold and cruel Queen died from the COVID-19 global pandemic. To this, James expressed "...reading 'Snow White,' the

script is long but exciting when the end of story was changed. It was a fun activity.”

Additionally, since most of the scripts are well known among Thai students, such as The Brothers Grimm fairy tales (e.g., Snow White, Cinderella) and a long-running popular Japanese cartoon named Doraemon, participants were familiar with these stories and that helped them enjoy reading the scripts more. Kathryn mentioned, “Readers theater scripts sometimes are from cartoons. For example, Doraemon, Snow White, Cinderella, Three Little Pigs. They were interesting and made me enjoy the scripts more.”

Based on the evidence mentioned above, it can be implied that scripts also have an influence on participants’ positive perceptions about using readers theater to improve their English pronunciation.

In conclusion, according to the participants’ perceptions of experiencing readers theater, this activity was favored by the majority of participants.

Theme 2: Readers Theaters is not Fun. “รู้สึกสนุกและเบื่อสลับกันไปในบางครั้ง” “*I enjoyed it, was bored, was nervous and anxious, back and forth sometimes*” ~ George.

It is interesting to know the participants’ voices about readers theater, both in a positive and negative way, are as two sides of the same coin. It was revealed that while most of participants perceived readers theater positively as presented above, some participants viewed this intervention differently. In other words, less than half of participants pointed out that sometimes the activity was boring because of one or more of several reasons.

Essentially, participants’ negative perceptions of using readers theater can be evidence to support that there is no “one-size-fit-for-all” activity for students. In other words, there is little to no possibility that all participants will concur that readers theater

is an enjoyable activity or that they enjoyed it all the time. To this point, one participant expressed mixed feelings pertaining to readers theater. George responded, “I enjoyed and was bored back and forth sometimes. For example, I enjoyed when practicing scripts with peers because we got to talk to each other, but I was nervous when performing in front of the whole class.” Claire expressed that she liked readers theater because it helped improve her English skills. But there were times that I was bored and I didn't want to participate in the activity, but the professor was flexible and that made the activity go very well.” Nevertheless, he did not indicate the explicit reason why he did not enjoy the activity.

According to the participants’ negative perceptions on using readers theater, there was one emerging subtheme, which was being nervous or having anxiety.

Being Nervous or having Anxiety. The participants perceived that there were several emotional reasons that caused the readers theaters activity to be perceived as tedious. Some of these negative feelings from the participants were, for example: tiring from the lecture; scripts were too long; activities were the same; and, technical problems resulting in boredom for participants during the activity. One participant mentioned that after listening to a two-hour lecture on phonetics and phonology, she became fatigued and that caused the readers theater activity to be uninteresting. Sarah said the same. “Sometimes it was not fun because I became tired from the lecture.”

In terms of scripts, even though some participants indicated that readers theater scripts made them the activity enjoyable because the stories were interesting and were changed every three weeks; however, one participant expressed that scripts were too

long. Oscar clearly mentioned that, “Sometimes the scripts were too long, which caused them to become tedious.”

Another primary reason that participants perceived readers theater as less than enjoyable was when the participants experienced nervousness or anxiety while they were participating the activity. It is noteworthy that, although some participants perceived readers theater to be enjoyable because they liked working with peers and this helped reduce pressure or anxiety, one participant pointed out that he was not confident when performing the scripts in front of the whole class. This idea was supported by George. “It was fun when practicing scripts with peers because we got to discuss, but I was nervous when performing readers theater for the whole class.”

Also, a few participants remarked that readers theater caused anxiety sometimes because they have difficulties pronouncing some words or some sounds. William mentioned, “It’s not that fun because I had to practice and read some difficult words and that put pressure on me a little bit.” Melody expanded upon William’s ideas. “Readers theater helped me reduce anxiety a little bit, but I still had anxiety. For example, words that contained the “r” sound I couldn’t pronounce because my tongue was stiff.”

In addition, another participant described the reasons why readers theater activities were not enjoyable. She stated that most of the time, activities were the same as well as learning remotely via Zoom caused some difficulties. These factors resulted in the activity seeming to be boring. Mackenzie explained, “Sometimes it was boring because the activities were the same most of the time and that didn’t motivate me to study.” He also added “...and pronouncing via Zoom may have some technical problems which caused other issues afterwards.

Unlike an in-person class, an online class was challenging for both participants and for me, as a researcher and an interventionist, since it was a new way of teaching and learning format. Under these conditions, there can always be unexpectedly incidents that can occur anytime, anywhere and with anyone.

Although, only one participant expressed his concern about technological problems, there was one example that I can expand regarding using Zoom for data collection in this research. Often it took me longer than I expected when putting all participants to work in small groups in the breakout rooms option. Instead of simply using a randomly selecting mode on Zoom, I needed to manually put each participant's name in the group based on the story they chose. Also, when participants were practicing scripts in small groups on Zoom, sometimes a few students suddenly disappeared because of internet disconnection and that interrupted their concentration on practicing their roles. The aforementioned examples of technological disadvantages caused discontinuity of using the readers theater activity and led to participants experiencing boredom or frustration.

Additionally, the time factor became another reason that readers theater seemed boring. Readers theater was used as an intervention in the class for one hour per week for a 12-week time frame. Generally, a few participants mentioned that sometimes they did not enjoy the readers theaters activity because one hour is too long for practicing pronunciation. Sarah claimed that, "Time should be reduced a little bit because there was a lot of time to practice and that caused the activity to seem tedious." Michael also agreed "Often time for doing the activity [readers theater] seemed to be too much, and that made participants feel bored." Another participant, however, indicated that there was not

enough time to practice pronunciation and that caused him anxiety. As Brianna explained, “Due to the limited time, practicing time is too short for some scripts, resulting in me having worries a little bit that I might not be able to do well because practicing time is little.”

In summary, it can be concluded that the readers theater activity is a fun activity, but it is sometimes not as much fun or even can be boring as well as causing anxiety.

Theme 3: Readers Theater and English Pronunciation.

“เป็นกิจกรรมที่เสริมสร้างความมั่นใจและพลังบวกให้กับเรา
และยังทำให้เราสนใจที่จะอ่านและพัฒนาตัวเองอยู่เรื่อยๆ” “...it is an activity that built confidence and positive energy for us. Also, it encouraged us to engage in reading and continue improving ourselves.” -- Emma.

The third theme emerging from the responses was that readers theater helps improve English pronunciation. Generally, almost all participants alluded to the perception that participating in readers theater helped them be motivated to practice English pronunciation and gain confidence, moderately to greatly, and that it improved their pronunciation eventually. To explain this, Emma said “This is an activity that helped motivate me a lot because it was an activity that built confidence and positive energy for us. Also, it encouraged us to engage in reading and continue improving ourselves.” Charlie expanded upon Emma’s ideas:

“It helped motivate me to practice my pronunciation a great deal since I never had practiced before, but after participating in this activity, I began to practice and review my pronunciation. Going from pronouncing unclearly, I think my pronunciation is better from participating this activity and practicing with my peers and on my own.”

Two participants responded that readers theater not only helped them pronounce words correctly, but also helped them gain more confidence in speaking English. Jasmine mentioned, “I was glad I participated. The pronunciation activities and practicing with my group helped me with words I used to pronounce incorrectly. I think my accent and my overall pronunciation is better.” Bridget’s response was also positive. “This activity was helpful. It corrected my pronunciation and I became more confident to speak and think in English. Now I have the confidence to pronounce new words. Getting it right or wrong is not important. I just say it out.”

According to the responses, there are three subthemes which emerged: improved English pronunciation, gaining confidence when pronouncing English, and continuing activity.

English Pronunciation Improvement. Most participants also shared their views on using readers theater by sharing that they could pronounce English words as well as vowel and consonant sounds more correctly and clearly after engaging in readers theater activities. Specifically, since readers theater was used as an intervention, which is part of a Phonetics and Phonology for Teachers of English course, participants said that they could apply what they learned from the lecture, for example, speech organs and sound systems, to their practice. Mackenzie mentioned, “It helped us achieve more and lasting improvement in using English and helped us pronounce English words correctly according to language rules.” Said Lydia, “This activity provided practical knowledge and helped improve my English pronunciation. Because of readers theater, some words I didn't know how to pronounce I now can pronounce them correctly.”

Additionally, some participants stated that they could now accurately pronounce “r” and “l,” which are the target sounds in this research. Sarah shared her views about how she pronounced sounds better and with confidence and how she had become more aware of what she is pronouncing. “It helped motivate my pronunciation, to some extent, and I became more aware of the more difficult pronunciations, such as “r” and “l.” Now, I am more careful about pronouncing these sounds.” Interestingly, one of the words that a majority of participants had difficulties pronouncing during reading a story was “dwarfs,” which is in the Snow White script. Charlie expressed in his response how students gained benefit from readers theater activities in pronouncing “dwarfs” correctly as well as other difficult words. He explained

“Overall, regarding readers theater, I think it is an activity that built confidence in English pronunciation a lot because I will get to know how to pronounce words and how, exactly, to pronounce them correctly, such as “dwarfs”. If there is no such activity, I believe many students cannot learn to pronounce this and other words 100 percent correctly and with confidence.”

Two other participants also mentioned how pronouncing English correctly enables them to differentiate similar sounds in English in addition to affects understanding of interlocutors. Michael mentioned:

“I learned how to improve pronunciation, whether I speak slowly or rapidly. When I attempted to pronounce l, r, and s sounds clearly, we easily heard what that word was, such as ‘long’ and ‘wrong.’”

Brianna also explained below:

“I think it [readers theater] helped improve pronouncing l, r, s, and t correctly and the same as native speakers. Also, if we pronounce correctly, listeners will understand us, too. For example, by using words that emphasize l, r, s and t sounds, I will be able to pronounce these words clearly and more accurately.”

In addition, during implementing readers theater as the intervention, audio files were provided as a supplemental tool for participants to use as they practiced English pronunciation. Audio files were recorded by native speakers of English. Some participants mentioned that audio files were helpful because the files helped them pronounce words correctly, or close to native speakers. As Hannah said, “It helped me imitate the sounds of her selected characters.” Harry responded by saying, “This activity helped motivate me to achieve a higher quality of pronunciation. Practicing from scripts and listening to audio files led to learning better pronunciation and overall improvement in hearing sounds and understanding English native speakers.”

Furthermore, in terms of pronunciation improvement, some participants also mentioned that role play activities motivated them to practice English pronunciation more because it was a new type of teaching and learning that allowed them to express their feelings when they acted as the characters in the stories. Jasmine explained by saying, “It was an activity that helped motivate me to improve pronunciation a lot because I never practiced pronunciation or played roles like this before.” Victoria also remarked, “I think this activity motivated pronunciation development for me because it is activity that is like a role play, where we pronounced words and, at the same time, expressed feelings of the characters.”

According to the responses, the second emerging subtheme was that readers theater activity helps participants gain more confidence and have less anxiety when pronouncing English.

Gain Confidence. Undoubtedly, the more practice, the better. Most of participants indicated several times in their responses that readers theater activities motivated them to engage in practicing English pronunciation a great deal more than previous to the intervention. Essentially, after practicing the scripts multiple times, the participants gradually learned how to pronounce words correctly and that helped them gain more confidence and reduce anxiety at the same time they mastered the pronunciation. Below are excerpts from three participants, illustrating how they were cognizant that readers theater encouraged them to practice and that helped boost up their confidence following practicing reading aloud. Emma expressed:

“This activity helped me gain considerable confidence. For example, since the first day of doing this activity, I lacked confidence and was so afraid of mispronunciation. But after I tried to speak in my group, I learned from my pronunciation mistakes with my group’s encouragement and corrected them. I definitely gained more confidence from these activities.”

Oscar also explained:

“It helped reduced anxiety a lot because I have never been confident enough in my skills to speak English at all. I had anxiety and was very shy. But, after participating this activity, I had more confidence and my anxiety was much less. This experience with readers theater made me more confident to speak and assertive.”

James reiterated:

“Readers theater helped motivate me to practice because it was practicing English words that we still do not pronounce correctly, according to language rules and still cannot pronounce some words fluently. In our group, we could practice words that we never studied or never knew before without worries about making mistakes. We learned and then tried to pronounce those words without being afraid of right or wrong. Similarly, Mackenzie added “This activity (readers theater) was very useful. It helped me pronounce more correctly. I became more confident to speak (English), to think, and to be brave to pronounce. Right or wrong doesn’t matter.”

Based on participants’ responses, working with a group of peers and using audio files were two major reasons participants mentioned that readers theater helped increase their confidence when speaking English and presenting readers theater scripts to the class. In general, more than half of participants were cognizant that not only the scripts made readers theater enjoyable as mentioned earlier, but also helped increase confidence when pronouncing English. For example, two participants said that readers theater scripts helped improve pronunciation because they gained more confidence after practicing scripts that were interesting stories every week. Underscoring this, Kathryn explained: “I think readers theater is an activity that helps reduce anxiety in English pronunciation because scripts are varied and came from well-known cartoons. This made us pay attention to what we are studying and we liked the stories well enough to practice scripts, which helped reduce anxiety.”

Bridget added:

“It is a repeated activity that increase more confidence in pronunciation because the scripts were changed continuously and were interesting. Because of the practice and the changing scripts, I was able to learn and to accurately pronounce many new words.”

Additionally, one participant confessed that practicing scripts forced her to prepare for reading in the class. After reading repeatedly, she could pronounce words more fluently and that also created sense of “pride” As Victoria explained below:

“Readers theater helped me gain confidence in my English pronunciation more because we had to practice before performing to peers and a professor in the class. In order to build confidence, you must do something repeatedly. After practicing regularly in our group, and even though it was not over a long period, I learned when we do something often, we will become skillful. As a result, it helped me gain confidence when pronouncing English and I was proud of my new skills.”

Moreover, although one participant mentioned above that sometimes readers theater was not fun because the scripts were too long, another participant perceived that reading long scripts challenged her to practice new words in the text and that helped him gain more confidence. William said: “Readers theater activity helped my pronunciation improve extensively. Since the scripts were pretty long, I got to practice sentences that contained difficult words, words that were more difficult to pronounce than reading single words.” Charlie also stated “I feel more confident with pronunciation than before because the scripts used in this activity enabled me to practice and learn.”

The second reason that participants felt helped me gain more confidence was because of working collaboratively with peers. Working together with friends not only creates a fun and friendly classroom environment, but also provides a safe learning

classroom setting for the participants. Based on the responses, some participants expressed that they felt more confident or had less to no anxiety when pronouncing English because they worked in a group with peers. Emma explained this below:

“I think this activity definitely reduced anxiety. For example, this activity begins with participants speaking alone and then in a big group. When speaking alone, we will feel if we will be able to do it (or speak it). Then when working in a group, we have friends offering help and giving suggestions in a supportive way. This results in a certain amount of comfort and in having no worries.”

Kathryn added:

“...having peers practice scripts together, pronounce together or telling me how to pronounce difficult words made me feel a lot more confident. It helped me pronounce “r” and “s” much better.”

Finally, some participants also perceived the audio files were beneficial for them in terms of increasing confidence. For example, as Kathryn explained, “This activity greatly helped me build confidence in my pronunciation because of listening to audio files.” Michael also mentioned, “I think readers theater helped me gain confidence because in reading the scripts consistently, we become able to speak correctly and clearly like a native speaker.”

Moreover, Charlie mentioned “At the beginning I was worried because I was not be able to pronounce well at all until I listened to the audio files. Then I was less anxious when pronouncing (English).” Also, Sophia reiterated “Overall, readers theater helped us reduce anxiety extensively when pronouncing English because the audio files were useful.”

Continuing Activity. As mentioned in the first theme that the majority of participants perceived that readers theater was an enjoyable activity, helped reduce anxiety, and helped improve English pronunciation, a few participants expressed that they would like to use readers theater more. For example, Oscar said that he would like to participate in readers theater again because it helped improve his pronunciation. He explained, “I would like to have readers theater activity several times because it helps us improve our pronunciation.” Emma said, “If there is more free time, we should use this activity often in order to improve ourselves.” Sophia added, “I would like to have this activity again in order to practice pronunciation correctly like native speakers.”

Theme 4: Using Readers Theater in the Future. “อยากให้มีการจัดกิจกรรม *readers theater* อีกหลายๆครั้ง เพราะมันสามารถช่วยให้เราฝึกการออกเสียงได้ดีขึ้น “*I would like to have readers theater activity several times because it helps us improve our pronunciation.*” ~ Oscar. The last emerging theme from participants’ responses was using readers theater in the future. While some participants indicated that readers theater was useful and that it should be used again, some participants expressed they could implement it in their own classroom in the future. Therefore, there were two subthemes that emerged from the responses. These included using readers theater in school and, specifically, using readers theater in the participants' own classroom.

Using Readers Theater in School. Moreover, a few participants expressed their thoughts that readers theater should be used in schools so that students can gain more confidence and pronounce English better. Sophia pointed out, “I would like every school to implement this activity in order to motivate kids to practice pronunciation and develop more confidence.” Kathryn also said:

“I think this activity is very good. I would like to see having this activity in teaching more in the future in order to motivate students to practice English pronunciation correctly and have more confidence in pronunciation. For example, teachers could use this activity as an additional tool for students to learn and practice better English pronunciation.”

Using Readers Theater in Participant’s own Classroom. In general, some participants expressed that they would like to apply what they experienced from readers theater activities into their own teaching and learning in the future. As Jasmine mentioned, “Readers theater helped all of us gain more confidence in our English pronunciation, improved our reading skills, and I will be able to use [readers theater] in the future, either teaching or learning.” Sophia agreed by adding, “Overall, the readers theater activity helped us improve a lot in terms of English pronunciation. It was the activity that made us more confident with pronunciation such as, “r” and “l” and I will be able to use this knowledge in the future.”

Additionally, one participant expressed that readers theater helped him gain confidence when pronouncing English and that he would like to use this activity in the future when teaching vocabularies to students so that they will be able to pronounce English correctly. Below is the excerpt from James:

“Readers theater helped increase confidence in pronouncing English correctly because confidence leads us to do good things and when teaching students, we will be confident in pronouncing correctly. For example, suppose we teach vocabularies in the classroom. We will be able to pronounce those words correctly and students also will be able to pronounce them correctly.”

Theme 5: Suggestions for Implementing Readers Theater in the Classroom.

According to responses from open-ended questions, there were two emerging themes that include time for using readers theater is too short and scripts should be adjusted in several ways.

Time for using Readers Theater is too Short. While some participants pointed out that time for participating readers theater was too long and caused tedious as previously mentioned in the second themes, some of them thought the opposite way. The first emerging subtheme that the participants suggested for using readers theater for teaching pronunciation in the future was time. Some participants commented that using readers theater one hour per week was too short and not enough for practicing pronunciation. As Emma stated, “If there was more free time, we could use this activity often in order to improve ourselves.” Oliver mentioned, “This activity should have longer time.” Furthermore, one participant recommended that time and the length of scripts should be appropriate for students to receive the benefits. As Victoria said, “Time should be appropriate with the length of scripts so that participants all can practice and learn how to pronounce each consonant correctly.”

Scripts should be Adjusted. According to participants’ responses, readers theater scripts is another aspect that should be adjusted in several ways such as length, difficulty level, and type of story. William pointed out, “Some scripts should be shorter.” Since readers theaters scripts used in this research were modified from popular tales, such as Aesop’s fables, Brothers Grimm, and Japanese cartoons. William suggested readers theater scripts should be based on daily life. He said, “Scripts should be changed from fictional role plays to situations from daily life.”

Michael also added that there should be more difficult words in readers theater scripts in order to challenge readers. He said, “Scripts should be related to daily life more or adding difficult words in the scripts on order to practice reading difficult words that can also challenge readers.”

Besides, even though readers theater is a drama-based activity, it was used merely one hour per week and the main focus of this activity during this research was pronunciation rather than expressions or feelings, Victoria suggested students should read scripts with expression. She remarked, “Participants should read and understand scripts, feelings, and emotions of characters that they represent.”

Results of Merged Data Analysis

After analyzing the data from the survey questions and the open-ended questions separately, both quantitative and qualitative results were integrated to provide an interpretation of the overall results of qualitative data analysis phase in order to answer qualitative research questions 2 and 3. Specifically, the triangulation design (Creswell & Clark, 2017) was employed to merge data analysis in order to illustrate similarities or differences of two difference sources of data.

Research Question 2: What are the perceptions of Thai preservice English teachers regarding the effect of participation in readers theater on student motivation to practice and improve their English pronunciation? The quantitative data from the survey questions 1, 2, 7, 8, 9, and 10 the qualitative data from the open-ended question 1, 2, and 5 were analyzed. According to the data analysis, in general the participants in the experimental group perceived that readers theater was an incentive intervention that helped them improve their English pronunciation. Specifically, in the

survey questions, the participants responded all the items “agree” or “strongly disagree” in the class interval. The highest mean score was ($M = 3.70$) and the lowest mean score was ($M = 3.30$). This was also reflected in the open-ended results that most of the participants accessed their English pronunciation as being improved after using the readers theater activity. The majority of the participants pointed out that readers theater was a fun activity because they liked working collaboratively with peers, the scripts were interesting, and the audio files were helpful. For example, Oscar said, “I enjoyed this activity because I got to practice the scripts with peers, spent time with peers, and exchanged ideas with them.” William explained, “The special part of this activity was that reading scripts is different from what we usually do in the class. The scripts that the professor provided us are quite interesting and not monotonous.” Harry said, “This activity helped motivate us to practice and achieve a better quality of pronunciation. Practicing from scripts and listening to audio files led to learning pronunciation more and achieving more improvement.”

Research Question 3: What are the perceptions of Thai preservice English teachers regarding the effect of participation in readers theater on reducing anxiety when pronouncing English? The quantitative data from the survey questions 4, 5, and 6 the qualitative data from the open-ended question 3 and 4 were analyzed. According to the data analysis, generally the participants in the experimental group perceived that readers theater was the activity that helped them gain more confidence when pronouncing English. Specifically, in the survey questions, the participants responded to all items as “agree” or “strongly disagree” in the class interval. The highest mean score was ($M = 3.39$) and the lowest mean score was ($M = 3.04$). This was also reflected in the open-

ended results that most of the participants felt less intimidated or had less anxiety when pronouncing English. The main reasons included enjoyable readers theater scripts and doing the activity with peers, as the following excerpts from their responses show.

Kathryn said, “I think readers theater is an activity that helps reduce anxiety in English pronunciation because scripts are various and came from well-known cartoons. This made us pay attention to what we are studying and made us enjoy practicing scripts which helped reduce anxiety.” Claire explained, “When practicing with peers, I had little anxiety or none.”

Anecdotal Records

The anecdotal records are a source of data collected in the qualitative phase used for triangulation (Creswell & Clark, 2017). The readers theater sessions were recorded by the researcher every week during the 12 weeks of intervention to observe the participants’ reactions and feelings, in general, while participating in the readers theater activity. The data from anecdotal records were integrated with data from open-ended questions. However, the analysis below will merely focus on three themes which include readers theater is a fun activity, readers theaters is not fun, and readers theater and English pronunciation. The data from another two themes focus on using readers theater in the future and suggestions for implementing readers theater in the classroom were not considered because they were not observed.

The anecdotal records were taken during readers theater Zoom sessions. Specifically, the data centered on Phonetics and Phonology for Teachers of English course, each week on Monday morning from 10.30 AM to 11.30 AM (Thailand local time). At the end of the two-hour lecture, the participants in the experimental group

participated in readers theater, which was implemented by the researcher. During the intervention, participants were required to mute their microphones and were allowed to turn them on only when practicing scripts in a small group, performing, and asking or answering questions. Although using a camera on Zoom was optional, most of participants were willing to turn it on and this allowed me to observe their behaviors and expressions based on using the readers theatre activity.

In terms of the enjoyment of using readers theater, I found the participants' reactions changed positively and negatively, depending on situation. Generally, at the beginning of the semester and especially the first few weeks, most of participants looked emotionless. This may be because they were unfamiliar with me, the newness of readers theater and an online teaching format (Zoom). However, whenever they were required to do something, they were attentive and responsive. For example, when I assigned them to choose a script, they were very active and able to communicate well with peers and me after only a limited time.

Each week of the intervention, at the beginning of the class, almost all participants showed their feelings of fatigue on their faces, and when I asked them why, some of them mentioned that they became tired during the previous two-hour lecture. However, once I put participants to work in a group in a breakout room on Zoom, they became enthusiastic and excited because they looked forward to working with peers. One more thing I noted was that the majority of participants enjoyed the activity throughout the 12-week intervention. For example, two participants used a Zoom background representing fairytales as a result of some scripts that were adapted from The Brothers Grimm stories, such as Cinderella and Snow White, which the participants were familiar

with. One of them used the castle background, while the other one used a background showing the seven dwarfs from the story of Snow White.

Interestingly, every time when I joined each small group to listen to them practicing the scripts, I noticed almost all participants looked more relaxed than when they were in the main session on Zoom. In the small group, participants smiled and laughed. Some of them even ate snacks at the same time. Working in a small group not only provided them an informal learning setting, but also a safe and fun environment when reading aloud. In the meanwhile, the participants were motivated to practice their roles from the scripts.

However, not every time that everyone looked comfortable and happy when working in a breakout room with peers. In other words, some participants looked tense when I appeared in a small group. Although, they were allowed to hold the script all the time while reading, when performing to the whole class on Zoom, a few of them turned the camera off because they were nervous. Also, because some participants were shy and lacked confidence, often they read with monotone and could not pronounce “r” and “l” as well as when they practiced in a small group. In addition, technological problems caused the activity to become boring and frustrating. For example, from time to time some participants and I had internet disconnections, causing activity delay or interrupted conversation.

Regarding the theme of readers theater and English pronunciation, after seven weeks of implementation of readers theater, I could see more improvement in participants’ pronunciation as a result of their increased confidence, to some extent. The factors that affected the participants’ pronunciation development are readers theater

scripts, participating in the activities with peers, and using audio files. A definite change occurred in the participants...from reading monotonously without any expression, which I observed at the beginning of the intervention, to the second half of the readers theater activities, when some of participants actually showed their enjoyment and appreciation of the activity by imitating the voices of their characters, such as Doraemon, a long-running popular Japanese cartoon in Thailand. One day on the performing week, there was one group of participants where each of them imitated the sound of their character enjoyably like in a cartoon and also did well on pronunciation. I saw them laugh and they seemed happy as they read the script without being afraid of making mistakes.

Another factor that helped the participants develop improved pronunciation skills was their use of audio files. During the first cycle of using readers theater, or the introduction week, most participants looked excited to know what new stories would be offered and what role they are going to select. Even though I often emphasized that having comprehensible pronunciation was the purpose of the intervention and not speaking/pronouncing like a native speaker, after they listened to the audio files that were recorded by native speakers of English, they intently listened and some of them were able to pronounce better in short period of time.

Interestingly, although some participants could not pronounce English words better, they could read with expression, which made the scripts become alive and they felt they were making progress after listening to the audio files. For example, on the first week of implementing readers theater, the participants practiced their roles in a small group for three rounds. There was a group that participants read monotonously all the time, but after a few rounds of practicing, they could read the script with expression.

When I asked them how they were able to do that, they said it was because they listened to the audio file.

Lastly, after several weeks of using the intervention, some of participants began to realize that they needed to pronounce each word, especially words containing /r/ and /l/ more carefully. Therefore, they read each word slowly without expression, but more accurately. Some of them even used a finger to point at each word when reading. This helped ensure that they would not miss any words and would be able to pronounce each word correctly.

Summary

This chapter reports the results from quantitative and qualitative data analysis. More specifically, descriptive statistics data were presented for the participants' pronunciation on the sound perception and production tests. The findings from thematic analysis which allowed me to gain insight into the participants' perceptions were described quantitatively and qualitatively. The discussion and the implications of the findings were presented and discussed in the next chapter.

CHAPTER V

Discussion and Implications

This chapter summarizes the current study and discusses the findings, both quantitatively and qualitatively. The first section provides the overview of the study. Next, the findings from each research question are outlined and discussed. Finally, the pedagogical implications and limitations are examined, recommendations for future research are suggested and conclusions are offered.

Summary of the Study

While being a supervisor in a teaching practicum in English classes in Thailand, I frequently heard the whole class repeating English incorrectly after their preservice English teachers. Following that experience, I continued to think about how I could help these students improve their oral language skills. What could I do to increase preservice teacher awareness of accurate English pronunciation that could lead to miscommunication (e.g., “bed” instead of “bread”, “yam” instead of “jam” or “lady” instead of “ready”)? What could I do to help preservice English teachers gain more confidence as well as be good role models for their students when standing in front of their class?

In the past decade, several attempts have been made to investigate Thai EFL students’ English pronunciation problems. These efforts concluded that Thai college students have difficulty articulating English words (Boonkaew, 2018; Kitikanan, 2017; Sridhanyarat, 2017). In addition, teachers play a vital role to scaffold EFL learner to help develop competence or to improve English skills. This is achieved by integrating various activities in the classroom, designed to give students opportunities to practice their oral

communication skills more frequently (Boonkaew, 2017; Lucarevschi, 2018; Nakin & Inpin, 2017).

Among several types of English language instructional methods, a number of researchers have found readers theater can be used as an effective teaching and learning tool to enhance students' reading fluency. In addition, participation in readers theater has helped students gain self-confidence and motivate them to read aloud (Bruckman-Laudenslager, 2019; Rasinski et al., 2016; Young, Durham, Miller, et al., 2019; Young, Stokes, & Rasinski, 2017). Nevertheless, there has been little discussion pertaining to the application of readers theater as an intervention to improve students' English pronunciation skills in the EFL context, especially Thai preservice English teachers in Thailand (Lekwilai, 2016; Thienkalaya & Chusanachoti, 2020).

Acknowledging Thai preservice English teachers in Thailand have difficulty pronouncing English and do not feel comfortable speaking English during a teaching practicum, this current study aims to shed some light on the development of Thai preservice English teachers' English pronunciation. Also, this study aims to provide further evidence in the potential of readers theater to motivate Thai preservice English teachers' engagement in practicing English pronunciation and build confidence when speaking English, both in and outside the classroom (Lekwilai, 2016; Thienkalaya & Chusanachoti, 2020).

The following questions were addressed through the study:

1. What is the effect of readers theater on the improvement of pronunciation production of segmental features (i.e., /l/ and /r/) by Thai preservice English teachers in Thailand?

2. What are the perceptions of Thai preservice English teachers regarding the effect of participation in readers theater on their motivation to practice and improve their English pronunciation?

3. What are the perceptions of Thai preservice English teachers regarding the effect of participation in readers theater on reducing anxiety when pronouncing English?

In order to address the research questions of this study, the explanatory sequential mixed methods design was employed as a methodology (Creswell, 2014). This study was conducted in the university located in the central of Thailand. The target population ($N = 49$) were sophomores majoring in the English of Education program and, more specifically, students who enrolled in a Phonetics and Phonology for Teachers of English course in the first semester of the academic year 2019. Data from the quantitative and qualitative phases were collected remotely via Zoom.

With respect to the quantitative research phase, this 12-week quasi-experimental design was used to ascertain the effects of readers theater in the improvement of Thai preservice English teachers' English pronunciation. This design consisted of distributing a pre- and posttest to the control group ($n = 26$) and the experimental group ($n = 23$). The pre-testing was followed by an intervention to the latter group only. After implementation, a posttest has been given to both groups. The pre- and posttests were the same.

The readers theater intervention was implemented by the researcher via Zoom with the experimental group from week two to week 13 of the intervention, while the control group received a traditional teaching method during in the Phonetics and Phonology for Teachers of English course.

In the qualitative phase, a case study design was employed to gain insight into the experience and perceptions of Thai preservice English teachers when using readers theater as a classroom intervention. Data from the online survey, open-ended questions, and an anecdotal record were analyzed.

Discussion of Quantitative Results

Research Question 1: What is the effect of readers theater on the improvement of Pronunciation production of segmental features (i.e., /l/ and /r/) by Thai preservice English teachers in Thailand?

Analysis of the quantitative results from the pretest and posttest revealed that participants in the experimental group made significant gains in perceiving and pronouncing the target sounds (i.e., /l/ and /r/) in some positions after 12 weeks of intervention. Overall, significant differences (i.e., $p < .05$) between the pre and posttest scores in the perception test and the interview test were found, but not the picture-naming test. These findings further support previous research that readers theater is an effective teaching and learning tool to enhance foreign language students' speaking skills including pronunciation fluency (Moghdam & Haghverdi, 2016; Tanner & Chugg, 2017; Thienkalaya & Chusanachot, 2020). The outcome measures of the perception test as well as a production test (i.e., picture-naming and interview) were discussed as follows:

Regarding the perception test, the results showed the experimental group performed the posttest higher than the pretest scores significantly in the overall scores of 20 minimal pairs containing /l/ and /r/ with a moderate effect size ($d = 0.52$). Interestingly, taking the positions of /l/ and /r/ (i.e., initial, and initial cluster) into account, there were significant differences found in three positions with a large effect size

included initial /l/ ($d = 1.01$), initial /r/ ($d = 1.20$), and initial /r/ cluster ($d = 1.11$) (see Table 14). In the initial /l/ cluster position, however, there was no significant difference found.

Based on these results, it can be clearly seen in the perception test findings that after engaging with readers theater for 12 weeks, participants could dramatically differentiate /l/ and /r/ better. Although the preliminary results, in general, have been unable to demonstrate that participants perform higher in the production assessment except the initial /l/ position, it did indicate that the readers theater activity yielded a positive result on a perceptual ability, which is an important primary step of pronunciation improvement. This result endorsed Flege's Speech Learning Model (SLM) (Flege, 1995) that second language learners could articulate the sounds better in the target language after they could perceive or distinguish the sounds correctly. There have been many researchers who clarified the relationship between speech perception and production (Aoyama et al., 2004; Baker & Trofimovich, 2006; Fouz-González, 2019; Lee et al., 2020).

With regard to the production tests, there was no significant difference found between the pre- and posttests in all positions of /l/ and /r/ in the picture-naming test. However, participants in the experimental group made a significant gain in the initial /l/ position. Therefore, even though the results suggest that readers theater has a positive impact on improving participants' sound perception test, it was not found that this intervention had a greater effectiveness than the traditional teaching method in the control group. There are a few possible explanations for this result as follows:

Firstly, the duration of implementing readers theater was too short. The intervention was utilized with experimental group for only 12 weeks and only one hour a week, which did not allow the participants to practice consistently and sufficiently. Ideally, in order to improve pronunciation, the longer period of time to practice, the higher performance outcome (Lucarevschi 2018; Thomson & Derwing, 2015). Moreover, implementing the intervention through an online teaching format, Zoom, caused one hour of intervention to become shorter because of technological limitations, which sometime unexpectedly interrupted students' practice. While Zoom has been considered a beneficial online teaching platform, it was challenging to teachers and students to waste their valuable time with technical issues (Cheung, 2021; Kohnke & Moorhouse, 2020; Singh et al., 2020).

Another major explanation is related to the age of participants. Since the participants' age was between 18 to 22 years old, it is most likely that improving pronunciation, especially in a short period of time as previously mentioned, was exceptionally difficult. It has been widely discussed among applied linguistics experts that age plays a crucial role in acquiring and enhancing second language pronunciation. According to the critical period hypothesis (CPH), Lenneberg (1967) hypothesized that the optimal time to acquire the second language, including pronunciation domain, is approximately at age two until the puberty or around age 10-14. Lenneberg postulated that following the cerebral lateralization, which is the process in which the two hemispheres of brain are established, a language is most likely difficult to be acquired by learners in all linguistics areas (e.g., phonology, morphology, syntax, lexicon).

This notion has been proven by several researchers, which claimed that age is a main factor in impeding students' pronunciation fluency. Moreover, while speaking a second language without a foreign accent may be unattainable, pronunciation can change. This further enhances comprehensibility, depending on the learner's age as well as other variables, such as sex, mimic ability, educational background, and exposure to second language (Abrahamsson & Hyltenstam, 2009; Dollman et al., 2020; Hung & Jun, 2011; Lucarevshi, 2018; Scovel, 1969).

The last possible explanation draws on the theories of first language interference (Gass & Selinker, 1983). As mentioned in Chapter Two, the phonological system in Thai and English is relatively different. More specifically, while Thai and English share the same lateral /l/, the standard /r/ in Thai is thrill, but /r/ in American English is retroflect. Besides, both /l/ and /r/ in Thai never occur in the end and the final cluster positions as in English. As a result of these phonological differences, Thai students have difficulty pronouncing /l/ and /r/ in English (Noobutra, 2019; Wadsorn & Panichkul, 2014).

Discussion of Qualitative Results

After separately analyzing the data from the survey questions, the open-ended questions, and an anecdotal record, the results were integrated to provide interpretation about the overall results of the qualitative data analysis phase in order to answer qualitative research questions 2 and 3 as follows.

Research Question 2: What are the perceptions of Thai preservice English teachers regarding the effect of participation in readers theater on their motivation to practice and improve their English pronunciation?

The data from the survey questions, the open-ended questions, and an anecdotal record revealed the perceptions of the participants in the experimental group in the same direction that most of them perceived readers theater as a beneficial intervention since it motivated them to practice and improve English pronunciation. The result is consistent with the previous research, which indicated EFL students have positive feelings about experiencing readers theater. They also indicated readers theater motivated them to improve their reading skills as well as pronunciation (Patrick, 2010; Thienkalaya & Chusanachot, 2020; Tsou, 2011). Two major themes emerged, which included readers theater is a fun activity and readers theater improved English pronunciation in EFL students.

Readers Theater is a Fun Activity. The majority of the participants pointed out that they were motivated to practice pronunciation because readers theater was an enjoyable activity that allowed them to work collaboratively with peers. Although, in general, there was no significant results found in the spontaneous speech assessment, the participants' positive views on readers theater exhibited a good prediction that it is more likely the perception and production performance outcome would be better if they had a longer time to engage and practice pronunciation. According to the codes in the analysis, there were a few factors commonly found, indicating that readers theater was fun because of working collaborations and interesting scripts.

Regarding working collaborations, some participants agreed that working with peers was not only a fun time, but also a great way to exchange ideas and build friendship between friends through giving suggestions about how to pronounce words. These findings are in line with previous research (Bruckman-Laudenslager, 2019; Marshall,

2017; Thienkalaya & Chusanachot, 2020; Tsou, 2011), which indicated that readers theater enriches students in heterogeneous groups to work socially and support each other, which can lead to oral reading skills development, including pronunciation.

Additionally, taking a sociocultural perspective into account, Thailand's society is built on collectivism. This means a high value is placed on working in a group rather than working individually (Thongprasert, 2009). Thus, it can be claimed that readers theater is a well-suited activity for Thai students, regardless of age or educational level. It is notable that throughout 12 weeks of implementation, most participants were consistently attached with the same group, if they could, because of uncertainty avoidance.

Moreover, some participants perceived that readers theater is fun because the scripts are interesting. It is worth noting that readers theater scripts should be fun, varied, and appropriate to students' reading level as it helps motivate students to read and understand meaning (Dixon, 2010; Young, Durham, Miller, et al., 2019; Young & Rasinski, 2018).

While most of participants reported they enjoyed readers theater, a few participants expressed their concern that it is not a fun activity. George addressed this perception by saying, "I enjoyed readers theater but also was bored and moved back and forth in these feelings sometimes. For example, I enjoyed when practicing scripts with peers because we got to talk to each other, but I was nervous when performing in front of the whole class."

The current findings corroborate the previous research by Bruckman-Laudenslage (2019). He pointed out that while using readers theater, some English language learners did not feel comfortable reading English aloud in front of their peers because they felt

intimidated. Although there were only a few negative voices from participants in the current study, it was beneficial for the teacher's awareness that one size never fits all. Therefore, it is the teacher's role to provide support and facilitate effective teaching and learning strategies for students, based on their comments.

Readers Theater and English Pronunciation. Generally, almost all participants reported readers theater helped engage and encourage them to practice English pronunciation often and that helped their pronunciation improve over an extended period time. Some of them pointed out they could articulate some sounds accurately especially /r, l, s/. Also, a few participants expressed that they would like to use readers theater more. These findings are consistent with the previous research studies, which indicated readers theater has a positive effect on ESL or EFL learners' English pronunciation (Moghdam & Haghverdi, 2016; Tanner & Chugg, 2017; Thienkalaya & Chusanachot, 2020). It can be clearly seen that not only did readers theater help motivate students to improve and practice pronunciation, the activity also helped reduce participants' anxiety as well which is discussed in the next part.

Research Question 3: What are the perceptions of Thai preservice English teachers regarding the effect of participation in readers theater on reducing anxiety when pronouncing English?

This research question was developed with the concern that Thai students, especially preservice English teachers, often avoid speaking English in the classroom, as a result of shyness and lack of confidence (Kitikanan, 2017; Nakin & Inpin, 2017; Sahatsathatsana, 2017). The quantitative data analysis revealed that most of participants viewed readers theater as an effective strategy to help reduce their fear and anxiety when

pronouncing English. The subtheme “gain confidence” emerged from the main theme readers theater and English pronunciation. This was discussed as follows:

Under the light of the Foreign Language Anxiety theory, anxiety is considered one of the significant language barriers in EFL students’ language learning, especially during listening and speaking (Horwitz et al., 1986). Among several types of English language instructional methods, readers theater has been claimed by previous research as an effective educational tool to promote students’ pronunciation as well as build confidence (Bruckman-Laudenslager, 2019; Lekwilai, 2016; Schoen-Dowgiewicz, 2016; Thienkalaya & Chusanachot, 2020). Similar to the discussion under research question 1, based on the analysis of the participants’ perceptions, there were three main reasons participants believed readers theater helped reduce anxiety when pronouncing English included in scripts, working with peers, and audio files.

Scripts. In general, more than half of participants were cognizant that not only the scripts made readers theater enjoyable as mentioned earlier, but also helped increase confidence when pronouncing English. As explained earlier, readers theater scripts should be fun and appropriate to students’ reading level in order to motivate students to read and make meaning (Dixon, 2010; Young, Durham, Miller, et al., 2019; Young & Rasinski, 2018).

Working with Peers. Working together with friends not only creates a fun and friendly classroom environment, but also provides a safe learning setting for the participants. Based on the responses, some participants said they felt more confident or had less-to-no anxiety when pronouncing English because they worked in a group with peers. As stated in the review of literature, reader theater motivates students to work and

support each other and this could lead to improving the language learning outcome (Marshall, 2017; Thienkalaya & Chusanachot, 2020; Tsou, 2011). However, in Thienkalaya and Chusanachot's study (2020), the researchers reported that peer or group dynamics could put pressure on some participants during practice reading as well.

Audio Files. Another common participant response was that the audio files were beneficial for them in terms of increasing confidence. The current findings lend further evidence to the fact that an audio-assisted learning tool is efficient to enhance EFL students' pronunciation (Abdolmanafi-Rokni, 2013; Karavidaj, 2020; Saka; 2015).

Connections to Theoretical Frameworks

Drawing on the results from quantitative and qualitative data analysis, the important connections to the theoretical frameworks are as follows.

Firstly, the Sociocultural theory of Vygotsky (1978), which focuses on learning and developing learners' cognitive skills through their social interactions, support the impact of implementing readers theater. Specifically, the drama-based activity used in this study served as a scaffolding intervention to foster the improvement of Thai preservice English teachers' comprehensible English pronunciation. During the intervention, students were allowed to read the same scripts several times, based on the method of repeated reading theory offered by Samuels (1979). Students socially engaged with the teacher and peers closely to practice the scripts. Additionally, students who participated with readers theater were motivated to be active learners after working closely with peers over time and getting feedback on their English pronunciation from a teacher. Additionally, according to Vygotsky's (1978) the Zone of Proximal Development (ZPD), teachers should provide scripts that are more advanced than

students' English proficiency level to challenge them to practice reading. Therefore, engaging in a group performance -- like readers theater -- provides a safe and friendly environment, encouraging readers to enthusiastic and motivated to practice their script and gain more confidence (Clementi, 2010; Samuels, 1979; Worthy & Prater, 2002; Young et al., 2019; Young et al., 2020).

Secondly, readers theater is also supported by Bandura's Social Cognitive Theory (1977, 1989, 1994), which describes the primary assumption that human learning opportunities occur from observing others' behaviors, actions, and performance (Schhuk, 2012; Tracey et al., 2017). Additionally, Bandura (1994) said people who highly believe in their self-efficacy tend to put more effort and gain more success from a task than people who only slightly believe in their self-efficacy. In addition, in the phonetics and phonology classroom, it is necessary that the teacher provide various activities, in which learners can apply theory of sounds into practice (Bruckman-Laudenslager, 2019). The use of readers theater in this study can support Thai preservice English teachers in terms of allowing them to observe and learn from peers and other teachers as well as listen to the audio files, which gradually help improve their English pronunciation and helps them gain more confidence when speaking English (Bruckman-Laudenslager, 2019; Lekwilai, 2016; Schoen-Dowgiewicz, 2016; Thienkalaya & Chusanachot, 2020).

Implications

Taken together, the implications of this present study are that readers theater can be used as an effective teaching method to enhance Thai preservice English teachers' English pronunciation, particularly in the Phonetics and Phonology course as well as other courses related to teaching methods and English language arts. Even though there

was a slight effect showed on the quantitative results of this present study, qualitative results revealed that most participants perceived that readers theater was an enjoyable and powerful activity which extensively engaged and motivated them to practice and pronounce English words correctly.

However, when using readers theater in the classroom, EFL teachers must remember that the duration of implementation is very important for pronunciation development. Students should be provided a lot of time to practice the scripts as the old saying “practice makes perfect.” Consequently, readers theater should be used more frequently in the curriculum and instruction for preservice English teachers in Thailand. More practically, readers theater activity should be added to a course in teaching methods so preservice English teachers can learn how to prepare and implement readers theater in their own English classroom. Additionally, as mentioned in chapter I, readers theater can be used to promote reading fluency; however, it also can be applied in teaching all subjects since it is an activity students of all ages and grade levels can enjoy and are motivated to practice (Clementi, 2010; Samuels, 1979; Worthy & Prater, 2002; Young et al., 2019; Young et al., 2020). As a result, learning a new teaching strategy through readers theatre, preservice English teachers have opportunities to bring what they learn and adapt it into their own practice when teaching English as foreign language in their own classroom. Finally, readers theater should be used as part of English pronunciation training for preservice English teacher prior to teaching pronunciation in school to prepare them well prior to entering the classroom.

Limitations

Although the results of this current study shed some light on the assessment of Thai preservice English teachers' English pronunciation, several limitations need to be acknowledged.

1. Due to the small number of participants ($N = 49$), the results of the study may not be generalized to the target population.
2. A possible lack of effect of readers theater on participants' pronunciation improvement in this current study may have been the result of the limited length of implementing the intervention. As previously mentioned, readers theater was implemented with experimental group for only one hour a week over a 12-week period, which did not allow the participants to practice and expose to pronunciation consistently and sufficiently.
3. Since there was no random assignment in a quasi-experimental design employed in this study, participants in the control ($n = 26$) and experimental group ($n = 23$) were recruited from two intact classes, which the participants had mixed level of English proficiency backgrounds.
4. This current research was limited to investigating only two segmental features (i.e., /l/ and /r/), not suprasegmental level.
5. Due to the Coronavirus outbreak, this present research had to be conducted completely online instead of an in-person format according to IRB. As a result, there were potential issues in online connections, as well as communication that could defer from face-to-face interactions, which may impact data collection, and the results. More specifically, data collection for spontaneous speech assessment should be done in a quiet room without distraction noise. In this current research, although the quality of voice recording on Zoom was very good, some distraction noise happened unavoidably from

the participants' side during data collection process. For example, the sound of air or breath when the participants spoke too close to a microphone or a sound from their pets.

Moreover, as mentioned earlier regarding the limitations on Zoom, implementing the intervention via the online teaching format caused a one-hour readers theater activity to become shorter because of technological limitations, which sometime unexpectedly interrupted students' practice. These interruptions included disconnected or unstable internet connection or spending long time on putting participants on the small groups.

Recommendations for Future Research

1. In order for participants to adequately practice articulation, future researchers should consider a longer period of time to implement the intervention. (Lucarevski 2018; Thomson & Derwing, 2015). This may provide more advantageous results.

2. This current research was limited to investigating two sounds (i.e. /l/ and /r/) in the segmental feature. Further investigation of more sounds, such as /s, z, ð, ø, t, d/ in the same study is suggested in order to increase ecological validity (Thomson & Derwing, 2015). In addition, more research on second language pronunciation is recommended at the suprasegmental level because it extensively affects the comprehensibility of the second language speech (Hismanoglu, 2019; Pongprairat, 2011; Thomson & Derwing, 2015).

3. Phonological analysis of the variants of /l/ and /r/ would be beneficial for the Thai EFL teachers and students in order to have an in-dept understanding of the phonological awareness of these sounds.

4. Future researcher is recommended to examine the relationship of

pronunciation outcome with other variables, which may affect the Thai students' pronunciation development. For example, age, gender, educational background, the length and degree of English language exposure, and study abroad experience. Drawing on individual background is important to the L2 pronunciation research as Thomson and Derwing (2015) addressed that "understanding how individual differences affect learning trajectories will allow results to be more readily generalizable to new learners" (p. 333).

5. Regarding the assessment, in order to ensure that a treatment or an intervention still yields a positive effect on the performance outcome, future studies should "include a delayed post-test to determine whether the intervention had a lasting effect (Thomson & Derwing, 2015, p 327). In this current study, however, the posttest was administered one week after implementing readers theater.

6. With respect to the classroom instruction, another area of future research would be considering Computer Assisted Pronunciation Teaching (CAPT). Comparing with a traditional teaching method, one major benefit of applying CAPT technology is that it allows students to record and listen to their own voices as well as imitate native speakers' voices, which could help elevate EFL or ESL learners' English pronunciation fluency (Agarwal & Chakraborty, 2019; Gilakjani & Rahimy, 2020; Thomson & Derwing, 2015).

7. Even though age has a considerable impact on second language pronunciation improvement (Flege et al., 1995), it is suggested that future studies should investigate the effect of readers theaters with younger learners (i.e., k-12). Thomson and Derwing (2015) reported that most of previous research in second language pronunciation focused on young adult learners.

8. With respect to Zoom technology, future researchers should be aware that while Zoom has been considered a beneficial online teaching platform as it allows a remote learning and conducting research to become feasible, it is likely that teachers and students may have to face and waste their valuable time with technical challenges (Cheung, 2021; Kohnke & Moorhouse, 2020; Singh et al., 2020).

9. In the case of quantitative research instruments, specifically picture naming and interview questions, designed as speech stimuli for the spontaneous speech assessment, were tried with only five Thai students prior to conducting the current research. Future research should use these stimuli with a larger number of students before conducting research in order to increase reliability of the instruments (Johnson & Christensen, 2017).

10. With regard to qualitative data collection, a semi-structure or a focus group interview was not used as a data collection instrument purposively in this current study to avoid untrue feelings or silence from the participants. Typical Thai students are shy and do not feel comfortable expressing true feelings especially with teachers because they perceive this as disrespectful behavior in Thai culture (Saetang, 2014). Nevertheless, future researchers are encouraged to add either a semi-structure or a focus group interview as another method to triangulate qualitative data for gaining insight into students' points of view (Lichtman, 2012).

11. In the past decade, in the Thai preservice English teachers' context, there is scarce research on investigating the problems or needs of Thai preservice English teachers' English pronunciation or seeking to find interventions or teaching methods that can be used to scaffold their English pronunciation development (Ngowananchai, 2012;

2016; Septiana, 2021; Vibulohol, 2016). More studies on Thai preservice English teachers' pronunciation improvement needs to be done.

Recommendations for Implementing Readers Theater in the EFL Classroom

Based on the preliminary findings of this current study, there are several recommendations for implementing readers theater in the EFL classroom as an alternative teaching method or an intervention to enhance Thai preservice English Teachers' English pronunciation as follows.

Scripts

The cornerstone of readers theater activity is to engage students in reading aloud multiple times; therefore, it is important that scripts attract students' interest in order to motivate them to practice reading. More specifically, when using readers theater with young adult learners, it is likely they will lose interest easily if the scripts are not fun, authentic and meaningful. It also may become too tedious if the scripts are too long or not appropriate to their English proficiency. To address this, teachers or interventionists can compose new scripts or adapt the content from the original stories. Allowing students to compose a new story on their own would also be a great way to create a sense of ownership and engagement as well as improving their writing and critical thinking skills (Bruckman-Laudenslager, 2019; Dixon, 2010).

Moreover, since all the scripts used in this study were adapted from the classic or well-known stories originally from other countries, translating Thai folktales into English scripts or writing new scripts based on Thai culture would be a great way to motivate and engage students to read. Furthermore, there should be various types of stories for students to select from, based on their interests in order to escalate students'

excitement and interest (Young et al., 2019). More importantly, according to qualitative data analysis, a few participants mentioned that the scripts were too easy and/or did not challenge them. Therefore, teachers should prepare various types of scripts with different levels of English and ensure that each character in a story has the same length of text to practice. Interestingly, but not surprising, it is noteworthy that throughout using readers theater for 12 weeks, the researcher found that participants did not choose the scripts based on their interests but, rather, their choices were based on their close friends and they tried to remain in the same group as long as they could. Thus, having students work together in the same level of English competency would be a good way for them to practice scripts more actively and provide them a chance to get to know new partners better.

Props

Even though props or costumes are not required in a readers theater activity, one participant commented in the open-ended question that, “It would be wonderful if students have a chance to made props for a story in order to increase more motivation (Sandra).” Therefore, teachers may provide students an opportunity to create props or costumes if they would like to, but this should be optional.

Expressions

Reading aloud with expression could make the scripts become alive and meaningful (Thienkalaya & Chusanachot, 2020; Young et al., 2019). Prior to implementing readers theatre, teachers should spend time demonstrating to students how to express feelings as well as using gestures in English, which may be different from Thai

culture. This could also help promote cross-cultural awareness and competency in the EFL classroom (Weda & Atmowardoyo, 2018).

Duration

Ideally, practice makes perfect. However, when implementing readers theater to college students, particularly when preservice teachers are involved, it is difficult to find a time slot that students can practice the scripts more than once a week as their schedule is packed. However, teachers should consider extending time for students to practice the scripts.

Teachers

Apart from the aforementioned components, which can shape readers theater to become more effective and beneficial to students, teachers also play a crucial role in using readers theater successfully as Rasinski et al., (2017) stated, “In order for Readers Theater to take on this more academic role, the classroom teacher must take a proactive role in helping Readers Theatre achieve its full benefit for all students” (p. 174).

According to qualitative data analysis, one of the main reasons participants expressed that readers theater helps improve their pronunciation was a professor (the researcher). A majority of participants indicated they felt more confidence when pronouncing English because the professor was supportive and the feedback from the professor was useful in helping them develop their pronunciation. For example, Melody commented, “Professor gave positive compliments when we did (pronounced) well. I think this is what typical Thai professors lack. Most of them just listened but didn’t give good compliments or feedback like the professor did. When getting compliments from the professor, I felt encouraged to practice more.”

It can be clearly seen that implementing readers theater is not merely asking students to read a script aloud. Most importantly, teachers are required to be well prepared, patient, flexible, supportive, enthusiastic, positive and will put forth time and effort in preparation. They also should pay close attention to individual participant needs in order to be able to help students improve their English pronunciation outcomes through this drama-based activity.

Conclusion

The results of this mixed methods study reveal that readers theater had a positive impact on the participants' posttest scores for the perception test in the experimental group. Whilst there were no significant results found in the production test, the qualitative data analysis exhibited that participants were motivated and engaged in reading aloud activities, which is promising that readers theater could be used as an effective teaching and learning method to improve Thai preservice English teachers' comprehensible English pronunciation.

REFERENCES

- Abdolmanafi-Rokni, S. J. (2013). The effect of listening to audio stories on pronunciation of EFL learners. *MJAL*, 5(2), 69-85. <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1086.6089&rep=rep1&type=pdf>
- Abrahamsson, N., & Hyltenstam, K. (2008). The robustness of aptitude effects in near-native second language acquisition. *Studies in second language acquisition*, 30, 481-509. <http://www.jstor.com/stable/44485811>
- Abrahamsson, N., & Hyltenstam, K. (2009). Age of onset and nativelikeness in a second language: Listener perception versus linguistic scrutiny. *Language learning*, 59(2), 249-306. <https://doi.org/10.1111/j.1467-9922.2009.00507.x>
- Abu-Rabia, S., & Kehat, S. (2004). The critical period for second language pronunciation: is there such a thing?. *Educational Psychology*, 24(1), 77-97. <https://doi.org/10.1080/0144341032000146467>
- Agarwal, C., & Chakraborty, P. (2019). A review of tools and techniques for computer aided pronunciation training (CAPT) in English. *Education and Information Technologies*, 24(6), 3731-3743. <https://doi.org/10.1007/s10639-019-09955-7>
- Aoyama, K., Flege, J. E., Guion, S. G., Akahane-Yamada, R., & Yamada, T. (2004). Perceived phonetic dissimilarity and L2 speech learning: The case of Japanese /r/ and English /l/ and /r/. *Journal of Phonetics*, 32, 233-250. [https://doi.org/10.1016/S0095-4470\(03\)00036-6](https://doi.org/10.1016/S0095-4470(03)00036-6)
- Atkins, L., & Wallace, S. (2012). *Qualitative research in education*. Sage Publications.
- Akkakoson, S. (2016). Speaking anxiety in English conversation classrooms among Thai students. *Malaysian Journal of Learning and Instruction*,

- 13(1), 63-82. <https://files.eric.ed.gov/fulltext/EJ1134520.pdf>
- Allen, A. M. (2016). *Once more with feeling: Elementary classroom teachers' perceptions of the effectiveness of reader's theater* [Master's thesis, Southeastern University]. Southeastern University, Lakeland. <https://firescholars.seu.edu/honors/56/>
- Baker, W., & Trofimovich, P. (2006). Perceptual paths to accurate production of L2 vowels: The role of individual differences. *International Review of Applied Linguistics*, 44, 231-250. DOI 10.1515/IRAL.2006.010
- Bandura, A. (1977b). *Social learning theory*. General Learning Press.
- Bandura, A. (1989). *Social cognitive theory*. JAI Press.
- Bandura, A. (1994). *Self-efficacy*. Academic Press.
- Barlow, J. A., & Gierut, J. A. (2002). Minimal pair approaches to phonological remediation. *Seminars in Speech and Language*, 23(1), 57-68.
- Basilio, M. J., & Wongrak, C. (2017). Foreign language anxiety: A case of Thai EFL learners at Ubon Ratchathani University. *The Asian Conference on Education & International Development: Educating for Change*, 585-598. https://papers.iafor.org/wp-content/uploads/papers/aceid2017/ACEID2017_35723.pdf
- Bogdan, R. C., & Biklen, S. K. (2003). *Qualitative research for education: An introduction to theories and methods*. Person Education Group.
- Boonkaew, C. (2018). *A case study of Thai EFL college students' perceptions on an autonomous learning model in learning English pronunciation* [Unpublished master's thesis]. Mahidol University.
- Boonkit, K. (2010). Enhancing the development of speaking skills for non-native

- speakers of English. *Procedia-social and behavioral sciences*, 2(2), 1305-1309.
<https://doi:10.1016/j.sbspro.2010.03.191>
- Bozkirli, K. Ç. (2019). An Analysis of the Speaking Anxiety of Turkish Teacher Candidates. *Journal of Education and Training Studies*, 7(4), 79-85.
<https://doi:10.11114/jets.v7i4.4060>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101. <https://doi:10.1191/1478088706qp063oa>
- Bruckman-Laudenslager, D. R. (2019). *Using reader's theater to engage English language learners: A case study* [Doctoral dissertation, Northcentral University]. Northcentral University.
- Chinpakdee, M. (2015). Thai EFL university students' perspectives on foreign language anxiety. Humanities, Arts and Social Sciences Studies. *Silpakorn University Journal of Social Sciences, Humanities, and Arts*, 15(3), 61-90. <https://so02.tci-thaijo.org/index.php/hasss/article/download/44672/37025>
- Cheung, A. (2021). Language teaching during a pandemic: A case study of Zoom use by a secondary ESL teacher in Hong Kong. *RELC Journal*, 1-16.
<https://doi.org/10.1177%2F0033688220981784>
- Clementi, L. B. (2010). Readers theater: A motivating method to improve reading fluency. *Phi Delta Kappan*, 91(5), 85-88. <https://doi.org/10.1177/003172171009100524>
- Coe, R., Waring, M., Hedges, L. V., & Arthur, J. (Eds.). (2017). *Research methods and methodologies in education*. Sage Publications.
- Cohen, J. (1969). Statistical power analysis for the behavioral sciences.

Academic Press.

Corder, S. P. (1981). *Error Analysis and Interlanguage*. Oxford University Press.

Coskun, A. (2017). The effect of Pecha Kucha presentations on students' English public speaking anxiety. *Profile Issues in Teachers Professional Development*, 19, 11-22. https://dx.doi.org/10.15446/profile.v19n_sup1.68495

Creswell, J. W., & Clark, V. L. P. (2017). *Designing and conducting mixed methods research*. Sage Publications.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative Inquiry & Research Design: Choosing Among Five Approaches*. Sage Publications.

Curtis, W., Murphy, M., & Shields, S. (2013). *Research and Education: Foundations of Education Studies*. Routledge Taylor and Francis Group.

Demirezen, M. (2010b). The principle and applications of the audio-lingual pronunciation rehabilitation model in foreign language teacher education. *Journal of Language and Linguistics Studies*, 6(2), 127-148. <https://dergipark.org.tr/en/pub/jlls/issue/9932/122905>

Dollmann, J., Kogan, I., & Weißmann, M. (2020). Speaking accent-free in L2 beyond the critical period: The compensatory role of individual abilities and opportunity structures. *Applied Linguistics*, 41(5), 787-809. <https://doi.org/10.1093/applin/amz029>

Dixon, N. (2010). *Readers theatre: A secondary approach*. Portage & Main Press.

Ellis, R. (1990). *Instructed second language acquisition: Learning in the classroom*. Basil Blackwell.

Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. sage.

- Flege, J. E. (1995). Second language speech learning: Theory, findings, and problems. *Speech perception and linguistic experience: Issues in cross-language research*, 92, 233-277. https://www.researchgate.net/profile/James_Flege/publication/333815781_Second_language_speech_learning_Theory_findings_and_problems/links/5d071d2692851c900442d6b2/Second-language-speech-learning_Theory-findings-and-problems.pdf
- Foote, J. A. & Trofimovich, P., & (2018). Second language pronunciation learning: An overview of theoretical perspectives. In *The Routledge handbook of contemporary English pronunciation*. Routledge.
- Fouz-González, J. (2019). Podcast-based pronunciation training: Enhancing FL learners' perception and production of fossilised segmental features. *ReCALL*, 31(2), 150-169. doi:10.1017/S0958344018000174
- Fraser, H. (2000). *Coordinating improvements in pronunciation teaching for adult learners of English as a second language*. DETYA (ANTA Innovative project). University of New England. Canberra, Australia.
- Freeman, D. E. (2004). *Essential linguistics: what you need to know to teach reading, ESL, spelling, phonics, and grammar*. Heinemann.
- Gardiner, I. A., & Deterding, D. (2017). Pronunciation and miscommunication in ELF interactions: An analysis of initial clusters. In J. Jenkins, W. Baker, & M. Dewey (Eds.), *The Routledge handbook of English as a Lingua Franca* (pp. 224–232). Routledge.
- Gass, S. M., & Selinker, L. (1983). *Language Transfer in Language Learning. Issues in Second Language Research*. Newbury House Publishers.

- George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference*. 11.0 update (4th ed.). Allyn & Bacon
- Gerber, H. R., Abrams, S. S., Curwood, J. S., & Magnifico, A. M. (2016). *Conducting qualitative research of learning in online spaces*. SAGE Publications.
- Gibbons, J. D., & Chakraborti, S. (2020). *Nonparametric statistical inference*. CRC press.
- Gilakjani, A. P., & Rahimy, R. (2020). Using computer-assisted pronunciation teaching (CAPT) in English pronunciation instruction: A study on the impact and the Teacher's role. *Education and Information Technologies*, 25(2), 1129-1159. <https://doi.org/10.1007/s10639-019-10009-1>
- Goulet-Pelletier, J. C., & Cousineau, D. (2018). A review of effect sizes and their confidence intervals, part I: The Cohen's d family. *The Quantitative Methods for Psychology*, 14(4), 242-265. <http://dx.doi.org/10.20982/tqmp.14.4.p242>
- Haghighi, M., & Rahimy, R. (2017). The effect of L2 minimal pairs practice on Iranian intermediate EFL learners' pronunciation accuracy. *International Journal of Research in English Education*, 2(1), 42-48. http://ijreeonline.com/files/site1/user_files_68bcd6/raminrahimy-A-10-34-3-119f094.pdf
- Hamzaoglu, H., & Koçoğlu, Z. (2016). The application of podcasting as an instructional tool to improve Turkish EFL learners' speaking anxiety. *Educational Media International*, 53(4), 313-326. <https://doi.org/10.1080/09523987.2016.1254889>
- Hayaramae, M. S. (2016). *A study on public speaking anxiety among Thai postgraduate Students* [Master's thesis, Thammasat University]. http://ethesisarchive.library.tu.ac.th/thesis/2016/TU_2016_5821042404_6920_4692.pdf

- Hismanoglu, M. (2019). A content analysis on articles related to English (L2) pronunciation teaching. *Journal of Language and Linguistic Studies*, 15(2), 633-648. <https://doi.org/10.17263/jlls.586787>
- Kim, H., & Billington, R. (2018). Pronunciation and comprehension in English as a lingua franca communication: Effect of L1 influence in international aviation communication. *Applied linguistics*, 39(2), 135-158. <https://doi.org/10.1093/applin/amv075>
- Horwitz, E. K. (1986). Preliminary evidence for the reliability and validity of a foreign language anxiety scale. *Tesol Quarterly*, 20(3), 559-562. <https://www.jstor.org/stable/pdf/3586302.pdf>
- Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern language journal*, 70(2), 125-132. <https://www.jstor.org/stable/pdf/327317.pdf>
- Hu, F. (2017). A study on Chinese EFL learning of English pronunciation from the perspective of aesthetic linguistics. *Theory and Practices in Language Studies*, 7(7), 579-584. <http://dx.doi.org/10.17507/tpls.0707.12>
- Huang, B. H., & Jun, S. A. (2011). The effect of age on the acquisition of second language prosody. *Language and Speech*, 54(3), 387-414. <http://dot:10.1177/0023830911402599>
- Huang, H. H. B. (2009). *Age-related effects on the acquisition of second language phonology and grammar* [Doctoral dissertation, University of California]. <https://search.proquest.com/openview/2cf4b851b7aaca862842cd2d4e253e28/1?pq-origsite=gscholar&cbl=18750&diss=y>

- Imamesup, A. (2012). *The study of the effectiveness of audio articulation model in improving Thai Learners' pronunciation of fricative sounds* [Master's thesis, Srinakarinwirot University]. http://ir.swu.ac.th/jspui/bitstream/123456789/529/1/Ampawan_I.pdf
- Isaacs, T., & Trofimovich, P. (Eds.). (2016). *Second language pronunciation assessment: Interdisciplinary perspectives*. Multilingual Matters. <https://doi.org/10.21832/ISAACS6848>
- Isaacs, T., Trofimovich, P., & Foote, J. A. (2018). Developing a user-oriented second language comprehensibility scale for English-medium universities. *Language Testing*, 35(2), 193-216. <https://doi.org/10.1177/0265532217703433>
- Jamjuree, D. (2017). Teacher training and development in Thailand. *Journal of Research and Curriculum Development*, 7-19. <https://so03.tci-thaijo.org/index.php/jrcd/article/download/115560/89286>
- Johnson, R. B., & Christensen, L. (2017). *Educational research: Quantitative, qualitative, and mixed approaches*. SAGE Publications.
- Ka-kan-dee, M., & Al-Shaibani, G. K. S. (2018). Tourism students' oral presentation anxiety: A case study. *Pertanika Journal of Social Sciences & Humanities*, 26, 231-256. <http://www.pertanika.upm.edu.my/>
- Kana, F. (2015). Investigation of preservice teachers' speech anxiety with different point of view. *International Journal of Progressive Education*, 11(3), 140-152.
- Kanoksilapatham, B. (2013) *Pronunciation in action*. Silpakorn University Publishing House.
- Karavidaj, V. (2020). The effectiveness of Audio Books on pronunciation skills of

- EFL learners at different proficiency levels. [Master's thesis, South East European University]. https://repository.seeu.edu.mk/sites/thesis/ThesisSharedDocs/MA_127597.pdf
- Khamkhien, A. (2010). Teaching English speaking and English speaking tests in the Thai context: A reflection from Thai perspective. *English Language Teaching*, 3(1), 184-190. <https://files.eric.ed.gov/fulltext/EJ1081501.pdf>
- Khansir, A. A., & Pakdel, F. (2016). Place of linguistics in English language teaching. *Arab World English Journal (AWEJ)*, 7(3), 373-384. <https://ssrn.com/abstract=2859284>
- Kidsinco Online Scholar Sources (May, 2020). Aesop Fables. <http://www.kidsinco.com/aesop-fable>
- Kincaid, J. P., Fishburne Jr, R. P., Rogers, R. L., & Chissom, B. S. (1975). *Derivation of new readability formulas (automated readability index, fog count and flesch reading ease formula) for navy enlisted personnel*. Naval Technical Training Command Millington TN Research Branch. <https://apps.dtic.mil/sti/pdfs/ADA006655.pdf>
- Kitikanan, P. (2017). The effects of L2 experience and vowel context on the perceptual assimilation of English fricatives by L2 Thai learners. *English Language Teaching*, 10(2), 72-82. <https://doi.org/10.5539/elt.v10n12p72>
- Kohnke, L., & Moorhouse, B. L. (2020). Facilitating synchronous online language learning through Zoom. *RELC Journal*, 1-6. <https://doi.org/10.1177%2F0033688220937235>
- Koo, T. K., & Li, M. Y. (2016). A guideline of selecting and reporting intraclass

- correlation coefficients for reliability research. *Journal of chiropractic medicine*, 15(2), 155-163. <http://dx.doi.org/10.1016/j.jcm.2016.02.012>
- Krashen, S. (1982). *Principles and practice in second language acquisition*. Pergamon Press.
- Krashen, S. (2016). The purpose of education, free voluntary reading, and dealing with the impact of poverty. *School Libraries Worldwide*, 22(1), 1-7.
http://www.sdkrashen.com/content/articles/2016_purpose_of_education.pdf
- Kriangkrai, Y. (2012). *Anxiety reduction in EFL public speaking through video-based blog peer feedback model* [Unpublished doctoral dissertation, Suranaree University of Technology].
- LaBerge, D., & Samuels, S. J. (1974). Toward a theory of automatic information processing in reading. *Cognitive psychology*, 6(2), 293-323.
[https://doi.org/10.1016/0010-0285\(74\)90015-2](https://doi.org/10.1016/0010-0285(74)90015-2)
- Lee, B., Plonsky, L., & Saito, K. (2020). The effects of perception-vs. production-based pronunciation instruction. *System*, 88, 102185. <https://doi.org/10.1016/j.system.2019.102185>
- Lekwilai, P. (2014). Reader's Theater: An alternative tool to develop reading fluency among Thai EFL learners. *PASAA: Journal of Language Teaching and Learning in Thailand*, 48, 89-111. <https://files.eric.ed.gov/fulltext/EJ1077897.pdf>
- Lekwilai, P. (2016). Using reader's theater to develop reading fluency among Thai EFL students. *PASAA PARITAT*, 31, 163-188. <https://www.culi.chula.ac.th/publicationsonline/files/article2/7kf21u1IDcThu24233.pdf>
- Lenneberg, E. H. (1967). Biological Foundations of Language. *Hospital Practice*, 2(12),

59-67. <https://doi.org/10.1080/21548331.1967.11707799>

- Levis, J., & Cortes, V. (2008). Minimal pairs in spoken corpora: Implications for pronunciation assessment and teaching. In C. A. Chapelle, Y. R. Chung, & J. Xu (Eds.), *Towards adaptive CALL: Natural language processing for diagnostic language assessment* Iowa State University.
- Lichtman, M. (2012). *Qualitative research in education: A User's Guide: A user's guide*. Sage Publications.
- Lin, H. L., Chang, H. W., & Cheung, H. (2004). The effects of early English learning on auditory perception of English minimal pairs by Taiwan university students. *Journal of Psycholinguistic Research*, 33(1), 25-49. <https://doi.org/10.1023/B:JOPR.0000010513.34809.61>
- Mann, H. B., & Whitney, D. R. (1947). On a test of whether one of 2 random variables is stochastically larger than the other. *Annals of Mathematical Statistics*, 18, 50-60. <https://ezproxy.shsu.edu/login?url=https://www.jstor.org/stable/2236101>
- Mansouri, S., & Darani, L., H. (2016). The effect of readers theater on intermediate Iranian EFL learners in terms of oral performance and L2 vocabulary knowledge. *Modern Journal of Language Teaching Methods*, 6(9), 295.
- Mayberry, R. I., & Kluender, R. (2018). Rethinking the critical period for language: New insights into an old question from American Sign Language. *Bilingualism: Language and Cognition*, 21(5), 886-905. [https://doi: 10.1017/S1366728918000585](https://doi:10.1017/S1366728918000585)
- Mede, E., & Karairmak, Ö. (2017). The predictor roles of speaking anxiety and English self-efficacy on foreign language speaking anxiety. *Journal of Teacher Education*

and Educators, 6(1), 117-131. <https://dergipark.org.tr/en/pub/jtee/issue/43270/525680>

Merritt, J. E. (2015). *Using readers' theater to improve reading fluency in students with Dyslexia* [Doctoral dissertation, Sam Houston State University].

<https://search.proquest.com/docview/1774651287/fulltextPDF/6E0D9DEAF26247AAPQ/1?accountid=7065>

Merriam-Webster Dictionary. (June, 2020). <https://www.merriam-webster.com>.

Moedjito. (2016). The teaching of English pronunciation: perceptions of Indonesian school teachers and university students. *English Language Teaching*, 9(16), 30-41. <https://doi.org/10.5539/elt.v9n6p30>

Moghadam, M. B., & Haghverdi, H. R. (2016). The impact of readers theatre on the development of preintermediate Iranian EFL Learners' Oral Proficiency. *Research in English Language Pedagogy (RELP)*, 3(2), 44. http://www.iau-journals.ir/article_533630_8e288a1301742bbb69a952b7e8ffb65e.pdf

Moyer, A. (2014a). What; s age got to do with it? Accounting for individual factors in second language accent. *Studies in Second Language Learning and Teaching*, 4(3), 443-464. <https://doi:10.14746/ssllt.2014.4.3.4>

Moyer, A. (2014b). Exceptional outcomes in L2 phonology: The critical factors of learner engagement and self-regulation. *Applied Linguistics*, 35(4), 418-440. <http://doi:10.1093/applin/amu012>

Mraz, M., Nichols, W., Caldwell, S., Beisley, R., Sargent, S., & Rupley, W. (2013). Improving oral reading fluency through readers theatre. *Reading Horizons: A*

- Journal of Literacy and Language Arts*, 52(2), 163-180. https://scholarworks.wmich.edu/reading_horizons/vol52/iss2/5
- Mumford, S., & Dikilitaş, K. (2020). Pre-service language teachers reflection development through online interaction in a hybrid learning course. *Computers & Education*, 144, 1-13. <https://doi.org/10.1016/j.compedu.2019.103706>
- Muñoz C, Singleton D (2011) A critical review of age-related research on L2 ultimate attainment. *Language Teaching*, 44, 1–35. <https://doi.org/10.1017/S0261444810000327>
- Munro, M. J., & Derwing, T. M. (2015). A prospectus for pronunciation research in the 21st century: A point of view. *Journal of Second Language Pronunciation*, 1(1), 11-42. <https://doi.org/10.1075/jslp.1.1.01mun>
- Nachar, N. (2008). The Mann-Whitney U: A test for assessing whether two independent samples come from the same distribution. *Tutorials in quantitative Methods for Psychology*, 4(1), 13-20. <https://pdfs.semanticscholar.org/007b/c0936646c34abd369ceda930000c3d142228.pdf>.
- Narksompong, J. (2007). *A study of Thai phonological features that cause pronunciation problems for Thai people* [Unpublished master's thesis, Thammasat University].
- Ngowananchai, J. (2014). Natural occurring conversation as an English teaching model in Thailand. *European Scientific Journal, ESJ*, 9(10). 397-408. http://gruni.edu.ge/uploads/files/kvleva/fondebi/emf_2013_vol_2.pdf#page=407
- Nimmuch, S. (2011). *English communication problems influencing Thai people to take English courses at language institutions* [Unpublished master's thesis, Thammasat University].

- Nusartleart, A., & Pattanasorn, A. T. (2015). Vowel production and perception of English back vowels. *Graduate School, Humanities and Social Sciences*, 4(1), 21-22.
<https://so03.tci-thaijo.org/index.php/gshskku/article/view/62539/51471>
- Noobutra, C. (2019). *Interaction of markedness and transfer of/r/in L1 Thai learners acquiring L1 Thai and L2 English* [Doctoral dissertation, Newcastle University].
<http://theses.ncl.ac.uk/jspui/bitstream/10443/4566/1/Noobutra%20C%202019.pdf>
- Oeamoum, N., & Sriwichai, C. (2020). Problems and Needs in English Language Teaching from the Viewpoints of Pre-service English Teachers in Thailand. *Asian Journal of Education and Training*, 6(4), 592-601. DOI: 10.20448/journal.522.2020.64.592.601
- Onwuegbuzie, A. J., & Daniel, L. G. (1999). Uses and misuses of the correlation coefficient. <https://files.eric.ed.gov/fulltext/ED437399.pdf>
- Ogden, R. (2017). *Introduction to English Phonetics*. Edinburgh University Press.
- Onwuegbuzie, A. J., & Leech, N. L. (2007). A call for qualitative power analyses. *Quality & Quantity*, 41(1), 105-121. <https://doi.org/10.1007/s11135-005-1098-1>
- Pajo, B. (2017). *Introduction to Research Method: A hands-on approach*. Sage Publications.
- Patrick, N. C. L. (2008). The impact of Readers Theater (RT) in the EFL classroom. *Polyglossia*, 14, 93-100. http://rundz1073.ritsumei.ac.jp/rcaps/uploads/fckeditor/publications/polyglossia/Polyglossia_V14_Ng.pdf
- Patrick, N. C. L. (2010). Improving oral skills through Readers Theatre: A study of views of Japanese EFL learners. *Journal of international studies and regional*

development: JISRD, (1), 37-49.

- Patrick, N. C. L. & Yip, E. B. (2010). Readers Theater: Improving oral proficiency in a Japanese university EFL course, *ELT World Online. Com*, 2, 1-18. ELT World Online. com <http://blog.nus.edu.sg/eltwo/2010/12/20/readers-theatre-improving-oral-proficiency-in-a-japanese-university-efl-course>.
- Penfield, W., & Roberts, L. (2014). *Speech and brain mechanisms* (Vol. 62). Princeton University Press
- Pongprairat, R (2011). A study of interlanguage English intonation in Thai learners, and the degree of intelligibility and comprehensibility in Native speakers' judgments [Doctoral dissertation, Chulalongkorn University]. <http://doi.org/10.14457/CU.the.2011.98>
- Rasisnski, T., Stokes, F., & Young, C. (2017). The Role of the Teacher in Reader's Theater Instruction. *Texas Journal of Literacy Education*, 5(2), 168-174. <https://files.eric.ed.gov/fulltext/EJ1162708.pdf>
- Rasinski, T. V., Rupley, W. H., Pagie, D. D., & Nichols, W. D. (2016). Alternative text types to improve reading fluency for competent to struggling readers. *International Journal of Instruction*, 9(1), 163-178. <https://files.eric.ed.gov/fulltext/EJ1086966.pdf>
- Roach, P. J. (2009). *English Phonetics and Phonology: Units 10-20*. Cambridge University Press.
- Rosenthal, R. (1994). Parametric measures of effect size. In H. Cooper & L. V. Hedges (Eds.), *The handbook of research synthesis*. (pp. 231-244). New York: Russell Sage Foundation.

- Ruengwatthakee, P. (2021). Pre-service English teachers' perceptions towards using English as a foreign language in teaching practicum in Thailand. *Journal of Universality of Global Education Issues*, 7(1), 1-28. <https://ugei-ojs-shsu.tdl.org/ugei/index.php/ugei/article/view/42>
- Ruengwatthakee, P., & Haas, L. (2021). *Pre-service English teachers' perceptions towards using English as a foreign language in teaching practicum in Thailand*. Manuscript submitted for publication.
- Ruengwatthakee, P., & Koptelov, A.V. (2019). The role of phonetics in teaching English as a foreign language to Thai students. *Theory and Practice of Learning Foreign Languages: Traditions and Development Prospects*, 348-353. <https://www.elibrary.ru/item.asp?id=41347341>
- Sadighi, F., & Dastpak, M. (2017). The sources of foreign language speaking anxiety of Iranian English language learners. *International Journal of Education and Literacy Studies*, 5(4), 111-115. <http://dx.doi.org/10.7575/aiac.ijels.v.5n.4p.111>
- Saetang, S. (2014). A survey in a Thai classroom on learning activities and learning problems. *International Journal for Cross-Disciplinary Subjects in Education (IJCDSE)*, 5(3), 1753-1758. http://sola.kmutt.ac.th/dral2017/proceedings/3-Papers/94104_Silence%20of%20Japanese%20students%20in%20a%20Thai%20EFL%20context_.Jeffrey%20Wilang.pdf
- Sahatsathatsana, S. (2017). Pronunciation problems of Thai students learning English phonetics: A case study at Kalasin University. *Journal of Education, Mahasarakham University*, 11(4), 68-84. http://edu.msu.ac.th/journal/home/journal_file/383.pdf

- Saito, K. (2007). The influence of explicit phonetic instruction on pronunciation in EFL settings: The case of English vowels and Japanese learners of English. *Linguistics Journal*, 2(3), 16-40. <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.418.5662&rep=rep1&type=pdf#page=16>
- Saka, Z. (2015). The effectiveness of audiobooks on pronunciation skills of EFL learners at different proficiency levels [Doctoral dissertation, Bilkent University]. <http://repository.bilkent.edu.tr/bitstream/handle/11693/17007/0006898.pdf?sequence=1>
- Saldaña, J. (2015). *The coding manual for qualitative researchers*. Sage Publications.
- Samuels, S. J. (1979). The method of repeated readings. *The reading teacher*, 32(4), 403-408. <https://ezproxy.shsu.edu/login?url=https://www.jstor.org/stable/20194790>
- Scovel, T. (1969). Foreign accents, language acquisition, and cerebral dominance 1. *Language learning*, 19(3-4), 245-253. <https://doi.org/10.1111/j.1467-1770.1969.tb00466.x>
- Selinker, L. (1972). Interlanguage. *International review of applied linguistics in language teaching*, 10(1-4), 209-232. http://miyukisasaki.2-d.jp/ja/publications/Sasaki_1997_in_IRAL.pdf
- Septiana, I. (2021). The experiences of [re-service teachers in investigating the factors \ that affect students' speaking proficiency in Thailand. In *Bogor English Student And Teacher (BEST) Conference*, 2, 61-65. <http://pkm.uikabogor.ac.id/index.php/best/article/download/800/680>
- Schoen-Dowgiewicz, T. S. (2016). *Improving reading fluency of elementary students*

with learning disabilities through reader's theater [Doctoral dissertation, Walden university]. https://pdfs.semanticscholar.org/3a93/3ade13b963407d809976c9b71e88eb14babb.pdf?_ga=2.111960388.178818990.1584843051.1202245721.1551113474

Schwartz, B. M., Wilson, J. H., & Goff, D. M. (2018). *An easy guide to research design & SPSS*. Sage Publications.

Schunk, D. H. (2012). *Learning theories an educational perspective sixth edition*. Pearson.

Shrum, J. L., & Glisan, E. W. (2016). *Teacher's handbook, contextualized language instruction*. Cengage Learning.

Singh, C. K. S., Singh, T. S. M., Abdullah, N. Y., Moneyam, S., Ismail, M. R., Tek, O. E., ... & Singh, J. K. S. (2020). Rethinking English language teaching through Telegram, Whatsapp, Google classroom and Zoom. *Sys Rev Pharm*, 11(11), 45-54.

Snow, C. E., & Hoefnagel-Höhle, M. (1977). Age differences in the pronunciation of foreign sounds. *Language and speech*, 20(4), 357-365. <https://doi.org/10.1177/0022283097702000407>

Sridhanyarat, K. (2017). The acquisition of L2 fricatives in Thai learners' interlanguage. *3L: Language, Linguistics, Literature*, 23(1), 15-34. <http://doi.org/10.17576/3L-2017-2301-02>

Stronge, J. H. (2018). *Qualities of effective teachers*. ASCD.

Subekti, A. S. (2018). Investigating the relationship between foreign language anxiety and oral performance of non-English major university students in

- Indonesia. *Dinamika Ilmu*, 18(1), 15-35. doi: <http://dx.doi.org/10.21093/di.v18i1.880>
- Swain, M., Kinnear, P., & Steinman, L. (2011). *Sociocultural theory in second language education: An introduction through narratives*. Multilingual matters.
- Tanielian, A. R. (2014). Foreign language anxiety in a new English program in Thailand. *International Education Journal: Comparative Perspectives*, 13(1), 60-81.
<https://ssrn.com/abstract=3609343>
- Tanner, M., & Chugg, A. (2018). Empowering adult ELL's fluency and pronunciation skills through readers theater. In *Proceedings of the 9th Annual Pronunciation in Second Language Learning and Teaching Conference*. Iowa State University.
https://apling.engl.iastate.edu/wp-content/uploads/sites/221/2018/09/PSLLT-Proceedings-9_9-14-18_2.pdf
- Tantihachai, K. (2016). *Foreign language anxiety in listening and speaking English in a Thai EFL classroom*. [Doctoral Dissertation, University of Exeter].
https://pdfs.semantic scholar.org/7698/9320432390e282e071db28bc55ae517af85e.pdf?_ga=2.90989274.178818990.1584843051-1202245721.1551113474
- Thepboriruk, K. (2009). Bangkok Thai tones revisited. *JSEALS*, 3, 86-105.
- Thompson, I. (1991). Foreign accents revisited: The English pronunciation of Russian immigrants. *Language learning*, 41(2), 177-204. <https://doi.org/10.1111/j.1467-1770.1991.tb00683.x>
- Thomson, R. I., & Derwing, T. M. (2015). The effectiveness of L2 pronunciation instruction: A narrative review. *Applied Linguistics*, 36(3), 326-344.
<https://doi.org/10.1093/applin/amu076>

- Thongprasert, N. (2009). Cross-cultural perspectives of knowledge sharing for different virtual classroom environments: A case study of Thai students in Thai and Australian universities. *NIDA Development Journal*, 49(4), 57-75.
<https://so04.tcithaijo.org/index.php/NDJ/article/download/2912/2500>
- Thienkalaya, C., & Chusanachoti, R. (2020). Improving the English Reading Prosody of L2 Learners Through Readers Theater. *LEARN Journal: Language Education and Acquisition Research Network*, 13(2), 306-320. <https://so04.tci-thaijo.org/index.php/LEARN/article/download/243715/165606>
- Tracey, D. H., & Morrow, L. M. (2017). *Lenses on reading: An introduction to theories and models*. Guilford Publications.
- Tsou, W. (2011). The application of readers theater to FLES (Foreign Language in the Elementary Schools) reading and writing. *Foreign Language Annals*, 44(4), 727-748. <https://doi.org/10.1111/j.1944-9720.2011.01147.x>
- Un-udom, S., Jampeehom, K., & Chaidet, C. (2017). Effects of synchronous CMC on Thai EFL learner speaking anxiety and fluency. *Chophayom Journal*, 28(3), 293-300. <https://so01.tci-thaijo.org/index.php/ejChophayom/article/view/107298>
- Vanhove,(2013). The critical period hypothesis in second language acquisition: a statistical critique and a reanalysis. *PloS one* vol. 8,7 e69172. <https://doi:10.1371/journal.pone.0069172>.
- Varasarin, P. (2007). An action research study of pronunciation training, language learning strategies and speaking confidence [Doctoral dissertation, Victoria University]. http://vuir.vu.edu.au/1437/3/VARASARIN%20Patchara-thesis_nosignature.pdf

- Vibulphol, J. (2016). Students' motivation and learning and teachers' motivational strategies in English classrooms in Thailand. *English Language Teaching*, 9(4), 64-75. <https://files.eric.ed.gov/fulltext/EJ1092756.pdf>
- Vygotsky, L. S. (1987). Thinking and speech. *The collected works of LS Vygotsky*, 1, 39-285.
- Wadsorn, N., & Panichkul, S. (2014). River' or 'Liver'? Exploring the Intelligibility of Thai's (Mis) pronunciation of English 'r' and 'l'. *LEARN Journal: Language Education and Acquisition Research Network*, 7(2), 51-67.
- Weda, S., & Atmowardoyo, H. (2018). Cross-Cultural Competence (CCC) and Cross-Cultural Understanding (CCU) in Multicultural Education in the EFL Classroom. *Journal of English as an International Language*, 13(2), 9-31. <https://files.eric.ed.gov/fulltext/EJ1247320.pdf>
- Weinreich, U: 1953, Languages in Contact: Findings and Problems, Mouton, The Hague.
- Wilcoxon, F., Katti, S. K., & Wilcox, R. A. (1970). Critical values and probability levels for the Wilcoxon rank sum test and the Wilcoxon signed rank test. *Selected tables in mathematical statistics*, 1, 171-259. <https://doi.org/10.1002/9780471462422.eoct979>
- Woolson, R. F. (2007). Wilcoxon signed-rank test. *Wiley encyclopedia of clinical trials*, (Volume 6), P. Armitage and T. Colton (eds), 4739 – 4740. New York: John Wiley. <https://doi.org/10.1002/9780471462422.eoct979>
- Worthy, J., & Prater, K. (2002). The intermediate grades--" I thought about it all night": Readers Theatre for reading fluency and motivation. *The Reading Teacher*, 56(3), 294-297. <https://ezproxy.shsu.edu/login?url=https://www.jstor.org>

/stable/20205196

- Yangklang, W. (2006). *Improving English final /-l/ pronunciation of Thai students through computer assisted instruction program* [Unpublished master's Thesis]. Suranaree University of Technology.
- Yangklang, W. (2013). Improving English stress and intonation of the first year students of Nakorn Ratchasima Rajabhat University through an e-learning. *Social and Behavioral Sciences*, 91, 444-452. <https://doi.org/10.1016/j.sbspro.2013.08.442>
- Yangklang, W. (2013). Improving English stress and intonation pronunciation of the first year students of Nakorn Ratchasima Rajabhat University through an e-learning. *Social and Behavioral Sciences*, 91, 444–452. <https://doi.org/10.1016/j.sbspro.2013.08.442>
- Young, C. (2020 May). RTSCRIPTS. <http://www.thebestclass.org>
- Young, C., Durham, P., Miller, M., Rasinski, T. V., & Lane, F. (2019). Improving reading comprehension with readers theater. *The Journal of Educational Research*, 112(5), 615-626. <https://doi.org/10.1080/00220671.2019.1649240>
- Young, C., Polk, L., Durham, P., & Kerbs, M. (2020). The Boys Are Back and They're Looking for Drama. *Texas Journal of Literacy Education*, 8(1), 112-125. <https://files.eric.ed.gov/fulltext/EJ1261509.pdf>
- Young, C., & Rasinski, T. (2018). Readers Theater: Effects on word recognition automaticity and reading prosody. *Journal of Research in Reading*, 43(1), 475-485. doi:10.1111/1467-9817.12120
- Young, C., Stokes, F., & Rasinski, T. (2017). Readers theatre plus comprehension and

word study. *The Reading Teacher*, 71(3), 351-355. <https://doi.org/10.1002/trtr.1629>

APPENDIX A

Informed Consent (Thai Version)

Sam Houston State University

การยินยอมเข้าร่วมการวิจัย

ข้อมูลสำคัญเกี่ยวกับงานวิจัยเรื่อง The Effect of Readers Theater on Thai Preservice English Teachers' Improvement of Pronunciation in Thailand

ขอเชิญนักศึกษาทุกคน เข้าร่วมเป็นผู้ให้ข้อมูลเพื่อประกอบการวิจัยเรื่อง “The Effect of Readers Theater on Thai Preservice English Teachers' Improvement of Pronunciation in Thailand”

ซึ่งมีคิดค้นเป็นนักวิจัยหลัก นักศึกษาทุกคนมีคุณสมบัติในการเข้าร่วมเป็นผู้ให้ข้อมูลในงานวิจัยเรื่องนี้เนื่องจาก เป็นนักศึกษาชั้นปีที่ 2 สาขาวิชาภาษาอังกฤษ ที่ลงทะเบียนเรียนวิชาสหศาสตร์และสหวิทยาภาษาอังกฤษสำหรับครูสอนภาษาอังกฤษ ภาคเรียนที่ 1/2563

วัตถุประสงค์ ขั้นตอนการวิจัย และระยะเวลาในการทำวิจัย

วัตถุประสงค์ของโครงการวิจัยเรื่องนี้เป็นคือ 1) สำรวจประสิทธิภาพของ readers theater

ที่ใช้เป็นเครื่องมือในการพัฒนาการออกเสียงภาษาอังกฤษ ของนักศึกษาสาขาวิชาภาษาอังกฤษ หลักสูตรครุศาสตรบัณฑิต และ 2)

สำรวจการรับรู้เกี่ยวกับการใช้ readers theater ที่ใช้เป็นเครื่องมือในการพัฒนาการออกเสียงภาษาอังกฤษ

ของนักศึกษาสาขาวิชาภาษาอังกฤษ

อนึ่ง readers theater เป็นวิธีการสอนการอ่านวิธีหนึ่ง ซึ่งนักศึกษาจะฝึกอ่านออกเสียงจากเรื่องราวสั้นๆเป็นกลุ่มย่อย

นักศึกษาจะต้องเลือกตัวละครในบท และฝึกออกเสียงจากบทนั้นหลายๆครั้งในชั้นเรียนและการนำเสนอเป็นกลุ่ม

โดยที่นักศึกษาสามารถดูบทได้ตลอดเวลาและไม่จำเป็น ต้องแต่งกายเพื่อประกอบการแสดง

ดิฉันคาดหวังว่าข้อมูลจากงานวิจัยนี้จะช่วยพัฒนาการออกเสียงภาษาอังกฤษของนักศึกษาสาขาวิชาภาษาอังกฤษ (ค.บ.)

และช่วยลดความวิตกกังวลในการพูดภาษาอังกฤษ

นอกจากนี้ดิฉันหวังเป็นอย่างยิ่งว่าผลการวิจัยครั้งนี้จะช่วยเตรียมความพร้อมให้กับนักศึกษาสาขาวิชาภาษาอังกฤษ (ค.บ.)

ก่อนออกฝึกประสบการณ์วิชาชีพครู

และผลการทดลองสามารถไปใช้ในการพัฒนาหลักสูตรและการเรียนการสอนภาษาอังกฤษในประเทศไทยได้

การร่วมเป็นผู้ให้ข้อมูลในโครงการวิจัยนี้จะใช้ระยะเวลาทั้งสิ้น 4 เดือน

หากนักศึกษายินยอมที่จะเข้าร่วมเป็นผู้ให้ข้อมูลในงานวิจัยเรื่องนี้ นักศึกษาจะต้อง

•ทำแบบทดสอบก่อนเรียน (30 นาที) แบบทดสอบหลังเรียน (30 นาที) และแบบสอบถามออนไลน์ (15 นาที) รวม 1

ชั่วโมง 15 นาที

•ใช้ readers theater ในห้องเรียน สัปดาห์ละ 1 ครั้ง ครั้งละ 1 ชั่วโมง เป็นเวลา 12 สัปดาห์ รวม 12 ชั่วโมง

เหตุผลที่นักศึกษายินยอมเป็นผู้ให้ข้อมูลในงานวิจัยเรื่องนี้

ผลการวิเคราะห์ข้อมูลจากงานวิจัยชิ้นนี้จะสามารถนำไปใช้เพื่อพัฒนาการเรียนการสอนภาษาอังกฤษในประเทศไทย

และเพื่อเป็นแนวทางในการพัฒนางานวิจัยเกี่ยวกับการเรียนการสอนภาษาอังกฤษในอนาคต

เหตุผลที่นักศึกษาอาจจะไม่ยินยอมเป็นผู้ให้ข้อมูลในงานวิจัยเรื่องนี้

นักศึกษาอาจจะไม่สะดวกในการใช้อินเตอร์เน็ตในการทำแบบทดสอบก่อนเรียน แบบทดสอบหลังเรียน

และการทำแบบสอบถามทางออนไลน์

นักศึกษาต้องการที่จะเป็นผู้ให้ข้อมูลในงานวิจัยนี้ใหม่

หากนักศึกษาคัดสินใจที่จะร่วมเป็นผู้ให้ข้อมูลในงานวิจัยนี้ นักศึกษาจะกระทำโดยการเนอสาสมัคร

หากนักศึกษาไม่ประสงค์จะเป็นผู้ร่วมให้ข้อมูล หากนักศึกษาไม่ประสงค์จะอาสาเป็นผู้ให้ข้อมูล นักศึกษาจะไม่ได้รับผลกระทบใด ๆ

ทั้งสิ้นต่อผลการเรียน หรือความสัมพันธ์ ระหว่างนักศึกษากับผู้สอน และระหว่างนักศึกษากับ

หากนักศึกษา มีคำถาม ข้อเสนอ จะติดต่อใคร

หากนักศึกษา มีคำถาม ข้อเสนอใด ๆ เกี่ยวกับงานวิจัยเรื่องนี้ หรืออยากจะทำถอนตัวออกจากการเป็นผู้ให้ข้อมูล

นักศึกษาสามารถติดต่อ อ.พิมพ์ระวี เรืองวัฒนา ซึ่งเป็นผู้วิจัยหลักได้ที่ pxr026@shsu.edu ซึ่งเป็นนักศึกษาระดับดุษฎีบัณฑิต

ภาควิชา School of Teaching and Learning มหาวิทยาลัย Sam Houston State University

หรืออาจารย์ที่ปรึกษาวิจัย 2 ท่าน คือ Dr. Lory Haas LEH015@shsu.edu และ Dr. Mary

Petron.map042@shsu.edu หรือติดต่อคุณ Sharla Miles at 936-294-4875 or e-mail ORSP at

sharla_miles@shsu.edu ซึ่งเป็นผู้อำนวยการสำนักวิจัยของมหาวิทยาลัยได้

APPENDIX B

Consent Form (Thai Version)

Sam Houston State University

ใบยินยอมการเข้าร่วมการวิจัย

รายละเอียดเกี่ยวกับใบยินยอมการเข้าร่วมการวิจัยเรื่อง The Effect of Readers Theater on Thai

Preservice English Teachers' Improvement of Pronunciation in Thailand

ด้วย ดิฉัน นางสาวพิมพ์ระวี เรืองวุฒิ นักศึกษาระดับปริญญาตรีบัณฑิต สาขาวิชา Literacy ภาควิชา School of

Teaching and Learning มหาวิทยาลัย Sam Houston State University รัฐ Texas ประเทศสหรัฐอเมริกา

และอาจารย์ประจำสาขาวิชาภาษาอังกฤษ (ครุศาสตรบัณฑิต) คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏเทพสตรี

มีความประสงค์จะขอเชิญนักศึกษา ชั้นปีที่ 2 สาขาวิชาภาษาอังกฤษ (ครุศาสตรบัณฑิต)

ที่ลงทะเบียนเรียนวิชาสหศาสตรและสหวิทยาภาษาอังกฤษสำหรับครูสอนภาษาอังกฤษ ภาคเรียนที่ 1/2563 เข้าร่วมเป็นผู้ให้ข้อมูล

จากการเรียนการสอนในรายวิชาดังกล่าวโดยใช้ Zoom เพื่อประกอบการวิจัยเรื่อง “The Effect of Readers Theater

on Thai Pre-service English Teachers' Improvement of Pronunciation in Thailand”

ซึ่งมีดิฉันเป็นนักวิจัยหลัก

โดยวัตถุประสงค์ของงานวิจัยเรื่องนี้คือ 1) สำรวจผลการใช้ reader theater

ในการพัฒนาการออกเสียงภาษาอังกฤษของนักศึกษาสาขาวิชาภาษาอังกฤษ (ค.บ.) และ 2)

สำรวจทัศนคติของนักศึกษาสาขาวิชาภาษาอังกฤษ (ค.บ.) เกี่ยวกับประสบการณ์ในการใช้ reader

theaterในการพัฒนาการออกเสียงภาษาอังกฤษ อนึ่ง readers theater เป็นวิธีการสอนการอ่านวิธีหนึ่ง

ซึ่งนักศึกษามักจะฝึกอ่านออกเสียงจากเรื่องราวสั้นๆเป็นกลุ่มย่อย นักศึกษาจะต้องเลือกตัวละครในบท

และฝึกออกเสียงจากบทนั้นหลายๆครั้งในชั้นเรียน และการนำเสนอเป็นกลุ่ม โดยที่นักศึกษาสามารถดูบทได้ตลอดเวลา

และไม่จำเป็นต้องแต่งกายเพื่อประกอบการแสดง

ดิฉันคาดหวังว่าข้อมูลจากงานวิจัยนี้จะช่วยพัฒนาการออกเสียงภาษาอังกฤษของนักศึกษาสาขาวิชาภาษาอังกฤษ (ค.บ.)

และช่วยลดความวิตกกังวลในการพูดภาษาอังกฤษ

นอกจากนี้ดิฉันหวังเป็นอย่างยิ่งว่าผลการวิจัยครั้งนี้จะช่วยเตรียมความพร้อมให้กับนักศึกษาสาขาวิชาภาษาอังกฤษ (ค.บ.)

ก่อนออกฝึกประสบการณ์วิชาชีพครู

และผลการทดลองสามารถนำไปใช้ในการพัฒนาหลักสูตรและการเรียนการสอนภาษาอังกฤษในประเทศไทยได้

สิ่งสำคัญที่นักศึกษาคควรทราบคือ การเข้าร่วมเป็นผู้ให้ข้อมูลในงานวิจัยเรื่องนี้ถือเป็นการร่วมมือแบบการเป็นอาสาสมัคร

ไม่มีการบังคับแต่อย่างใด หากนักศึกษาสมัครใจเข้าร่วมเป็นผู้ให้ข้อมูล

ข้อมูลทุกอย่างของนักศึกษารวมถึงชื่อของนักศึกษาทุกคนจะถูกเก็บเป็นความลับ

ข้อมูลทุกอย่างจะถูกนำมาใช้เพื่อวัตถุประสงค์ของการวิจัยดังกล่าวข้างต้นเท่านั้น หากนักศึกษาไม่ประสงค์จะอาสาเป็นผู้ให้ข้อมูล

นักศึกษาจะไม่ได้รับผลกระทบใด ๆ ทั้งสิ้นต่อผลการเรียน หรือความสัมพันธ์ ระหว่างนักศึกษากับผู้สอน

และระหว่างนักศึกษา กับ [REDACTED] นอกจากนี้หากนักศึกษอาสาเป็นผู้ให้ข้อมูล

และมีความประสงค์จะยุติการเป็นผู้ให้ข้อมูล นักศึกษาสามารถกระทำได้โดยไม่มีเงื่อนไข

หากนักศึกษามีคำถามหรือข้อสงสัยใด ๆ เกี่ยวกับการอาสาเป็นผู้ให้ข้อมูลดังกล่าวกับงานวิจัยเรื่องนี้ กรุณาสอบถามดิฉันได้ที่

pxr026@shsu.edu

งานวิจัยเรื่องนี้ ไม่มีอันตรายใด ๆ ต่อผู้ให้ข้อมูล หากนักศึกษายินยอมที่จะเป็นผู้ให้ข้อมูล

นักศึกษาจะต้องทำแบบทดสอบก่อนเรียน (30 นาที) แบบทดสอบหลังเรียน (30 นาที) และแบบสอบถามทางออนไลน์ (15

นาที) รวม 1 ชั่วโมง 15 นาที ซึ่งผู้วิจัยจะเก็บข้อมูลเหล่านั้นด้วย Qualtrics และ Zoom

ข้อมูลทุกอย่างที่ได้จากนักศึกษาจะนำไปใช้เพื่อประกอบการทำวิทยานิพนธ์ และข้อมูลทุกอย่างของนักศึกษา ได้แก่ ชื่อ นามสกุล

และคะแนนจากการทำแบบทดสอบ และแบบสอบถามจะถูกเก็บเป็นความลับ ข้อมูลที่ถูกเก็บใน Qualtrics จะถูกเข้ารหัส

และจะไม่มีผู้ใดสามารถเข้าถึงข้อมูลได้ นอกจากผู้วิจัย

นักศึกษาสามารถเข้าไปศึกษารายละเอียดเพิ่มเติมเกี่ยวกับนโยบายในการรักษาความปลอดภัยของข้อมูลเพิ่มเติมได้ในเว็บไซต์

หากนักศึกษายินยอมที่จะเป็นผู้ให้ข้อมูลในงานวิจัยเรื่องนี้ และได้รับการคัดเลือกให้อยู่ในกลุ่มทดลอง

นักศึกษาจะต้องเข้าร่วมกิจกรรม readers theater ในชั้นเรียนสัปดาห์ละ 1 ครั้ง จำนวน 12 สัปดาห์ รวม 12 ชั่วโมง

และจะมีการบันทึกเสียงและภาพของนักศึกษาด้วย zoom ทุกครั้ง

ทั้งนี้ข้อมูลทั้งหมดที่ถูกบันทึกจะถูกเก็บเป็นความลับและผู้วิจัยจะทำการปกป้องข้อมูลส่วนตัวของนักศึกษารวมถึงการให้ zoom

ในการจัดการเรียนการสอน (Zoom bombing) ดังนั้นผู้สอนและผู้ควบคุมการเรียนการสอนด้วยโปรแกรม

zoom ผู้วิจัยจะส่งรหัสให้แก่นักศึกษาทุกครั้งทางอีเมลก่อนเข้าใช้งาน zoom ผู้วิจัยจะไม่ใช้รหัสการประชุมส่วนตัว (Personal

Meeting ID) เพื่อป้องกันคนที่อาจจะแอบแฝงเข้ามาในห้องเรียน ผู้วิจัยจะใช้ระบบ The Waiting Room

เพื่อคัดกรองและอนุญาตเฉพาะนักศึกษาที่ลงทะเบียนเรียนวิชา ศัพทศาสตร์ภาษาอังกฤษสำหรับนักศึกษครุ สามารถเข้ามาในชั้นเรียนนี้ได้

ผู้วิจัยจะใช้ระบบ lock meeting feature หลังจากนักศึกษาเข้ามาในห้องเรียนออนไลน์แล้ว

เพื่อป้องกันผู้อื่นสามารถเข้ามาในชั้นเรียนได้ นอกจากนี้ผู้วิจัยจะใช้ระบบ host only”

เพื่อป้องกันไม่ให้ผู้ใดนอกจากผู้วิจัยที่จะสามารถบันทึกเสียง ภาพ และแชร์ข้อมูลอื่น ๆ ได้

การทำแบบทดสอบก่อนเรียนจะใช้เวลาประมาณ 30 นาที และการทำแบบทดสอบหลังเรียนจะใช้เวลาประมาณ 30 นาที

หากนักศึกษาได้รับเลือกให้อยู่ในกลุ่มทดลอง นักศึกษาจะต้องเข้าร่วมกิจกรรม readers theater ซึ่งใช้เวลา 1 ชั่วโมงต่อสัปดาห์

และจะมีการบันทึกเสียงและภาพของนักศึกษาด้วย ทั้งนี้ข้อมูลภาพและเสียงทั้งหมดจะถูกลบทิ้งหลังจากเสร็จสิ้นการทำวิจัยครั้งนี้

ในเดือนพฤษภาคม พ.ศ.2565

และนักศึกษาทุกคนที่ยินยอมเป็นอาสาสมัครเข้าร่วมเป็นผู้ให้ข้อมูลในงานวิจัยนี้จะไม่ได้รับค่าตอบแทนใด ๆ

หากนักศึกษา มีคำถาม ข้อสงสัยใด ๆ เกี่ยวกับงานวิจัยเรื่องนี้ หรืออยากจะถอนตัวออกจากการเป็นผู้ให้ข้อมูล

นักศึกษาสามารถติดต่อ อาจารย์พิมพ์ระวี เรืองวัฒณี ซึ่งเป็นผู้วิจัยหลักได้ที่ pxr026@shsu.edu

ซึ่งเป็นนักศึกษาระดับคุณวุฒิปบัณฑิต ภาควิชา School of Teaching and Learning มหาวิทยาลัย Sam Houston

State University หรืออาจารย์ที่ปรึกษาวิจัย 2 ท่าน คือ Dr. Lory Haas อีเมล LEH015@shsu.edu และ Dr.

Mary Petron อีเมล map042@shsu.edu หรือติดต่อคุณ Sharla Miles โทร. +1(936)294-4875 หรืออีเมล

sharla_miles@shsu.edu ซึ่งเป็นผู้อำนวยการสำนักวิจัยของมหาวิทยาลัย Sam Houston State University ได้

<p>อาจารย์ พิมพ์ระวี เรืองวัฒณี Literacy Program, School of Teaching and Learning Sam Houston State University Huntsville, Texas 77341 Phone: +1(936)755- 0073 E-mail: pxr026@shsu.edu</p>	<p>Dr. Lory Haas Literacy Program, School of Teaching and Learning. Sam Houston State University Huntsville, Texas 77341 Phone: +1(936)294-1113 E-mail: LEH015@shsu.edu หรือ Dr. Mary Petron TESOL Program, School of Teaching and Learning. Sam Houston State University Huntsville, TX 77341 Phone: +1(936)294-3980 E-mail: map042@shsu.edu</p>	<p>Ms. Sharla Miles Office of Research and Sponsored Programs Sam Houston State University Huntsville, Texas 77341 Phone: +1(936)294- 4875 Email: irb@shsu.edu</p>
---	---	--



ข้าพเจ้ามีความเข้าใจในข้อความข้างต้นทุกประการ และยินยอมร่วมเป็นผู้ให้

ข้อมูลในงานวิจัยนี้ด้วยความเต็มใจ

☐

ข้าพเจ้าไม่ประสงค์จะร่วมเป็นผู้ให้ข้อมูลในงานวิจัยนี้

การยินยอมให้มีการบันทึกเสียงหรือภาพระหว่างการทำวิจัย

ในระหว่างการทำวิจัยเรื่องนี้ จะต้องมีการบันทึกเสียงหรือภาพของผู้ร่วมให้ข้อมูลเพื่อใช้ในการวิจัยเท่านั้น
ชื่อและข้อมูลส่วนตัวของผู้ให้ข้อมูลจะถูกเก็บเป็นความลับ ผู้ร่วมวิจัยสามารถขอให้ผู้วิจัยหยุดทำงานบันทึกเสียงหรือภาพ
และลบออกได้

☐

ข้าพเจ้ายินยอมให้มีการบันทึกเสียงหรือภาพของข้าพเจ้าในการร่วมเป็นผู้ให้ข้อมูล

ในงานวิจัยนี้

☐

ข้าพเจ้าไม่ยินยอมให้มีการบันทึกเสียงหรือภาพของข้าพเจ้าในการร่วมเป็นผู้ให้

ข้อมูลในงานวิจัยครั้งนี้

APPENDIX C

Background Questionnaire of Pre-Service English Teachers on Using English as a Foreign Language

แบบสำรวจข้อมูลทั่วไปของนักศึกษาและประสบการณ์การใช้ภาษาอังกฤษเป็นภาษาต่างประเทศของนักศึกษาสาขาวิชาภาษาอังกฤษ

(หลักสูตรครุศาสตรบัณฑิต)

This questionnaire aims to obtain your personal information, background, and experience of English as a foreign language. The questionnaire consists of nine questions. Your responses will be kept anonymous and all data will be reported collectively based on all participant responses.

แบบสำรวจมีวัตถุประสงค์เพื่อสำรวจข้อมูลทั่วไปของนักศึกษาและข้อมูลเกี่ยวกับประสบการณ์การใช้ภาษาอังกฤษของนักศึกษา

คำถามมีทั้งหมด 10 คำถาม คำตอบของนักศึกษาจะถูกเก็บเป็นความลับ และจะไม่มีการระบุชื่อนักศึกษา

Directions: Please answer each question as accurately as possible by marking an 'x' in the box or filling in the space provided.

คำชี้แจง: กรุณาตอบทุกคำถามอย่างรอบคอบและซื่อตรง โดยการเลือกคำตอบที่ถูกต้อง และระบุคำตอบหากมีการถามเพิ่มเติม

1. Age: ☐ 18-20 years old ☐ more than 20 years old

อายุ: ☐ 18-20 ปี ☐ 20 ปีขึ้นไป

2. Gender: ☐ Female ☐ Male ☐ Other

เพศ ☐ หญิง ☐ ชาย ☐ อื่นๆ

3. Prior to coming to study at TRU, where did you live?

Identify province.....

คุณเคยอาศัยอยู่จังหวัดอะไร ก่อนมาเป็นนักศึกษาที่

กรุณาระบุชื่อจังหวัด.....

4. When did you start learning English?

☐ Kindergarten ☐ Elementary

คุณเริ่มเรียนภาษาอังกฤษเมื่อไหร่

☐ ชั้นอนุบาล ☐ ชั้นประถมศึกษา

5. What was your major in high school?

Identify the major.....

ตอนเรียนชั้นมัธยมปลาย คุณเรียนสาขาวิชาอะไร

คุณาระบบสาขาวิชา.....

6. Were you a transfer student? ☐ Yes ☐ No

If yes, please identify university name and major

.....

คุณเป็นนักศึกษาที่เทียบโอนมาจากมหาวิทยาลัยอื่นหรือไม่ ☐ ใช่ ☐ ไม่ใช่ หากใช่

คุณาระบบชื่อมหาวิทยาลัย.....

.....

คุณาระบบวิชาเอกที่เรียน.....

.....

7. Have you ever been in an exchange program or study abroad? ☐ Yes ☐ No

If yes, please identify the country and duration of stay.....

คุณเคยเป็นนักเรียน/นักศึกษาแลกเปลี่ยนในต่างประเทศหรือไม่ ☐ ใช่ ☐ ไม่ใช่

หากใช่ กรุณาระบบชื่อประเทศและระยะเวลาในการศึกษา.....

8. Have you been an English tutor? ☐ Yes ☐ No

If yes, identify the duration

What age did you tutor?

Where did you tutor? ☐ home ☐ on campus ☐ language school

☐ other (identify)

คุณเคยสอนพิเศษ (Tutor) หรือกำลังสอนพิเศษ วิชาภาษาอังกฤษหรือไม่ ☐ ใช่ ☐ ไม่ใช่

หากใช่ กรุณาระบุว่าสอนมานานแค่ไหน.....

กรุณาระบุว่าสอนระดับชั้นอะไร.....

คุณสอนที่ไหน

☐ บ้านหรือที่พักส่วนตัว ☐ ในมหาวิทยาลัย ☐ โรงเรียนภาษา/โรงเรียนกวดวิชา

☐ อื่นๆ (โปรดระบุ)

9. Have you attended English proficiency contest?

☐ English speech contest ☐ English story telling ☐ English debate

☐ English singing contest ☐ English Quiz

☐ other (identify)

☐ None

When and where did you attend?

Identify place and year.....

Did you win the prize?

☐ Yes ☐ No

คุณเคยเข้าร่วมแข่งขันทักษะภาษาอังกฤษหรือไม่ ☐ ใช่ ☐ ไม่ใช่ หากใช่ โปรดเลือกคำตอบ

☐ English speech contest ☐ English story telling ☐ English debate contest

☐ English singing contest ☐ English Quiz

☐ การประกวดสุนทรพจน์ภาษาอังกฤษ ☐ การประกวดเล่านิทานภาษาอังกฤษ

☐ การประกวดโต้วาทีภาษาอังกฤษ ☐ การประกวดร้องเพลงภาษาอังกฤษ ☐

การตอบปัญหาภาษาอังกฤษ ☐ อื่นๆ (โปรดระบุ).....

กรุณาระบุสถานที่และปีที่จะประกวด.....

คุณชนะการประกวดหรือไม่

☐ ใช่ ☐ ไม่ใช่

APPENDIX D

Readers Theater Script

The Three Little Pigs

Characters: (6)

Narrator 1	Narrator 2	First Little Pig	Second Little Pig
Third Little Pig	Big Bad Wolf		

Narrator1: Once upon a time, **there lived three little** pigs. One day it was time **for** the **three little** pigs to go out into the wide, wide **world!**

Narrator 2: **Their mothers always warn** them to **look out for** the Big Bad **Wolf!**

Narrator1: One day, the **three little** pigs decided to **build their** own houses.

First Little Pig: Oh, this is a **perfect land. I'll build** a house of **straw here**. I can **build** it fast and **strong!** The bad **wolf** won't get me **for sure**.

Second Little Pig: Yeah, I found a **perfect land. I'll build** a house of sticks **here**. This is **stronger** than **straw** and I can **build** it fast!

Third Little Pig: Oh **wonderful**, I found a **perfect land! I'll build** a house of **bricks here**. It **will** be **strongest** and safest!

Narrator 1: The **three little** pigs **built their** houses **quickly**. Soon the Big Bad **Wolf** went to the house of **straw**. He was **hungry!**

Big Bad Wolf: **Little pig, little pig, let** me come in! If not, **I'll blow your** house away!

First Little Pig: No! Not by the **hair** of my chinny-chin-chin! This is a **strong** house. You won't be **able** to get in.

Big Bad Wolf: Then **I'll** huff and puff and **blow your** house in!

Narrator 2: The mighty **Wolf** huffed and puffed, and he **blew** the house down! The

little pig ran to his **brother's** house. The **wolf ran after** him.

First Little Pig: Brother, brother, please let me in! The bad **wolf blew** my house down!

Big Bad Wolf: **Little pigs, little pigs, let** me come in! If not, I'll **blow your** house away!

Second Little Pig: No! Not by the **hair** of my chinny-chin-chin! This is a **strong** house.

You can't **blow** my house away. You won't be **able** to get in.

Big Bad Wolf: Then I'll huff and puff and **blow your** house in!

Narrator1: The **powerful Wolf** huffed and puffed, and he **blew** the house down!

The **little pigs ran** to **their brother's** house.

First and second Little Pig: **Brother, brother, please let** us in. The bad **wolf blew our** houses down.

Narrator 2: Soon Big Bad **Wolf** knocked on the **door**. He was **really hungry** now!

Big Bad Wolf: **Little pigs, little pigs, let** me come in!

Third Little Pig: No! Not by the **hair** of my chinny-chin-chin! This is a **strong** house.

You won't be **able** to get in.

Big Bad Wolf: Then I'll huff and puff and **blow your** house in!

Narrator 1: Big Bad **Wolf** huffed and puffed, but he could not **blow** the house down.

Third Little Pig: Yeah, my house was so **strong**. The **wolf** could not do anything. Don't **worry little brothers**. We'll be **alright**.

Second Little Pig: You got him, big **brother**! I am **very proud** of you.

Big Bad Wolf: I **will** come down the chimney to eat **all three** of you! You **will** not **survive**!

All Three Little Pigs: **Please** do! We have a **surprise** for you!

Narrator 2: The **three little** pigs put a **very** hot pot of stew at the bottom of the chimney. When the **wolf** came down the chimney he landed in the pot!

Big Bad Wolf: Oh, **help** me. I'm **burning**!!

All Three Little Pigs: **Hooray**!! Now the big bad **wolf will never bother** us again!

Narrator 2: And the **three little** pigs have **lived** in **their** house of **bricks happily** since then.

The End.

Script adapted from <http://goughkms.weebly.com/uploads/5/1/8/7/5187773/>

[readers theaterscriptofthethreelittlepigsstgrade.pdf](#)

APPENDIX E

Readers Theater Script

Snow White and the Two Little Dwarfs

Characters: (8)

Narrator 1	Narrator 2	Snow white	Queen
Mirror	Dwarf 1	Dwarf 2	Prince

Narrator 1: Once upon a time **there** was a king, who had a **daughter** with **very**

black hair, was sweet, and **pretty**. She was **called** Snow White.

Narrator 2: The queen was Snow white's **stepmother**. She was **very beautiful** but

proud. Every day she would ask a magic **mirror** in **her room**...

Queen: My **dear mirror**. Oh **mirror, mirror** on the **wall**, who in this kingdom is the

most **beautiful**?

Mirror: You, my queen, **are** the most **beautiful** in the **world**.

Queen: Oh **really**! Thank you so much. You **are brilliant**!

Narrator 1: **Meanwhile**, Snow White kept **growing** up and becoming **more beautiful**.

One day the queen asked **her** magic **mirror**...

Queen: **Mirror, mirror** on the **wall**, who in this kingdom is the most **beautiful**?

Mirror: You, my queen, **are very beautiful**. It is **true**, but **princess** Snow White is a

thousand times **more beautiful** than you.

Narrator 1: Then the queen who was **proud** and **cruel**, **felt jealous** of Snow White.

One day she **called** a huntsman and **told** him...

Queen: Take Snow White to the **forest** and **kill her**! And as **proof**, **bring me her heart**!

Narrator 2: The huntsman took the **poor girl** to the **forest**. And when they **were** in

the deep woods, the huntsman took out his **sword**.

Snow White: Oh, no! **Please Sir**, I haven't done anything **wrong**. **Please** don't **kill** me

and set me **free**.

Narrator 1: The huntsman **felt sorry for** Snow White, and he **let her** go. **Meanwhile**,

Snow White **ran scared through** the **forest**.

Narrator 2: She **arrived** at an **old little house** that was in the **middle** of the woods.

She opened the **door** and went inside.

Snow White: Oh, what a cute and **beautiful** house! I've never seen a house **like** this

before.

Narrator 1: It was the house of the two **dwarfs**, who **during** the day **worked** in a mine

in the mountains.

Snow White: **Everything** is so **small**, tidy, and **beautiful**! **There** is **plenty** of food and

drinks on the **table**. I am so **hungry**.

Narrator 2: Snow White ate a **little from** each **little plate** and **drank a little from**

each **little** cup, then she went to **sleep** in the **little** bed. The two **dwarfs**
came back and said...

Dwarf 1: Oh, who has been sitting in my **chair**? Who has been eating **from my plate**?

Dwarf 2: Who has been eating my **bread**? Who has been **drinking milk from my**
glass?

Dwarf 1: Oh, **look over there...** in my **little** bed.

Dwarf 2: A **little girl**! She`s so **charming** and **beautiful**.

Dwarf 1: She has a sweet **smile**. How **pretty** she is! How did she get in **here**?

Dwarf 2: Sssh, don`t wake her up. **Let her tell** us **tomorrow**. Be quiet... don`t be noisy.

Narrator 1: Then in **silence**, they had **dinner** and went to bed. The next day they
said...

Dwarf 1: Don`t be **scared**. We **are** the two **dwarfs** in the **forest, beautiful girl**. You **are**
in **our little** house.

Dwarf 2: And we **are** happy to have you **here** with us. What is **your** name, **pretty lady**?

Snow White: I am Snow White... and I **ran** away **from** the **hunter** who **tried** to take
my **life**.

Dwarf 1: **Welcome** to **our little** house, Snow White.

Snow White: Thank you guys. Can I stay with you **for a while**? I am so **afraid** of the

hunter and my **stepmother**...

Dwarf 2: You **will** be fine. Snow White... You can stay safely with us **here**. Make

yourself at home.

Dwarf 1: But **will** you cook, **clean**, and **look after** this **little** house **for** us?

Snow White: Oh, yes! I **will** do my best to **clean** the house and **prepare for meals for** you.

Narrator 2: **Meanwhile** at the **palace**, the queen asked **her** magic **mirror**...

Queen: **Mirror, mirror** on the **wall**, who in this kingdom is the most **beautiful**?

Mirror 1: You **are very beautiful**, my queen. It is **true**, but Snow White with the **little dwarfs** of the **forest**, is a thousand times **more beautiful** than you.

Queen: Isn't she dead? Oh, the huntsman deceived me! But now Snow White **will** die, and I **will** be the most **beautiful** in the kingdom!

Mirror: Ha, ha, ha, ha, ha! I **only** speak the **truth**, my lady.

Narrator 1: And then the queen **broke** the magic **mirror** and made a poison **apple**.

She **also** disguised **herself** as an **old lady** and went straight to the house of the **little** dwarfs.

Queen: **Hello**. Anybody **here**? I am **selling fruits**.

Snow White: I'm **here** by the window, **old lady**. What kind of **fruits** are you **selling**?

Queen: Oh, you`re **over there**. Come down **little girl** and you **will** see what I have in my basket.

Snow White: I can`'t, good **old lady**. The **little dwarfs** don`'t let me open the **door** to anybody.

Queen: Come down. They **will** not know... **Look**, I have **plenty** of **red apples**. I **will** give you one.

Snow White: I **appreciate** it, but no, thank you.

Queen: Come on, **little girl**, you don`'t **trust** an **old lady**?

Snow White: **Alright**, I`ll go down **right** away.

Narrator 2: When Snow White was with the **old lady**, she said...

Queen: **Look** at this **beautiful apple**, **little girl**. Wouldn`'t you **like** to taste it?

Snow White: Yes, **old lady**. But...

Queen: Come on, take it, I **will** give it to you. **Look** how **red** it is.

Snow White: Thank you, **lady**.

Narrator 1: Snow White didn`'t **recognized** that the **old lady** was in fact her step-
mother, and she bit the **apple**. **Suddenly** she **fell** to the **floor** dead.

Queen: Ha, ha, ha, ha. At last Snow White is dead, and I am the most **beautiful** in the kingdom! Ha, ha, ha, ha.

Narrator 2: That **afternoon** when the two **dwarfs** came home **from work**, they found

Snow White **lying** on the **floor**.

Dwarf 1: Snow White! She`s not breathing! She`s dead!

Dwarf 2: Oh, the **little princess**! **Poor little girl**.

Narrator 1: The two **dwarfs** **were very** sad. They put **her carefully** inside a

transparent coffin and took **her** to the **cemetery**. Someone **suddenly**

approached the two **dwarfs**.

Prince: **Dear dwarfs**, what is happening **here**? Why **are** you so sad?

Dwarf 1: Oh, **prince**! This sweet **girl** died in our house. We loved **her very** much.

Dwarf 2: Oh, the **little princess**, Snow White!

Prince: Oh, she is so **beautiful**. Can I take her with me? She **will** be in my **palace** and I

will keep her forever.

Narrator 2: But when they were **traveling**, one of the **guards** that was **carrying** the

transparent coffin **stumbled** and Snow White threw out the piece of **apple**

that was stuck in **her throat**.

Snow White: Oh, what has happened?

Prince: Nothing, sweet **little princess** Snow White. You **were** having a bad **dream**. Now

tell me... do you want to **marry** me?

Narrator 1: Then the two **dwarfs started** singing and dancing **around** the young **couple**. The wedding **celebration** was **marvelous**.

Narrator 2: Not **long after** the wedding, the queen died **from** COVID-19 and was **forgotten by everybody**. Snow White and the **prince lived happily ever after**.

The end.

Script adapted from <http://www.kidsinco.com/2008/10/snow-white/>

APPENDIX F

Pretest and Posttest

Sound Perception Test

Directions: Listen to the recordings and select the right words

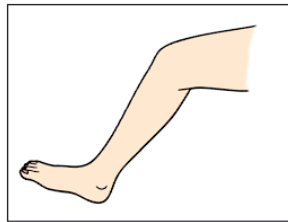
1	lane / rain	16	lamp / ramp
2	load / road	17	clown / crown
3	bark / park	18	test / chest
4	law / raw	19	lip / rip
5	boat / both	20	lighter / writer
6	flee / free	21	play / pray
7	tick / thick	22	you / Jew
8	belief / believe	23	gland / grand
9	led / red	24	sheep / cheap
10	glass / grass	25	late / rate
11	lies / rise	26	safe / save
12	lead / read	27	lock / rock
13	ferry / very	28	day / they
14	blush / brush	29	clash / crash
15	flute / fruit	30	blue / brew

APPENDIX G**Pretest and Posttest****Sound Production Test 1 (Picture naming)**

Direction: Look at the picture and say the right word in English.



leaf



leg



lion



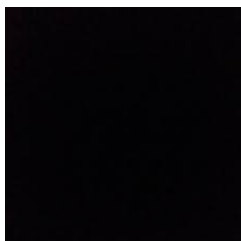
football



swimming pool



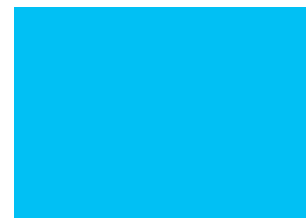
bell



black



flag



blue



belt



milk



golf



ring



rice



red



car



guitar



computer



three



green



frog



bird



nurse



horse

APPENDIX H

Pretest and Posttest

Sound production Test 2 (Interview)

Direction: You will be informed the topic and will be asked a few questions related to the topic. You will have three minutes to answer. Please speak as much as you can.

1. Talk about your family.
 - How many people are there in your family?
 - Can you tell me about your parents and siblings?
 - What are they doing?
2. Describe an area of your hometown
 - Where is it?
 - Describe about your hometown.
 - Explain why you like it.
3. Talk about your favorite subject
 - What subject do you like the most since you came to study at TRU?
 - What is the subject about?
 - Explain why you are interested in it.
4. Describe a book you enjoy reading
 - Which book do you read the most regularly?
 - Which parts of it do you like?
 - When and where do you read it?
 - Explain why you enjoy reading it.
5. Describe your favorite animal

- What kind of animal is it?
 - Describe it briefly.
 - Why do you like this kind of animal?
6. Talk about your favorite sport.
- What is your favorite sport?
 - Why do you like it?
7. Talk about your favorite color.
- What color do you like?
 - Why do you like this color?
8. Describe an important person in your life.
- Who is this person?
 - What does he/she look like?
 - Why is he/she important to you?
9. Describe your favorite sport
- What is your favorite sport?
 - Why do you like it?
 - How often do you play it?
 - How long have you playing it?
10. Describe about your travelling.
- Where would you like to visit in the future?
 - Explain why?
 - Who would you like to go with and why?

APPENDIX I

Second language English Comprehensibility Global and Analytic Scales, Version 1.0

Overall description of comprehensibility (0 = low comprehensibility; 5= high comprehensibility)

Comprehensibility Level	Overall Description of Comprehensibility (Summary Statement)
5	Pronunciation / speech is effortless to understand Errors, are rare and do not interfere with the word/message **Sounding nativelike or producing hesitation- or error-free speech is not necessary to achieve a level 5 (highest level)
4	Pronunciation / speech requires little effort to understand Errors minimally interfere with the word/message
3	Pronunciation / speech requires some effort to understand Errors somewhat interfere with the word/message
2	Pronunciation / speech is effortful to understand Errors are detrimental to the word/message
1	Pronunciation / Speech is painstakingly effortful to understand or indecipherable Errors are debilitating to the word/message **Not enough comprehensible language is generated for coherent communication, confining the speaker to level 1
0	Unable to rate the pronunciation / speech No assessable speech sample is produced (e.g., unresponsive to the task, no articulation of English-like sounds)

(Adapted from Isaacs et al., 2018, p. 214)

APPENDIX J

Score Sheet

Pretest and Posttest

Production Test (Picture Naming)

Direction: Please listen to the voice recordings carefully and rate from 0 (low comprehensibility) to 5 (high comprehensibility)

Participant name:								
Inter rater name:								
	Words	Comprehensibility Level						Notes
		0	1	2	3	4	5	
1	football							
2	swimming pool							
3	bell							
4	black							
5	flag							
6	blue							
7	belt							
8	milk							
9	golf							
10	rainbow							
11	rice							
12	red							
13	car							
14	guitar							
15	computer							
16	three							
17	green							
18	frog							
19	bird							
20	nurse							
21	horse							
	Total							

APPENDIX K

Score Sheet

Production Test (Spontaneous Speech)

Direction: Please listen to the voice recordings carefully and rate from 0 (low comprehensibility) to 5 (high comprehensibility)

Participant name:								
Inter rater name:								
	Words	Comprehensibility Level						Notes
		0	1	2	3	4	5	
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
	Total							

APPENDIX L

Online Survey Questions

The survey on experiencing readers theater during Practical English Phonetics for

Teachers of English course for the experimental group

(แบบสอบถามประสบการณ์การร่วมกิจกรรม readers theater

ในรายวิชาสัทศาสตร์ภาษาอังกฤษเพื่อการใช้สำหรับครูภาษาอังกฤษ)

Direction: Please read each statement carefully and rate from 1 (strongly disagree) to 4 (strongly agree)

คำชี้แจง: กรุณาอ่านคำถามทุกข้ออย่างละเอียด และให้คะแนนตามความเป็นจริง 1 (ไม่เห็นด้วยมากที่สุด) ถึง 4 (เห็นด้วยมากที่สุด)

Statement ข้อความ	Opinion ความคิดเห็น			
	Strongly disagree ไม่เห็นด้วยอย่างยิ่ง 1	Disagree ไม่เห็นด้วย 2	Agree เห็นด้วย 3	Strongly agree เห็นด้วยอย่างยิ่ง 4
1. Readers theater helps me improve English pronunciation. (กิจกรรม readers theater ช่วยพัฒนาการออกเสียงภาษาอังกฤษของข้าพเจ้า)				
2. Readers theater motivates me to practice English pronunciation in the class. (กิจกรรม readers theater ช่วยกระตุ้นการฝึกการออกเสียงภาษาอังกฤษของข้าพเจ้าในห้องเรียน)				
3. Readers theater motivates me to practice English pronunciation outside the class.				

(กิจกรรม readers theater ช่วยกระตุ้นการฝึกการออกเสียงภาษาอังกฤษของข้าพเจ้า นอกห้องเรียน)				
4. Readers theater helps build my confidence when pronouncing English. (กิจกรรม readers theater ช่วยเสริมสร้างความมั่นใจในการฝึกการออกเสียงภาษาอังกฤษของข้าพเจ้า)				
Statement ข้อความ	Opinion ความคิดเห็น			
	Strongly disagree ไม่เห็นด้วยอย่างยิ่ง 1	Disagree ไม่เห็นด้วย 2	Agree เห็นด้วย 3	Strongly agree เห็นด้วยอย่างยิ่ง 4
5. Readers theater helps me reduce anxiety when pronouncing English. (กิจกรรม readers theater ช่วยลดความวิตกกังวลในการออกเสียงภาษาอังกฤษของข้าพเจ้า)				
6. Readers theater helps me increase confidence when speaking English. (กิจกรรม readers theater ช่วยเสริมสร้างความมั่นใจในการพูดภาษาอังกฤษของข้าพเจ้า)				
7. When performing the readers theater script with peers, I feel less shy. (เมื่อได้แสดงบทของ readers theater กับเพื่อนๆ ข้าพเจ้ารู้สึกอายน้อยลง)				
8. Readers theater encourages me to work collaboratively with my peers. (ข้าพเจ้ามีความคิดเห็นว่ากิจกรรม readers theater ช่วยเสริมสร้างความมั่นใจในการพูดภาษาอังกฤษของข้าพเจ้า)				
9. Readers theater scripts are interesting. (บท readers theater ที่ใช้ฝึกออกเสียงภาษาอังกฤษ มีความน่าสนใจ)				
10. Overall, I enjoyed doing readers theater activities. (ข้าพเจ้ารู้สึกสนุกกับการทำกิจกรรม readers theater)				

APPENDIX M

Open-Ended Questions

Open-ended questions on experiencing readers theater during Practical English Phonetics for Teachers of English course

(คำถามปลายเปิดเกี่ยวกับประสบการณ์การร่วมกิจกรรม readers theater

ในรายวิชาสัทศาสตร์ภาษาอังกฤษเพื่อการใช้สำหรับครูภาษาอังกฤษ)

Directions: Please read each statement carefully and answer the following questions in Thai. Please answer honestly and try to answer as much as you can.

คำชี้แจง: กรุณาอ่านคำถามทุกข้ออย่างละเอียดและตอบคำถามด้วยภาษาไทย กรุณาตอบทุกคำถามด้วยความซื่อตรง

1. Did you enjoy doing readers theater activities? Why or why not? Please explain and give some examples.

(คุณรู้สึกสนุกกับการร่วมทำกิจกรรม readers theater หรือไม่ อย่างไร กรุณาอธิบายและยกตัวอย่าง)

2. Do you think that, in general, readers theater activities have helped you improve your English pronunciation? Why or why not? Please explain and give some examples.

(โดยภาพรวมแล้ว คุณคิดว่า readers theater เป็นกิจกรรมที่ช่วยกระตุ้นให้คุณพัฒนาการออกเสียงภาษาอังกฤษของคุณหรือไม่ อย่างไร กรุณาอธิบายและยกตัวอย่าง)

3. Do you think that, in general, readers theater activities have helped you build confidence when pronouncing English? Why or why not? Please explain and give some examples.

(โดยภาพรวมแล้ว คุณคิดว่า readers theater เป็นกิจกรรมที่ช่วยเสริมสร้างความมั่นใจในการออกเสียงภาษาอังกฤษของ

คุณไม่อย่างไร กรุณาอธิบายและยกตัวอย่าง)

4. Do you think that, in general, readers theater activities have helped you reduce anxiety when pronouncing English? Why or why not? Please explain and give some examples.

(โดยภาพรวมแล้ว คุณคิดว่า readers theater เป็นกิจกรรมที่ช่วยทำให้คุณลดความวิตกกังวลในการออกเสียง

ภาษาอังกฤษของคุณไม่อย่างไร กรุณาอธิบายและยกตัวอย่าง)

5. What suggestions can you give to make the use of readers theater more efficient to develop English pronunciation? Please explain and give some examples.

(คุณมีข้อเสนอแนะในการจัดกิจกรรม readers theater ในห้องเรียนเพื่อช่วยพัฒนาการออกเสียงภาษาอังกฤษหรือไม่

อย่างไร กรุณาอธิบายและยกตัวอย่าง)

VITA

PIMRAWEE RUENGWATTHAKEE
Assistant Professor

Education

Doctor of Education (Literacy) Sam Houston State University, Huntsville, Texas	2021
Master of Arts (Linguistics) Chulalongkorn University, Bangkok, Thailand	2008
Bachelor of Arts in English (Japanese minor) Thepsatri Rajabhat University, Lopburi, Thailand	2004

Certifications

Certificate in English for International Understanding Regional English Language Center (RELC) (On Southeast Asian Ministers of Education Organization Scholarship)	February, 2014
Certificate in Summer Course in English Phonetics University College, London	April, 2012
Certificate in Japanese Language and Culture Exchange Student at Fukuoka University of Education (On Japanese Government Scholarship)	2003 - 2004

EMPLOYMENT

Graduate Research Assistant College of Education Research Grants Office School of Teaching and Learning Sam Houston State University, Texas, USA	2018 - 2021
English Lecturer Department of English Faculty of Humanities and Social Sciences, Lopburi, Thailand	2011 - 2017
Editorial Assistant MANUSYA: International Journal of Humanities Faculty of Arts, Chulalongkorn University, Bangkok, Thailand	2007 - 2010

Teacher Assistant Department of Linguistics Faculty of Arts, Chulalongkorn University, Bangkok, Thailand	2005 - 2006
Japanese and English Interpreter and Translator KINDENKO (Thailand) Co., Ltd., Bangkok, Thailand	2004

Publications

Conference Presentations

1. Ruengwatthakee, P. (March, 2021). *Improving Thai Students' English pronunciation through Online Readers Theater*. 2021 TESOL International Convention & English Language Expo: TESOL Doctoral Research Forum (Online presentation). Houston, Texas, USA
2. Ruengwatthakee, P., Berthelsen, E., Huffin, K., Gundogan, K., Kose, A., Thongtai, T., Shawara, A., Smith, K., Henderson, C. (February, 2021). Cross the bridge with us: A voice for international students. Virtual presentation at the 17th Annual Diversity Leadership Conference, Huntsville, Texas, USA.
3. Ruengwatthakee, P. (December, 2020). *Exploring the Past, Present, and Future Together: Engaging the Future of LRA through Historical Literacy Research*. 70th Literacy Research Association (LRA) Annual Conference (Virtual). USA.
4. Ruengwatthakee, P. & Haas, L. (August, 2020). *An examination of Thai preservice English teachers' perceptions about using English as a Foreign Language in School*. Online presentation at Moscow City University, 3rd International Symposium, Education and City, Moscow, Russia.
5. Ruengwatthakee, P. (May, 2020). *Implementing Readers theater in the Classroom*. PPT presentation at the virtual international seminar on Effective

Teacher for an Effective School. The Institute of Educational Development and The Ministry of Education of the Komi Republic, Russia.

6. Ruengwatthakee, P. (February, 2020). *The effects of readers theater on Thai pre-service English teachers' improvement of pronunciation in Thailand*. PPT presentation at Universality of Global Education Conference, Huntsville, Texas.
7. Ruengwatthakee, P. & Haas, L. (February, 2020). *Pre-service English teachers' perceptions towards using English as a foreign language in teaching practicum in Thailand*. PPT presentation at Universality of Global Education Conference, Huntsville, Texas.
8. Ruengwatthakee, P. (October, 2019). *Examining the Trends of English as a Foreign Language Learners' English Pronunciation Articles: A Two-Decade Content Analysis*. PPT presentation online at Actual Problems of Romano-Germanic Philology and Methods of Teaching Foreign Languages Conference. Francisk Skorina Gomel State University, Belarus.
9. Ruengwatthakee, P. (September, 2019). *Improving Thai College Students' English Final /-s/ Through Storytelling*. Poster presented at the 11th annual Pronunciation in Second Language Learning and Teaching (PSLLT) Conference. Arizona, USA.
10. Ruengwatthakee, P. (July, 2019). *Enhancing Thai Students English Pronunciation through Storytelling*. PPT presentation at 3rd International Conference on Open Learning and Education Technologies (ICOLET). Bangkok, Thailand.
11. Ruengwatthakee, P. (March, 2019). *The Role of Phonetics in Teaching English as a Foreign Language to Thai Students*. Paper presented online at the IV International Students Scientific and Practical Conference on Theory and Practice

of Teaching Foreign Languages: Traditions and Development. Belarus, Russia, USA.

12. Ruengwatthakee, P. (February, 2019). *Improving Snake Snake Fish Fish English through Phonetics: A Glimpse of English Pronunciation Problems in Thailand*. PPT presentation at Universality of Global Education Conference, Huntsville, Texas, USA.

13. Braktia B., Sanchez, A. M. M., Nasiri, S., & Ruengwatthakee, P. (February, 2019). *Empowering Culturally Diverse Students: Culturally Responsive Strategies*. PPT presentation at Universality of Global Education Conference, Huntsville, Texas, USA.

14. Braktia B., Sanchez, A. M. M., Nasiri, S., & Ruengwatthakee, P. (February, 2019). *Empowering Language Learners in Today's World*". PPT presentation at Texas Teachers of English to Speakers of Other Languages Region IV (TexTESOL), Houston, Texas, USA.

15. Braktia B., Sanchez, A. M. M., Nasiri, S., & Ruengwatthakee, P. (February, 2019). *Embracing Diversity: Teaching Students from Culturally Diverse Backgrounds (Pedagogical Implications and Strategies)*. PPT presentation at Diversity Leadership Conference, Huntsville, Texas, USA.

16. Ruengwatthakee, P, (July, 2016). *A componential Analysis of the Bamboo Fans' Names in Thailand: An Ethnosemantic Study*. Paper presented at 4th International Conference on Language Innovation, Culture & Education, Bangkok, Thailand. Research supported by the Art and Culture Center Fund, Thepsatri Rajabhat Univeristy.

17. Ruengwatthakee, P. (May, 2009). Social Variation of the Cluster (kw) and (khw) in Ayutthaya Thai. Poster presented *at the 19th Annual Meeting of the Southeast Asian Linguistics Society*. Ho Chi Minh City, Vietnam.

Book Review

Ruengwatthakee, P. (2018). [Review of the book *Reading Upside \ Down: Identifying and addressing opportunity gaps in literacy instruction*, by D. \ L. Wolter]. *READ: An Online Journal for Literacy Educators*, 4(7), 114-116.
<https://read-ojs-shsu.tdl.org/read/index.php/read/issue/view/December%202018>

Publications

1. Ruengwatthakee, P. (2021). *Improving Thai College Students' English /-s/ Pronunciation through Storytelling*. *Journal of Universality of Global Education Issues*, 7(1), 1-28. <https://ugei-ojs-shsu.tdl.org/ugei/index.php/ugei/article/view/42>
2. Sehlaoui, A., S., Gross, E., & Ruengwatthakee, P. (In press) *Motivating factors and obstacles behind grant research in education: A critical perspective*. *Journal of Research Administration*.
3. Ruengwatthakee, P., & Haas, L. (2021). *Pre-service English teachers' perceptions towards using English as a foreign language in teaching practicum in Thailand*. (Manuscript submitted for publication)
4. Ruengwatthakee, P., & Koptelov, A.V. (2019) The role of phonetics in teaching English as a foreign language to Thai students. *Theory and Practice of Learning Foreign Languages: Traditions and Development Prospects*. 348-353. Moscow State Regional University Institute of Linguistics and Intercultural Communication.

Special Lectures

1. October 29, 2019. Presentation on Implementing Readers Theater in the Classroom. Literacy Block Course, Sam Houston State University, The Woodlands Center, Texas, USA.
2. February 12, 2020. Presentation on the SIOP Model Resources and Writing Instructional Objectives. TESL 3303 Course, Sam Houston State University, Texas, USA.