Pronunciation Learning Strategies Used among Thai EFL Tertiary Students with Different Self-Evaluated Pronunciation Abilities

กลวิธีการเรียนรู้การออกเสียงภาษาอังกฤษของนักศึกษาระดับปริญญาตรีผู้เรียนภาษาอังกฤษในฐานะ
ภาษาต่างประเทศที่ประเมินความสามารถในการออกเสียงภาษาอังกฤษของตนเองต่างกัน

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มหาวิทยาลัยเทคโนโลยีราชมงคลล้านนา พิษณุโลก

ABSTRACT

The current research aimed to 1) identify the pronunciation abilities of EFL tertiary students at Rajamangala University of Technology Lanna Phitsanulok (RMUTL PLC) according to their self-evaluation, 2) reveal the English pronunciation learning strategies employed among EFL tertiary students with different self-evaluated pronunciation abilities, and 3) investigate whether there is any different employment of the English pronunciation learning strategies among the EFL tertiary students with different English pronunciation abilities. The participants were 270 EFL students enrolling in the second semester of the Academic Year 2019. Of the 270 participants, 40 participants anonymously and voluntarily took part in the semi-structured interviews. The data for analyses were obtained through the questionnaire and the semi-structured interviews. The quantitative data were statistically analyzed, and the qualitative data were scrutinized using the thematic analysis method. The results showed that, of the three pronunciation ability groups, namely good (GG), moderate (MG), and low (LG) groups, most of the EFL tertiary students at RMUTL PLC evaluated themselves as having a moderate English pronunciation ability. The GG participants employed the cognitive pronunciation learning strategy most often, while the MG and LG used the affective and social pronunciation learning strategies most often. Accordingly, the divergent employment of pronunciation learning strategies exists among these EFL tertiary students with diverse pronunciation abilities. They relied on online applications, such as Google Translate, for pronunciation demonstration because of its convenience and ease to access. When the participants did not use an online application, they sought help from their classmates rather than asking the teachers owing to their proximity and intimacy.

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บทคัดย่อ

        งานวิจัยนี้มีวัตถุประสงค์เพื่อ 1) ระบุระดับความสามารถในการออกเสียงภาษาอังกฤษของนักศึกษาระดับปริญญา
ตรีที่เรียนภาษาอังกฤษในฐานะภาษาต่างประเทศจากการประเมินตนเอง 2) ศึกษากลวิธีการเรียนรู้การออกเสียงภาษาอังกฤษ
ของนักศึกษาที่ประเมินความสามารถในการออกเสียงภาษาอังกฤษที่ต่างกัน และ 3) ตรวจสอบว่านักศึกษาที่ประเมินความ
สามารถในการออกเสียงภาษาอังกฤษที่ต่างกันใช้กลวิธีการเรียนรู้การออกเสียงภาษาอังกฤษต่างกันหรือไม่ ผู้เข้าร่วมการ
วิจัยได้แก่ นักศึกษาระดับปริญญาตรีผู้เรียนภาษาอังกฤษในฐานะภาษาต่างประเทศ ที่ลงทะเบียนเรียนในภาคเรียนที่ 2 ปี
การศึกษา 2562 และผู้เข้าร่วมการวิจัย จำนวน 40 คน จาก 270 คน อาสาเข้าร่วมการสัมภาษณ์กึ่งโครงสร้าง เก็บรวบรวม
ข้อมูลโดยใช้แบบสอบถามและการสัมภาษณ์กึ่งโครงสร้าง วิเคราะห์ข้อมูลเชิงปริมาณทางสถิติ และวิเคราะห์ข้อมูลเชิง
คุณภาพด้วยวิธีการวิเคราะห์แก่นสาระ (Thematic analysis) ผลการศึกษาพบว่า จากการจัดกลุ่มผู้มีความสามารถในการออก
เสียงภาษาอังกฤษระดับดี ระดับกลาง และระดับอ่อน นักศึกษาระดับปริญญาตรีผู้เรียนภาษาอังกฤษในฐานะ
ภาษาต่างประเทศ มทร.ล้านนา พิษณุโลก ประเมินตนเองว่ามีความสามารถในการออกเสียงภาษาอังกฤษระดับกลาง
นักศึกษาที่ประเมินความสามารถในการออกเสียงภาษาอังกฤษของตนเองในระดับดี ใช้กลวิธีการเรียนรู้ด้านความรู้ความคิด
มากที่สุด ในขณะที่นักศึกษาที่ประเมินความสามารถในการออกเสียงภาษาอังกฤษของตนเองในระดับกลาง และระดับอ่อน
ใช้กลวิธีการเรียนรู้ด้านอารมณ์และจิตใจ และกลวิธีการเรียนรู้ด้านสังคมมากที่สุดตามลำดับ ดังนั้นจึงสามารถสรุปได้ว่าพบ
การใช้กลวิธีการเรียนรู้การออกเสียงภาษาอังกฤษที่แตกต่างกันระหว่างกลุ่มนักศึกษาที่ประเมินความสามารถในการออก
เสียงภาษาอังกฤษที่ต่างกันทั้ง 3 กลุ่ม จากการสัมภาษณ์กึ่งโครงสร้าง พบว่า นักศึกษาระดับปริญญาตรีใช้แอปพลิเคชั่น
ออนไลน์ เช่น Google Translate สำหรับการสาธิตการออกเสียงภาษาอังกฤษเนื่องจากรวดเร็วและง่ายต่อการเข้าถึง เมื่อ
นักศึกษาไม่ใช้แอปพลิเคชั่นออนไลน์ นักศึกษาเลือกที่จะสอบถามเพื่อนร่วมชั้นมากกว่าปรึกษาอาจารย์ผู้สอนเนื่องจาก
ความสนิทสนมและความใกล้ชิด

Introduction

        In an English as a foreign language (EFL) classroom, pronunciation is inevitably an essence that EFL learners should occupy to successfully and intelligibly deliver their messages in English. Otherwise, defective pronunciation ability possibly leads to verbal communication deficiency. EFL learners, perceived to lack intelligible pronunciation ability, are likely to refrain from conversing with their interlocutors; on the other hand, their interlocutors can also refuse to communicate with them owing to the unintelligible utterances, as mentioned by Akyol (2013) and Gilakjani and Sabouri (2016).

        Despite being a necessity in an English language learning environment, pronunciation seems to be neglected, as Underhill (2011) metaphorically stated that pronunciation was comparable to Cinderella in the EFL world. Different reasons are attributable to the negligence of pronunciation teaching (Fouz-González, 2015). For example, Burns and Claire (2003) noted EFL teachers wondered if they were capable of teaching different features of English pronunciation. Moreover, some of them were also uncertain whether they should instruct pronunciation individually or integrate it with other classroom activities. Similarly, Gilbert (2008) added that most EFL teachers hesitated to teach pronunciation since they, as non-native English teachers (NNETs), thought their pronunciation models seemed to deviate from the norm. As a result, these beliefs lead EFL teachers to delay teaching pronunciation. Another obvious and common cause is a classroom size with too many students, as Noom-ura (2013) reported that one of the problems of English teaching in Thai EFL classrooms was the number of students. Managing a big classroom seems to make EFL lecturers either intentionally or unintentionally indifferent to deliver pronunciation training to students.

However, pronunciation teaching does not completely disappear from the classroom setting since it is implicitly taught. Pronunciation is also involved in all areas of English language teaching (ELT) practice, and it is considered part of other linguistic elements, such as grammar and lexicon (Munro, 2016). Furthermore, when the EFL teachers explain lessons using English, read to the students in English, or have the students listen to English recordings, they implicitly deliver the English pronunciation instruction to the class. Consequently, the students can implicitly learn intelligible English pronunciation by paying close attention to the provided pronunciation learning resources available at hand.

Since pronunciation does not receive much direct attention in class, EFL students are likely to direct themselves to acquire an appropriate level of English pronunciation to master a better level of oral English. They attempt to make the most use of available and accessible learning resources, depending on their preferences and language ability. Hardan (2013) mentioned that different learners apply different learning processes to accomplish their set goals. In this case, the stated learning processes involve the ideas of what to use and how to make the most use of the selected strategies.

In the field of language learning, learners implement selected strategies to acquire a body of knowledge of the target language, either as a second or a foreign language (Hardan, 2013; Oxford, 2003). According to Oxford's (1990) learning strategies, the ultimate application of such strategies to facilitate language learning, maintain the information learned, and implement acquired language contents is the key. These learning strategies involve memory strategies, cognitive strategies, compensation strategies, metacognitive strategies, affective strategies, and social strategies, as detailed below.

Memory strategies facilitate learners to store information and retrieve it for future learning. In terms of pronunciation learning, learners may use minimal pairs, phonics, or rhyming words to help them learn the pronunciation of new words.

Cognitive strategies allow learners to better understand and produce target language in different ways. Regarding pronunciation learning, learners may practice saying English words out loud or imitate the English pronunciation of their teachers. They can practice along with recorded audios or videos for pronunciation training.

Compensation strategies allow learners to compensate for their learning difficulties by using other related strategies. They usually apply these strategies to overcome their language limitations. In English pronunciation learning, learners may adjust their pronunciation for some difficult-to-pronounce words or expressions by using other easier-to-pronounce forms. For example, they may say the full forms *I have* and *I would like* instead of the contractions *I've* and *I'd like*, respectively.

Metacognitive strategies include arranging, planning, and evaluating learning. Learners of English pronunciation may observe their English pronunciation, identify problems, search for solutions, and employ existing solutions.

Affective strategies reduce anxiety and create relaxation in learning. In English pronunciation learning, learners may comfort themselves with laughter when they have to pronounce unfamiliar words in the classroom. In the same situation, some learners may encourage themselves by saying, "*I can do it*."

Social strategies create interactions among learners or between learners and teachers. In English pronunciation learning, learners may ask their teachers or peers for pronunciation demonstration. Some learners may have conversations with foreigners as a way for pronunciation practice.

Learners apply different strategies depending on their interests, preferences, and language ability. Consequently, this research attempts to investigate what learning strategies EFL students, who evaluate themselves as good, moderate, and low pronunciation ability students, use in their English pronunciation learning. In this research, the categorization of

good, moderate, and low pronunciation ability adopts the speaking proficiency guidelines established by the American Council on the Teaching of Foreign Languages (ACTFL, 2012). In the guidelines, pronunciation ability is part of the speaking ability. Thus, the descriptors of the three pronunciation ability groups are as follows.

Good pronunciation ability: Students are able to pronounce familiar words correctly and without any difficulty. Also, students can make a pronunciation connection of familiar words with new or unfamiliar ones. Although the students' first language may influence their pronunciation, students can make themselves understood with clear and intelligible pronunciation.

Moderate pronunciation ability: Students are able to pronounce familiar words quite well, but there are still some pronunciation mistakes. The students' first language may influence their pronunciation and make it a little difficult to understand. Pronouncing new and unfamiliar words needs some extent of effort.

Low pronunciation ability: Students have a hard time pronouncing English words even though they are simple words. The students' pronunciation contains a lot of mistakes. Pronouncing new, complex, and unfamiliar words seems to be impossible. The students' first language influences their pronunciation and makes it difficult to understand. Students always ask their classmates or teachers for pronunciation demonstration.

Regarding the learning strategies, EFL researchers (e.g., Khamkhien; 2010, 2011; Phonhan, 2019; Sartika, Santihastuti, & Wahjuningsih, 2019; Suwanarak, 2019) have employed Oxford's learning strategies in their research studies dealing with English language learning in general. However, the application of the framework has not delved much into pronunciation learning in particular. Therefore, a research study of pronunciation learning strategies used by EFL students with different self-evaluated pronunciation abilities will disclose answers to the following research questions.

1) At what pronunciation ability level do Thai EFL tertiary students at Rajamangala University of Technology Lanna Phitsanulok (RMUTL PLC) think they are?

2) What pronunciation learning strategies do Thai EFL tertiary students at RMUTL PLC most frequently use to facilitate their pronunciation learning?

3) Do students with different pronunciation abilities use different pronunciation learning strategies?

The findings to the abovementioned research questions will provide beneficial information regarding EFL students' pronunciation learning strategies. As a result, EFL teachers with this information will manage to deliver integrated pronunciation teaching to enhance and facilitate EFL students to improve their oral English skills, especially in the classroom, accommodating EFL students with different pronunciation abilities.

The Methods
Participants
The participants of the current research study were 270 active EFL tertiary students at Rajamangala University of Technology Lanna Phitsanulok (RMUTL PLC). Of the 270 active EFL tertiary students, 75 students were from the Faculty of Business Administration and Liberal Arts (BALA), 110 students were from the Faculty of Science and Agricultural Technology (SAT), and 85 students were from the Faculty of Engineering (ENG). They were purposively selected from 806 active students in the second semester of the Academic Year of 2019 (Office of the Registrar, 2019). The calculation of the number of participants employed Yamane's (1973) formula with a 95% confidence level. After substituting numbers in the formula, the calculated number of the potential participants was 267.33 persons. However, the number was rounded to 270 persons to gather more reliable research data for analyses. Then,

the selection of the semi-structured interview participants was based on the contact information the 270 participants provided in the last section of a questionnaire. In this section, they were asked if they were willing to be contacted and take part in the semi-structured interview. If they agreed to take part in the semi-structured interview, they had to provide their contact information.

Instruments

This research employed an explanatory design of mixed-method research (Creswell & Plano-Clark, 2007). Since mixed-method research refers to the combination of quantitative and qualitative research approaches, the instruments for data collection were a researcher-developed questionnaire and semi-structured interviews. The questionnaire, which was a five-point Likert scale (1932), intended to collect quantitative data, and it contained two parts. The first part inquired about the participants' faculty and at what pronunciation ability level they think they are. Accordingly, the second part comprised ten items representing different pronunciation learning strategies based on Oxford's Learning Strategies (1990).

The semi-structured interviews, aiming to gather qualitative data, consisted of four questions as follows.

Question 1: What are the reasons you classified yourself as occupying a certain level of pronunciation ability, namely good, moderate, or low pronunciation ability?

Question 2: In your opinion, what do you think the pronunciation characteristics of good English pronouncers are?

Question 3: What do you do when you have a problem pronouncing unfamiliar English words or expressions?

Question 4: What learning techniques do you think can help EFL students improve their pronunciation ability?

After the development of the question items in the questionnaire and the semi-structured interviews, five experts in English Language Teaching and Applied Linguistics validated the constructed questions to find the value of the Index of Item-Objective Congruence (IOC). All of the experts have at least five years of experience in teaching EFL students in higher education institutions in Thailand, and they have conducted research related to English language learning and teaching. The question items that earned the IOC value of more than or equal to 0.5 would appear in the questionnaire and the semi-structured interview. The evaluation of the five experts showed that the questionnaire and the semi-structured interview questions received an overall IOC value of 0.94.

The validated and revised questionnaire, according to suggestions and recommendations from the five experts, was piloted with the selected group of 25 EFL students to find Conbrach's Alpha Coefficient value. The present questionnaire received Cronbach's Alpha Coefficient value of 0.90, which means it was reliable. The semi-structured interview questions were also tested with the same group of EFL students, and they were revised before the initiation of the interviews.

Procedures

The validated questionnaire was distributed to the participants via the Google Questionnaire link, and the participants were given a month to complete all the question items. Moreover, the questionnaire was administered in Thai to avoid misinterpretation. After all of the participants turned in the completed questionnaire, 40 participants were recruited to participate in the semi-structured interviews. The recruitment of the semi-structured interview participants relied on the contact information they provided in the last part of the questionnaire, which asked whether they were willing to be contacted for the semi-structured interviews. Of the 270 participants, 83 of them, including seven respondents in the good pronunciation ability

group, 55 respondents in the moderate pronunciation ability group, and 21 respondents in the low pronunciation ability group, provided their contact information. However, according to the provided contact information, only 40 participants, including two participants in the good pronunciation group, 30 participants in the moderate pronunciation ability group, and eight participants in the low pronunciation ability group, were reachable and took part in the semi-structured interviews. The semi-structured interviews were initiated via a phone call using Thai as a medium of the interviews. Each interview took about four to six minutes. During the interviews and with the semi-structured interview participants' permission, the conversations were recorded to confirm that there was not any loss of essential data. Furthermore, participation in the semi-structured interviews was confidential, and the participants could withdraw from the interview at any time. During the semi-structured interviews, the interviewed participants were called by a designated code, which started with LG, MG, or GG, according to their self-evaluated pronunciation ability, followed by a number.

Data analysis

The quantitative data were analyzed to find the mean score, percentage, and standard deviation. One-way ANOVA was implemented to reveal if there were any differences or similarities in the use of pronunciation learning strategies among the participants who evaluated themselves as having different pronunciation abilities.

Moreover, the qualitative data obtained from the semi-structured interviews were analyzed based on the six steps of thematic analysis (Braun & Clarke, 2006) as follows.

Step 1 Familiarizing with the data: The recordings of the semi-structured interviews were transcribed. Then, the transcriptions were read and reread to find initial ideas.

Step 2 Generating initial codes: Integral and significant ideas obtained from the semi-structured interview transcriptions were identified.

Step 3 Searching for themes: Relevant data were put into the same groups of possible themes.

Step 4 Review themes: Possible themes were checked if they worked well with the initial coding and the data set.

Step 5 Defining and naming themes: Themes and their related ideas were created and specified.

Step 6 Producing the report: The report was written up.

Findings and Discussion

Findings from the questionnaire

The participants' personal information and self-evaluated English pronunciation ability

This section presents the participants' responses to the question "At what English pronunciation level, namely low, moderate, or good, do you think you are?" Table 1 illustrates the gathered information.

Table 1 The participants' self-evaluated English pronunciation ability

Self-Evaluated English Pronunciation Ability	Participants (N = 270)	
	n	**%**
Good English pronunciation ability group **(GG)**	23	8.52
Moderate English pronunciation ability group **(MG)**	165	61.11
Low English pronunciation ability group **(LG)**	82	30.37
Total	**270**	**100**

As shown in Table 1, the 270 participants evaluated their English pronunciation ability and categorized themselves into three different pronunciation ability groups, namely Good Pronunciation Ability Group (GG), Moderate Pronunciation Ability Group (MG), and Low Pronunciation Ability Group (LG). Of the 270 participants, most of the participants (n=165, 61.11%) evaluated themselves as having moderate English pronunciation ability. Nearly one-third of the participants (n=82, 30.37%) categorized themselves as having moderate English pronunciation ability, and only a few of them (n=23, 8.52%) evaluated themselves as having good pronunciation ability.

Pronunciation learning strategies used by EFL tertiary students with diverse self-evaluated English pronunciation abilities

This section illustrates the pronunciation learning strategies employed by EFL tertiary students at RMUTL PLC to facilitate their pronunciation learning and development. The questionnaire comprised ten statements presenting different pronunciation learning strategies. The participants responded to the questionnaire items on how often they used each learning strategy to facilitate their English pronunciation learning. The questionnaire was a five-point Likert scale, in which *5* refers to *Always* and *1* refers to *Never*.

Overall, the GG participants used the pronunciation learning strategies more often than the MG and the LG participants with an average of 3.83, and the MG participants used the learning strategies quite as often as the LG participants with an average of 3.50 and 3.24, respectively.

The GG participants' employment of the ten pronunciation strategies was almost stable, which meant they used all of them at nearly the same frequency rate. They used the cognitive strategy (Item 10) the most often with an average of 3.96, followed by the social strategy (Item 8) with an average of 3.87. Moreover, they employed the cognitive, metacognitive, affective, and compensation strategies (Items 2, 3, 5, and 6, respectively) at the same frequency rate with an average of 3.83. Lastly, they seemed to apply the memory, affective, social, and cognitive strategies (Items 1, 4, 7, and 9, respectively) the least often, with an average of 3.78. However, the statistical number still displays that they used the mentioned pronunciation learning strategies more often than the MG and the LG participants.

The MG participants employed the affective strategy (Item 5) more often than the other pronunciation learning strategies with an average of 3.66. The second most-often used pronunciation learning strategy was the social strategy (Item 8) with an average of 3.63, followed by the cognitive strategy (Item 9) with nearly the same average of 3.61. The MG participants used other pronunciation learning strategies at an almost similar frequency rate.

Among the ten pronunciation learning strategies, the LG participants employed the social strategies (Items 7 and 8) the most often with the same average of 3.44. Their second most-often used pronunciation learning strategy was similar to that of the MG participants. It was the affective strategy (Item 5) with an average of 3.39. Their third most-often used pronunciation learning strategy was the cognitive strategy (Item 9) with an average of 3.29, followed by the compensation strategy (Item 6), and another cognitive strategy (Item 2) with an average of 3.26 and 3.23, respectively.

Table 2 presents the pronunciation learning strategies employed by EFL tertiary students, who evaluated themselves as having different English pronunciation abilities.

Table 2 Pronunciation learning strategies used by EFL tertiary students with different self-evaluated pronunciation abilities

Pronunciation Learning Strategies	Category	Good Pronunciation Ability Group (GG) (n=23)			Moderate Pronunciation Ability Group (MG) (n=165)			Low Pronunciation Ability Group (LG) (n=82)		
		$\bar{x}$	SD	Interpretation	$\bar{x}$	SD	Interpretation	$\bar{x}$	SD	Interpretation
1. I use minimal pairs (pair-fair, seed-seat, heat-hut) to help me remember English pronunciation.	Memory	3.78	1.06	Often use	3.29	0.86	Sometimes use	3.04	1.07	Sometimes use
2. I listen to and practice along with videos on Youtube or other social media, like Facebook, in which native speakers demonstrate how to pronounce English words.	Cognitive	3.83	0.98	Often use	3.57	0.84	Often use	3.23	0.99	Sometimes use
3. I observe my English pronunciation, identify pronunciation problems, look for solutions, and employ existing solutions.	Metacognitive	3.83	0.98	Often use	3.46	0.81	Sometimes use	3.15	0.98	Sometimes use
4. I try to be relaxed, like laughing and playing jokes with friends and teachers when I feel nervous about pronouncing unfamiliar words out loud.	Affective	3.78	1.04	Often use	3.34	0.92	Sometimes use	3.05	1.16	Sometimes use
5. I tell myself I can do it when I have to pronounce English words in the classroom.	Affective	3.83	1.07	Often use	3.66	0.92	Often use	3.39	1.02	Sometimes use
6. I adjust my pronunciation of some difficult-to-pronounce forms to easier ones, such as saying the full version "I would like to" instead of the contraction "I'd like to."	Compensation	3.83	1.15	Often use	3.43	0.81	Sometimes use	3.26	0.93	Sometimes use
7. I ask my friends who are good at pronouncing English about how to pronounce unfamiliar words.	Social	3.78	0.85	Often use	3.52	0.93	Often use	3.44	0.98	Sometimes use
8. I ask my English teacher about how to pronounce unfamiliar words.	Social	3.87	1.06	Often use	3.63	0.86	Often use	3.44	1.07	Sometimes use
9. I consult an online dictionary that provides pronunciation demonstration.	Cognitive	3.78	0.99	Often use	3.61	0.89	Often use	3.29	1.06	Sometimes use
10. I make a pronunciation connection of familiar words to the pronunciation of unfamiliar ones, such as pronouncing "friendship" as the word "friend" plus "ship."	Cognitive	3.96	0.93	Often use	3.45	0.83	Sometimes use	3.16	1.00	Sometimes use
Average		**3.83**	**1.01**	**Often use**	**3.50**	**0.87**	**Sometimes use**	**3.24**	**1.03**	**Sometimes use**

Remark: The interpretation of the mean scores is as follows. 4.51-5.00 *Always Use*; 3.51-4.50 *Often Use*; 2.51-3.50 *Sometimes Use*; 1.51-2.50 *Rarely Use*; 1.00-1.50 *Never Use*.

Pronunciation learning strategies used by EFL tertiary students with different self-evaluated pronunciation abilities

This section provides an answer to the final research question of whether the EFL tertiary students, who evaluated themselves as having different pronunciation abilities, employed distinct pronunciation learning strategies. One-Way ANOVA with the Tukey HSD was implemented for the analysis.

Table 3 Pronunciation learning strategies used by EFL tertiary students with different self-evaluated pronunciation abilities with Tukey HSD analysis

Pronunciation Learning Strategies	**(I) Ability Group**	**(J) Ability Group**	**Mean Difference (I-J)**	**Sig.**
1. I use minimal pairs (pair-fair, seed-seat, heat-hut) to help me remember English pronunciation.	GG	MG	.492	.053
		LG	.746*	.003*
	MG	GG	-.492	.053
		LG	.254	.117
	LG	GG	-.746*	.003*
		MG	-.254	.117
2. I listen to and practice along with videos on Youtube or other social media, like Facebook, in which native speakers demonstrate how to pronounce English words.	GG	MG	.256	.408
		LG	.594*	.015*
	MG	GG	-.256	.408
		LG	.338*	.016*
	LG	GG	-.594*	.015*
		MG	-.338*	.016*
3. I observe my English pronunciation, identify pronunciation problems, look for solutions, and employ existing solutions.	GG	MG	.365	.150
		LG	.680*	.003*
	MG	GG	-.365	.150
		LG	.314*	.023*
	LG	GG	-.680*	.003*
		MG	-.314*	.023*
4. I try to be relaxed, like laughing and playing jokes with friends and teachers when I feel nervous about pronouncing unfamiliar words out loud.	GG	MG	.443	.125
		LG	.734*	.007*
	MG	GG	-.443	.125
		LG	.291	.089
	LG	GG	-.734*	.007*
		MG	-.291	.089
5. I tell myself I can do it when I have to pronounce English words in the classroom.	GG	MG	.165	.721
		LG	.436	.136
	MG	GG	-.165	.721
		LG	.270	.097
	LG	GG	-.436	.136
		MG	-.270	.097
6. I adjust my pronunciation of some difficult-to-pronounce forms to easier ones, such as saying the full version "I would like to" instead of the contraction "I'd like to."	GG	MG	.396	.110
		LG	.570*	.018*
	MG	GG	-.396	.110
		LG	.174	.310
	LG	GG	-.570*	.018*
		MG	-.174	.310

Table 3 (Cont.)

Pronunciation Learning Strategies	(I) Ability Group	(J) Ability Group	Mean Difference (I-J)	Sig.
7. I ask my friends who are good at pronouncing English about how to pronounce unfamiliar words.	GG	MG	.267	.408
		LG	.344	.269
	MG	GG	-.267	.408
		LG	.076	.820
	LG	GG	-.344	.269
		MG	-.076	.820
8. I ask my English teacher about how to pronounce unfamiliar words.	GG	MG	.239	.490
		LG	.431	.131
	MG	GG	-.239	.490
		LG	.191	.292
	LG	GG	-.431	.131
		MG	-.191	.292
9. I consult an online dictionary that provides pronunciation demonstration.	GG	MG	.177	.685
		LG	.490	.078
	MG	GG	-.177	.685
		LG	.313*	.042*
	LG	GG	-.490	.078
		MG	-.313*	.042*
10. I make a pronunciation connection of familiar words to the pronunciation of unfamiliar ones, such as pronouncing "friendship" as the word "friend" plus "ship."	GG	MG	.508*	.030*
		LG	.798*	.001*
	MG	GG	-.508*	.030*
		LG	.290*	.044*
	LG	GG	-.798*	.001*
		MG	-.290*	.044*

The mean difference is significant at the 0.05 level.

As illustrated in Table 3, the different use of English pronunciation learning strategies exists among the EFL tertiary students with different English pronunciation abilities. Out of the ten pronunciation learning strategies, the participants showed significantly different employment of seven pronunciation learning strategies, which are those in Items 1, 2, 3, 4, 6, 9, and 10 at a statistically significant level of 0.05. The Tukey HSD analysis further disclosed that the contrasting employment of the pronunciation learning strategy in Item 1 exists among the GG and LG participants. For the learning strategy in Item 2, the LG participants showed the contrasting employment from the GG and MG participants. Likewise, the LG participants displayed the distinctive use of the learning strategy in Item 3 from the GG and MG participants. For the learning strategies in Items 4, 6, and 9, only the GG participants showed the different use of the mentioned strategies from the LG participants. Finally, all of the participants in the three groups showed the divergent use of the learning strategy in Item 10. The distinctive use occurred among the GG and MG participants. Besides, there was distinct employment of the learning strategy in Item 10 between the GG participants and the LG participants. Lastly, the MG participants also showed the contrasting use of the learning strategy in Item 10 from the LG participants.

Findings from the semi-structured interviews

The semi-structured interviews of 40 anonymous and voluntary participants were conducted via a phone call to disclose more in-depth results. Each conversation took about four to six minutes, and a voice recorder was used to guarantee the comprehensiveness of the data. The next section provides the findings obtained from the semi-structured interviews.

Question 1: What are the reasons you classified yourself as occupying a certain level of pronunciation ability, namely good, moderate, or low pronunciation ability?

Level of familiarity with words in the text

Regarding the pronunciation abilities, all the interviewed participants mentioned that the level of familiarity with the words in the text they were reading played an important role. They were able to read and pronounce familiar words out loud with confidence. However, they still had difficulties enunciating unfamiliar words and technical terms.

"Generally, I can read and pronounce familiar words without any difficulties, but I can't pronounce those complex and technical terms correctly. I need more time to learn how to say the words correctly." (MG-03)

"Well, I can read simple and familiar words out loud and confident that I pronounce them correctly. However, I still have a pronunciation problem when it comes to unfamiliar words or technical terms." (MG-17)

"I've had a chance to study English pronunciation in class, but there are still some unfamiliar words that I don't know how to pronounce. So, I think my pronunciation ability is moderate. It's not that bad but not so good either." (MG-26)

Limited range and poor background knowledge of English vocabulary

The interviewed participants also mentioned that limited range and poor background knowledge of English vocabulary made them think that they had a lower level of pronunciation ability.

"I am not so confident if I am pronouncing English words correctly, and I think I have limited range of English vocabulary. This draws me a difficulty to pronounce unfamiliar words." (MG-28)

"I think I have a low pronunciation ability due to the lack of practice. My English learning background isn't good enough. I have to work harder and practice more." (LG-06)

Occupying a deviated accent

Some interviewed participants stated that having a deviated accent from native speakers is one of the reasons why they categorized themselves as having moderate and low English pronunciation ability.

"I can pronounce familiar words correctly according to my experience from listening to music and watching English-speaking movies. Well, for technical and difficult terms, I still have difficulty pronouncing them, and I don't think I can pronounce them with a native-like accent." (MG-13)

"I can pronounce English words, especially familiar words. But my accent is not so good when compared to that of native speakers." (MG-30)

"I have an accent that is deviated from the native speakers'. I don't think I can have a native-like accent. When I was a kid, I learned vocabulary and pronunciation by reciting the words with my Thai accent. So, improving my accent is difficult." (LG-02)

Drawn from the semi-structured interviews, familiarity with English words, limited range and poor background knowledge in English vocabulary, and occupancy of a deviated accent play a significant role in the interviewed participants' evaluation of their pronunciation

ability. A higher level of vocabulary familiarity leads to a higher level of pronunciation ability. On the other hand, a lower level of vocabulary familiarity leads to a lower level of pronunciation ability. Furthermore, having a limited vocabulary range and insufficient background knowledge in English vocabulary also influences how the interviewed participants placed themselves into a particular pronunciation ability group. Lastly, having a deviated accent from the native norms makes them put themselves in the category of having a lower level of pronunciation ability.

Question 2: In your opinion, what do you think the pronunciation characteristics of good English pronouncers are?

Intelligible pronunciation with confidence

Over half of the interviewed participants mentioned that clearness, intelligibility, fluency, and self-confidence play a crucial role. They stated that clear pronunciation made the speaker's speech easy to understand. They also added that good pronunciation did not always mean the speaker had native-like or near-native accents. Besides, good English pronouncers seem to speak English with confidence, and they do not hesitate to communicate using English.

"Good pronunciation should be clear and easy to understand. The speaker can say the word correctly and make himself or herself clear." (MG-27)

"Someone who has a good pronunciation ability can pronounce words fluently. There shouldn't be any muttering speech, and his or her speech is eloquent." (MG-24)

"For me, good pronunciation means the speaker can say English words correctly and clearly. It doesn't always mean having a native-like accent." (MG-19)

"A person with good English pronunciation can say words correctly and with confidence." (LG-02)

Clear pronunciation with the correct use of stress and intonation

A few participants mentioned that besides having clear pronunciation, good English pronunciation speakers could use the correct placement of stress and intonation in their speech.

"An English speaker with good pronunciation knows where to stress and use their pitch to convey messages, which is similar to native speakers." (MG-16)

"Someone who occupies good pronunciation ability can pronounce words and use stress correctly. They can pronounce correct final sounds in English words." (GG-02)

Native-like accent

However, there were some of the interviewed participants who perceived that good English pronunciation was a native-like pronunciation. Consequently, these participants depended on the native-speaker norm to decide whether a speaker of English occupied an acceptable English pronunciation or not.

"I think his or her accent is similar to that of the native speakers, and that person receives that native-like accent from learning and absorbing the stated accent." (MG-21)

"In my opinion, an English speaker with good pronunciation ability can speak with a native-like accent. In addition to clear pronunciation, his or her accent should be good too." (LG-06)

Regarding the interviewed participants' perspectives toward the characteristics of good English pronunciation, there is a controversy between intelligibility and a native-like accent. Those who viewed intelligible pronunciation as an integral aspect of good English pronunciation focused on the importance of easy-to-understand speech. On the contrary, those who viewed a native norm as good pronunciation relied on a native-like or near-native accent as acceptable pronunciation.

Question 3: What do you do when you have a problem pronouncing unfamiliar English words or expressions?

Consulting translating applications due to their convenience and rapidity

Regarding how the participants cope with the pronunciation of unfamiliar words, all of the participants relied on Google Translate (GT). Besides GT, some of the interviewed participants mentioned other translating applications and websites, such as Line Dictionary, Longdo Dictionary, and Dictionary.com. These translating media have similar functions to GT. They explained that they keyed in the term and used the pronunciation function embedded in the applications to demonstrate how to enunciate it. They further mentioned that they used them both inside and outside the classroom. The main reason why they selected to use these applications more often than asking teachers or their classmates was because of its convenience and rapidity.

"When I don't know how to pronounce certain words, I type the words into the GT application, press the speaker function, and let it show me the pronunciation demonstration. It's faster and more convenient than asking the teacher or a classmate." (GG-02)

"Usually, I sit alone in class, so using the GT application is my first choice when I don't know how to pronounce English words. It's more convenient, and I'm more comfortable using it than asking the teacher." (LG-01)

"I usually use the GT application for pronunciation demonstration besides searching for meanings. Well, if I am with a friend who is good at English, I'll ask him. And if my friend doesn't give me the right answer, then I'll ask the teacher." (MG-09)

"The GT application is my first option for pronunciation demonstration because it has the pronunciation model of native-speakers. Moreover, using the GT application is faster and easier." (MG-25)

"I go to the website Dictionary.com the most often. I key in the words and listen to the pronunciation demonstration." (MG-27)

"I listen to and practice along with the pronunciation demonstration through a translating application like Longdo Dictionary or Line Dictionary. It's faster and more convenient." (MG-15)

Consulting peers due to the intimacy and proximity

When they did not use the GT application, the interviewed participants mentioned that they opted to ask their peers for pronunciation demonstration. Because of the intimacy and proximity, they commented that they felt more comfortable reaching out to their classmates first before seeking help from the teacher.

"I'd rather ask a classmate for pronunciation demonstration because I feel more relaxed. And I don't feel stressed when I have to show him or her my pronunciation." (MG-18)

"If I don't use the GT application, I choose to ask a friend sitting next to me in class. It's more comfortable and easier than raising my hand to ask the teacher." (MG-08)

"I usually ask a classmate for pronunciation demonstration because of our intimacy. I don't feel nervous at all." (LG-07)

Consulting teachers due to trustworthiness

When their classmates did not provide correct or reliable pronunciation models, the interviewed participants stated that they would consult the teacher. Even though the teacher seemed to be the last person they asked for help, it did not mean that they did not trust the teacher.

"I ask my friend who is sitting next to me in the classroom first for pronunciation demonstration. If he or she can't help me, I will ask the teacher." (MG-26)

"In class, when I am not sure if my friend gives me the correct pronunciation demonstration, I will ask the teacher." (MG-20)

"When I am in the classroom with the teacher, I rarely use GT. I will ask the teacher first. I will use GT when I have to study on my own." (LG-08)

The interviewed participants employed different ways to deal with their pronunciation difficulties, ranging from using translating applications to consulting peers and teachers. Using translating applications was their first option because of its convenience and promptness. On the other hand, their classmates were also their source of pronunciation demonstration due to their intimacy and proximity. Even though some of them mentioned that consulting teachers were not their first option, they reached out to the teachers when they needed a more reliable pronunciation demonstration.

Question 4: What learning techniques do you think can help EFL students to improve their pronunciation ability?

Learning through technology and edutainment techniques

Concerning learning techniques that can improve EFL students' pronunciation ability, the interviewed participants mostly relied on technology and edutainment techniques, such as learning from social media, music, English-speaking movies, and game streaming.

"Right now, there are a lot of social media that provide English learning, including pronunciation training. They are free and easy to access. For me, as I like listening to music, I usually listen to music on Youtube. My second choice is using the Tiktok application in which a lot of English tutors create videos teaching English pronunciation. I sometimes watch English-speaking movies via Netflix too." (MG-16)

"Listening to English-speaking sources, like videos on Youtube or pronunciation demonstration videos, and practicing along will help me and other students improve our pronunciation ability. I think often listening practice will help me get familiar with English pronunciation and be able to pronounce words better over time." (LG-06)

Learning through imitation of native speakers' pronunciation

Some of the interviewed participants noted that learning from a native-speaker pronunciation model was more effective. They thought native speakers provided the correct pronunciation model, and they should learn English pronunciation from them. Besides, one interviewed participant also mentioned that learners had to learn from a correct pronunciation model. Otherwise, they would remember a false pronunciation demonstrated, and their pronunciation ability would not improve at all.

"I try to imitate the pronunciation of native speakers. I listen to them and practice along." (MG-28)

"I use GT for pronunciation demonstration most of the time because it provides a pronunciation model of native speakers. And students have to practice from correct pronunciation models so that they will not remember the wrong pronunciation." (MG-25)

"Learning English with native-speaker teachers will help me to improve my pronunciation ability. I want our university to have native-speaker teachers." (MG-20)

Learning through teachers' demonstration

Some interviewed participants mentioned that they tried to learn English pronunciation from the teacher's demonstration in an English class.

"In class, I listen to the teacher's pronunciation and practice along." (MG-30)

"When I don't know how to pronounce some words, I ask the teacher for pronunciation demonstration and practice along." (LG-02)

"I observe when the teacher says English words in class and try to imitate the teacher's pronunciation demonstration." (MG-02)

Learning from peers

Some interviewed participants mentioned that they could learn how to pronounce English words by asking their classmates for pronunciation demonstration.

"One way that I use to learn English pronunciation is that I ask a friend who is good at English pronunciation to demonstrate how to pronounce words to me." (LG-07)

"Sometimes, I listen to my friends' conversations when they talk about how to pronounce English words. I think I can learn from it." (MG-03)

Learning through regular practice

Most of the interviewed participants also mentioned that regular pronunciation practice would enhance their pronunciation improvement. They commented that listening to and practicing along with English-speaking media was a beneficial way to make their pronunciation better.

"I think it starts with regular practice. If you want to be good at anything, you have to practice more. Similarly, if you want to be good at English pronunciation, you also have to practice reading the words out loud more often. I think listening to English speaking media, like movies and songs, will also help." (MG-21)

"Regular practice will help to make our pronunciation better. We have to read out loud a lot." (MG-25)

"I think regular practice and immersion to language use will help me to have better English pronunciation." (MG-12)

"Listening [to English speaking media] a lot and regular practice will help to make my English pronunciation better." (LG-06)

The interviewed participants shared some ideas about ways to help them learn and improve their pronunciation ability. Technology and edutainment media were commented as useful learning resources owing to their convenience, availability, and ease to access. Besides, most of the edutainment media provide a pronunciation model of native speakers that they could imitate and practice their pronunciation along. They also mentioned that learning from teachers' and competent classmates' pronunciation demonstration during class sessions also helped them improve their pronunciation ability. Additionally, regular practice is also key to pronunciation success.

Discussion and conclusion

The current research aimed to discover EFL tertiary students' self-evaluated pronunciation abilities. It also intended to disclose the English pronunciation learning strategies employed among EFL tertiary students with different self-evaluated pronunciation abilities. Regarding the results from the questionnaire, it revealed that most of the EFL tertiary students at Rajamangala University of Technology Lanna (RMUTL) Phisanulok categorized themselves as having a moderate pronunciation ability. They put themselves in the mentioned pronunciation ability group according to the level of pronunciation intelligibility. Levels of vocabulary familiarity also play an essential role in whether to enhance or obstruct their pronunciation ability. This finding is in line with the studies of Adams (1990) and Chard, Pikulski, and Templeton (2000) that orthographic familiarity and an understanding of the relationship between sounds and graphemes will enhance learners' ability to read words out loud. Furthermore, in their opinion, good pronunciation refers to having intelligible and clear pronunciation or even having a native-like accent. It is similar to a study by Phusit and

Suksiripakonchai (2018) that EFL university students in their study had a highly positive attitude toward American and British pronunciation models in particular.

Regarding the pronunciation learning strategies, EFL tertiary students at RMUTL Phitsanulok employed the affective, social, and cognitive learning strategies more often than the memory, compensation, and metacognitive ones. The affective strategy that they employed covers lessening their nervousness by telling themselves they can pronounce words well enough. Besides, the implemented social learning strategy covers consulting classmates and teachers for pronunciation demonstration. Lastly, the cognitive learning strategy includes the consultation with translating applications, such as Google Translate, Longdo Dictionary, Line Dictionary, and Dictionary.com, for pronunciation demonstration. The results from the semi-structured interview also confirmed that EFL tertiary students at RMUTL Phitsanulok tended to rely so much on technology for pronunciation learning. Most of them commented that learning English pronunciation from and practicing along with translating applications, like Google Translate, and edutainment media, like English-speaking movies, music, and social media, offered benefits to pronunciation improvement. Owing to the convenience, ease to access, and self-reliance, they choose to use the mentioned applications more than consulting their classmates or teachers. This finding is similar to the studies of Benzies (2017) and Gilakjani (2018) that EFL learners prefer ICTs to traditional textbooks for pronunciation training since they think lessons in the books are repetitive. Additionally, when they do not use the applications, they opt to ask their classmates due to the proximity and intimacy or teachers because of their trustworthiness. This point is similar to Rokoszewska's study (2012) that EFL students are dependent on teachers or peers for learning not only pronunciation but also other subject matters.

The distinct employment of pronunciation learning strategies also existed among EFL tertiary students with different pronunciation ability. As Bada and Okan (2000) mentioned that learners have diverse learning needs, competence, and preferences, it is not surprising that they choose their favorite learning methods to achieve their learning goals. Therefore, teachers have to be able to aware of their students' learning requirements and try to accommodate them with various teaching techniques.

Furthermore, since word familiarity seems to play a prominent role in EFL students' pronunciation ability development, EFL teachers are recommended to enhance the students' intensive knowledge of vocabulary. They can start with an introduction of word associations or collocations with pronunciation demonstration. The pronunciation can be either by the teachers themselves or recordings of native speakers. Furthermore, EFL teachers can incorporate pronunciation learning with technology by assigning a list of target words in each lesson to students and ask them to use their preferred applications to search for words' pronunciation. Then, the students can practice their pronunciation along and demonstrate it to their classmates. These activities will also make pronunciation learning more active, and interaction among students and teachers will also be enhanced.

Classroom Implications

Based on the semi-structured interview results regarding the characteristics of good English pronunciation, EFL students seem to be divided between intelligible pronunciation and native-like accents. Thus, teachers in English are recommended to provide a clear explanation of the two terms. In the era of English as an international language (EIL) or English as a lingua franca (ELF), non-native English speakers do not have to adhere to the standard norm of pronunciation (Deterding & Lewis, 2019). On the other hand, intelligible pronunciation is the key. What ELF students should pay more attention to is the intelligibility and clearness of their pronunciation to make their oral communication successful and effective. Consequently, EFL teachers are advisable to build up a better understanding of how integral intelligible

pronunciation is and prioritize what aspects of English pronunciation EFL students should acquire for better oral communication.

Additionally, the current generation of EFL students depends on technology and social media for their English learning more and more because of its convenience and ease to access. Furthermore, technology-assisted pronunciation teaching resources have diverse techniques that enhance pronunciation learning and are not available in the traditional way (Gilakjani, 2018). To make the most use of available technology, English teachers have to make sure that their self-reliant EFL students consult reliable sources for correct and acceptable pronunciation learning. Besides employing technology-assisted teaching techniques, peer teaching seems to facilitate pronunciation learning of both consultation seekers and providers. For the part of consultation seekers, they feel more comfortable when they consult peers due to their proximity and intimacy. On the other hand, consultation providers have a chance to develop their learning awareness and language ability development (Bradford-Watts, 2011; Moore & Teather, 2013; Wessel, 2015).

Despite the widespread use of technology, teachers are still their most reliable source of help the students will reach out to when they encounter learning difficulties. Consequently, teachers should be friendly and open to questions. Moreover, the classroom environment should support and enhance learning. Besides being professional and competent, the ability to create a healthy learning environment is also vital (Läänemets & Rostovtseva, 2015).

Since EFL students perceive themselves as having different levels of English pronunciation ability, pedagogical strategies should be appropriate to fulfill the students' needs for pronunciation development from a lower level to a higher one. Besides, challenges exist in a classroom with mixed-ability students. In terms of pronunciation teaching, EFL teachers are advisable to teach pronunciation matters more explicitly. In addition, they should implement active teaching methods to encourage all students to be verbally active and practice their pronunciation both in and out of the classroom.

Limitations

Some limitations of the present study exist. The 270 participants, who responded to the questionnaire, were undergraduate students enrolling in the second semester of the Academic Year 2019. At the time of the study, they were doing their first, second, third, or fourth year of education in university, and they had spent a different amount of time learning English. Therefore, the factor of English learning experience in higher education was not treated properly. Regarding the pronunciation ability, the participants evaluated their pronunciation ability based on the pronunciation ability descriptors available in the questionnaire. Since it was not an actual assessment, the participants might overestimate or underestimate their pronunciation ability.

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