

ปัญหาการออกเสียงภาษาอังกฤษของนักศึกษาปริญญาตรีในมหาวิทยาลัยไทย

วัชรีย์ ไพสาทย¹

¹ ผู้นิพนธ์ประสานงาน โทรศัพท์ 08-1389-0458 อีเมล: watcharee.p@arts.kmutnb.ac.th

รับเมื่อ 2 มีนาคม 2568 วันที่แก้ไขบทความ 15 มิถุนายน 2568 ตอบรับเมื่อ 18 มิถุนายน 2568 10.14416/j.faa.2025.07.011

บทคัดย่อ

งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาการออกเสียงภาษาอังกฤษของนักศึกษาระดับปริญญาตรีในมหาวิทยาลัยของไทย โดยมีคำถามในการวิจัย 3 ข้อ คือ (1) นักศึกษาส่วนใหญ่ออกเสียงคำภาษาอังกฤษได้ถูกต้องหรือไม่ (2) ปัญหาการออกเสียงที่พบบ่อยคืออะไรบ้าง และ (3) สาเหตุใดที่ทำให้นักศึกษาออกเสียงผิดพลาด กลุ่มตัวอย่างในการวิจัยคือ นักศึกษาระดับปริญญาตรีจำนวน 122 คน ในมหาวิทยาลัยแห่งหนึ่ง ในประเทศไทย เครื่องมือที่ใช้ในการเก็บข้อมูล ได้แก่ แบบฟอร์มรายการสังเกตการออกเสียงภาษาอังกฤษ และการสัมภาษณ์แบบกึ่งโครงสร้าง ข้อมูลจากแบบฟอร์มรายการสังเกตถูกวิเคราะห์โดยใช้ค่าความถี่และร้อยละ ส่วนข้อมูลจากการสัมภาษณ์วิเคราะห์ด้วยการจัดกลุ่มคำตอบเชิงคุณภาพโดยใช้เทคนิคการตรวจสอบความสอดคล้องของรหัสการวิเคราะห์จากการเปรียบเทียบผลการตีความในครั้งที่ 1 และครั้งที่ 2 ผลการวิจัยพบว่า นักศึกษาจำนวนมาก (97.54%) มีการออกเสียงผิดพลาด โดยปัญหาที่พบบ่อยที่สุด 3 อันดับ ได้แก่ การออกเสียงท้ายคำ (100%) การเน้นพยางค์ (82.35%) และการออกเสียงต้นคำ (69.75%) สาเหตุของความผิดพลาดในการออกเสียงมี 5 ประการ ได้แก่ (1) ข้อจำกัดทางกายภาพของอวัยวะ ที่ใช้ในการออกเสียง (2) ไม่ทราบวิธีการออกเสียงที่ถูกต้อง (3) รู้สึกอายเมื่อต้องพูดภาษาอังกฤษ (4) เชื่อว่าการออกเสียงผิดนั้นคล้ายคลึงกับเจ้าของภาษา และ (5) มีความเข้าใจผิดจากประสบการณ์การเรียนรู้ในระดับก่อนเข้ามหาวิทยาลัย

คำสำคัญ: การออกเสียงภาษาอังกฤษ ความผิดพลาดในการออกเสียง ความผิดพลาดในการออกเสียงของนักศึกษาไทย

¹ ดร. ประจักษ์ศิลปศาสตร์ประยุกต์ มหาวิทยาลัยเทคโนโลยีพระจอมเกล้าพระนครเหนือ

English Pronunciation Problems among Undergraduates in a Thai University

Watcharee Paisart¹

¹ Corresponding author, Tel. 08-1389-0458, Email: watcharee.p@arts.kmutnb.ac.th

Received 2 March 2025; Revised 15 June 2025; Accepted 18 June 2025 10.14416/j.faa.2025.07.011

Abstract

This study aimed to examine English pronunciation among Thai undergraduate students by addressing three research questions: (1) Do most students pronounce English words correctly? (2) What are the common pronunciation problems encountered by the students? and (3) What are the underlying causes of these pronunciation errors? The participants were 122 undergraduate students from a Thai university. Data were collected using two instruments: an English pronunciation observation checklist and semi-structured interviews. The checklist data were analyzed using frequency and percentage, while the interview data were analyzed using qualitative coding techniques, including intra-coder reliability checks by comparing first and second rounds of coding for consistency. The findings revealed that a large majority of students (97.54%) made pronunciation errors. The most common issues were related to word-final sounds (100%), word stress (82.35%), and initial sounds (69.75%). Five key causes of pronunciation errors were identified: (1) physical limitations related to the articulatory organs, (2) lack of awareness of correct pronunciation, (3) feelings of embarrassment when speaking English, (4) the belief that their mispronunciations resemble those of native speakers, and (5) misconceptions formed from previous learning experiences before entering university.

Keywords: English Pronunciation, Pronunciation Errors, Thai University Students

¹ Ph.D., Faculty of Applied Arts, King Mongkut's University of Technology North Bangkok

1. Introduction

English is widely used globally, particularly in education and professional settings, making it a key language for international communication and career advancement (Aydođan & Akbarov, 2014; Crystal, 1997). In Thailand, English is a compulsory subject from primary to tertiary education, reflecting its importance as a global lingua franca. To achieve proficiency, learners must master core skills – listening, speaking, reading, and writing – alongside vocabulary, grammar, and pronunciation. Despite its critical role in oral communication, pronunciation is often neglected in classroom instruction due to time constraints and curriculum demands (Andi & Arafah, 2017; Kurnia, et al., 2023; Wei & Zhou, 2002).

Previous studies have consistently reported pronunciation difficulties among Thai learners. Yordming (n.d.) found that targeted instruction improved students' pronunciation performance. Charumanee and Wongkittiporn (2024) identified greater challenges with sounds absent in the Thai language, while Piyamat and Deekawong (2021) highlighted issues with specific consonants ([θ], [ð], [tʃ], and [dʒ]) and clusters, attributing errors to phonological differences, instructional methods, and learner motivation. Winaitam and Suppasetserree (2012) also confirmed persistent pronunciation problems. However, most research has focused on isolated word pronunciation, with limited exploration of pronunciation in authentic contexts such as reading and conversation.

This study addresses that gap by examining Thai undergraduates' pronunciation through passage reading and conversational tasks. The research was motivated by observed pronunciation issues among English for Specific Purposes (ESP) students preparing for careers in service industries. Although pronunciation is part of the course objectives, limited instructional time has hindered effective practice. A pilot study was conducted to identify specific pronunciation challenges, which informed the design and methodology of the present research. By focusing on real-world language use, this study aims to offer insights for more effective pronunciation instruction.

2. Research objectives

The objectives of the research are to find out if most students pronounce English words incorrectly. What are the most common errors made by undergraduates. Finally, what are the underlying reasons that cause students to incorrectly produce words? Based on these objectives, there are three main questions in the research study. The following are the research questions :

- 2.1 How accurately do students pronounce English words?
- 2.2 Among pronunciation errors, which are the most commonly found?
- 2.3 What are reasons for students to make errors in pronunciation?

3. Literature Review

3.1 Importance of Pronunciation

Canale and Swain's (1980) Communicative Competence theory highlights that language learning extends beyond grammatical accuracy to include effective communication. Their framework comprises four

components : grammatical competence (syntax, vocabulary, pronunciation), sociolinguistic competence (contextual appropriateness), discourse competence (coherent speech), and strategic competence (handling communication breakdowns). Pronunciation is integral to intelligibility and fluency, making it essential for successful verbal interaction.

3.2 Critical Period Hypothesis (CPH)

The Critical Period Hypothesis (CPH), proposed by Lenneberg (1967), posits that language acquisition is most effective during childhood, particularly before puberty. Beyond this period, the brain’s capacity to attain native-like proficiency—especially in pronunciation—declines. This explains why younger learners often achieve near-native accents, while older learners struggle with pronunciation due to reduced neural and articulatory flexibility. Although debated, CPH remains influential in second-language acquisition research, particularly in explaining persistent pronunciation errors among adolescents and adults.

3.3 Types of Pronunciation Errors

Pronunciation errors in second language acquisition stem from various linguistic, cognitive, and psychological factors. The Contrastive Analysis Hypothesis (Lado, 1957) attributes errors to phonological differences between a learner’s first (L1) and second language (L2), leading to predictable substitutions. Interlanguage Theory (Selinker, 1972) posits that learners form a transitional linguistic system influenced by both L1 and L2, where some errors, including in pronunciation, may fossilize. Kuhl’s (1994) Native Language Magnet Theory (NLM) emphasizes that early exposure to L1 shapes phonetic perception, limiting flexibility in acquiring unfamiliar L2 sounds. Schachter’s (1974) Avoidance Hypothesis suggests that learners may avoid difficult phonemes, reinforcing errors through lack of practice.

Pronunciation problems are not just about how we move our mouths – they also come from how we hear and learn sounds. Without clear teaching and feedback, these mistakes can continue and make speaking harder. Good pronunciation lessons should help students notice sounds, fix mistakes, and understand how we learn to speak new words.

3.4 Relevant Research Studies

Several studies have investigated English pronunciation among Thai learners, focusing on both consonant and vowel sounds. Chakma (2014) examined pronunciation difficulties in 16 high school students using a 22-word reading task that included 11 consonant sounds. The study assessed accuracy in initial and final positions and ranked the sounds by correctness, though it lacked detailed analysis of specific problematic sounds. Similarly, Yordming (n.d.) conducted pre- and post-tests with 24 first-year Thai EFL university students using a 30-word list. The results showed improvement after instruction, confirming pronunciation challenges at the tertiary level. However, the small sample size and absence of causal analysis limit the generalizability of the findings. Promprasert (2020) explored the use of the “Detect Me English” application with 60 elementary students from grades 4 to 6. The app successfully engaged learners and raised awareness of pronunciation issues, although concerns were noted regarding the authenticity of machine-generated speech.

While these studies contribute to understanding pronunciation difficulties in Thai contexts, most focus on isolated word-level testing and do not explore the underlying causes of mispronunciation. Moreover, few have examined pronunciation in more natural and communicative settings, such as reading passages or engaging in conversation. To address these gaps, the present study investigates Thai undergraduates' pronunciation through both text reading and conversational tasks, aiming to provide insights into pronunciation performance in authentic language use.

4. Research Methodology

4.1 Participants

A total of 122 undergraduates from a Thai university participated in this study. Their English proficiency ranged from average to low, and all were enrolled in an English for Specific Purposes (ESP) course. While all participants contributed data on pronunciation errors, 27 volunteered to provide deeper insights into potential causes of these errors. Participants were selected through convenience sampling, considering their availability and willingness to engage in tasks, activities, and interviews required for the study.

4.2 Tools

As mentioned earlier in “Introduction,” mini-research had had been done before this research was conducted because the researcher would like to get scope to study about the pronunciation problem the ESP undergraduates had. That pilot study revealed pronunciation problems commonly found among the ESP students. Therefore, this research focused on those problems and designed the observation checklist according to the earlier mini-research.

There were two kinds of tools to be used to collect the data :

1. an observation checklist – piloted with 30 students and refined accordingly, was employed to record pronunciation errors during text reading and conversation tasks. The checklist included three columns for noting mispronounced words, categorized by stress, initial sounds, and final sounds. These observations, conducted solely by the researcher (who also served as the course instructor), were later used to prompt discussion during interviews.

2. a semi-structured interview was conducted to explore possible causes of mispronunciation. During the interview, the researcher provided feedback on specific pronunciation errors and asked follow-up questions regarding students' awareness, learning strategies, and familiarity with correct sounds. Each interview lasted approximately 10–15 minutes and was conducted individually.

4.3 Methodology

To assess pronunciation, students read a 300-word text containing vocabulary from their English for Specific Purposes (ESP) course and responded to questions applying service industry concepts, engaging in both reading and spoken communication. During this session, the researcher used an observation checklist to record pronunciation errors related to stress, initial, and final sounds. One week later, individual interviews

were conducted with volunteers to explore how they learned to pronounce specific words and to identify factors contributing to their errors, supplementing the initial observational data.

5. Results

There are three research questions in the study. Then, the results are presented according to those questions.

5.1 How accurately do students pronounce English words?

Table 1 Numbers of students pronouncing words wrongly and correctly

Descriptions	No. of students	Percentage
Number of students who pronounced wrongly	119	97.54%
Number of students who pronounced correctly	3	2.46%
The total numbers of students	122	100%

From Table 1, the finding shows that most students made error in pronunciation which is equal to 97.54%; while only a few students pronounced words correctly (2.46%).

5.2 Among pronunciation errors, which are the most commonly found?

Table 2 Common errors of students' pronunciation

Errors	Stress	Starting sounds	Ending sounds
Numbers of students who made this type of error	98/119	83/119	119/119
Percentage	82.35%	69.75%	100%

Table 2 presents the most common pronunciation errors and their frequencies, with one instance counted per student. Percentages were calculated to show the proportion of students making each type of error. The data reveal that all students (100%) mispronounced ending sounds, followed by 82.35% with stress errors and 69.75% with starting sound errors. While stress errors were not examined in detail, further analysis was conducted on specific starting and ending sounds to identify the most frequently mispronounced items.

Table 3 Most wrong pronunciation for starting sounds

Errors	No. of Ss who made this error	Percentage
ð / d	80/83	96.39%
θ / t	78/83	93.98%
r / l	53/83	63.86%
v / f	21/83	25.30%

The table highlights four consonant pairs commonly mispronounced by students: /ð/ as /d/, /θ / as /t/, /r/ as /l/, and /v/ as /f/. The /ð/ sound was the most problematic, with 96.39% of students mispronouncing words like *that*. Similarly, 93.98% mispronounced /θ / as /t/, as in *think*. The /r/ sound posed difficulty for 63.86% of students, particularly in words like *rural*, while 25.30% substituted /v/ with /f/, as in *vehicle*. These findings indicate that sounds absent in the Thai phonological system are particularly challenging for learners.

Table 4 Ending sound

Errors	No. of Ss who made this error	Percentage
th [/θ/]	103/119	86.55%
s [/s/] *	97/119	81.51%
r [/r/] *	83/119	69.75%
v [/v/]	78/119	65.55%
l [/l/]	59/119	49.58%
t [/t/]	42/119	35.29%
k [/k/]	37/119	31.09%
sh [/ʃ/]	22/119	18.49%

* students mostly pronounced these sounds without these two letters in the words they say or speak out.

From the findings in Table 4, it can be seen that the “th” [/θ/] sound in the end of a word caused a problem for students’ pronunciation the most (86.55%). The example of this word is “*bath*.” However, the most interesting findings are on the “s” [/s/] and “r” [/r/] sounds; the many students pronounced them even if there were no such sounds in the word they pronounced. They pronounced 81.51% for “s” [/s/] sound and 69.75% for the “r” [/r/] sound. The examples of these sounds were from the words like “water,” they say /watərs/ and “spoon,” which they say /sprun/. This finding was very interesting and would bring the researcher to find out more about this scenario. The sound that is found the least problematic for students is the “sh” [/ʃ/] sound, which is 18.49%. For example, the word “dish” or “polish.” The rests of examples were words like “arrive” or “receive” in /v/ sound; “arrival” or “hotel” in /l/ sound; words like “visit” or “tourist” in /t/ sound; words like “snack” or “drink” in /k/ sound.

5.3 What are possible reasons for students to make errors in pronunciation?

There were some questions posted for students who volunteered to give deeper details in the semi-structured interview. Three following points were investigated from the semi-structured interview.

5.3.1 Students’ awareness on their pronunciation

Table 5 Students' awareness of wrong pronunciation

	No. of students	Percentage
Yes	21	17.65%
No	98	82.35%
Total	119	100%

From Table 5, all students who pronounced wrongly were asked to see if they knew they made an error in pronunciation. Most students (82.35%) did not realize they made a mistake, while only 17.65% realized they pronounced words wrongly.

5.3.2 Possible sources for their pronunciation learning

Table 6 Sources of students' study of pronunciation

How	No. of students	Percentage
Exposed from high school	73	61.34%
TV/ Media	27	22.70%
Ask friends	11	9.24%
Search on google	8	6.72%
Total	119	100%

Table 6 presents the sources from which students reported learning their pronunciation. The majority (61.34%) attributed their learning to high school instruction. Other sources included television and social media (22.70%), peer assistance (9.24%), and online searches such as Google (6.72%).

5.3.3 Reasons for not pronouncing the correct sounds

This information was obtained by asking students to re-pronounce mispronounced words and explain the difficulties they faced. Data were collected through semi-structured interviews and analyzed using coding techniques. To ensure reliability, the analysis was conducted in two rounds and results were compared.

Table 7 1st Time for the Data Analysis of the Reasons for not pronouncing the correct sounds

No	Reasons
1	They cannot physically pronounce the words with correct sounds.
2	They have never known the accurate pronunciation.
3	They feel very shy to pronounce the correct words.
4	They feel that if they pronounce this sound, it looks professional.
5	They replicate the pronunciation they have been exposed to during their high school years.
6	They misunderstand about how the word pronounced.

* **Note** : the bold times were analyzed to be put together in the 2nd analysis

Students' responses from the semi-structured interviews were categorized into six themes representing possible causes of mispronunciation. The first round of analysis identified these items, with some later merged during the second round. The final grouping was used to compare results and assess the reliability of the study.

Table 8 2nd Time for the Data Analysis of the Reasons for not pronouncing the correct sounds

No	Reasons
1	They cannot physically pronounce the words with correct sounds.
2	They have never known the accurate pronunciation and just realize how to pronounce the words correctly.
3	They feel very shy to pronounce the correct words.
4	They feel that if they pronounce this sound, it looks professional.
5	They replicate the pronunciation they have been exposed to during their high school years.

* **Note** : the bold item was taken from the 1st analysis (2 items were integrated in the 2nd time)

Table 8 presents the second round of data analysis, conducted after a review period following the initial coding. Bolded items indicate themes that were merged from the first analysis, reflecting conceptual overlap identified during the second review to enhance reliability.

This section outlines the intra-coding reliability process applied in this study. Intra-coding refers to maintaining consistency in how a single researcher codes qualitative data over time. It involves revisiting and refining previously coded data – such as interview transcripts – to ensure accuracy and reduce subjective bias. Through iterative coding, researchers enhance the credibility and validity of their findings by confirming that interpretations remain consistent across different points in time. As Richard (2009) notes, intra-coding helps ensure stable interpretation, contributing to the overall reliability of qualitative analysis.

The **intra-coder reliability** test is displayed below:

$$\frac{\text{Number of items coded the same in the first and second coding}}{\text{Number of items coded in the first coding}}$$

Figure 1 Reliability of Intra-Coding

$$\frac{5}{6} = 0.83$$

Figure 2 Comparison of coded items from 1st and 2nd time

Holsti (1969) introduced the concept of inter-coder and intra-coder reliability coefficients. In this study, the calculated reliability was 0.83. While Lombard et al. (2004) noted the absence of universally accepted standards for interpreting reliability levels, Neuendorf (2002, p. 145) proposed general guidelines: coefficients of .90 or higher are widely accepted, .80 or higher are acceptable in most cases, and values below .80 may raise concerns. Therefore, the reliability coefficient of 0.83 in this study is considered acceptable, indicating consistent interpretation between the first and second rounds of data analysis.

6. Discussion

This study confirms that Thai undergraduate students continue to face pronunciation challenges, consistent with prior research (Chakma, 2014; Yordming, n.d.; Promprasert, 2020). Despite access to learning resources, pronunciation remains problematic across educational levels. The Critical Period Hypothesis (Lenneberg, 1967) suggests that age-related limitations may hinder second-language acquisition, reinforcing the need for early and consistent pronunciation practice. Munro and Derwing (1995) emphasized that frequent practice improves intelligibility and comprehensibility, making pronunciation a key component of effective communication.

Stress placement is a major issue, with students often emphasizing the final syllable, contrary to English norms. Wei and Zhou (2002, p. 8) noted that Thai, as a tonal language, does not rely on stress, contributing to this difficulty. Examples from this study, such as *crockery* and *itinerary*, illustrate common misplacements, highlighting the need for targeted instruction.

Initial and final consonant sounds also pose challenges. While Chakma (2014) found general competence in consonant pronunciation, this study shows that word-boundary sounds are particularly problematic.

Through semi-structured interviews, five contributing factors were identified: 1) ability, 2) awareness, 3) confidence, 4) perception, and 5) model example. Limited phonetic ability and differences in sound systems (Piyamat & Deekawong, 2021) hinder accurate pronunciation. Awareness is crucial; many learners do not recognize their errors, as shown by self-assessment data (Piyamat & Deekawong, 2021). Confidence affects willingness to speak, and misconceptions about fluency – such as overuse of “R” and “S” sounds – reflect flawed perceptions that require correction through proper modeling and feedback.

7. Conclusion and Recommendation

The study reveals that Thai undergraduates commonly struggle with English pronunciation, particularly with stress placement, initial consonants, and final consonants. Despite access to learning resources, many students remain unaware of their errors, often relying on inaccurate models from earlier education. Five key factors contribute to these issues: limited articulatory ability, lack of exposure to correct pronunciation, low confidence, misconceptions about fluency, and imitation of incorrect pronunciation from high school instruction.

To address these challenges, targeted pronunciation instruction is essential—especially for non-English majors who may lack foundational phonetic knowledge (Yordming, n.d.). As Wei and Zhou (2002) noted, pronunciation is often overlooked in language teaching. Incorporating structured practice, accurate input, and engaging tools such as apps and online resources can enhance learners' motivation and outcomes. Studies like Phomprasert (2020) support the effectiveness of such tools, emphasizing that consistent practice leads to improved pronunciation.

This study acknowledges certain methodological limitations. To avoid disrupting the ESP course, data were collected from existing activities and evaluations rather than through a controlled research design. As a result, future studies could benefit from methodological improvements in the following areas:

7.1 Participant Selection: This study employed convenience sampling due to accessibility. Future research should consider more rigorous sampling methods to include a broader and more representative range of learners.

7.2 Data Collection Tools: The observation checklist used was adapted from a prior pilot study. Future tools should be carefully aligned with the study's objectives, research questions, and theoretical framework.

7.3 Rater Reliability: Observations were conducted solely by the researcher, which may affect reliability. Including multiple raters would enhance the objectivity and consistency of the evaluations.

7.4 Scope of Study: Given the wide range of pronunciation errors, future research should narrow its focus to specific sounds or error types for more precise analysis and practical application.

8. References

- Andi, K., & Arafah, B. (2017). Using needs analysis to develop English teaching initial speaking skills for Indonesian college students of English. *The Turkish Online Journal of Design, Art and Communication (TOJDAC), Special Edition*, 419–436.
- Aydođan, H., & Akbarov, A. A. (2014). The four basic language skills, whole language, and integrated skill approach in mainstream university classrooms in Turkey. *International Burch University*, 672–680.
- Canale, M., & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing." *Applied Linguistics*, 1(1), 1–47. Retrieved from <https://academic.oup.com/applij/article-abstract/1/1/1/181953?redirectedFrom=fulltext>

- Charumane, P., & Wongkittiporn, A. (2024). Error analysis of English fricative consonants by Thai private university students. In *Proceedings of RSU International Research Conference (RSUCON2024)*, 121–130.
- Crystal, D. (1997). *English as a global language*. Cambridge University Press.
- Holsti, O. R. (1969). *Content analysis for the social sciences and humanities*. Addison-Wesley.
- Kurnia, R. A., Jabu, B., & Munir. (2023). The pronunciation errors made by students of first grade of senior high school Frater Makassar. *International Journal of Business, English, and Communication (IJoBEC)*, 1(1), 31–35.
- Kuhl, P. K. (1994). Learning and representation in speech and language. *Current Opinion in Neurobiology*, 4(6), 812–822. Retrieved from [https://doi.org/10.1016/0959-4388\(94\)90128-7](https://doi.org/10.1016/0959-4388(94)90128-7)
- Munro, M. J., & Derwing, T. M. (1995). Foreign accent, comprehensibility, and intelligibility in the speech of second language learners. *Language Learning*, 45(1), 73–97. Retrieved from <https://onlinelibrary.wiley.com/doi/10.1111/j.1467-1770.1995.tb00963.x>
- Lado, R. (1957). *Linguistics across cultures: Applied linguistics for language teachers*. University of Michigan Press.
- Lenneberg, E. H. (1967). *Biological foundations of language*. Wiley.
- Lombard, M., Snyder-Duch, J., & Bracken, C. C. (2004). *Practical resources for assessing and reporting intercoder reliability in content analysis research projects*. Retrieved from <http://astro.temple.edu/~lombard/reliability/>
- Neuendorf, K. A. (2002). *The content analysis guidebook*. Sage.
- Piyamat, B., & Deekawong, K. (2021). Phonological variations and problems in English pronunciation among Thai EFL learners: A case study of undergraduate students at Huachiew Chalermprakiet University. *Academic and Research Journal of Liberal Arts*, 16(1), 70–84. Retrieved from <https://so04.tci-thaijo.org/index.php/larhcu/article/view/248822>
- Richards, L. (2009). *Handling qualitative data: A practical guide*. (2nd ed.). Sage.
- Schachter, J. (1974). An error in error analysis.” *Language Learning*, 24(2), 205–214. Retrieved from <https://doi.org/10.1111/j.1467-1770.1974.tb00502.x>
- Selinker, L. (1972). Interlanguage. *International Review of Applied Linguistics in Language Teaching*, 10(1–4), 209–232. Retrieved from <https://doi.org/10.1515/iral.1972.10.1-4.209>
- Winaitham, W., & Suppasetseree, S. (2012). The investigation of English pronunciation errors and factors affecting English pronunciation of Thai undergraduate students. *วารสารศิลปการศึกษาศาสตรวิวิจัย*, 4(2), 304–320.
- Wei, Y., & Zhou, Y. (2002). *Insights into English pronunciation problems of Thai students*. Retrieved from <https://eric.ed.gov/?id=ED476746>
- Yordming, R. (n.d.). *Pronunciation problems of Thai EFL teaching major students*. Retrieved from <https://www.aru.ac.th/myadmin/uploads/rdi/download/20201129-63edb8b3.pdf>